OP Financial Group's Report by the Board of Directors and Financial Statements 2021

OP Financial Group

Contents

OP Financial Group's Report by the Board of Directors 1 January–31 December 2021:

Earnings before tax improved to EUR 1,127 million – strong growth in income from customer business, costs under control

Earnings before tax Q1–4/2021	Net interest income Q1–4/2021	Net insurance income Q1–4/2021	Net commissions and fees Q1–4/2021	CET1 ratio 31 Dec 2021
€1,127 mill.	+10%	+30%	+11%	18.2%

- Earnings before tax improved by 44% to EUR 1,127 million (785).
- Income from customer business increased by a total of 14% to EUR 3,186 million (2,787). Net interest income increased by 10% to EUR 1,409 million (1,284), net insurance income by 30% to EUR 743 million (572) and net commissions and fees by 11% to EUR 1,034 million (931).
- Investment income rose by 42% to EUR 257 million (181).
- Total income increased by 17% to EUR 3,616 million (3,103).
- Total expenses increased by 9% to EUR 2,007 million (1,839). 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 in 2020. Excluding the transfer, total expenses increased by 4%.
- Impairment loss on receivables was EUR 158 million (225), accounting for 0.16% (0.23) of the loan and guarantee portfolio.
- OP Financial Group's loan portfolio grew by 4% to EUR 97 billion (94) and the deposit portfolio by 7% to EUR 76 billion (71).
- The CET1 ratio was 18.2% (18.9). Proactive recognition of changes related to the internal models method weakened capital adequacy by one percentage point.
- **Retail Banking** earnings before tax improved to EUR 304 million (115). Net interest income increased by 4% and net commissions and fees by 8%. Impairment loss on receivables decreased by EUR 88 million to EUR 84 million (172). The loan portfolio increased by 2% and deposits by 5%.
- **Corporate Banking** earnings before tax improved to EUR 474 million (349). Net interest income increased by 5%, net commissions and fees by 34% and net investment income by 20%. Impairment loss on receivables increased by EUR 21 million to EUR 74 million (53).
- **Insurance** earnings before tax improved to EUR 504 million (348). Net insurance income grew by 30% to EUR 754 million (582). Investment income rose by EUR 86 million to EUR 170 million (84). The operating combined ratio improved to 85.5% (87.8) in non-life insurance.
- **Other Operations** earnings before tax were EUR –109 million (3). A year ago, the sale of the Vallila property improved earnings by EUR 96 million.
- New OP bonuses accrued to owner-customers totalled EUR 210 million (255). The accrual of OP bonuses was changed as of 1 November 2020.
- OP Financial Group paid interest on Profit Shares for 2020 to holders of those shares on 4 October 2021. In the payment of interest, OP Financial Group complied with the ECB's recommendation that limited banks' profit distribution, which expired on 30 September 2021.
- In honour of its 120th anniversary in 2022, OP Financial Group increases the return target for Profit Shares by 1.20 percentage points. This means that the return target for 2022 is at 4.45%.
- The sale of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy was finalised on 1 February 2022.
- Earnings before tax for 2022 are expected to be lower than in 2021. For more detailed information on the outlook, see "Outlook for 2022".
- After the balance sheet date, OP Financial Group decided to apply an RWA floor, based on the standardised approach, in the calculation of its capital adequacy ratio. Application of the floor is expected to decrease OP Financial Group's CET1 ratio by an estimated 3 percentage points in the second quarter of 2022.

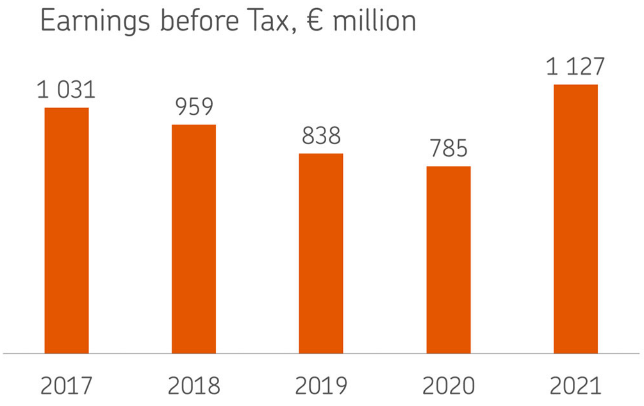
OP Financial Group's key indicators

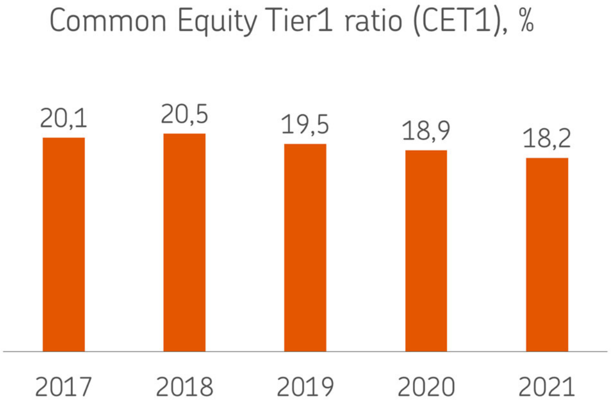
	Q1–4/2021	Q1–4/2020	Change, %
Earnings before tax, € million	1,127	785	43,6
Retail Banking	304	115	165.3
Corporate Banking	474	349	35.8
Insurance	504	348	44.5
Other Operations	-109	3	-
New OP bonuses accrued to owner-customers, € million	-210	-255	-
Return on equity (ROE), %	6.6	5.0	1.6*
Return on equity, excluding OP bonuses, %	7.8	6.6	1.3*
Return on assets (ROA), %	0.54	0.42	0.12*
Return on assets, excluding OP bonuses, %	0.64	0.55	0.09*
	31 Dec 2021	**31 Dec 2020**	**Change, %**
CET1 ratio, %	18.2	18.9	-0.7*
Loan portfolio, € billion	96.9	93.6	3.5
Deposits, € billion	75.6	70.9	6.6
Ratio of non-performing exposures to exposures, %**	2.4	2.5	-0.1*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.16	0.23	-0.08*
Owner-customers (1,000)	2,049	2,025	1.2

Comparatives deriving from the income statement are based on figures for the corresponding periods a year ago. Unless otherwise specified, balance-sheet and other cross-sectional figures on 31 December 2020 are used as comparatives.

* Change in ratio

** The name and content of the ratio was changed in Q1/2021. Comparatives have been adjusted accordingly. More detailed information on the change can be found under table Forborne loans and non-performing receivables in the Risk exposure section of this Report by the Board of Directors.





Comments by President and Group Chief Executive Officer Timo Ritakallio

OP Financial Group's earnings for 2021 were record high, at EUR 1,127 million. All three business segments – Retail Banking, Corporate Banking and Insurance – markedly improved their earnings year on year. Income from customer business increased by 14%, due to higher net commissions and fees, net interest income and net insurance income. Investment income also showed strong growth.

OP Financial Group reported controlled growth in expenses. The pension liability transfer to Ilmarinen Mutual Pension Insurance Company reduced pension costs in 2020. Excluding this effect, expenses grew by 4%. Our income clearly grew faster than expenses, in line with our strategic target. Total income increased by 17%.

Our customers' repayment capacity remained good as reflected by the year-on-year decrease in impairment loss on receivables. At EUR 158 million, impairment loss on receivables was 0.16% of the loan and guarantee portfolio.

OP Financial Group's capital adequacy continues to be strong – among the best in the European banking sector. The CET1 ratio was 18.2% at the end of December.

In 2021, our customers were more active than ever in the capital market. OP's mutual funds attracted almost 190,000 new unitholders, or 46% of all new unitholders in mutual funds registered in Finland. Measured by the number of unitholders, OP-Climate was the most popular fund in Finland; the number of unitholders rose by 85% in 2021. As part of our revised owner-customer benefits, we launched an investor benefits package in early 2021, encouraging owner-customers to build their wealth by saving and investing on a long-term basis. Overall, the investment assets of households increased by 16% and those of SME customers by 21% in 2021.

Responsible business is one of our strategic priorities. We are continuously developing our responsible products, which have become increasingly popular in the investment and financing markets. Exposures from our sustainable corporate finance doubled to EUR 3 billion. As part of our corporate responsibility programme, we promote financial literacy in Finland by providing services for the management of personal finances and guidance in financial and digital skills. Despite the challenges caused by the Covid-19 pandemic in 2021, we taught financial skills to more than 39,000 children and young people, and digital skills to more than 8,400 people.

We focus on banking and insurance – our core business. In early 2022, we finalised arrangements to simplify the structure of the central cooperative consolidated. The Finnish Competition and Consumer Authority approved the sale of Pohjola Hospital to Pihlajalinna. The transaction was finalised on 1 February 2022.

More merger projects were implemented between OP cooperative banks than at any other time this century: there were 121 OP cooperative banks at the end of 2021, compared to 137 a year earlier. A major merger project was launched in the Helsinki Metropolitan Area when Helsinki Area Cooperative Bank, Itä-Uudenmaan Osuuspankki and Uudenmaan Osuuspankki decided to merge to form a single, more competitive bank offering even better services.

The economic recovery continued in the fourth quarter of 2021, although the number of infections caused by the Omicron virus variant began to rise sharply. Inflation continued to accelerate towards the end of the year, and central banks announced the gradual tightening of monetary policy. Uncertainty increased in the financial market due to expectations of higher inflation and interest rates.

The Finnish economy has recovered from the Covid-19 pandemic faster than the euro area on average, with household finances improving due to the positive employment trend. The housing market was lively in 2021, although peak growth began to level off towards the end of the year. Businesses are in good financial health, which has increased their willingness to invest. Uncertainty prevails, despite the positive economic outlook: risks are posed by the exceptional business cycle as well as non-economic factors such as Covid-19 and geopolitical developments.

Due to expectations of rising interest rates, our customers have shown increasing interest in interest-rate hedging for home loans and housing company loans. At the end of 2021, 29.6% of personal customers' home loans were covered by interest rate protection, characterised by long hedging periods and low levels of interest rate caps.

OP Financial Group has been helping people to grow their wealth and wellbeing, and building a sustainable future, for 120 years. As we celebrate the Group's 120th anniversary this year, we are offering our owner-customers the possibility of an additional interest rate of 1.2 percentage points on Profit Shares, bringing the return target for 2022 to 4.45%.

Our warm thanks to our customers for trusting in us, and to our personnel and governing bodies for their excellent and fruitful cooperation!

Business environment

In 2021, the world economy recovered from the crisis caused by the Covid-19 pandemic. During the last quarter of the year, the economy grew briskly despite growth in the rate of infections caused by the Omicron variant. Inflation sped up strongly towards the end of the year, reaching the fastest rate in decades in many countries. The Euribor rates remained steady but long-term interest rates rose moderately during the year.

Finland's GDP exceeded its pre-pandemic level already in the spring and recovery continued at a brisk pace in the autumn. Employment has recovered from the crisis rapidly and unemployment has clearly decreased. Inflation in Finland accelerated more moderately than in the euro area on the whole although the increase was at its highest since the early 2010s. Home prices too rose at the fastest rate in many years. Towards the year end, activity on the housing market began to slow down but remained strong.

Growth in Covid-19 infections is likely to temporarily slow down economic growth at the beginning of 2022 but the economic recovery is expected to continue during the year. Inflation is expected to slow down but to remain quite high. The Covid-19 pandemic, geopolitical tensions and uncertainty related to the inflation outlook cast a shadow over the economic outlook. In December, the European Central Bank announced that it would gradually reduce its asset purchases during 2022.

Total loans increased by 3.3 per cent in 2021. Household and housing company loans showed the strongest growth.

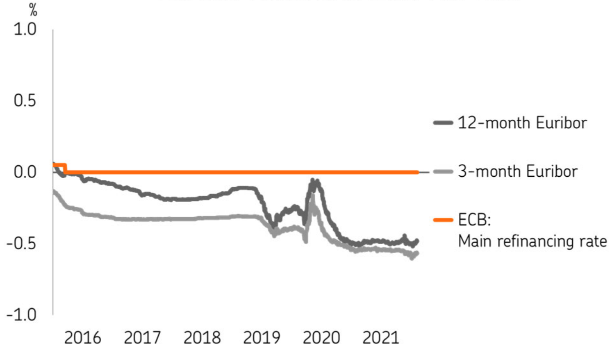
Household loans increased by 4.0 per cent, housing company loans by 5.9 per cent and corporate loans by 1.1 per cent. Growth in home loans as a driver of growth in household loans slowed down towards the year end, reaching 4.1 per cent, whereas the growth rate in consumer loans strengthened to 2.5 per cent.

Total deposits rose by 4.7 per cent in 2021. Corporate deposits increased by 10.9 per cent and household deposits by 5.1 per cent.

The value of mutual funds registered in Finland rose to a record of EUR 158.8 billion at the end of 2021. New capital invested in mutual funds during 2021 totalled EUR 9.1 billion. A rise in stock prices also increased the value of mutual fund investments.

In the insurance sector, 2021 was favourable. The economic recovery supported demand for insurance products and the effects of the Covid-19 pandemic did not weaken the profitability of insurance companies. Strong performance in the capital market was also favourable to insurance companies.

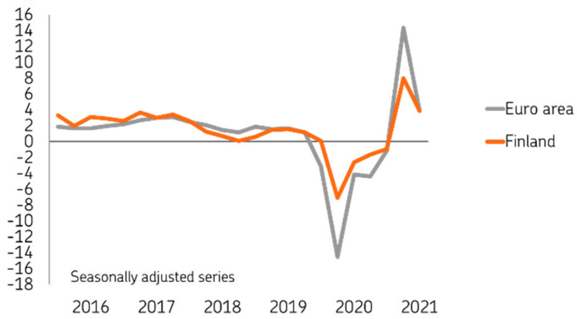
Euribor rates and ECB refi rate



Source: Bank of Finland

GDP

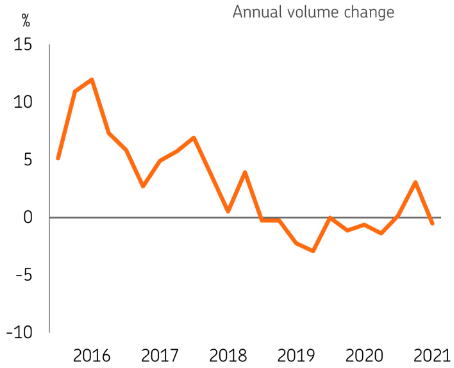
Annual volume change



Sources: Eurostat, Statistics Finland

Fixed investments in Finland

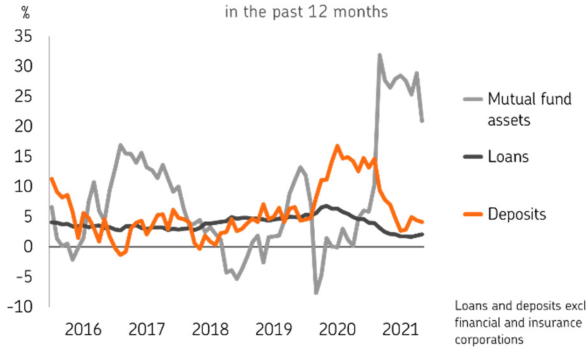
Annual volume change



Source: Statistics Finland

Change in financial sector volumes

in the past 12 months



Loans and deposits excl. financial and insurance corporations

Sources: Bank of Finland, Investment Research Finland

Earnings analysis and balance sheet

Earnings analysis, € million	Q1–4/2021	Q1–4/2020	Change, %
Earnings before tax	**1,127**	**785**	**43.6**
Retail Banking	304	115	165.3
Corporate Banking	474	349	35.8
Insurance	504	348	44.5
Other Operations	-109	3	-
Income			
Net interest income	1,409	1,284	9.7
Net insurance income	743	572	29.9
Net commissions and fees	1,034	931	11.0
Net investment income	376	184	104.4
Other operating income	54	132	-58.8
Total income	3,616	3,103	16.5
Expenses			
Personnel costs*	914	715	27.9
Depreciation/amortisation and impairment loss	283	273	3.6
Other operating expenses	810	852	-4.9
Total expenses	2,007	1,839	9.1
Impairment loss on receivables	-158	-225	-
Overlay approach	-118	-3	-
New OP bonuses accrued to owner-customers	-210	-255	-

* 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 2021	31 Dec 2020	Change, %
Loan portfolio	**96,947**	**93,644**	**3.5**
Home loans	41,522	40,036	3.7
Corporate loans	23,128	22,587	2.4
Housing company and other loans	32,297	31,021	4.1
Guarantee portfolio	**4,047**	**3,100**	**30.5**
Other exposures	**15,314**	**13,941**	**9.8**
Deposits	**75,612**	**70,940**	**6.6**
Assets under management (gross)	**111,836**	**89,126**	**25.5**
Mutual funds	32,515	27,598	17.8
Institutional clients	38,336	25,330	51.3
Private Banking	27,831	24,888	11.8
Unit-linked insurance assets	13,154	11,310	16.3
Balance sheet total	**174,110**	**160,207**	**8.7**
Investment assets	22,945	23,562	-2.6
Insurance liabilities	8,773	9,374	-6.4
Debt securities issued to the public	34,895	34,706	0.5
Equity capital	14,184	13,112	8.2

January–December

OP Financial Group's earnings before tax amounted to EUR 1,127 million (785), up by EUR 342 million from the previous year. Income from customer business, or net interest income, net insurance income and net commissions and fees, showed strong growth. Earnings were also improved by higher investment income and lower impairment loss on receivables.

Net interest income increased by 9.7% to EUR 1,409 million. Net interest income reported by the Retail Banking segment increased by EUR 34 million, that by the Corporate Banking segment by EUR 20 million and that by the Other Operations segment by EUR 70 million. The conditional additional margin of –0.5% exceeding the ECB's deposit facility rate under TLTRO III funding increased net interest income by EUR 103 million (18). The margin was recognised in accordance with IFRS 9 as OP Financial Group fulfilled the criteria for net lending performance. OP Financial Group's loan portfolio grew by 3.5% to EUR 96.9 billion and deposits by 6.6% to EUR 75.6 billion. New loans drawn down by customers during the financial year totalled EUR 26.4 billion (22.6).

Net insurance income increased by 29.9% to EUR 743 million. The Insurance segment's non-life insurance premium revenue increased by 3.3% to EUR 1,555 million. Claims incurred decreased by 2.3% to EUR 899 million. Operating combined ratio reported by non-life insurance improved to 85.5% (87.8).

Net commissions and fees totalled EUR 1,034 million (931). Net commissions and fees for mutual funds increased by EUR 46 million and those for deposits by EUR 20 million. Life insurance total expense loading increased by EUR 15 million and net commissions and fees for payment transfer services by EUR 11 million.

Net investment income increased by EUR 192 million to EUR 376 million. Net income from financial assets at fair value through other comprehensive income totalled EUR 67 million (37), of which capital gains accounted for EUR 14 million (22).

Net income from financial assets recognised at fair value through profit or loss totalled EUR 129 million (438). Net income from financial assets held for trading decreased by a total of EUR 472 million due to changes in the fair value of derivatives. Value changes in Credit Valuation Adjustment (CVA) in derivatives owing to market changes improved earnings by EUR 15 million (–16). The figure a year ago has been adjusted to correspond to the current accounting. Income from equity instruments recognised at fair value in the income statement increased by a total of EUR 293 million year on year. When the Covid-19 crisis broke out a year ago, the fair value of equities decreased significantly. Net income from investment property increased by EUR 75 million due to positive changes in fair value. Life insurance items, which include, for example, changes in technical items, increased net investment income by EUR 385 million to EUR 122 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 118 million (–3). Total investment income rose by EUR 77 million year on year, to EUR 257 million. Capital gains on all financial instruments recognised through fair value reserve totalled EUR 139 million (43). The combined return on investments at fair value of OP Financial Group's insurance companies was 1.7% (4.9).

Other operating income decreased year on year to EUR 54 million (132). The sale of Checkout Finland Ltd to Paytrail Oyj on 30 April 2021 increased other operating income. A year ago, the sale of the Vallila property increased other operating income, for which OP Financial Group recognised a capital gain of EUR 98 million 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.

Total expenses increased by 9.1% year on year, to EUR 2,007 million. Personnel costs increased by 27.9% to EUR 914 million due to higher provisions for performance-based bonuses and a higher headcount. In addition, the transfer of the remaining statutory earnings-related pension liability at the end of 2020 reduced pension costs for 2020 by EUR 96 million. Excluding the effect of the pension liability transfer, total expenses rose by 3.7% and personnel costs by 12.8%. Depreciation/amortisation and impairment loss on PPE and intangible assets increased by 3.6% to EUR 283 million. Impairment write-downs were EUR 10 million higher than the year before.

Other operating expenses decreased by 4.9% to EUR 810 million. ICT costs decreased by 7.8% to EUR 364 million. A one-off investment in the IT environment increased ICT costs a year ago. Development costs were EUR 195 million (183). Charges of financial authorities increased by 23.1% to EUR 64 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 164 million (244), of which EUR 158 million (225) concerned loans and receivables. Impairment loss on receivables was increased in particular by the tightened management of the measurement of exposures that have been non-performing for a long time and by the update of the collateral values of riskier collateral assets. A year ago, customers actively applied for repayment holidays on their loans and changes to their repayment schedules due to the Covid-19 pandemic. Combined with the changes in macroeconomic parameters applied in the calculation of expected credit losses, this increased impairment loss on receivables by EUR 88 million in January–December 2020. In addition, the adoption of the new definition of default in the first quarter of 2020 increased impairment loss on receivables by EUR 44 million in January–December 2020. Final net loan losses recognised totalled EUR 113 million (107). Loss allowance was EUR 751 million (708) at the end of the financial year. Non-performing exposures accounted for 2.4% (2.5) of the exposures. Impairment loss on loans and receivables accounted for 0.16% (0.23) of the loan and guarantee portfolio.

OP Financial Group's income tax amounted to EUR 224 million (144). The effective tax rate was 19.8% (18.3). A year ago, the rate decreased due to the transfer of statutory earnings-related pension liability and the group contributions provided.

Non-life insurance will focus on its core business and sell its hospital business. In the second quarter, Pohjola Hospital was classified as a non-current asset held for sale. Hospital business assets recognised in the balance sheet totalled EUR 8 million and liabilities EUR 8 million at the end of the financial year.

OP Financial Group's equity amounted to EUR 14.2 billion (13.1). Equity included EUR 3.2 billion (3.0) in Profit Shares, terminated Profit Shares accounting for EUR 0.3 billion (0.3). The return target for Profit Shares for 2021 is 3.25%. Interest payable on Profit Shares accrued during the financial year is estimated to total EUR 96 million (95). The amount of interest paid for 2020 on 4 October 2021 totalled EUR 95 million and that paid for 2019 on 8 February 2021 totalled EUR 97 billion.

Comprehensive income after tax totalled EUR 897 million (734). Changes in the fair value reserve decreased comprehensive income by EUR 59 million. A year ago, changes in the fair value reserve increased comprehensive income by EUR 131 million.

Key income statement items by quarter

				2021	2021	2020	Change
€ million	Q1	Q2	Q3	Q4	Q1–4	Q1–4	%
Net interest income	316	324	331	438	1,409	1,284	9.7
Net insurance income	157	170	215	201	743	572	29.9
Net commissions and fees	270	242	249	273	1,034	931	11.0
Net investment income	146	109	-2	123	376	184	104.4
Other operating income	7	36	4	8	54	132	-58.8
Total income	896	881	796	1,043	3,616	3,103	16.5
Personnel costs	222	238	195	258	914	715	27.9
Depreciation/amortisation and impairment loss	64	65	64	91	283	273	3.6
Other operating expenses	221	181	170	237	810	852	-4.9
Total expenses	507	484	429	586	2,007	1,839	9.1
Impairment loss on receivables	-22	-13	-59	-63	-158	-225	-
Overlay approach	-55	-36	42	-70	-118	-3	-
OP bonuses to owner-customers	-46	-52	-53	-54	-205	-251	-
Earnings before tax	265	296	297	270	1,127	785	43.6

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

OP Financial Group has offered financial relief in the form of repayment holidays to its personal and corporate customers who have run into financial problems due to the Covid-19 pandemic. Households have been offered 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.

OP cooperative banks have granted brief rent concessions to their customers on a case-by-case basis during the Covid-19 pandemic.

OP Financial Group has ensured that services critical to society are available during the Covid-19 pandemic too. The Group has enabled safe working conditions for its personnel in its offices and branches. Extensive remote working has also been encouraged in those jobs where it is possible.

OP Financial Group has supported the work of UNICEF in India due to the worsened Covid-19 situation. Funds raised from the related campaign are directed towards supporting hospital work and increasing testing capacity. Around 600 persons work for OP Financial Group in India through various partners.

In October, OP Financial Group approved the principles of the future ways of working, or hybrid work. These shared principles will help Group organisations and teams to plan how to work in diverse ways from multiple locations. In future, OP Financial Group will combine in-office and remote work systematically, smoothly and productively while taking account of occupational safety. Customers' needs and business goals primarily guide the types and locations of work.

2021 highlights

OP Financial Group paid interest on Profit Shares for 2020 in early October

OP Financial Group paid interest on Profit Shares for 2020 to holders of those shares on 4 October 2021. In the payment of interest, OP Financial Group complied with the recommendation of the European Central Bank (ECB) that limited banks' profit distribution, which expired on 30 September 2021. The interest payable on Profit Shares for 2020 totalled EUR 95 million based on the original return target of 3.25%. In future, OP Financial Group will reassume its normal payment schedule for interest on Profit Shares. This means paying interest for the previous year in June of the following year, if the distribution criteria are fulfilled. The return target for Profit Shares for 2021 is 3.25%. The final amount of payable interest will be confirmed after the end of the financial year.

Appointments in the Executive Management Team of OP Financial Group's central cooperative

On 26 October 2021, OP Cooperative's Board of Directors appointed Chief Risk Officer Markku Pehkonen as member of OP Cooperative's Executive Management Team as of 1 January 2022. Pehkonen has served as OP Financial Group's Chief Risk Officer since 2018.

Vesa Aho, Chief Financial Officer of OP Financial Group, was appointed Executive Vice President of OP Financial Group's Insurance Customers segment and as Executive Vice President, Chief Executive Officer of Pohjola Insurance. Aho will take up his duties as EVP and CEO of Pohjola Insurance on 1 March 2022. In his new position, Aho will also continue as member of the Executive Management Team of OP Cooperative. Olli Lehtilä, the current EVP, CEO of Pohjola Insurance, will become the Managing Director of the new Uudenmaan Osuuspankki.

Mikko Timonen was appointed Chief Financial Officer of OP Financial Group as of 1 March 2022. Timonen currently works as Head of Business Control in OP Financial Group's Corporate Banking segment. In his new position, Timonen will also become member of the Executive Management Team of OP Cooperative.

OP Financial Group increases the return target for Profit Shares for 2022 in honour of the jubilee year

OP Financial Group will celebrate its 120th anniversary by increasing the return target for its owner-customers' Profit Shares by 1.20 percentage points. This means that the return target for 2022 will stand at 4.45%. Interest payment and its amount depend on the financial performance of the OP cooperative bank in question.

OP Corporate Bank plc's partial demerger

On 29 November 2021, OP Corporate Bank plc implemented a partial demerger in such a way that the shares of Pohjola Insurance Ltd, OP Corporate Bank plc's subsidiary engaged in non-life insurance business, were transferred to the direct ownership of OP Cooperative. The aim of the restructuring is to simplify the structure and governance of OP Financial Group's central cooperative consolidated and to clarify its management structure. The restructuring had no effect on OP Financial Group's capital adequacy, earnings or business segments.

OP Financial Group strengthens its mobile payment services

OP Financial Group's Pivo, Danske Bank's MobilePay and the Norwegian Vipps are planning a new mobile payment platform combining mobile wallets, used by 11 million Nordic customers, to create one of Europe's leading mobile payment services. The goal is to provide consumers, merchants and distributors with an unrivalled mobile payment experience. Based on the plan, the banks that currently own Vipps will own 65 per cent, Danske Bank 25 per cent and OP Financial Group 10 per cent of the new company. The company will be headquartered in Oslo and its CEO will be the current CEO of Vipps. Based on the plan, OP Financial Group will be represented on the Board of Directors. The plan is subject to approval by the competition authorities.

OP Financial Group's strategic targets and priorities

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.

OP Financial Group's mission, core values, vision and strategic priorities form a whole whose parts complement each other. OP Financial Group's vision is to be the leading and most appealing financial services group in Finland. Continuous monitoring of the business environment and the strategic priorities will help achieve the shared vision and guide all actions.

The Supervisory Council of OP Financial Group's central cooperative confirmed the Group's strategy at its meeting on 25 August 2021. The updated strategy defines OP Financial Group's key strategic priorities for the next few years. The strategic priorities are as follows:

- Value for customers
- Profitable growth
- Efficient, high-quality operations
- Responsible business
- Highly skilled, motivated and satisfied personnel.

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.

On 25 August 2021, the Supervisory Council specified the long-term target for brand recommendations by dividing the NPS target between banking and insurance business.

OP Financial Group's strategic targets	31 Dec 2021	31 Dec 2020	Target 2025
Return on equity (ROE excluding OP bonuses), %	7.8	6.6	8.0
CET1 ratio, %	18.2	18.9	At least CET1 require-ment + 4 pps*
Brand recommendations, NPS (Net Promoter Score, personal and corporate customers)**	Banking: 27 Insurance: 16	Banking: 29 Insurance: 17	Banking: 30 Insurance: 20
Credit rating	AA-/Aa3	AA-/Aa3	At least at the level of AA-/Aa3

* OP Financial Group's target CET1 ratio is 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%.
** Average of quarters (per year)

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 its confirmed core values, mission, 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

OP Financial Group aims not to maximise profits for its owners but to provide, as efficiently as possible, the services which the OP cooperative bank'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 2021 that is to be confirmed after the end of the financial year:

* Customers = OP bonuses, discounts and interest on Profit Shares to 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 strengthen OP Financial Group's capital base.

Benefits created by OP Financial Group are allocated to owner-customers on the basis of the extent to which each owner-customer of an OP cooperative bank uses the Group'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, the Group 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 financial year. The number of our owner-customers increased by 24,000.

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). Non-life insurance had a total of 1.6 million customers (1.6) and life insurance 0.4 million customers (0.4).

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

Contributions made by OP cooperative banks' owner-customers to the OP cooperative banks' Profit Shares and cooperative shares totalled EUR 3.4 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 210 million (255). The accrual of OP bonuses was changed as of 1 November 2020. During the financial year, a total of 107 million euros (119) of OP bonuses were used to pay for banking and wealth management services and EUR 112 million (130) to pay non-life insurance premiums.

Owner-customers benefitted EUR 57 million (27) from the reduced price of the daily services package of Retail Banking. Owner-customers were provided with EUR 58 million (66) in non-life insurance loyalty discounts. They also bought, sold and switched units in most mutual funds without separate charges. The value of this benefit amounted to EUR 7 million (6).

The abovementioned OP bonuses and customer benefits totalled EUR 332 million (354), accounting for 22.8% (31.1) of OP Financial Group's earnings before tax and granted benefits.

Interest paid on Profit Shares for the financial year 2020 totalled EUR 95 million (97). The return target for Profit Shares for 2021 was an interest rate of 3.25% (3.25). Interest payable on Profit Shares accrued during the financial year is estimated to total EUR 96 million (95).

Corporate responsibility

Corporate responsibility is an integral part of OP Financial Group's business and strategy. Responsible business is one of OP Financial Group's strategic priorities. OP Financial 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. OP Financial Group is a Founding Signatory of the Principles for Responsible Banking under the United Nations Environment Programme Finance Initiative (UNEP FI).

Corporate responsibility highlights 2021

In March, OP Mortgage Bank issued the first green covered bond in Finland. The EUR 750 million bond has a maturity of 10 years. The bond is targeted at responsible international institutional investors, and proceeds raised with the bond will be allocated to OP Financial Group's home loans recognised as green ones according to the Green Covered Bond Framework of OP Mortgage Bank. The sector to be financed is energy-efficient residential buildings (green buildings).

In March, OP Financial Group announced that OP-Rental Yield special common fund aims to reach net zero emissions for its residential portfolio's energy use and will convert all energy used at its properties to have net zero emissions by 2030.

In March, OP Financial Group published its Data Balance Sheet that provides an open and transparent description of the governance, management and use of data in the Group.

In March, OP Financial Group organised its Financial Literacy Week at the same time as the Global Money Week. During the week, OP cooperative banks throughout Finland taught day-to-day finances and practical money skills to young people in OPxMoneyTalk lessons that were attended by thousands of lower secondary school students. The lessons were held via remote connections.

OP is the main partner of the national Financial Literacy Competition. In 2021, over 21,000 young people from 330 schools all over Finland participated in the competition. The final was arranged via remote connections on 23 May 2021. During the spring, OP cooperative banks supported students in preparing for the competition by organising financial literacy sessions as a part of the curriculum, either remotely or on-site in schools.

In May, OP published the annual Green Bond Report that contains a description of the green bond of EUR 500 million issued by OP Corporate Bank in February 2019, including examples of businesses and projects financed and the environmental impacts achieved. Proceeds raised with OP's first green bond were used to finance renewable energy, green buildings and sustainable land use. During 2020, it resulted in significant positive environmental impacts: almost 200,000 tonnes of avoided CO2e emissions in power generation, over 140,000 CO2e tonnes of carbon sinks through sustainable land use, production of 390 MW of renewable energy and 20,000 m2 of green certified building area.

Through its campaign "Summer jobs paid for by OP", OP provided 1,600 young people with a summer job in the third sector. OP cooperative banks donated funding to non-profit associations for hiring young people from 15 to 17 years for two weeks.

In July, OP and Hope ry organised for the fifth time the Backpack for every back campaign to collect school backpacks at OP cooperative banks and Pohjola Hospitals across Finland. Almost 3,300 backpacks were collected for the children of families living on limited means.

In October, OP Financial Group invited owner-customers to have their say in the selection of corporate responsibility actions for their respective OP cooperative bank. Owner-customers' proposals were collected for the first time through an online survey under the heading, Good deeds across time. The Group received more than 40,000 replies. The themes of the online survey derived from OP Financial Group's corporate responsibility programme and were the same for all OP cooperative banks. Of the proposed themes, owner-customers gave the most votes to supporting the employment and education of young people. Actions benefiting nature and the environment received the second highest number of votes.

In October, OP Corporate Bank committed to becoming carbon neutral in its corporate loan portfolios by 2050. At the same time, OP Asset Management and OP Fund Management Company made the same commitment regarding the funds they manage.

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

Report on non-financial information

OP Financial Group is made up of 121 OP cooperative banks and the central cooperative which they own, including its subsidiaries and affiliated entities. On 31 December 2021, OP Financial Group had 13,074 employees. The 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.

The entire financial sector is being shaped by higher ESG expectations among customers, regulation on sustainable finance, and supervisory requirements. Responsible business is one of OP Financial Group's strategic priorities. The Group has defined the following core values that guide its operations and support its mission: people first, responsibility, and succeeding together.

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, the Principles for Responsible Banking under the United Nations Environment Programme Finance Initiative (UNEP FI), and the UN Principles for Responsible Investment (UNPRI). 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. 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 2021 as part of its annual review. The report is based on the Core option of the GRI Standards and includes information supplementing this report. The report also includes a review based on the TCFD framework (Task-force on Climate related Financial Disclosures).

Environmental and climate-related aspects

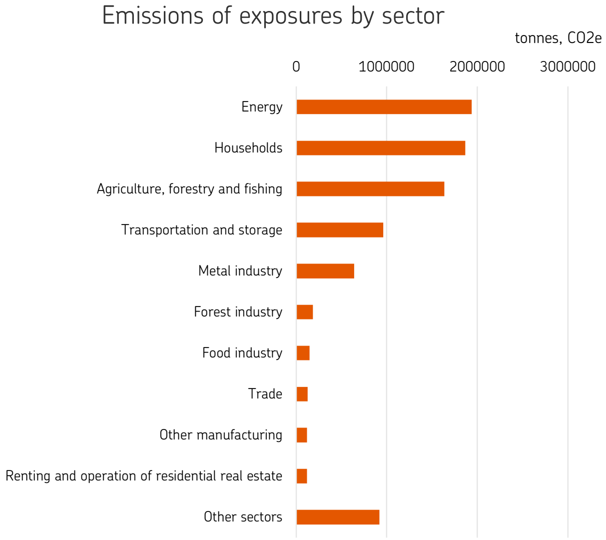
OP Financial Group is committed to the Paris Agreement which is aimed at holding the increase in the global average temperature well below 2°C above the pre-industrial levels and pursuing efforts to limit the temperature increase to

1.5°C above pre-industrial levels. OP Financial Group's objective is to build a sustainable economy together with its customers by, for example, developing products and services that encourage customers to act in a more sustainable manner. The Group also takes into account the effects of its operations on biodiversity.

OP Financial Group has developed two products based on the international framework for sustainable finance: green loans and sustainability-linked loans. Green loans are designed for corporate customers that can make a commitment to using the borrowed funds to promote specific projects, while sustainability-linked loans are for corporate customers that are prepared to pursue sustainability-based performance targets agreed with the lender. These targets affect the loan margin. The combined exposures of these loans and limits increased to EUR 3.0 billion (1.5) in 2021.

In its loan decisions, OP Financial Group considers the ESG themes and risks related to environmental, social and governance factors in accordance with the EBA (European Banking Authority) Guidelines on loan origination and monitoring. OP Financial Group prepares an ESG (Environmental, Social, Governance) analysis of its corporate customers as part of the assessment of their creditworthiness. 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.

OP Financial Group's goal is to be carbon neutral by 2025, which means not producing any emissions from the energy and fuels that the Group uses (Scope 1 and Scope 2). OP Financial Group calculates emissions in accordance with the Greenhouse Gas Protocol (GHG), and greenhouse gases are indicated as CO2 equivalents. In 2021, direct (scope 1) and indirect (scope 2) emissions totalled 25,485 CO2e tonnes (17,922). The figures for 2020 and 2021 are not comparable since the calculation method was further specified in 2021. OP Financial Group's most significant climate impacts arise through our financing and investments. With respect to indirect emissions, OP Financial Group reports the emission distribution of its exposures for the most significant sectors.



The graph shows the greenhouse gas emissions of OP Financial Group's exposures by sector in 2021.

OP Corporate Bank is committed to ensuring that its corporate loan portfolios are carbon neutral by 2050. In addition to this long-term target, it is creating a roadmap for major reductions in emissions before 2050, especially in Finland, its main corporate financing market. OP Corporate Bank does not finance new coal power plants or mines, or companies that plan to build them, or provide finance to new corporate customers whose financial dependence on using coal as an energy source is over 5 per cent, measured in net sales.

OP Corporate Bank issued its first green bond in 2019. Proceeds raised through the bond are used to promote sustainable corporate finance. In March 2021, OP Mortgage Bank issued Finland's first green covered bond aimed at funding green buildings. At the end of 2021, green bonds accounted for 5.0% (2.1) of the total amount of bonds issued by OP Financial Group.

In respect of investments, short-term and long-term risks arising from climate change 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. OP Financial Group extensively takes account of climate change in its investment operations. OP Asset Management and OP Fund Management Company are committed to becoming carbon neutral in their managed funds, by 2050. In addition, we will halve the greenhouse gas emission intensity of our mutual funds by 2030, compared with the 2019 level. We will stepwise tighten our coal-exclusion policy in such a way that, by the end of 2030, our direct and active investments exclude business related to coal mining or coal power generation.

Portfolio managers and ESG experts have access to company-specific ESG analyses carried out by independent service providers, which cover the most important risks and opportunities arising from climate change. 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 Financial Group offers four sustainability-themed funds: OP-Sustainable World, OP-Climate, OP-Clean Water and OP-Low-carbon World. In addition to theme funds, responsible investment funds include index funds and the OP-Target funds related to the OP Investment Partner service. Assets managed in responsible investment funds totalled EUR 8.8 billion (4.9) at the end of 2021.

OP Real Estate Asset Management Ltd is committed to promoting carbon neutrality in its property investment operations. Its responsibility targets include carbon neutral energy by 2030 and carbon neutral construction by 2050. OP Real Estate Asset Management signed the Net Zero Asset Managers Commitment in autumn 2021.

In addition to its GRI sustainability reporting, OP evaluates its impacts on climate change in the annual CDP survey. In the survey for 2021, OP Financial Group maintained its forerunner level by reaching the score A-.

Social aspects and aspects related to personnel

Highly skilled, motivated and satisfied personnel guarantee the success of OP Financial Group. The aim of OP Financial Group's employee wellbeing policy is to maintain and promote the health and wellbeing of all employees through close and well-organised management of occupational health and safety and wellbeing at work. This creates the basis for a good employee experience. Key elements supporting employee wellbeing at OP Financial Group include early intervention, extensive occupational healthcare services, rehabilitation, flexibility at work and diversity management. Employee experience is measured through, for example, a personnel survey and by monitoring the health rate indicator. In 2021, sickness absences accounted for 2.7% of regular working hours. The 'health rate' (percentage of personnel with no sickness absences) was 54% of all personnel.

During the Covid-19 pandemic, the Group has enabled safe working conditions for its personnel in its offices and branches. Extensive remote working has also been encouraged in those jobs where it is possible. Through these measures, OP has ensured that services critical to society are available during the COVID-19 pandemic too.

In autumn 2021, OP Financial Group defined the principles of future ways of working, or hybrid work. The shared principles of future ways of working will help Group organisations and teams to plan how to work in diverse ways from multiple locations. The types and locations of work at OP Financial Group are primarily guided by customers' needs and our business goals. We will combine in-office and remote work systematically, smoothly and productively, while taking account of occupational safety.

OP Financial Group considers diversity to be an asset and guarantees equal opportunities, rights and fair treatment for everyone. We regularly monitor and promote the implementation and development of equality and diversity by means such as personnel surveys and candidate experience measurement during recruitment. To promote diversity, OP Financial Group's objective is that the proportion of both genders in defined executive positions is at least 40%. The proportion of women in these positions was 30% (28) at the end of 2021. 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 an integral part of OP Financial Group's corporate responsibility efforts. Despite the challenges caused by Covid-19 in 2021, OP Financial Group strengthened the financial literacy of more than 39,000 (51,000) children and young people. The Group also provided training in digital literacy to a total of 8,400 (4,500) older people.

OP Financial Group's charity donations in 2021 totalled around EUR 2.4 million (2.7). The donations were channelled in line with themes that support the Group's corporate responsibility programme and core values.

OP Financial Group takes account of social aspects in the ESG analyses of corporate finance and investments.

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 that product and service suppliers ensure the fulfilment of human rights in their supply chains. 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 the Group's digital services. OP Accessible – an easy-to-use, clear-language web service for daily banking – is the OP service which best meets accessibility requirements. It is also easy to use 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. In autumn 2021, the 'Selkeästi meille' initiative assessed the cognitive accessibility of the op.fi service and granted the 'Selkeästi meille' award to the service. According to the assessment, OP Financial Group's online services acknowledge accessibility exceptionally well, and the site was mostly easy to use.

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 an online course for all Group employees to ensure that the Code of Business Ethics is observed. The course must be taken every two years. All employees must also pass the online course on managing conflicts of interest.

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 2021, the Group continued to invest in financial crime prevention and increased the number of personnel in risk management and financial crime prevention.

OP Financial Group is committed to the continuous strengthening and improvement of its capabilities in financial crime prevention. All Group employees must pass the online course on preventing money laundering. 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 and other stakeholders 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 management and compliance organisations also oversee risks, risk management and compliance related to ESG factors. The Risk Committee of OP Cooperative's Board of Directors oversees risk management, including that related to climate and environmental factors.

From the perspective of a financial services provider, the drivers of change in the business environment, such as changes related to climate and the environment, may be channelled into financial risks in the banking and insurance business through various impact chains. Climate and environmental risk factors can be divided into physical risk factors and transition risk factors. Physical risk factors include risks arising from extreme weather phenomena, such as floods and heat waves, or from other environmental risk factors such as the scarcity or contamination of natural resources. Transition risks may arise if climate policy actions to reduce emissions are taken too abruptly or too late. Risks arise from new regulations, changes in customer behaviour or the adoption of new technology.

Credit risk is affected by, for example, the sector to which financing is provided or investment made. Physical risks may affect the value of real property, including the value of collateral through, for example, buildings. The transition to a low-carbon economy may affect, for example, the value of assets that are dependent on energy inefficient or fossil fuels.

Climate and environmental risk factors may cause changes in market expectations and thereby impact both the market risks involved in OP Financial Group's investment operations and the preferences of our investor clients. The Group has prepared for changes in investor preferences by, for example, adding green bonds to its range of funding products.

Extreme weather phenomena may cause physical damage and, thus, operational risks in our business locations. Failure to fulfil our shareholders' expectations regarding responsibility may cause reputational damage.

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.

Taxonomy eligibility

The aim of the EU Taxonomy for sustainable finance that entered into force in 2021 is to determine the sustainability of financing and investment activities. Taxonomy-aligned information regarding OP Financial Group in 2021 is presented below. In future years, the Group will present key performance indicators for sustainable finance on its taxonomy-eligible assets.

Home loans contribute to economic activities classified in taxonomy regulation, in other words, they are taxonomy eligible.

31 Dec 2021	€ million	Share of balance sheet assets, %	Taxonomy-eligible, %
Home loans	41,522	23.8	100.0

As regards Insurance business, the proportion of taxonomy-eligible economic activities related to non-life insurance is reported for 2021. Insurance contracts are taxonomy eligible if they fall within the lines of insurance specified in the EU Taxonomy criteria and if, based on the insurance terms and conditions, the insurance contracts cover losses arising from threats related to climate change. Insurance covers provided by Pohjola Insurance are regarded as taxonomy-eligible, excluding general liability, business interruption, luggage and legal expenses insurance. The indicator applied is gross premiums written. The taxonomy-eligible proportion of reinsurance is reported on a voluntary basis, based on an estimate.

Insurance business, Q1–4/2021	€ million	%
Non-life insurance gross premiums written	1,543	100.0
Taxonomy-eligible	1,357	87.9
Taxonomy-non-eligible	186	12.1
Reinsurance gross premiums written	70	100.0
Taxonomy-eligible	49	70.5
Taxonomy-non-eligible	21	29.5

As regards other functions, OP Financial Group reports on a voluntary basis its estimate of the taxonomy-eligibility of items aligned with the EU Taxonomy.

31 Dec 2021	€ million	Share of balance sheet assets, %	Taxonomy-eligible, %
Corporate lending, NFRD exposures*	7,802	4.5	33.1
Non-life insurance investments**	4,235	2.4	37.3
Life insurance investments**	19,473	11.2	12.9
Banking notes and bonds***	7,899	4.5	3.4
Total	39,409	22.6	

* Companies subject to the NFRD (Non-financial Reporting Directive) includes listed European companies with more than 500 employees. As regards corporate lending, the information covers Finnish companies only.
** Fair value of investments. Life insurance investments include unit-linked investments and separated balance sheets.
*** Excluding notes and bonds held for trading.

The companies' taxonomy figures are based on the estimates of an external supplier concerning the taxonomy eligibility of the activities of OP Financial Group customers and activities subject to investment. In its estimates, the external supplier grouped the companies' economic activities into industry categories defined in the EU Taxonomy. In order to avoid double counting, any activities that contribute to both mitigating climate change and adapting to it have been counted only once. OP Financial Group has neither performed such assessments nor collected such information from customers or investees. The companies' official information on taxonomy eligibility is not yet available. The reporting will be further specified in future years as information reported by companies subject to financing and investment can be used instead of estimates.

Balance sheet information, 31 Dec 2021	€ million	Share of balance sheet assets, %
Total balance sheet assets	174,110	100.0
Exposures to central governments, central banks and supranational issuers	36,236	20.8
Derivative contracts, assets	3,467	2.0
Financial assets held for trading	409	0.2
Receivables from credit institutions payable on demand	283	0.2

The impacts of the EU Taxonomy on OP Financial Group, its strategy and customers will be assessed later.

Multichannel services

OP Financial Group has a multichannel service network comprising online, mobile, branch and telephone services. In December, the Group's mobile channels (OP-mobile, OP Business mobile, OP Junior) had around 1.3 million active users (1.2). The Group provides personal customer service both at branches and digitally.

Mobile and online services, no. of logins (million)	Q1–4/ 2021	Q1–4/ 2020	Change, %
OP-mobile	481.3	403.8	19.2
OP Business mobile	20.9	15.2	36.9
Pivo	44.4	43.7	1.7
Op.fi	53.4	68.1	-21.5
	31 Dec 2021	31 Dec 2020	Change, %
Siirto payment, registered customers (OP)	1,054,931	899,402	17.3

In February, OP launched a new SMS service to its customers. OP Account SMS sends automatically an SMS notification of all account transactions to the customer's mobile phone.

In March, OP introduced the Apple Pay service to its customers in Finland. The service enables customers to pay for their purchases using iPhone, iPad, Apple Watch or Mac. Customers have quickly adopted the service.

OP Financial Group has an extensive branch network with 324 branches (342) 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 630,000 followers (570,000). In addition to OP Financial Group's national social media accounts, many OP cooperative banks have their own social media accounts where they share publications targeted at local customers.

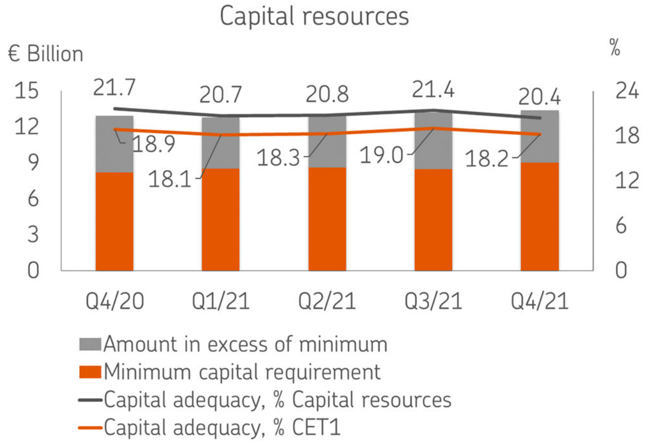
Capital adequacy and capital base

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

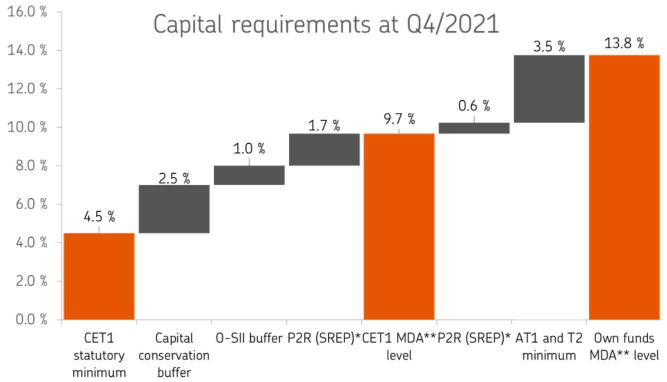
OP Financial Group's capital base, calculated according to the Act on the Supervision of Financial and Insurance Conglomerates (FiCo), exceeded the minimum amount specified in the Act by EUR 4.5 billion (4.4). Banking capital requirement remained unchanged at 13.8%, calculated on risk-weighted assets. The ratio of the Group capital base to the minimum capital requirement was 146% (150). 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 18.2% (18.9). The ratio was lowered by the ECB's decision, which increased the risk-weighted assets of corporate exposures, and by the proactive addition to the amount of risk-weighted assets to account for future changes in the scope of application of internal models and in the method for measuring insurance companies' risk weights. The ratio was improved by the favourable earnings performance and the issues of Profit Shares.



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 total capital ratio to 13.8% and the minimum CET1 ratio to 9.7%.

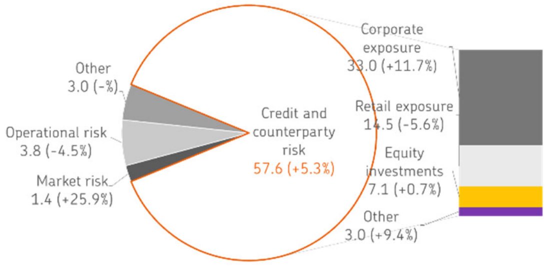


* P2R supervisory Pillar II requirement
** Minimum distributable amount

The CET1 capital of OP Financial Group as credit institution was EUR 12.0 billion (11.3). The CET1 capital was improved by Banking earnings and Profit Share issues. The amount of Profit Shares in CET1 capital was EUR 3.1 billion (2.8).

The risk exposure amount (REA) totalled EUR 65.7 billion (59.7), or 10% higher than at the turn of the year. In March, the ECB set a parameter factor for corporate exposures, based on the TRIM (Targeted Review of Internal Models) on corporate exposures, which increased the risk-weighted assets of corporate exposures. In March OP Financial Group added conservatism to the credit conversion factor for retail exposures, which increased the risk-weighted assets of retail exposures. The revised Capital Requirements Directive and Regulation (CRR2) came into force in June, which increased counterparty risk associated with derivatives as anticipated. In September, OP Financial Group adopted calibrated parameters in retail and corporate exposures. This adoption slightly increased risk-weighted assets and slightly decreased expected loss. In December, OP Financial Group proactively increased the amount of risk-weighted assets (RWA) to account for future changes in the scope of application of internal models (IRBA) and in the method for measuring insurance companies' risk weights. The proactive RWA add-on weakened the CET1 ratio by approximately 1.0 percentage point.

Risk Exposure Amount 31 December 2021
Total 65.7 € billion
(change from year end 10.1%)



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 in risk-weighted assets of the Group's internal insurance holdings.

The Finnish Financial Supervisory Authority (FIN-FSA) makes a macroprudential policy decision on a quarterly basis. In December 2021, the FIN-FSA reiterated its decision not to impose a countercyclical capital buffer requirement on banks.

The minimum leverage ratio for OP Financial Group's Banking was 7.4% (7.8). The ratio decreased as a result of an increase in central bank deposits. The regulatory minimum requirement is 3%.

OP Financial Group is in discussions with the ECB on reassessing the scope of application of internal models (IRBA, Internal Ratings-Based Approach). The estimated effect of the change has been added to risk-weighted assets, but its final effect and the implementation schedule will be specified after discussions with the supervisor and the approval process related to the scope of the IRBA.

The changes in the EU Capital Requirements Regulation (CRR3), which implement the final elements of Basel III, are not assessed to have a substantial effect on the capital adequacy of OP Financial Group.

The OP Amalgamation capital adequacy tables of 31 December 2021 will be published in English in week 10.

Insurance

The solvency position of insurance companies is strong. A good balance on technical account and an increase in the value of investments strengthened the capital base. A rise in market risks increased the solvency capital requirement. Furthermore, higher interest rates, for their part, strengthened solvency.

	Non-life insurance		Life insurance	
	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020
Capital base, € mill.*	1,464	1,205	1,656	1,436
Solvency capital requirement (SCR), € mill.*	840	762	833	746
Solvency ratio, %*	174	158	199	193
Solvency ratio, % (excl. transitional provision)	174	158	173	161

* 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.

On 18 March 2021, OP Financial Group received the ECB's decision concerning an increase in the risk parameter of corporate exposures. This risk parameter factor will be valid until the qualitative requirements set out in the decision have been met.

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% 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 confirmed a resolution strategy for OP Financial Group whereby the resolution measures would focus on the OP amalgamation and on the new OP Corporate Bank that would be formed in the case of resolution.

On 14 May 2021, the resolution authority updated the Minimum Requirement for Own Funds and Eligible Liabilities (MREL) for OP Financial Group. The updated MREL is 25.8% of the risk-weighted assets (RWA) and 10.12% of the leverage ratio exposures (LRE). The requirement entered into force on 1 January 2022.

As part of the MREL, the resolution authority has set a new subordination requirement for OP Financial Group in accordance with the Single Resolution Mechanisms Regulation. The subordination requirement determines how much of the MREL must be met with own funds or with subordinated liabilities. From the beginning of 2022, the subordination requirement supplementing the MREL is 22% of the total risk exposure amount and 10.11% of the leverage ratio exposure. From the beginning of 2024, the subordination requirement will be 24% of the total risk exposure amount and 10.12% of the leverage ratio exposure. The requirements include a combined buffer requirement (CBR) of 3.5%.

OP Financial Group's buffer for the MREL was EUR 6.5 billion and for the subordination requirement EUR 1.1 billion. The MREL was based on the RWA and the subordination requirement on the LRE. The amount of senior non-preferred (SNP) bonds issued by OP Financial Group totalled EUR 3.9 billion. These bonds provide funds for the MREL subordination requirement.

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 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 built in line with the Group's targets, mission and core values. Compliance and Risk Management are involved in the preparation of the remuneration principles, remuneration policy and remuneration schemes and in the determination of 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's risk-taking starts from the fact that the Group assumes risks that are mainly associated with executing the Group's mission. In its risk-taking, OP Financial Group emphasises moderation, responsibility and careful action. Risk-taking is directed and limited by means of principles and limits prepared by senior management and approved by Group Executive Management.

OP Financial Group's success is based on the trust of customers and other stakeholders, on the adequacy of capital and liquidity, and on extensive data and knowledge of customers. Risk-taking is based on understanding matters affecting customers' future operations and success in the current business environment and in situations where the business environment is affected by an unexpected shock or change in trend.

OP Financial Group analyses the business environment as part of the continuous strategy process. Megatrends and future visions behind the strategy reflect driving forces that affect the daily activities, conditions and future of OP Financial Group and its customers. Such factors shaping the business environment include sustainable development and responsibility (ESG), demographic change in the population and fast technological progress.

For example, climate and environmental changes are considered thoroughly so that their effects on the customers' future success are understood. Through advice and business decisions, OP Financial Group encourages its customers in bolstering their sustainable and successful business in the future. At the same time, OP Financial Group ensures that its operations are profitable and in compliance with its core values in the long term.

Considering that OP Financial Group's business covers various areas of the financial sector on an extensive basis, unexpected external shocks may cause direct and indirect effects on the prosperity of OP Financial Group's customers and on the Group's premises, IT infrastructure and personnel that may come in many forms. If materialised, they may affect risk exposure, capitalisation, liquidity and the continuity of daily business in various ways. The Group makes the effects of such potential shocks visible by means of scenario work.

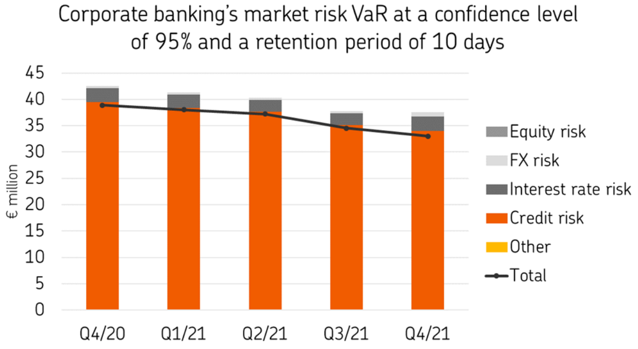
Operational risks were well managed at Group level. Their materialisation resulted in gross losses of EUR 10 million (8). From the operational risk perspective, the implications of the Covid-19 pandemic on OP Financial Group were mild during the financial year and mainly affected OP cooperative banks. As regards exposure to other risks, these are discussed in more detail by business segment.

Retail Banking and Corporate Banking

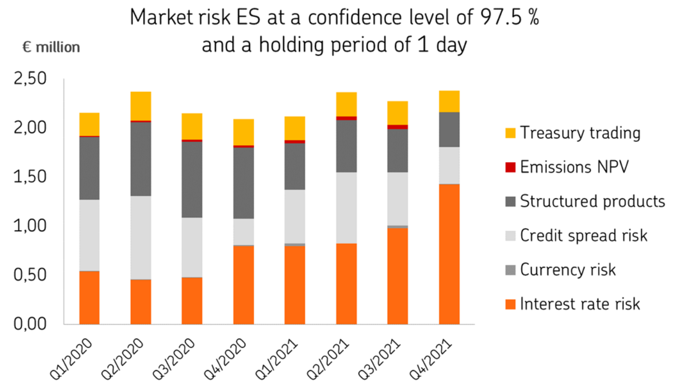
Major risks in banking are associated with credit risk arising from customer business, and market risk.

Credit risk exposure by Banking remained stable and credit risk remained moderate, despite the Covid-19 pandemic.

During the financial year, the market risk level of corporate banking's long-term investments decreased. No major changes were made to the asset class allocation during the financial year. The VaR, a measure of market risks, was EUR 33 million (39) on 31 December 2021. The VaR risk metric includes the liquidity buffer and banking's long-term bond investments as well as derivatives that hedge their interest rate risks.

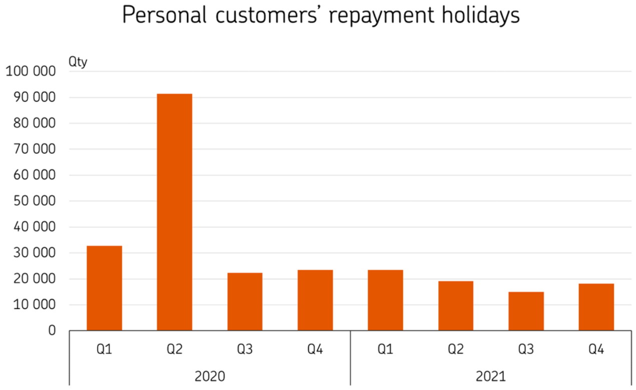


Expected Shortfall (ES), a measure of market risk associated with the interest rate risk position of Markets and Treasury, increased slightly. Interest rate risk, in particular, and its proportion of the total risk increased clearly as a result of the market movements seen in the last quarter.



Personal customers' repayment holidays

During the fourth quarter of 2021, exposures affected by new repayment holidays totalled EUR 1.2 billion (1.4). In the summer of 2020, the volume of repayment holidays granted to personal customers returned to its pre-pandemic level. During the pandemic, exposures affected by repayment holidays were at their highest level in April–June 2020, totalling EUR 6.3 billion.



The graph shows the actual number (qty) of personal customers' repayment holidays for 2021 and for 2020. The quarter is determined by the date of execution of the repayment holiday.

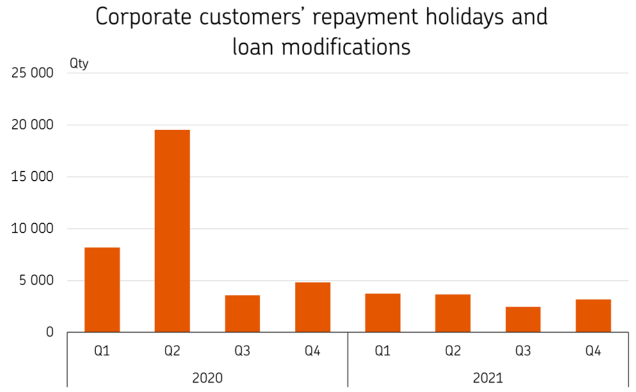
Repayment holidays that were in effect at the end of the financial year affected exposures totalling EUR 2.5 billion (5.0). A large number of 12-month repayment holidays, granted to personal customers in spring 2020 due to the Covid-19 pandemic, expired during the second quarter of 2021.

The graph shows the total amount of exposures (EUR million) affected by personal customers' repayment holidays in force.

The graph shows the total amount of exposures (EUR million) affected by corporate customers' repayment holidays in force.

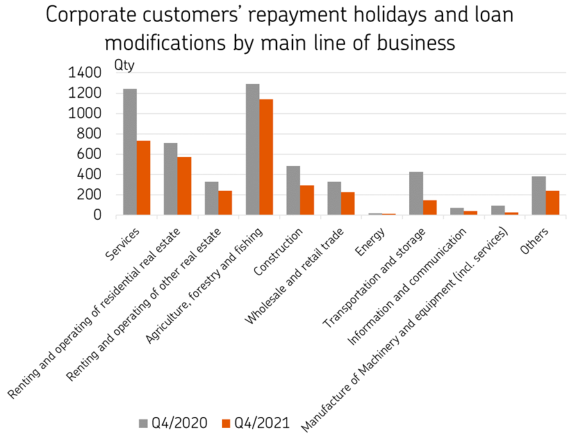
Corporate customers' repayment holidays and loan modifications

Repayment holidays and loan modifications granted in the fourth quarter of 2021 applied to exposures worth EUR 1.9 billion (1.8). Monitoring has been brought into line with the monitoring of personal customers and the comparison data has been adjusted. The number of repayment holidays and loan modifications granted to corporate customers returned to their pre-pandemic levels after the summer of 2020. During the Covid-19 pandemic, exposures affected by new repayment holidays and loan modifications granted to corporate customers were at their highest level in April–June 2020, totalling EUR 4.3 billion.

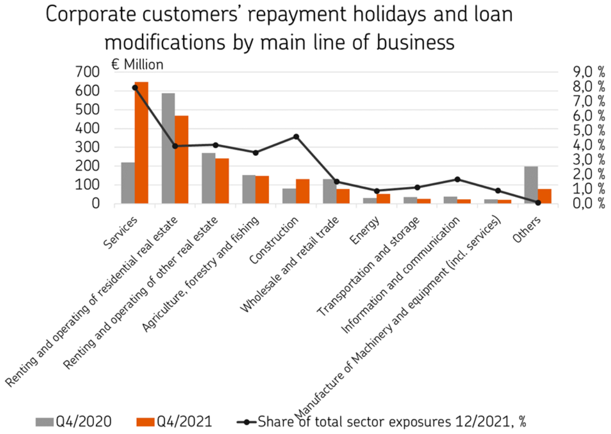


The graph shows the actual number (qty) of corporate customers' loan modifications and repayment holidays by quarter for 2021 and for 2020. The quarter is determined by the date of execution of the change. Monitoring has been brought into line with the monitoring of personal customers and the comparison data has been adjusted between quarters.

In most cases, loan modifications will remain effective until the loan maturity, whereas repayment holidays are granted for a specific period of time. Corporate customers' repayment holidays that were in effect at the end of the financial year affected exposures totalling EUR 0.8 billion (1.3).



The graph shows by sector the number of repayment holidays and loan modifications implemented on corporate exposures during the fourth quarter of 2021 and 2020.



The graph shows by sector the corporate exposures (EUR million) affected by repayment holidays and loan modifications implemented during the fourth quarter of 2021 and 2020. The graph also shows by sector the percentage of exposures for which a repayment holiday or loan modification was agreed during the financial year.

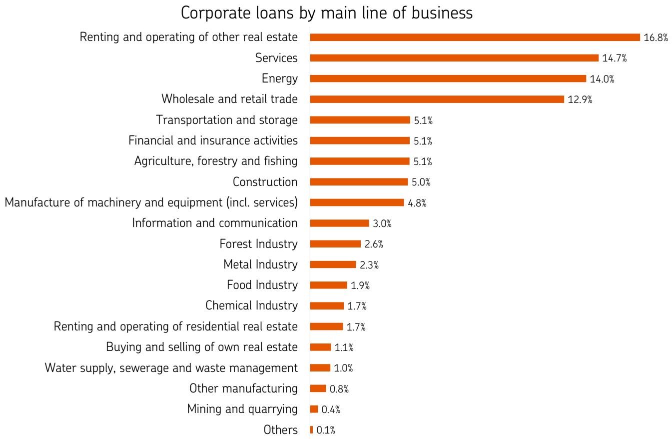
Non-performing and forborne exposures

	Performing forborne exposures (gross)		Non-performing exposures (gross)		Doubtful receivables (gross)		Loss allowance		Doubtful receivables (net)	
	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020
Over 90 days past due, € billion			0.64	0.66	0.64	0.66	0.24	0.24	0.40	0.42
Unlikely to be paid, € billion			0.78	0.95	0.78	0.95	0.13	0.18	0.65	0.77
Forborne exposures, € billion	3.41	3.29	1.34	1.12	4.75	4.41	0.20	0.15	4.55	4.26
Total, € billion	3.41	3.29	2.76	2.73	6.17	6.02	0.58	0.57	5.59	5.45

	OP Financial Group		Retail Banking		Corporate Banking	
Key ratios	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020
Ratio of doubtful receivables to exposures, %	5.31	5.44	6.57	6.40	2.29	2.99
Ratio of non-performing exposures to exposures, %	2.37	2.47	2.61	2.56	1.77	2.22
Ratio of performing forborne exposures to exposures, %	2.93	2.97	3.95	3.84	0.52	0.77
Ratio of performing forborne exposures to doubtful receivables, %	55.3	54.6	60.2	60.0	22.9	25.8
Ratio of loss allowance (receivables from customers) to doubtful receivables, %	11.9	11.5	7.5	7.6	41.5	32.1

Key ratios were changed from net to gross as of the beginning of 2021, i.e. non-performing exposures no longer include loss allowance. At the same time, a more comprehensive concept of doubtful receivables was adopted which includes all off-balance-sheet non-performing exposures. In the key ratios, the new denominator includes the loan and guarantee portfolio, deferred interest income and unused standby credit facilities. Comparatives have been adjusted accordingly.

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

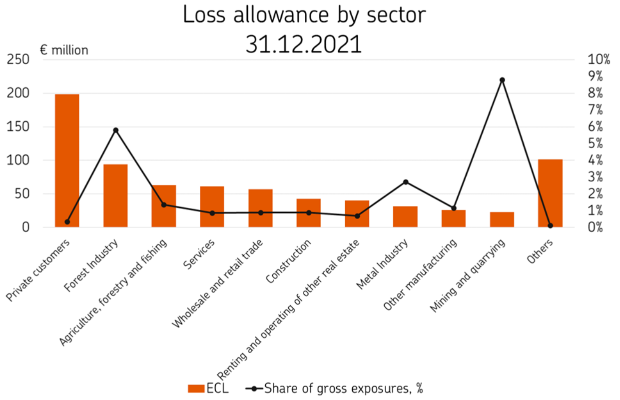


The graph shows the distribution of OP Financial Group's corporate loans by sector as percentages.

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 –90 million (–57) 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 43.0 billion (41.2) at the end of December. The Deposit Guarantee Fund compensates a maximum of EUR 100,000 for each OP Financial Group customer.

Loss allowance by sector



The graph shows the loss allowance of different sectors at the end of the financial year and the ratio of loss allowance to gross exposures of the sector at the end of the financial year.

Insurance

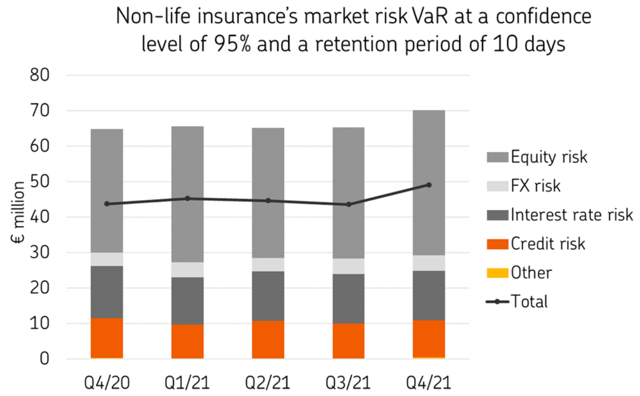
Non-life insurance

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 45 million (48). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 29 million (30). The figure a year ago has been adjusted to correspond to the current accounting.

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 the investments of non-life insurance has developed steadily during the current year. The VaR, a measure of market risk, was EUR 49 million (44) on 31 December 2021. Favourable developments in the equity market have increased the equity risk in non-life insurance investments. VaR includes the company's investment balance including investments, insurance liabilities and derivatives that hedge against interest rate risk associated with insurance liabilities. Data from the reference years has been adjusted to correspond to the current monitoring.



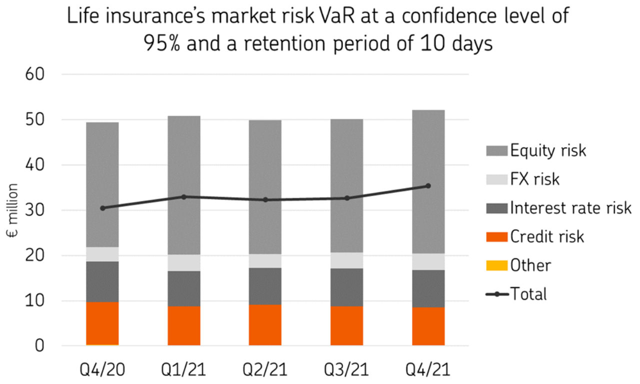
Life insurance

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

Investment risks associated with separated insurance portfolios 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 separated portfolios, after which OP Financial Group will bear the risks associated with the portfolios. The buffers totalled EUR 292 million (281) on 31 December 2021.

The market risk level of the investments of life insurance at the end of the financial year was almost the same as last year. VaR, a measure of market risk, was EUR 35 million (31) on 31 December 2021. Favourable developments in the equity market have increased the equity risk in life insurance investments. VaR includes life insurance's investment balance, including investments, insurance liabilities and derivatives that hedge against interest rate risk associated with insurance liabilities. Market risks associated with separated life insurance portfolios, assets that buffer against those risks or customer bonuses, are not included in the calculation. Data from the reference years has been adjusted to correspond to the current monitoring.

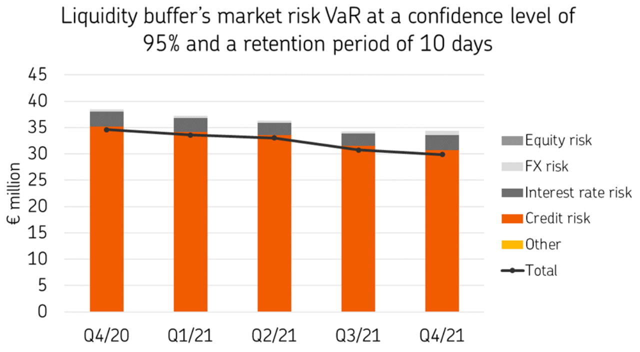


Other Operations

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.

OP Financial Group's funding position and liquidity is strong. In January–December, the Group issued long-term bonds worth EUR 3.8 billion (8.9).

The market risk of notes and bonds in the liquidity buffer (VaR with 95% confidence) decreased during the financial year. No major changes occurred in the asset class allocation. The VaR risk metric that measures market risk associated with the liquidity buffer was EUR 30 million (35) on 31 December 2021. The VaR risk metric includes long-term bond investments within the liquidity buffer and the derivative contracts that hedge their interest rate risks.



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.

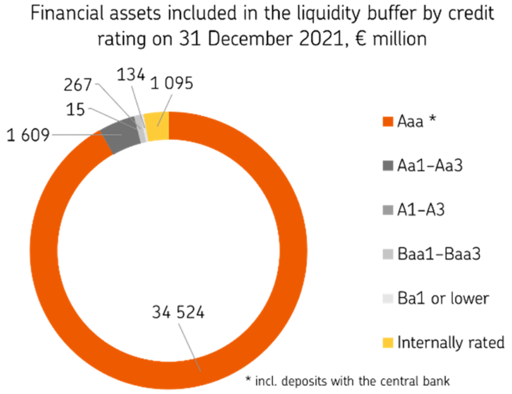
OP Financial Group monitors its liquidity and the adequacy of its liquidity buffer using, for example, the LCR (Liquidity Coverage Ratio). According to regulation, the LCR must be at least 100%. OP Financial Group's LCR was 212% (197) at the end of the financial year.

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, a minimum requirement of 100% has been set for the NSFR as of 30 June 2021. OP Financial Group's NSFR was 130% (123) at the end of the financial year.

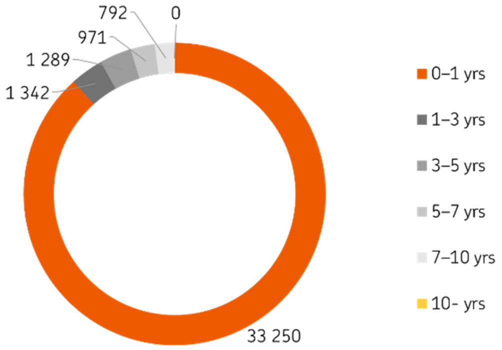
Liquidity buffer

€ billion	31 Dec 2021	31 Dec 2020	Change, %
Deposits with central banks	32.6	21.6	51.3
Notes and bonds eligible as collateral	4.0	8.7	-53.5
Corporate loans eligible as collateral	0.0	-	-
Total	36.7	30.2	21.2
Receivables ineligible as collateral	1.0	1.0	-2.6
Liquidity buffer at market value	37.6	31.3	20.4
Collateral haircut	-0.3	-0.5	-
Liquidity buffer at collateral value	37.3	30.8	21.3

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 maturity on 31 December 2021, € million



Credit ratings

31 Dec 2021

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

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

Financial performance by segment

OP Financial Group's business segments are Retail Banking (Banking Personal 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 improved to EUR 304 million (115). Impairment loss on receivables decreased by EUR 88 million to EUR 84 million. A year ago, impairment loss was increased by the adoption of the new definition of default and the effects of the Covid-19 pandemic on loan portfolio quality.
- Total income increased by 7.3% to EUR 1,773 million. Income from customer business increased by a total of 8.3%: net interest income increased by 3.7% to EUR 959 million and net commissions and fees by 7.9% to EUR 753 million.
- Total expenses increased by 5.9% to EUR 1,221 million. Personnel costs increased by 8.3% to EUR 447 million. Depreciation/amortisation and impairment losses increased by 14.8% to EUR 69 million and other operating expenses by 3.7% to EUR 705 million.
- OP bonuses to owner-customers decreased to EUR 165 million (214) due to changes made in bonus accrual in 2020.
- The loan portfolio increased by 2.3% and the deposit portfolio by 5.2%.
- Non-performing exposures (gross) accounted for 2.6% (2.6) of the exposures.
- The most significant development investments focused on enhancing customer experience and customer processes and upgrading the account and financing systems.

Key figures and ratios

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net interest income	959	925	3.7
Net commissions and fees	753	698	7.9
Net investment income	-16	2	-
Other income	78	29	167.6
Total income	1,773	1,653	7.3
Personnel costs	447	412	8.3
Depreciation/amortisation and impairment loss	69	60	14.8
Other operating expenses	705	680	3.7
Total expenses	1,221	1,152	5.9
Impairment loss on receivables	-84	-172	-
OP bonuses to owner-customers	-165	-214	-
Earnings before tax	304	115	165.3
Cost/income ratio, %	68.8	69.7	-0.9*
Ratio of non-performing exposures to exposures, %**	2.6	2.6	0.0*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.12	0.24	-0.13*
Return on assets (ROA), %	0.26	0.11	0.15*
Return on assets, excluding OP bonuses, %	0.40	0.30	0.09*
€ million			
Home loans drawn down	8,805	7,429	18.5
Corporate loans drawn down	2,639	2,411	9.5
No. of brokered residential property and property transactions	13,177	11,998	9.8
€ billion	31 Dec 2021	31 Dec 2020	Change, %
Loan portfolio			
Home loans	41.5	40.0	3.7
Corporate loans	8.2	8.1	1.0
Housing company and other loans	21.3	21.3	0.1
Total loan portfolio	71.0	69.4	2.3
Guarantee portfolio	0.9	0.9	6.2
Other exposures	9.6	8.7	10.0
Deposits			
Current and payment transfer deposits	41.4	39.3	5.4
Investment deposits	20.8	19.8	4.8
Total deposits	62.2	59.1	5.2

* Change in ratio ** The name and content of the ratio were changed in Q1/2021. Comparatives have been adjusted accordingly. More detailed information on the change can be found under table Forborne loans and non-performing receivables in the Risk exposure section of this Report by the Board of Directors.

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

The loan portfolio grew by 2.3% to EUR 71.0 billion. New home loan drawdowns increased by 18.5% year on year. The home loan portfolio grew by 3.7% to EUR 41.5 billion. This growth was attributable to the demand for new loans in particular. The corporate loan portfolio increased by 1% to EUR 8.2 billion.

Customers showed continued interest in protecting home loans and housing company loans against risks. On 31 December 2021, a total of 29.6% (27.1) of personal customers' home loans were covered by interest rate protection.

The lively housing market increased the volume of homes and real property sold and bought through the OP Koti real estate agents by 9.8%.

The deposit portfolio increased by 5.2% to EUR 62.2 billion. The increase came from current and payment transfer accounts as well as from investment deposits. Household deposits showed the strongest growth.

OP's customers' continued interest in saving and investing reached record high levels in the financial year. OP mutual funds attracted 187,000 new unitholders, most of whom began to invest systematically. Furthermore, the share trading volume was 14% higher than a year ago. In March, OP Financial Group launched a new investment benefits package for owner-customers.

During the financial year, cash volumes remained clearly below their pre-pandemic level. OP is continuously developing its payment services. In March, OP introduced to its customers the Apple Pay service that enables them to pay for purchases using smart devices by Apple. Customers have quickly adopted the service. In June, OP Financial Group's Pivo, Danske Bank's MobilePay and the Norwegian Vipps announced plans for a new mobile payment platform combining mobile wallets, used by 11 million Nordic customers, to create one of Europe's leading mobile payment services. The plan is subject to approval by the competition authorities.

During the financial year, the most significant development investments focused on enhancing customer experience and customer processes and upgrading the account and financing systems.

In March, OP Mortgage Bank issued a EUR 750 million green covered bond with a maturity of 10 years.

Merger projects between OP cooperative banks are underway in different parts of Finland. After the implementation of mergers decided during the financial year, the number of OP cooperative banks was 121 at the end of 2021 (137).

At the end of September, the Representative Assemblies of OP Helsinki, OP Itä-Uusimaa and OP Uusimaa decided on the merger of these banks. The aim is to create a unified OP cooperative bank that will start providing excellent customer experience in Finland's largest high-growth region in August 2022.

Earnings

Retail Banking earnings before tax improved to EUR 304 million (115). Total income increased by 7.3% to EUR 1,773 million. Net interest income increased by 3.7% to EUR 959 million and net commissions and fees by 7.9% to EUR 753 million mainly due to the increase in commissions for daily banking and wealth management. The EUR 49 million rise in other income was caused by the additional margin under TLTRO III funding allocated to the segment.

Total expenses increased by 5.9% to EUR 1,221 million. Personnel costs increased by 8.3% to EUR 447 million. Depreciation/amortisation and impairment losses increased by 14.8% to EUR 69 million due to a year-on-year increase in impairment write-downs. Other operating expenses rose by 3.7% to EUR 705 million as a result of additional investments in risk management and financial crime prevention.

Impairment loss on receivables decreased by EUR 88 million to EUR 84 million. Impairment loss on receivables for the financial year was affected by the tightened management of the measurement of exposures that have been non-performing for a long time and by the update of the collateral values of riskier collateral assets. A year ago, customers actively applied for repayment holidays on their loans and changes to their repayment schedules due to the Covid-19 pandemic. Combined with the changes in macroeconomic parameters applied in the measurement of expected credit losses, this increased the amount of expected credit losses. A year ago, the adoption of the new definition of default also increased the amount of expected credit losses. Final net loan losses recognised for the financial year totalled EUR 67 million (52). Non-performing exposures accounted for 2.6% (2.6) of the exposures.

OP bonuses to owner-customers decreased by EUR 49 million to EUR 165 million as a result of changes in the accrual of bonuses that became effective in November 2020. After the change, customers earn OP bonuses from home loans, student loans, secured bank loans, savings accounts and mutual fund assets as well as unit-linked insurance assets and insurance premiums.

Corporate Banking

- Earnings before tax improved to EUR 474 million (349).
- Total income increased by 25.3% to EUR 886 million. Net interest income increased by 5.0% to EUR 414 million, net commissions and fees by 33.7% to EUR 204 million and net investment income by 19.6% to EUR 171 million.
- Total expenses increased by 11.1% to EUR 318 million. Other operating expenses rose by 7.4% to EUR 211 million due to a higher EU stability contribution.
- The loan portfolio grew by 6.9% to EUR 25.7 billion and deposits by 18.4% to EUR 15.6 billion. Assets under management by Corporate Banking increased by 28.2% to EUR 82.3 billion.
- Impairment loss on receivables amounted to EUR 74 million (53). Non-performing exposures (gross) accounted for 1.8% (2.2) of the exposures.
- The most significant development investments involved the upgrades of payment and asset management systems.

Key figures and ratios

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net interest income	414	394	5.0
Net commissions and fees	204	153	33.7
Net investment income	171	143	19.6
Other income	97	17	480.2
Total income	886	707	25.3
Personnel costs	93	71	31.3
Depreciation/amortisation and impairment loss	14	18	-26.2
Other operating expenses	211	197	7.4
Total expenses	318	286	11.1
Impairment loss on receivables	-74	-53	39.1
OP bonuses to owner-customers	-20	-18	8.1
Earnings before tax	474	349	35.8
Cost/income ratio, %	35.9	40.4	-4.6*
Ratio of non-performing exposures to exposures, %**	1.8	2.2	-0.4*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.25	0.20	0.05*
Return on assets (ROA), %	1.24	0.86	0.38*
Return on assets, excluding OP bonuses, %	1.29	0.91	0.38*

€ billion	31 Dec 2021	31 Dec 2020	Change, %
Loan portfolio			
Corporate loans	14.5	14.4	0.4
Housing company and other loans	11.2	9.6	16.8
Total loan portfolio	25.7	24.0	6.9
Guarantee portfolio	3.5	2.6	35.9
Other exposures	5.7	5.4	0.3
Deposits	15.6	13.1	18.4
Assets under management (gross)			
Mutual funds	32.5	27.6	17.8
Institutional clients	38.3	25.3	51.3
Private Banking	11.5	11.3	1.7
Total (gross)	82.3	64.2	28.2

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net inflows			
Private Banking clients	-174	225	-
Institutional clients	76	190	-60.2
Total	-98	415	-

* Change in ratio

** The name and content of the ratio was changed in Q1/2021. Comparatives have been adjusted accordingly. More detailed information on the change can be found under table Forborne loans and non-performing receivables in the Risk exposure section of this Report by the Board of Directors.

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, OP Custody Ltd and OP Real Estate Asset Management Ltd.

The loan portfolio grew by 6.9% to EUR 25.7 billion. The deposit portfolio increased by 18.4% to EUR 15.6 billion.

The most significant Corporate Banking development investments involved the upgrades of payment, finance and asset management systems. The upgrade of core payment systems and improvement of digital services will continue further. In asset management, fund management processes and customer service will be further upgraded.

In October, OP launched the equity savings account for its customers on OP-mobile.

As the first bank in Finland, OP enabled multi-banking for businesses during the financial year. OP's multi-banking feature makes it possible for companies to make payments from the accounts of different banks and to view their account transactions. This new feature simplifies the companies' daily business and cash flow management by providing a broader and more real-time view to their cash position. The users of OP Corporate Hub have been able to use the multi-banking feature since June. OP Corporate Hub is a digital financial management service provided by OP.

Total income increased on a wide front by a total of 25.3%, to EUR 886 million. Within asset management, net assets inflow was negative at EUR –98 million (415). Assets under management by Corporate Banking increased by 28.2% to EUR 82.3 billion (64.2). Assets under management included about EUR 24 billion (11) in assets of the companies belonging to OP Financial Group.

During the financial year, the number of OP mutual fund unitholders exceeded the milestone of one million unitholders. The number of unitholders increased in gross terms by about 187,000, to 1,154,000 unitholders. The Morningstar rating for OP mutual funds was 3.17 (3.15).

Customers' interest in responsible investment fund products has remained strong. Among OP mutual funds, the OP-Climate fund continued to be by far the most popular investment option.

With the agreement signed between OP Financial Group and the European Investment Bank (EIB) in May 2021, OP provides new financing worth EUR 300 million to mid-size Finnish companies. The new financing will improve companies' investment opportunities and support them amid the challenges they have faced due to the Covid-19 pandemic. Financing guaranteed by the EIB and intermediated by OP is intended to finance profitable investments and the working capital of companies.

Earnings

Corporate Banking earnings before tax improved to EUR 474 million (349). Total income increased to EUR 886 million (707) and total expenses to EUR 318 million (286). The cost/income ratio was 35.9% (40.4).

Net interest income increased by 5.0% to EUR 414 million (394). Net commissions and fees totalled EUR 204 million (153). In the year to December, mutual fund assets under management grew by 17.8%, which increased net commissions and fees from funds. Other commissions and fees increased on a wide front, and OP Financial Group's internal commission expenses decreased.

Corporate Banking segment's net commissions and fees

€ million	Q1–4/2021	Q1–4/2020	Change, %
Mutual funds	137	112	22.3
Asset management	28	17	66.9
Other	40	24	63.1
Total	204	153	33.7

Net investment income increased to EUR 171 million (143) as a result of higher income from derivatives business. Market changes, in particular the rise in long-term interest rates, reduced derivative receivables and their valuation adjustments recognised through profit or loss. Other income increased as a result of the sale of Checkout Finland Ltd as well as the additional margin of EUR 50 million under TLTRO III funding, allocated to the segment.

Total expenses increased by 11.1% to EUR 318 million. Personnel costs rose by 31.3% to EUR 93 million. A year ago, the transfer of statutory earnings-related pension liability reduced pension costs by EUR 11 million. In the financial year, the provisions for performance-based bonuses increased personnel costs. Other operating expenses grew by 7.4% to EUR 211 million. The EU stability contribution increased by 23.5% to EUR 24 million and intra-Group charges by EUR 8 million.

Impairment loss on receivables reduced earnings by EUR 74 million (53). The increase in impairment loss on receivables was particularly explained by the tightened management of the measurement of exposures that have been non-performing for a long time. Non-performing exposures accounted for 1.8% (2.2) of the exposures.

Insurance

- Earnings before tax improved to EUR 504 million (348). Net insurance income improved as insurance premium revenue increased and claims incurred decreased. Capital gains improved investment income.
- Non-life insurance premium revenue increased by 3.3% to EUR 1,556 million and operational claims incurred decreased by 2.3% to EUR 899 million.
- Total expenses rose by 28.4% to EUR 493 million. Excluding the pension liability transfer in 2020, total expenses rose by 5.2%.
- Investment income totalled EUR 170 million (84). Net return on investments at fair value reported by non-life insurance was EUR 222 million (25) and that by life insurance EUR 142 million (14).
- The non-life insurance operating combined ratio improved to 85.5% (87.8) and operating risk ratio to 57.8% (61.1). The operating cost ratio was 27.7% (26.6).
- In life insurance, unit-linked insurance assets increased by 16.4% to EUR 13.1 billion from the 2020-end level. Premiums written in term life insurance grew by 2.4%.
- Development investments focused on upgrading the core system, improving the accessibility of web and mobile services and enhancing opportunities to buy insurance products.
- Pohjola Insurance focuses on its core business and sold its hospital business.

Key figures and ratios

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net insurance income	754	582	29.7
Net commissions and fees	96	78	23.2
Net investment income	288	88	228.2
Other net income	-2	8	-128.9
Total income	1,135	755	50.4
Personnel costs	160	140	14.3
Transfer of statutory earnings-related pension liability		-85	
Depreciation/amortisation and impairment loss	66	60	10.6
Other operating expenses	267	269	-0.7
Total expenses	493	384	28.4
OP bonuses to owner-customers	-21	-19	13.7
Overlay approach	-117	-4	-
Earnings before tax	504	348	44.5
Return on assets (ROA), %	1.64	1.16	0.48*
Return on assets, excluding OP bonuses, %	1.71	1.22	0.49*

* Change in ratio

OP Financial Group's Insurance segment comprises life and non-life insurance business. The segment includes Pohjola Insurance Ltd and OP Life Assurance Company Ltd.
On 14 January 2022, the Competition and Consumer Authority approved the corporate transaction whereby Pohjola Insurance would sell Pohjola Hospital to Pihlajalinna Terveys, part of Pihlajalinna Group. Pohjola Hospital was transferred to Pihlajalinna's ownership on 1 February 2022.

The first implementation of the non-life insurance core system upgrade took place in March 2021 when new sales of occupational accident and occupational disease insurance products transferred to a new platform.

Earnings

Earnings before tax improved to EUR 504 million (348). Net insurance income increased by 29.7% to EUR 754 million. Total expenses rose by 28.4% to EUR 493 million. A year ago, the transfer of statutory earnings-related pension liability reduced pension costs by EUR 85 million. Excluding this effect, total expenses rose by 5.2%. Personnel costs increased by 14.3% due to a higher headcount in claims services, backsourcing and higher provisions for performance-based bonuses.

Investment income totalled EUR 170 million (84), including the overlay approach. Capital gains on investment amounted to EUR 67 million (23) in non-life insurance and to EUR 59 million (26) in life insurance.

Investment income

€ million	Q1–4/2021	Q1–4/2020
At fair value through other comprehensive income	45	47
At fair value through profit or loss	66	215
Amortised cost	-5	-5
Life insurance items*	186	-154
Unwinding of discount**	-17	-21
Associated companies	14	4
Net investment income	288	88
Overlay approach	-117	-4
Total	170	84

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

** Non-life insurance.

Non-life insurance operating result

Non-life insurance's earnings improved to EUR 382 million (314). The balance on technical account and net investment income improved earnings.

€ million	Q1–4/2021	Q1–4/2020	Change, %
Insurance premium revenue	1 556	1 506	3.3
Claims incurred	899	921	-2.3
Operating expenses	431	401	7.5
Balance on technical account, operational	225	184	21.9
Change in reserving bases	42	-45	194.4
Balance on technical account	267	139	91.6
Investment income and expenses	189	99	89.8
Other income and expenses	-11	79	-114.2
Overlay approach	-62	-4	-
Earnings before tax	382	314	21.7
Operating combined ratio	85.5	87.8	
Operating risk ratio	57.8	61.1	
Operating cost ratio	27.7	26.6	

Non-life insurance: premium revenue

€ million	Q1–4/2021	Q1–4/2020	Change, %
Personal customers	879	857	2.5
Corporate customers	677	649	4.3
Total	1,556	1,506	3.3

Premium revenue increased by 3.3% to EUR 1,556 million. Among personal customers, the number of loyal customer households increased. Premium revenue from corporate customers increased by 4.3%.

Excluding the changes in reserving bases, claims incurred decreased by 2.3% to EUR 899 million. The changed mortality model improved balance on technical account by EUR 42 million. A year ago, the reduction in the discount rate reduced the balance by EUR 45 million. The reported number of new large claims under property and business liability insurance (in excess of EUR 0.3 million) amounted to 115 (119) in January–December, with their claims incurred retained for own account totalling EUR 134 million (131). Business interruption losses related to the Covid-19 pandemic increased claims expenditure. Changes in claims for previous years, excluding the effect of the changed mortality model, improved the balance on technical account by EUR 91 million (39). The non-life insurance operating risk ratio excluding indirect loss adjustment expenses was 57.8% (61.1). Claims expenditure for workers' compensation and travel insurance claims remained low. Changes in the provision for outstanding claims under statutory pensions improved earnings by EUR 30 million (10).

In non-life insurance, the operating cost ratio (including indirect loss adjustment expenses) was 27.7% (26.6).

Operating combined ratio reported by non-life insurance improved to 85.5% (87.8).

Non-life insurance: key investment indicators

€ million	Q1–4/2021	Q1–4/2020
Net return on investments at fair value, € million*	222	25
Return on investments at fair value, %	2.7	4.8
Fixed income investments' running yield, %	0.9	1.0
	31 Dec 2021	31 Dec 2020
Investment portfolio, € million	4,287	4,102
Investments within the investment grade category, %	92	92
At least A-rated receivables, %	54	58
Modified duration	3.3	3.5

* 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 operating result

Capital market developments were strong during the financial year. Unit-linked insurance assets, EUR 13.1 billion, were 16.4% higher than on 31 December 2020. Net asset inflow of unit-linked insurance contracts amounted to EUR 472 million (193). The amount of life insurance surrenders remained moderate. Premiums written in term life insurance grew by 2.4%.

Earnings before tax doubled and came to EUR 118 million (60). This improvement was due to higher income and lower expenses.

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net risk results	34	25	31.1
Net investment income	98	14	600.0
Net commissions and fees	128	106	20.1
Other income	0	2	-
Total income	260	148	75.7
Personnel costs	10	9	10.6
Depreciation/amortisation and impairment loss	21	23	-5.5
Other operating expenses	37	40	-10.8
Total expenses	68	72	-6.3
OP bonuses	-19	-16	15.3
Overlay approach	-55	0	-
Earnings before tax	118	60	97.3
Operating ratio	34.0	42.1	

Life insurance: key investment indicators*

€ million	Q1–4/2021	Q1–4/2020
Net return on investments at fair value, € million**	142	14
Return on investments at fair value, %	0.6	5.0
Fixed income investments' running yield, %	0.9	1.0
	31 Dec 2021	31 Dec 2020
Investment portfolio, € million	3,646	3,602
Investments within the investment grade category, %	94	90
A-rated receivables, minimum, %	56	58
Modified duration	3.0	3.2

* 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.

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 was EUR 1 million (–2). Accrued supplementary interest rate provisions related to insurance liabilities (excluding the separated balance sheets) totalled EUR 355 million (490) on 31 December 2021. Short-term supplementary interest rate provisions accounted for EUR 45 million (44) of these provisions.

Other Operations

Key figures and ratios

€ million	Q1–4/2021	Q1–4/2020	Change, %
Net interest income	10	-60	-
Net commissions and fees	-2	9	-119.7
Net investment income	-5	12	-139.7
Other operating income	684	744	-8.0
Total income	687	705	-2.5
Personnel costs	216	177	22.1
Depreciation/amortisation and impairment loss	137	138	-1.0
Other operating expenses	444	388	14.6
Total expenses	797	703	13.4
Impairment loss on receivables	0	1	-20.0
Earnings before tax	-109	3	-

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

Earnings

Earnings before tax amounted to EUR –109 million (3). Total income decreased by 2.5% to EUR 687 million. A year ago, the sale of the Vallila property improved earnings by EUR 96 million.

Net interest income was EUR 10 million (–60). The conditional additional margin of –0.5% exceeding the ECB's deposit facility rate under TLTRO III funding increased net interest income by EUR 103 million (18). The future cash flows of TLTRO III funding were changed in the cash flow measurement as a result of the fulfilment of the criteria for net lending performance that were the condition for the additional margin. In this change, the conditional additional margin for the current interest period was added to cash flows and the repayment periods of the funding were updated. The gross carrying amount of TLTRO funding was determined under IFRS 9 to correspond to the present value of the reassessed cash flows by discounting them by the original effective interest rates for tranches of finance. The resulting adjustment was recognised through profit or loss under IFRS 9.

Net investment income was EUR –5 million (12). Other operating income decreased by 8.0% to EUR 684 million. A year ago, the sale of the Vallila property increased other operating income. 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.

Total expenses increased by 13.4% to EUR 797 million. Personnel costs increased by 22.1% to EUR 216 million due to higher provisions for performance-based bonuses, backsourcing arrangements and a higher headcount. The number of personnel increased in functions such as development, risk management and financial crime prevention. Depreciation/amortisation and impairment loss on PPE and intangible assets were at the previous year's level at EUR 137 million (138). Other operating expenses grew by 14.6% to EUR 444 million. The allocation of the margin exceeding the ECB's deposit facility rate based on the TLTRO programme to the Retail Banking and Corporate Banking segments increased other operating expenses by EUR 106 million (0). ICT costs decreased by 7.1% to EUR 254 million.

On 31 December 2021, the average margin of OP Financial Group's senior and senior non-preferred wholesale funding, TLTRO funding and covered bonds was 16 basis points (19). Covered bonds are reported as part of the Retail Banking segment.

OP Financial Group's funding position and liquidity is strong.

OP Corporate Bank participated in the seventh TLTRO III operation for EUR 5.0 billion in March and in the eighth operation for EUR 3.0 billion in June. OP Corporate Bank's TLTRO III funding amounted to a total of EUR 16.0 billion at the end of December.

OP Corporate Bank issued two senior non-preferred bonds in March and one in June, one in September and one in October. The bonds issued in March were worth EUR 500 million with a 5-year maturity and EUR 300 million with a 10-year maturity. The bonds issued in June and September were worth EUR 500 million with a 7-year maturity and the bond issued in October was worth GBP 400 million with a 5-year maturity.

In January–December, OP Financial Group issued long-term bonds worth EUR 3.8 billion (8.9).

In 2020, the Governing Council of the European Central Bank modified the terms and conditions of TLTRO III to stimulate bank lending to those hardest hit by the Covid-19 pandemic. 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.

In respect of the interest period for 24 June 2020–23 June 2021, the Bank of Finland has confirmed that OP Financial Group has fulfilled the criteria for net lending performance. In respect of the interest period for 24 June 2021–23 June 2022, OP Financial Group assesses that it has fulfilled the criteria, and the resulting earnings effect is treated in accordance with IFRS 9. The final interest rate will be determined when the TLTRO III operation matures.

ICT investments

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 294 million (282). This included licence fees, purchased services, other external costs related to projects and in-house work. The capitalised development expenditure totalled EUR 99 million (97). More detailed information on OP Financial Group's investments can be found under each business segment's text section in this Report by the Board of Directors.

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 was completed as planned in February 2021.

In February 2021, OP Financial Group signed a new five-year agreement with CGI on producing IT application services in the fields of insurance and centres of excellence, in particular. In May, OP Financial Group signed a new five-year agreement with Accenture on producing IT application services especially in the field of banking. In June, OP Financial Group signed a new six-year agreement with Elisa on the production of workstation and support services. The agreements are part of increasing the effectiveness of and reforming practices and partnerships related to IT operations.

Personnel

On 31 December 2021, OP Financial Group had 13,079 employees (12,604). The number of employees averaged 13,009 (12,486). During the financial year, the number of employees increased in customer service, development & technologies, claims services, risk management and financial crime prevention.

Personnel at year-end

	31 Dec 2021	31 Dec 2020
Retail Banking	7,108	7,069
Corporate Banking	898	899
Insurance	2,550	2,260
Other Operations	2,523	2,376
Total	13,079	12,604

During the financial year, 234 OP Financial Group employees (282) retired at an average age of 62.0 years (62.3).

Business and commerce students ranked OP Financial Group as the most attractive employer in Finland for the first time in the employer branding survey carried out by Universum in spring 2021. In addition, the Group maintained its position as the most attractive employer in the financial sector among students in other fields, too.

In the survey carried out by Universum in autumn 2021, professionals ranked OP Financial Group as the financial sector's most attractive employer in commercial, IT, law and humanities sectors. Business professionals ranked OP as the second most attractive employer in Finland.

Variable remuneration applied by OP Financial Group in 2021 consisted 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.

The Remuneration Report for Governing Bodies at OP Financial Group 2021, and the Remuneration Policy for Governing Bodies at OP Financial Group will be published as separate reports in week 10.

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 121 OP cooperative banks (137) and OP Cooperative Consolidated. The number of OP cooperative banks decreased during the financial year due to mergers.

Ruukin Osuuspankki and Vihannin Osuuspankki merged into Raahen Seudun Osuuspankki on 31 March 2021. Consequently, the business name of Raahen Seudun Osuuspankki was changed to Raahentienoon Osuuspankki.

Lokalahden Osuuspankki and Taivassalon Osuuspankki merged into Lounaisrannikon Osuuspankki on 31 March 2021.

Mynämäen-Nousiaisten Osuuspankki merged into Auranmaan Osuuspankki on 30 April 2021. Consequently, the business name of Auranmaan Osuuspankki changed to Osuuspankki Vakka-Auranmaa.

Artjärven Osuuspankki merged into Länsi-Kymen Osuuspankki on 31 July 2021.

Oripään Osuuspankki merged into Alastaron Osuuspankki on 31 July 2021. Consequently, the business name of Alastaron Osuuspankki changed to Osuuspankki Harjuseutu.

Kurun Osuuspankki merged into Tampereen Seudun Osuuspankki on 31 August 2021.

Kiikoisten Osuuspankki merged into Länsi-Suomen Osuuspankki on 31 August 2021.

The OP cooperative banks of Himanka and Perho merged into Nivalan Osuuspankki on 30 September 2021. Consequently, the business name of Nivalan Osuuspankki changed to Joki-Pohjanmaan Osuuspankki.

Oulaisten Osuuspankki merged into Suomenselän Osuuspankki on 30 September 2021.

The OP cooperative banks of Halsua-Ylipää, Toholampi and Ullava merged into Perhonjokilaakson Osuuspankki on 31 October 2021. Consequently, the business name of Perhonjokilaakson Osuuspankki changed to Jokilaaksojen Osuuspankki.

Loimaan Osuuspankki merged into Lounais-Suomen Osuuspankki on 31 December 2021.

On 7 September 2021, Luhangan Osuuspankki and Keski-Suomen Osuuspankki approved a merger plan according to which the former will merge into the latter. The planned date for registration of the implementation of the merger is 28 February 2022.

On 14 October 2021, Luopioisten Osuuspankki and Kangasalan Seudun Osuuspankki approved a merger plan according to which the former will merge into the latter. The planned date for registration of the implementation of the merger is 31 March 2022.

On 13 October 2021, Sastamalan Osuuspankki, Satakunnan Osuuspankki and Satapirkan Osuuspankki approved a merger plan according to which Sastamalan Osuuspankki and Satapirkan Osuuspankki will merge into Satakunnan Osuuspankki. The planned date for registration of the implementation of the merger is 30 April 2022. Consequently, the business name of Satakunnan Osuuspankki will change to Satapirkan Osuuspankki.

On 29 September 2021, Itä-Uudenmaan Osuuspankki, Uudenmaan Osuuspankki and Helsinki Area Cooperative Bank approved merger plans according to which Itä-Uudenmaan Osuuspankki and Uudenmaan Osuuspankki will merge into Helsinki Area Cooperative Bank. The planned date for registration of the implementation of the mergers is 31 July 2022. Consequently, the business name of Helsinki Area Cooperative Bank will change to Uudenmaan Osuuspankki.

Simplifying OP Cooperative Consolidated's structure

The legal restructuring of OP Financial Group's central cooperative consolidated has streamlined the group structure, simplified management and made the cost structure slimmer.

OP Asset Management Execution Services Oy merged into OP Asset Management Ltd through a subsidiary merger on 30 April 2021.

OP Cooperative sold all shares of its subsidiary, Checkout Finland Ltd, to Paytrail Oyj. The transaction was finalised on 30 April 2021.

The business name of OP Card Company Plc changed to OP Retail Customers Plc as of 1 June 2021.

OP Corporate Bank plc's Baltic subsidiaries OP Finance AS (Estonia), OP Finance SIA (Latvia) and AB OP Finance (Lithuania) merged into their parent company OP Corporate Bank plc on 31 October 2021 through a cross-border subsidiary merger.

OP-Services Ltd merged into OP Cooperative on 30 November 2021 through a subsidiary merger.

On 29 November 2021, OP Corporate Bank plc implemented a partial demerger in such a way that the shares of Pohjola Insurance Ltd, OP Corporate Bank plc's subsidiary engaged in non-life insurance business, were transferred to the direct ownership of OP Cooperative. Technically, this was implemented in such a way that OP Corporate Bank plc demerged through a partial demerger into OP Insurance Holding Ltd, an ancillary company wholly owned by OP Cooperative, on 29 November 2021, which merged into OP Cooperative through a subsidiary merger on 30 November 2021.

Pohjola Insurance Ltd sold all shares of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy, part of Pihlajalinna Group. The corporate transaction was published on 2 July 2021. The net debt free transaction price is EUR 31.8 million. The Finnish Competition and Consumer Authority approved the corporate transaction on 14 January 2022. Pohjola Hospital was transferred to Pihlajalinna's ownership on 1 February 2022.

OP Corporate Bank plc sold all shares of its subsidiary OP Custody Ltd to OP Cooperative on 30 November 2021.

Governance of OP Cooperative

On 18 November 2020, the Supervisory Council of OP Cooperative (the central cooperative of OP Financial Group) elected the members of the Board of Directors of OP Cooperative for the term of office from 1 January to 31 December 2021. The composition of the Board of Directors remained unchanged.

All former members continued on the Board in 2021: Leif Enberg (Chair of the Board of Directors, Oy Mapromec Ab), Jarna Heinonen (Professor in Entrepreneurship, Turku School of Economics), Jari Himanen (Managing Director, OP Suur-Savo), Kati Levoranta (Executive Vice President, Commercial and Operational Activities, P2X Solutions Ltd), Pekka Loikkanen (board professional), Tero Ojanperä (Chair of the Board of Directors, Silo AI Ltd), Riitta Palomäki (board professional), Jaakko Pehkonen (Professor of Economics, University of Jyväskylä), Timo Ritakallio (President and Group CEO, OP Financial Group), Olli Tarkkanen (Managing Director, Etelä-Pohjanmaan Osuuspankki) and Mervi Väisänen (Senior Lecturer in Marketing, Kajaani University of Applied Sciences).

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 continued as Chair and Jarna Heinonen as Vice Chair of the Board of Directors. The compositions of Board Committees remained unchanged.

On 2 December 2021, the Supervisory Council elected Petri Sahlström to OP Cooperative's Board of Directors as a new member, for the term of office of 2022. Leif Enberg stepped down from the Board of Directors on 31 December 2021. Other members of the Board will continue in their position for the term 1 January–31 December 2022. On 3 January 2022, the 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.

On 21 April 2021, OP Cooperative held its Annual Cooperative Meeting which elected members of the Supervisory Council and the auditor.

The Supervisory Council comprises 36 members. The Annual Cooperative Meeting re-elected the following members to the Supervisory Council who were due to resign: Procurement Manager Päivi Hakasuo, Managing Director Mika Helin, Bachelor of Hospitality Management, MBA Mervi Hinkkanen, Professor Juha-Pekka Junttila, entrepreneur Taija Jurmu, Senior Rural Economist Päivi Kujala, APA Katja Kuosa-Kaartti, Managing Director Pekka Lehtonen, Managing Director Sirpa Leppäkoski, Director Timo Metsä-Tokila, Senior Manager Anssi Mäkelä, CFO Annukka Nikola, D.Sc. (Agr. & For.) Yrjö Niskanen, Managing Director Ulf Nylund, farmer-entrepreneur Johanna Pättiniemi, Development Director Tiina Rajala, Professor Petri Sahlström, entrepreneur Carolina Sandell, farmer-entrepreneur Timo Saukkonen, Professor Markku Sotarauta, entrepreneur Timo Syrjälä, Managing Director Pauliina Takala and Managing Director Ari Väänänen. The membership of Juha-Pekka Junttila ended on 20 September 2021 and that of Petri Sahlström on 31 December 2021.

New members elected to the Supervisory Council were Managing Director Raili Hyvönen, Associate Professor Saara Julkunen, Development Manager Mika Kainusalmi, Managing Director Matti Kiuru, Regional Assistant Vicar Toivo Loikkanen, farmer-entrepreneur Veijo Manninen, Managing Director Kaisa Markula, Service Supervisor Jarmo Nurmela, Managing Director Heikki Palosaari, Managing Director Teuvo Perätalo, Managing Director Tuomas Puttonen, Managing Director Jyrki Rantala and Managing Director Teemu Sarhemaa.

At its reorganising meeting, the Supervisory Council elected the presiding officers of the Supervisory Council. CFO Annukka Nikola 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 2021, with Juha-Pekka Mylén, APA, acting as the chief auditor, appointed by KPMG Oy Ab.

Legal structure of OP Financial Group

Group structure

OP Financial Group (hereinafter *the Group*) is a Finnish cooperative financial services group that is constituted by OP Cooperative as the Group's central body and the parent undertaking of OP Cooperative Consolidated (hereinafter *the central cooperative*), its subsidiaries and independent local and regional OP cooperative banks. The central cooperative, its credit institution subsidiaries and the OP cooperative banks together constitute an amalgamation of deposit banks (hereinafter *OP Amalgamation*) within the meaning of the Finnish Amalgamation Act (599/2010, hereinafter *the Amalgamation Act*). OP Cooperative is the central body, and its credit institution subsidiaries and the OP cooperative banks (hereinafter *the affiliated credit institutions*) are credit institutions affiliated to the central body within the meaning of Article 10 of the Capital Requirements Regulation (Regulation (EU) No 575/2013, hereinafter *the Capital Requirements Regulation*).

Credit institutions whose bylaws comply with the requirements of the Amalgamation Act and have been approved by the central cooperative, can be accepted as members of the central cooperative. New members are accepted by the Supervisory Council of the central cooperative. An affiliated credit institution has the right to withdraw from the amalgamation. It can also be expelled from the amalgamation in accordance with the Finnish Co-operatives Act (421/2013, hereinafter *the Co-operatives Act*) or if it has neglected its obligations towards the Amalgamation as specified in the bylaws of the central cooperative.

The affiliated credit institutions of the central cooperative consist of:

- credit institution subsidiaries of the central cooperative (OP Corporate Bank plc, which is responsible for the wholesale funding of the Group and other treasury activities in addition to the corporate lending business of the Group; OP Retail Customers plc, which administers the credit cards issued by the Group; and OP Mortgage Bank, which issues mortgage bonds backed by the residential loan portfolios of the affiliated credit institutions); and

- 121 local and regional co-operative banks, which carry out retail banking business and which are members of OP Cooperative, thus exercising the decision-making powers at the highest administrational level of the Group.

Apart from OP Amalgamation, OP Financial Group also includes, as subsidiaries of the central cooperative, an investment firm (OP Asset Management Ltd), a fund management company (OP Fund Management Company Ltd), a life insurance company (OP Life Assurance Company Ltd), a non-life insurance company (Pohjola Insurance Ltd) and some minor companies as well as the real estate agencies owned jointly by OP cooperative banks under the brand name OP Koti.

OP Amalgamation and the insurance and financial subsidiaries of OP Cooperative together constitute a bank-dominated financial conglomerate within the meaning of the Directive (2002/87/EC) and the Finnish Act on the Supervision of Financial and Insurance Conglomerates (699/2004, hereinafter *the Financial Conglomerates* Act). The European Central Bank (hereinafter *the ECB*) has waived, until further notice, the application of the said Act to the sub-group constituted by the central cooperative and its subsidiaries.

Corporate governance in OP Financial Group

The highest decision-making body in OP Financial Group is the Cooperative Meeting of the central cooperative consisting of the representatives of the affiliated credit institutions. The Meeting elects the central cooperative's Supervisory Council (36 members). The Supervisory Council elects the central cooperative's Board of Directors, which consists of the President and Group CEO and 9–13 other members. At least four of the members of the Board must be independent of the central cooperative and other entities belonging to OP Financial Group. The Board of Directors carries out the tasks of the management body in its management function as well as the tasks of the management body in its supervisory function, as defined in the Capital Requirements Directive (2013/36/EU) and in the Guidelines on Internal Governance by the European Banking Authority.

The affiliated credit institutions are separate legal entities that have administrative bodies of their own in accordance with the general company law. In the member cooperative banks, the highest decision-making body is the Cooperative Meeting or the Representative Assembly Meeting. It elects the OP cooperative bank's Supervisory Council, which in turn elects the OP cooperative bank's Board of Directors. The subsidiaries of the central cooperative have a Board of Directors nominated by the central cooperative in accordance with the Limited Liability Companies Act.

Financial reporting, supervision and internal audit

OP Amalgamation

OP Financial Group publishes an annual consolidated financial statement covering all significant companies within the Group. Pursuant to the Amalgamation Act, the financial statements of OP Financial Group must be drawn up in accordance with the international financial reporting standards referred to in the Finnish Accounting Act (1336/1997). The Finnish Financial Supervisory Authority (hereinafter *the FIN-FSA*) has issued more detailed regulations on the financial statements of amalgamations. The accounting principles applied to OP Financial Group's financial statements are disclosed in the notes to the financial statements.

The central cooperative has an obligation to issue guidelines on compliance with standardised accounting policies in the preparation of the consolidated financial statements. The affiliated credit institutions must submit the necessary data to the central cooperative for the purpose of drawing up the consolidated financial statements.

OP Financial Group's financial statements are audited by the auditors of the central cooperative in accordance with the requirements laid down in the Finnish Act on Credit Institutions (610/2014, hereinafter *the Credit Institutions Act*), as applicable. The auditors have the right to obtain a copy of all audit documents of the affiliated credit institutions. The financial statements are presented to the Annual Cooperative Meeting of the central cooperative.

OP Amalgamation is supervised by the ECB on the basis of its consolidated financial position, while the insurance companies are supervised by the FIN-FSA. The FIN-FSA also supervises compliance with the conduct rules applied to banking and asset management.

OP Amalgamation must comply, on the basis of its consolidated financial position, with the statutory prudential requirements for credit institutions laid down in the Credit Institutions Act and the Capital Requirements Regulation. The amount of consolidated own funds at the level of the Amalgamation must meet the requirements laid down in chapter 10, section 1 of the Credit Institutions Act.

The internal audit of undertakings belonging to OP Financial Group is carried out by the Internal Audit unit, which reports directly to the President and Group CEO. Internal Audit is an independent function within OP Financial Group, which audits the adequacy and effectiveness of internal control arrangements, risk management and corporate governance. The Chief Audit Executive regularly reports to the President and Group CEO and the Audit Committee of the Board of Directors of OP Cooperative. Internal Audit is responsible for the internal audit of the central cooperative, its subsidiaries and the affiliated credit institutions and their subsidiaries. Internal audits are carried out in accordance with internationally accepted standards and ethical rules and the Internal Audit Charter approved by the Board of Directors of OP Cooperative.

Financial conglomerate

Pursuant to section 30 of the Financial Conglomerates Act, the accounting regime laid down in the said Act is not applicable to OP Financial Group as its financial statements are drawn up in accordance with the international financial reporting standards.

Compliance with the requirements laid down in the Financial Conglomerates Act, including the aggregate capital requirement, is supervised by the ECB.

Affiliated undertakings

The affiliated credit institutions draw up their individual financial statements in accordance with the guidelines issued by the central cooperative, and they are audited in accordance with the Credit Institutions Act. The obligation to disclose interim financial reports pursuant to chapter 12, section 12 of the Credit Institutions Act is not applied to the affiliated credit institutions. Nor are they obliged to disclose regulatory information on their capital adequacy and liquidity (so called Pillar III) on a solo basis. Such information is disclosed only on the basis of the consolidated financial position of OP Amalgamation.

According to the Amalgamation Act, the supervisory authority can grant the central cooperative a permission to waive the application of the quantitative rules on the amount of own funds, liquidity and large exposure limits as well as the qualitative rules on risk management. The affiliated credit institutions must, however, comply with the minimum capital requirements laid down in the Amalgamation Act, which are lower than those applied to other credit institutions. The waiver cannot be granted to an affiliated credit institution which has grossly or recurringly failed to comply with the instructions issued by the central cooperative pursuant to section 17 of the Amalgamation Act or the preconditions for the waiver. Such exception may be granted for a maximum period of three years at a time. The central cooperative has utilised the permission granted by the supervisor to waive the application of the own funds, liquidity and risk management requirements on the affiliated credit institutions.

The roles of the central cooperative and the affiliated credit institutions in OP Amalgamation

OP Cooperative operates as the statutory central body of OP Amalgamation and as a holding company for the strategic holdings of OP Financial Group.

The central cooperative is under a statutory obligation to:

- supervise the affiliated credit institutions;
- issue instructions to them on risk management, good corporate governance and internal control to secure liquidity and capital adequacy of the amalgamation; and
- issue instructions on compliance with standardised accounting policies in the preparation of the consolidated financial statements.

In the manner specified in its bylaws, the central cooperative may also confirm general principles to be followed by the affiliated credit institutions in their operations relevant to the Amalgamation. The affiliated credit institutions are, among other things, bound by OP Financial Group's Risk Appetite Statement, Risk Appetite Framework and detailed risk policies as confirmed by the central cooperative's Board of Directors. The risk management of OP Financial Group is described in more detail in other chapters of this Report by the Board of Directors and in OP Financial Group's Capital Adequacy and Risk Management Report.

The central cooperative supervises the affiliated credit institutions in order to ensure that they comply with the instructions issued and principles confirmed by the central cooperative, notably that they do not, in the course of their operations, take any risk of such magnitude that poses a substantial danger to the consolidated financial position of OP Amalgamation. The affiliated credit institutions are accountable to the central cooperative in accordance with the principles of joint and several liability confirmed by the central cooperative. Based on said principles, the central cooperative can take measures vis-à-vis the affiliated credit institutions. These measures range from tighter monitoring to expelling the affiliated credit institution from the Amalgamation.

The central cooperative is responsible for providing centralised services to the affiliated credit institutions, including strategic and capital planning, liquidity and funding, risk management, accounting, financial and supervisory reporting, legal services, ICT including the design and maintenance of the digital distribution channels, service design, service range, and marketing. The affiliated credit institutions, while operationally dependent on the centralised services provided by the central cooperative, are independent in maintaining their capital base and deciding on the distribution of their profits (within the limits of the Group capital plan) as well as in respect of their customer selection and individual business decisions.

Solidarity mechanism

General principles

The mutual solidarity mechanism applied within OP Amalgamation is laid down in the Amalgamation Act. The central cooperative it is responsible for the implementation of the solidarity mechanism (calculation of contributions from the affiliated credit institutions and the collection of the contributions as well as forwarding the contributions to the affiliated credit institution being supported) and it has the ultimate liability for the obligations of the affiliated credit institutions. The affiliated credit institutions have a recourse right on the central cooperative for the amount of the contribution they have made to the central cooperative under the solidarity mechanism. The central cooperative has, in turn, a recourse right on the supported affiliated credit institution for the amount paid to it by the central cooperative.

The solidarity mechanism consists of the following elements:

- mutual capital support to ensure the capital adequacy of an affiliated credit institution which does not meet its statutory capital requirements;
- joint and several liability between the affiliated credit institutions to ensure the liquidity of an affiliated credit institution that cannot meet its due obligations;

- the additional payment obligation of the affiliated credit institutions in the insolvency of the central cooperative in accordance with the Finnish Co-operatives Act.

An affiliated credit institution will remain liable for its obligations under the solidarity mechanism for the first five years after withdrawal or expulsion from OP Amalgamation.

Mutual capital support

Each affiliated credit institution has the obligation to lend to the central cooperative an annual amount of up to 0.05% of its balance sheet total, to be used by the central cooperative to recapitalise an affiliated credit institution that fails to meet its statutory capital requirements.

Joint and several liability

A creditor who has not received payment for an overdue claim from an affiliated credit institution may demand payment from the central cooperative. An affiliated credit institution may not be declared bankrupt upon a creditor's petition before the creditor has demanded the repayment of the principal debt from the central cooperative.

Other affiliated credit institutions have a statutory obligation to lend to the central cooperative the amount it has paid on behalf of the affiliated credit institution that has failed to meet its payment obligation. The proportional share of each affiliated credit institution is calculated on the basis of the share of its balance sheet total of the aggregate balance sheet total of all affiliated credit institutions.

OP Corporate Bank is, on a centralised basis, in charge of the Group's liquidity reserve and it guarantees the liquidity of the central cooperative and the affiliated credit institutions in all situations. Because the joint liability is thus automatically implemented by a single liquidity pool within OP Amalgamation, the procedural provisions laid down in the Amalgamation Act need not be applied in practice.

Refinancing liability of the affiliated credit institutions in the central cooperative's default

The affiliated credit institutions, as members of the central cooperative, have unlimited refinancing liability in case of the central cooperative's liquidation or bankruptcy, in accordance with chapter 14 of the Co-operatives Act. The liability of each member is determined on the basis of its balance sheet total assets.

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

According to the legislation governing the Deposit Guarantee Fund, the deposit banks belonging to an amalgamation of deposit 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 one or more affiliated credit institutions of OP Amalgamation.

Under the legislation concerning the Investors' Compensation Fund, the amalgamation of deposit banks is also considered to constitute a single credit institution in respect of investor compensation. The Investors' Compensation Fund's assets may be used to compensate an investor's receivables from one or more affiliated credit institutions up to a total maximum of 20,000 euros.

The Finnish Financial Stability Authority (Rahoitusvakausvirasto) is responsible for deposit protection. It administers the Financial Stability Fund, which is a public fund outside the government budget. The Fund consists of a resolution fund accrued by collecting annual stability fees from credit institutions and investment firms, and a deposit protection fund accrued by collecting annual deposit protection fees from deposit banks.

Events after the balance sheet date

Pohjola Insurance sold its hospital business

Pohjola Insurance Ltd, part of OP Financial Group, has sold all shares of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy, part of Pihlajalinna Group. On 14 January 2022, the Finnish Competition and Consumer Authority approved the corporate transaction, which was finalised on 1 February 2022. The net debt free transaction price was EUR 31.8 million.

OP Corporate Bank plc issued a new green bond

OP Corporate Bank plc issued a green bond worth EUR 500 million in accordance with its updated Green Bond Framework. The green bond will support the green transition, and proceeds raised with it will be allocated to sustainable corporate lending. Targeted at international responsible institutional investors, the bond is OP Corporate Bank's first senior non-preferred, unsecured green bond, which amounts to EUR 500 million and has a maturity of 5.5 years. Eligible sectors to be funded include renewable energy, green buildings and environmentally sustainable management of living natural resources and land use. The green bond was priced on 20 January 2022 and issued on 27 January 2022.

OP Financial Group will apply an RWA floor, based on the standardised approach, in the calculation of its capital adequacy ratio

In the calculation of its capital adequacy ratio, OP Financial Group has decided to apply an RWA floor – based on the standardised approach – in the second quarter of 2022. This is due to enhanced regulatory requirements and discussions with the European Central Bank on the application of the Internal Ratings Based Approach (IRBA).

OP Financial Group's capital adequacy will remain strong, despite the application of the floor. Application of the floor will decrease OP Financial Group's CET1 ratio by an estimated 3 percentage points and its FiCo ratio by an estimated 30 percentage points. After the floor has been applied, it is estimated that the Group's CET1 ratio will exceed the regulatory minimum level by over 5 percentage points, and the financial conglomerate's FiCo ratio by approximately 20 percentage points.

Application of the floor is a temporary capital measure which will not affect OP Financial Group's good risk position. The impact of the floor will be eliminated in stages over the coming years, as the ECB approves the Group's development measures regarding the Internal Ratings Based Approach.

Application of the floor will have no material impact on OP Financial Group's bond issuance plan for 2022.

Outlook for 2022

In 2021, both the world and Finnish economy recovered from the crisis caused by the Covid-19 pandemic, and economic growth was exceptionally strong due to a weak reference level. In the last quarter of the year, the economy continued to grow strongly although the strongest recovery was over. Energy raw material prices rose clearly during the latter half of the year, which sped up inflation, reaching the fastest rate in decades in many countries. In Finland, inflation accelerated more moderately than in many other countries. Nevertheless, consumer prices rose at the fastest pace in a decade.

In the financial market, stock prices increased strongly during 2021. Towards the end of the year, inflation acceleration and the central bank's preparation for tightening monetary policy made markets nervous. Short-term interest rates remained low but longer-term rates rose gradually during the year.

The higher number of Covid-19 cases and the resulting restrictions are expected to temporarily slow down economic growth at the beginning of the year. Economic recovery is expected to continue but to slow down gradually. Inflation growth is predicted to level off but remain high throughout the early part of the year. The monetary policy is expected to be gradually tightened but the European Central Bank is not expected to raise its benchmark interest rates during the first half of the year.

Economic uncertainty is expected to remain elevated. The Covid-19 pandemic may unexpectedly slow down economic growth or cause major bottlenecks in production. Even if the economic development remained sluggish, the inflation period may prove to be longer than anticipated. This may tighten the financing conditions and increase uncertainty in the financial market.

A sudden worsening of the pandemic could affect OP Financial Group in three ways: economic, financial and capital market uncertainty 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.

OP Financial Group's earnings before tax for 2022 are expected to be lower than in 2021. The most significant uncertainties affecting earnings performance due to the Covid-19 pandemic and inflation relate to changes in the interest rate and investment environment and to the developments in impairment losses. The war in Ukraine and the related sanctions and counter-sanctions will substantially increase the uncertainties associated with the economy and profit performance.

All forward-looking statements in this Report by the Board of Directors 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	**2021**	**2020**	**2019**	**2018**	**2017**
Key income statement items, € million					
Net interest income	1,409	1,284	1,241	1,186	1,102
Net insurance income	743	572	421	566	478
Net commissions and fees	1,034	931	936	887	879
Net investment income	376	184	530	211	522
Other operating income	54	132	53	61	83
Personnel costs	914	715	781	516	758
Depreciation/amortisation and impairment loss	283	273	278	325	246
Other operating expenses	810	852	844	839	764
Impairment loss on receivables	-158	-225	-87	-46	-48
OP bonuses to owner-customers	-205	-251	-249	-226	-217
Overlay approach	-118	-3	-105	26	-
Earnings before tax	1,127	785	838	959	1,031
Key balance sheet items – assets, € million					
Cash and cash equivalents	32,846	21,827	11,988	12,350	12,937
Derivative contracts	3,467	5,215	4,824	3,581	3,412
Receivables from credit institutions	541	306	246	183	504
Receivables from customers	96,947	93,644	91,463	87,026	82,193
Investment assets	22,945	23,562	23,509	23,050	23,324
Assets covering unit-linked contracts	13,137	11,285	10,831	9,771	10,126
Intangible assets and property, plant and equipment	1,658	1,944	1,930	2,227	2,353
Other items	2,569	2,424	2,232	2,107	2,355
Total assets	174,110	160,207	147,024	140,294	137,205

Key balance sheet items – liabilities and equity, € million					
Liabilities to credit institutions	16,650	8,086	2,632	4,807	5,157
Derivative contracts	2,266	3,424	3,316	2,992	3,026
Liabilities to customers	77,898	73,422	68,289	66,112	65,549
Insurance liabilities	8,773	9,374	9,476	9,476	9,950
Liabilities from unit-linked insurance and investment contracts	13,210	11,323	10,862	9,812	10,158
Debt securities issued to the public	34,895	34,706	34,369	30,458	26,841
Other liabilities	6,233	6,761	5,510	4,896	5,440
Equity capital	14,184	13,112	12,570	11,742	11,084
Total liabilities and shareholders' equity	174,110	160,207	147,024	140,294	137,205
Figures and ratios					
Return on equity, ROE, %	6.6	5.0	5.5	6.5	7.7
Return on assets, ROA, %	0.5	0.4	0.5	0.5	0.6
Cost/income ratio, %	55	59	60	58	58
Average personnel*	13,009	12,486	12,376	12,339	12,212
Common Equity Tier 1 (CET1) capital ratio, %	18.2	18.9	19.5	20.5	20.1
Capital adequacy ratio, %	20.4	21.7	21.1	22.1	22.5
Capital adequacy under the Act on the Supervision of Financial and Insurance Conglomerates, %	146	150	138	147	148

* Figures for 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. The formulas for the key figures and ratios can be derived from the figures presented in this Report by the Board of Directors and in the Financial Statements, so separate reconciliation statements for the Alternative Performance Measures are not presented.

Alternative Performance Measures

Key figure or ratio	Formula	Description
Return on equity (ROE), %	$\frac{\text{Profit for the financial year}}{\text{Equity capital (average at beginning and end of period)}} \times 100$	The ratio describes how much return is generated on equity capital as a percentage of equity during the financial year.
Return on equity (ROE) excluding OP bonuses, %	$\frac{\text{Profit for the financial year + OP bonuses after tax}}{\text{Equity capital (average at beginning and end of period)}} \times 100$	The ratio describes how much return is generated on equity capital as a percentage of equity during the financial year, excluding OP bonuses paid to owner-customers that are charged to expenses.
Return on assets (ROA), %	$\frac{\text{Profit for the financial year}}{\text{Average balance sheet total (average at beginning and end of financial year)}} \times 100$	The ratio describes how much return is generated on capital tied up on business during the financial year.
Return on assets (ROA) excluding OP bonuses, %	$\frac{\text{Profit for the financial year + OP bonuses after tax}}{\text{Average balance sheet total (average at beginning and end of financial year)}} \times 100$	The ratio describes how much return is generated on capital tied up on business during the financial year, excluding OP bonuses paid to owner-customers that are charged to expenses.
Cost/income ratio, %	$\frac{\text{Total expenses}}{\text{Total income}} \times 100$	The ratio describes the ratio of expenses to income. The lower the ratio, the better.
Investment income	Net investment income + Overlay approach	The figure describes the development of all investment income. 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.
Loan portfolio	Balance sheet item Receivables from customers	The loan portfolio is presented in Receivables from customers in the balance sheet.
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	$\frac{\text{Impairment loss on receivables}}{\text{Loan and guarantee portfolio at end of financial year}} \times 100$	The ratio describes the ratio of impairment loss on receivables entered in the income statement to the loan and guarantee portfolio. The lower the ratio, the better.
Deposits	Deposits included in balance sheet item Liabilities to customers	Deposits are presented under Liabilities to customers in the balance sheet.
Coverage ratio, %	$\frac{\text{Loss allowance}}{\text{Receivables from customers (on-balance-sheet and off-balance-sheet items)}} \times 100$	The ratio describes the extent to which the amount of expected losses covers the amount of the liability.
Default capture rate, %	$\frac{\text{New defaulted contracts in stage 2 a year ago}}{\text{New defaulted contracts during the financial year}} \times 100$	The ratio describes the effectiveness of the SICR model (significant increase in credit risk), in other words, how many contracts were in stage 2 before moving to stage 3.
Income from customer business	Net interest income + net insurance income + net commissions and fees	Income from customer business describes the development of net interest income, net insurance income and net commissions and fees. Income directly from customers is presented mainly under these items.

Non-life insurance:

Operating loss ratio, %	$\frac{\text{Claims incurred excl. changes in reserving bases}}{\text{Insurance premium revenue, excl. net changes in reserving bases}} \times 100$	The ratio describes how much of the insurance premium revenue is spent on claims paid and claims management. The ratio is calculated after reinsurers' share.
Operating expense ratio, %	$\frac{\text{Operating expenses}}{\text{Insurance premium revenue, excl. net changes in reserving bases}} \times 100$	The ratio describes how much of the insurance premium revenue is spent on operating expenses (insurance acquisition, management and administration costs). The ratio is calculated after reinsurers' share.
Operating combined ratio, %	Operating loss ratio + operating expense ratio Operating risk ratio + operating cost ratio	The combined ratio is a key indicator of efficiency for non-life insurance companies. The ratio describes whether the insurance premium revenue is sufficient to cover the company's expenses during the reporting period.
Operating risk ratio (excl. unwinding of discount), %	$\frac{\text{Claims excl. loss adjustment expenses and changes in reserving bases}}{\text{Net insurance premium revenue, excl. changes in reserving bases}} \times 100$	The ratio describes how much of the insurance premium revenue is spent on claims paid. The ratio is calculated after reinsurers' share.
Operating cost ratio, %	$\frac{\text{Operating expenses and loss adjustment expenses}}{\text{Net insurance premium revenue, excl. changes in reserving bases}} \times 100$	The ratio describes the ratio of the company's operating costs (acquisition, management, administration and claims settlement expenses) to its insurance premium revenue.

Life insurance:

Operating ratio, %	$\frac{\text{Total expenses}}{\text{Expense loading + refund of management fee}} \times 100$	The ratio describes the company's efficiency, or how well the expenses charged on insurance policies and the management fee refunds received on insurance policies cover the company's operating expenses.

Key indicators based on a separate calculation

Capital adequacy ratio, %	$\frac{\text{Total capital}}{\text{Total risk exposure amount}} \times 100$	The ratio describes a credit institution's capital adequacy and shows the ratio of total capital to the total risk exposure amount.
Tier 1 ratio, %	$\frac{\text{Total Tier 1 capital}}{\text{Total risk exposure amount}} \times 100$	The ratio describes a credit institution's capital adequacy and shows the ratio of Tier 1 capital to the total risk exposure amount.
CET1 ratio, %	$\frac{\text{CET1 capital}}{\text{Total risk exposure amount}} \times 100$	The ratio describes a credit institution's capital adequacy and shows the ratio of CET1 capital to the total risk exposure amount.
Solvency ratio, %	$\frac{\text{Capital base}}{\text{Solvency capital requirement (SCR)}} \times 100$	The ratio describes an insurance company's solvency and shows the ratio of the capital base to the total risk exposure amount.
Leverage ratio, %	$\frac{\text{Tier 1 capital (T1)}}{\text{Exposure amount}} \times 100$	The ratio describes a credit institution's indebtedness and shows the ratio of Tier 1 capital to the total exposure amount.
Liquidity coverage requirement (LCR), %	$\frac{\text{Liquid assets}}{\text{Liquidity outflows – liquidity inflows under stressed conditions}} \times 100$	The ratio describes short-term funding liquidity risk that requires the bank to have sufficient, high-quality liquid assets to get through an acute 30-day stress scenario.

Net stable funding ratio (NSFR), %	$\frac{\text{Available stable funding}}{\text{Required stable funding}} \times 100$	The ratio describes a long-term liquidity risk that requires the bank to have a sufficient amount of stable funding sources in relation to items requiring stable funding sources. The objective is to secure the sustainable maturity structure of assets and liabilities applying a 12-month time horizon and to restrict excessive resort to short-term wholesale funding.
Capital adequacy ratio under the Act on the Supervision of Financial and Insurance Conglomerates*	$\frac{\text{Conglomerate's total capital base}}{\text{Conglomerate's total minimum capital requirement}} \times 100$	The ratio describes the capital adequacy of the financial conglomerate and shows the ratio of the capital base to the minimum amount of the capital base.
Ratio of non-performing exposures to exposures, %	$\frac{\text{Non-performing exposures (gross)}}{\text{Exposures at end of financial year}} \times 100$	The ratio describes the ratio of customers with severe payment difficulties to the entire exposure portfolio. Non-performing exposures refer to receivables that are more than 90 days past due and other receivables classified as risky as well as forborne exposures 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. Non-performing exposures are presented in gross terms; expected credit losses have not been deducted from them.
Ratio of doubtful receivables to exposures, %	$\frac{\text{Doubtful receivables (gross)}}{\text{Exposures at end of financial year}} \times 100$	The ratio describes the ratio of customers with payment difficulties to the entire exposure portfolio. 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. In addition to non-performing forborne exposures, doubtful receivables include non-performing 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. Doubtful receivables are presented in gross terms; expected credit losses have not been deducted from them.
Ratio of performing forborne exposures to exposures, %	$\frac{\text{Performing forborne exposures (gross)}}{\text{Exposures at end of financial year}} \times 100$	The ratio describes the ratio of performing forborne exposures to the entire exposure portfolio. 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 forborne exposures.
Ratio of performing forborne exposures to doubtful receivables, %	$\frac{\text{Performing forborne exposures (gross)}}{\text{Doubtful receivables at end of financial year}} \times 100$	The ratio describes the ratio of performing forborne exposures to doubtful receivables that include not only performing forborne exposures but also non-performing exposures. 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 forborne exposures.

Ratio of loss allowance (receivables from customers) to doubtful receivables, %	$\frac{\text{Loss allowance for receivables from customers in the balance sheet}}{\text{Doubtful receivables at end of financial year}} \times 100$	The ratio describes the ratio of expected losses to all doubtful receivables. Doubtful receivables include non-performing exposures and performing forborne exposures.
Loan and guarantee portfolio	Loan portfolio + guarantee portfolio	The indicator describes the total amount of loans and guarantees given.
Exposures	Loan and guarantee portfolio + interest receivables + unused standby credit facilities	The sum of the loan and guarantee portfolio, interest receivables and unused standby credit facilities (undrawn loans and limits) is used as the basis for proportioning doubtful receivables and non-performing exposures.
Other exposures	Interest receivables + unused standby credit facilities	In addition to the loan and guarantee portfolio, exposures come from interest receivables and unused standby credit facilities (undrawn loans and limits).

*Transitional provisions have been taken into account in the FiCo solvency.

Capital adequacy and solvency

Capital adequacy for credit institutions

Capital base, € million	31 Dec 2021	31 Dec 2020
OP Financial Group's equity capital	**14,184**	**13,112**
Effect of insurance companies on the Group's shareholders' equity is excluded	-988	-498
Fair value reserve, cash flow hedge	-96	-203
Common Equity Tier 1 (CET1) before deductions	**13,101**	**12,410**
Intangible assets	-351	-391
Excess funding of pension liability and valuation adjustments	-132	-93
Cooperative capital deducted from capital base	-160	-126
Planned profit distribution and unpaid profit distribution for previous period	-96	-95
Shortfall of ECL minus expected losses	-356	-413
Insufficient coverage for non-performing exposures	-41	
CET1 capital	**11,965**	**11,293**
Hybrid capital to which transitional provision is applied		40
Additional Tier 1 capital (AT1)		**40**
Tier 1 capital (T1)	**11,965**	**11,333**
Debenture loans	1,308	1,599
Debentures to which transitional provision applies	141	
Tier 2 capital (T2)	**1,448**	**1,599**
Total capital	**13,413**	**12,933**

Risk exposure amount, € million	31 Dec 2021	31 Dec 2020
Credit and counterparty risk	**57,361**	**54,522**
Standardised Approach (SA)	**4,822**	**4,562**
Central government and central banks exposure	298	347
Credit institution exposure	5	9
Corporate exposure	3,180	3,068
Retail exposure	1,142	1,026
Equity investments	6	32
Other	190	80
Internal Ratings-based Approach (IRB)	**52,539**	**49,960**
Credit institution exposure	1,191	1,029
Corporate exposure	29,808	26,461
Retail exposure	13,320	14,295
Equity investments	7,112	7,036
Other	1,109	1,140
Market and settlement risk (Standardised Approach)	**1,380**	**1,096**
Operational risk (Standardised Approach)	**3,786**	**3,964**
Valuation adjustment (CVA)	**204**	**138**
Other risks*	**3,000**	
Total risk exposure amount	**65,731**	**59,720**

* OP Financial Group proactively increased the amount of risk-weighted assets (RWA add-on) to account for future changes in the scope of application of internal models (IRBA) and in the method for measuring insurance companies' risk weights.

Ratios, %	31 Dec 2021	31 Dec 2020
CET1 capital ratio	18.2	18.9
Tier 1 ratio	18.2	19.0
Capital adequacy ratio	20.4	21.7

Ratios, fully loaded, %	31 Dec 2021	31 Dec 2020
CET1 capital ratio	18.2	18.9
Tier 1 ratio	18.2	18.9
Capital adequacy ratio	20.2	21.6

Capital requirement, EUR million	31 Dec 2021	31 Dec 2020
Capital base	13,413	12,933
Capital requirement	9,041	8,213
Buffer for capital requirements	4,373	4,719

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% set by the ECB and the country-specific countercyclical capital buffers for foreign exposures.

Leverage ratio, EUR million	31 Dec 2021	31 Dec 2020
Tier 1 capital (T1)	11,965	11,333
Total exposure	161,415	144,799
Leverage ratio, %	7.4	7.8

The leverage ratio describes indebtedness. The minimum requirement for the leverage ratio is 3%.

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

€ million	31 Dec 2021	31 Dec 2020
OP Financial Group's equity capital	14,184	13,112
Hybrid instruments and debenture loans	1,448	1,640
Other sector-specific items excluded from capital base	-392	-331
Goodwill and intangible assets	-1,097	-1,147
Insurance business valuation differences*	794	623
Planned profit distribution and unpaid profit distribution for previous period	-96	-95
Items under IFRS deducted from capital base**	-181	-184
Shortfall of ECL minus expected losses	-330	-387
Conglomerate's total capital base	**14,331**	**13,231**
Regulatory capital requirement for credit institutions***	8,111	7,284
Regulatory capital requirement for insurance operations*	1,672	1,508
Conglomerate's total minimum capital requirement	**9,783**	**8,791**
Conglomerate's capital adequacy	**4,547**	**4,439**
Conglomerate's capital adequacy ratio (capital base/minimum of capital base) (%)	**146**	**150**

* 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%

Transitional provisions have been taken into account in figures.

Income statement

EUR million	Notes	Q1–4 2021	Q1–4 2020
Net interest income	5	1,409	1,284
Net insurance income	6	743	572
Net commissions and fees	7	1,034	931
Net investment income	8	376	184
Other operating income	9	54	132
Total income		**3,616**	**3,103**
Personnel costs	10, 86	914	715
Depreciation/amortisation	11	283	273
Other expenses	12	810	852
Total expenses		**2,007**	**1,839**
Impairments loss on receivables	13	-158	-225
OP bonuses to owner-customers	14	-205	-251
Temporary exemption (overlay approach)	15	-118	-3
Earnings before tax		**1,127**	**785**
Income tax expense	16	-224	-144
Profit for the period		**904**	**641**

* 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	900	641
Profit for the period attributable to non-controlling interest	4	0
Profit for the period	**904**	**641**

Statement of comprehensive income

EUR million	Notes	Q1–4 2021	Q1–4 2020
Profit for the period		904	641
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	34	50	-47
Change in revaluation reserve	36	15	
Items that may be reclassified to profit or loss			
Change in fair value reserve			
Measurement at fair value	36	-57	81
Cash flow hedge	36	-135	78
Temporary exemption (overlay approach)	36	118	5
Income tax			
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	28	-10	9
Change in revaluation reserve	28	-3	
Items that may be reclassified to profit or loss			
Measurement at fair value	36	11	-16
Cash flow hedge	36	27	-16
Temporary exemption (overlay approach)	36	-24	-1
Total comprehensive income for the period		897	734
Attributable to:			
Total comprehensive income for the period attributable to owners		893	734
Total comprehensive income for the period attributable to non-controlling interests		4	0
Total comprehensive income for the period		897	734

Balance sheet

EUR million	Notes	31 Dec 2021	31 Dec 2020
Cash and cash equivalents	17	32,846	21,827
Receivables from credit institutions	18	541	306
Derivative contracts	19	3,467	5,215
Receivables from customers	20	96,947	93,644
Investment assets	21	22,945	23,562
Assets covering unit-linked contracts	22	13,137	11,285
Intangible assets	24	1,212	1,311
Property, plant and equipment (PPE)	25	446	633
Other assets	27	2,419	2,236
Tax assets	28	141	188
Non-current assets held for sale	3	8	
Total assets		**174,110**	**160,207**
Liabilities to credit institutions	29	16,650	8,086
Derivative contracts	19	2,266	3,424
Liabilities to customers	30	77,898	73,422
Insurance liabilities	31	8,773	9,374
Liabilities from unit-linked insurance and investment contracts	32	13,210	11,323
Debt securities issued to the public	33	34,895	34,706
Provisions and other liabilities	34	3,134	3,431
Tax liabilities	28	1,109	1,069
Subordinated liabilities	35	1,982	2,261
Liabilities associated with non-current assets held for sale	3	8	
Total liabilities		**159,926**	**147,095**
Equity capital			
Share of OP Financial Group's owners			
Cooperative capital			
Cooperative share		215	212
Profit shares		3,244	2,962
Fair value reserve		323	382
Other reserves		2,184	2,172
Retained earnings		8,090	7,248
Non-controlling interests		**128**	**137**
Total equity capital	36	**14,184**	**13,112**
Total liabilities and equity capital		**174,110**	**160,207**

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	3,238	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 2020	3,174	382	2,172	7,248	12,975	137	13,112

	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 2021	3,174	382	2,172	7,248	12,975	137	13,112
Total comprehensive income for the period		-59	12	939	893	4	897
Profit for the period				900	900	4	904
Other comprehensive income		-59	12	40	-7		-7
Profit distribution				-94	-94	-7	-101
Change in membership and profit shares	285				285		285
Other				-3	-3	-5	-9
Balance at 31 December 2021	3,459	323	2,184	8,090	14,057	128	14,184

Cash flow statement

EUR million	Notes	Q1–4 2021	Q1–4 2020
Cash flow from operating activities			
Profit for the period		904	641
Adjustments to profit for the period	45	540	111
Increase (-) or decrease (+) in operating assets		-3,948	-2,878
Receivables from credit institutions	18	-114	-11
Derivative contracts	19	169	-35
Receivables from customers	20	-3,663	-2,287
Non-life insurance assets	22	-513	-8
Investment assets	21	430	-128
Other assets	27	-256	-410
Increase (+) or decrease (-) in operating liabilities		13,435	10,247
Liabilities to credit institutions	29	8,557	5,660
Derivative contracts	19	248	-305
Liabilities to customers	30	4,679	4,829
Insurance liabilities	31	10	0
Liabilities from unit-linked insurance and investment contracts	32	368	98
Provisions and other liabilities	34	-427	-34
Income tax paid		-135	-89
Dividends received		89	44
A. Net cash from operating activities		10,883	8,077
Cash flow from investing activities			
Acquisition of subsidiaries, net of cash acquired	23	1	
Disposal of subsidiaries, net of cash disposed	84	35	
Purchase of PPP and intangible assets	24, 25	-135	-131
Proceeds from sale of PPE and intangible assets	24, 25	11	637
B. Net cash used in investing activities		-88	506
Cash flow from financing activities			
Subordinated liabilities, change		-254	978
Debt securities issued to the public, change	33	646	68
Increases in cooperative and share capital		412	78
Decreases in cooperative and share capital		-126	-142
Dividends paid and interest on cooperative capital		-189	0
Lease liabilities		-36	-34
C. Net cash used in financing activities		451	948
Net change in cash and cash equivalents (A+B+C)		11,247	9,530
Cash and cash equivalents at period-start		22,055	12,168
Effect of foreign exchange rate changes		-173	357
Cash and cash equivalents at period-end		33,129	22,055

Notes to financial statements

Contents

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

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 (Note 84. Ownership interests in subsidiaries, structured entities and joint operations).

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 9 February 2022 and the Board of Directors approved the financial statements on 1 March 2022.

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 2021. 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 2021, OP Financial Group adopted the following standards and interpretations:

- On 1 January 2021, OP Financial Group adopted a document entitled Interest Rate Benchmark Reform (Phase 2) that will amend IFRS 9, IAS 39 and IFRS 7, IFRS 4 and IFRS 16. These amendments are a continuation of the Interest Rate Benchmark Reform document (Phase 1) adopted in 2020. The amendments to Phase 2 brought two practical reliefs, and they are applied from the date when the benchmark rate has changed. The first one applies to 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. This amendment will have no significant effect on OP Financial Group because the majority of receivables and liabilities are linked to the Euribor and the Euribor is still a reference interest rate in use. Libor-linked liabilities and receivables are only small in number. The other amendment applies to hedge accounting which is not discontinued although the reference interest rate changes during the hedging relationship but the risk to be hedged and related cash flows are redetermined when the reference rate changes. Similarly, hedging documentation will be changed in respect of the hedged risk and the hedging instrument. The resulting change in valuation is presented as part of hedge effectiveness. This change will have no significant effect on OP Financial Group because hedges are mostly linked to the Euribor.

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. In addition, defined benefit pension plans are accounted for according to IAS 19.

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 the OP Amalgamation capital adequacy tables. A summary of capital adequacy is presented in OP Financial Group's Report by the Board of Directors.

2. Critical accounting estimates and judgements

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. 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.

2.1 Expected credit losses

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 an 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 personal 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 measurement of ECL figures is performed using the ECL models without management judgement, except if it is mainly the question of a large corporate exposure in stage 2 or 3 and on the watch list, in which case the ECL is calculated using the cash flow based ECL method based on expert assessment.

Management overlays directly to the ECL figures (post-model adjustments) are intended only for temporary use until an unpredictable event caused by the overlay provision or circumstance could have been taken into account in the ECL models.

The existing ECL models do not take account of the Environmental, Social and Governance (ESG) risks as a separate component. Note 37. Loss allowance regarding receivables and notes and bonds presents calculations of loss allowance.

2.2 Fair values of financial instruments

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 (Note 41. Recurring fair value measurements by valuation technique).

2.3 Insurance contracts

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 OP Financial 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 correspond to 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 on the nature of life insurance and sensitivity analysis of insurance liabilities).

2.4 Structured entities

When estimating the control over structured entities, OP Financial 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 (Note 84. Ownership interests in subsidiaries, structured entities and joint operations).

2.5 Impairment testing

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 24. Intangible assets).

2.6 Real estate

The measurement of investment property at fair value is partially based on the management's estimates of the market value of property holdings (Note 21. Investment assets). Income probably generated in the future by property in own use is based on the management's judgement of the property's value in use (Note 25. Property, plant and equipment).

2.7 Wealth management OP bonuses

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 (Note 14. OP bonuses to owner-customers).

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 (Note 84. Ownership interests in subsidiaries, structured entities and joint operations).

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 Note 21. Investment assets).

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 owners of the technical parent company 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 for the financial year 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 (Note 8. Net investment income).

5. Summary of presentation of income statement items

Net interest income	Received and paid interest on fixed income instruments, received and paid negative interest, 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 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.

6. Revenue recognition

6.1 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 section 7.2.1 Amortised cost herein. 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 (Note 5. Net interest income).

6.2 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 personal 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 personal 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 segment 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 7. 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.

7. Financial instruments

7.1 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 (Note 41. Recurring fair value measurements by valuation technique).

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.

7.2 Financial assets and liabilities

OP Financial Group's financial assets are shown in Notes 17. Cash and cash equivalents, 18. Receivables from credit institutions, 19. Derivative contracts, 20. Receivables from customers, 21. Investment assets, 22. Assets covering unit-linked contracts and 27. Other assets. Financial liabilities are shown in Notes 29. Liabilities to credit institutions 19. Derivative contracts, 30. Liabilities to customers, 32. Liabilities from unit-linked insurance and investment contracts, 33. Debt securities issued to the public, 34. Provisions and other liabilities and 35. Subordinated liabilities.

7.2.1 Amortised cost

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

The effective interest method uses the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability to the gross carrying amount of a financial asset or to the amortised cost of a financial liability. When calculating the effective interest rate, OP Financial Group 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, OP Financial Group applies the effective interest rate to the amortised cost of the financial asset (i.e. to the net carrying amount after the deduction of the expected credit loss).

7.2.2. Initial recognition and measurement

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

7.3 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.

7.3.1 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 personal 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 nominal amount and accrued (but unpaid) contractual interest, which may include reasonable additional compensation for the early termination of the contract.

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

7.3.2 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.

7.3.3 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.

7.3.4 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.

7.3.5 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. OP Financial Group will stop applying the overlay approach at the latest when IFRS 17 Insurance Contracts becomes effective. The overlay approach is aimed at reconciling temporary earnings volatility resulting from the different dates of entry into force of IFRS 9 and IFRS 17 when investments are measured at fair value through profit or loss in accordance with IFRS 9 but the related insurance liability cannot yet be measured at fair value through profit or loss in accordance with IFRS 17.

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 (Note 15. Overlay approach).

7.4 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 (Note 37. Loss allowance regarding receivables and notes and bonds). 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.

7.4.1 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: non-performing contracts in 2021 (defaulted contracts in 2020) for which a lifetime ECL is also calculated.

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 personal 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 personal customers when a significant proportion (20%) of personal 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).

Definition of non-performing exposure

The definition of non-performing exposure includes the probation periods of non-performing forborne exposures, in addition to the exposures based on the definition of default used previously before they can be reclassified as performing. On 31 December 2021, OP Financial Group changed the non-performing exposure as the criterion for stage 3 impairment classification to replace the previous defaulted exposure. Comparatives have not been restated.

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

Significant increase in credit risk

The expected credit losses will be 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 for each contract whether the credit risk has increased significantly. Forbearance is regarded as a qualitative criterion. Other qualitative factors consist of various credit risk indicators (e.g. breach of covenants) 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 personal 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 rating 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 rating grades (E+, E, E-, 9.0, 9.5 and 10.0).

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.

7.4.2 Measurement methods

Expected credit losses are mainly measured on a system basis using the PD/LGD method on a contract-specific basis for all personal 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.

7.4.2.1 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 personal and corporate customers. The PD models are substantially affected by the contract's credit rating, loan age (personal customers) as well as the model's sub-segment, which is determined for corporate customers on the basis the rating model and for personal customers on the basis of the product type. In addition, PD estimates are dependent on macroeconomic factors and their forecasts in each scenario. Change in GDP and real interest rates are used as macroeconomic explanatory factors in the lifetime PD model for corporate exposures. In the lifetime PD model for personal customers, the macroeconomic factors have been divided by segment and a GDP change and the 12-month Euribor rate are used, for example, in home loans, where the effects of GDP and inflation have been deducted. The variables in revolving credit facilities include change in GDP and the real 3-month Euribor rate (change, for example, in GDP and the 12-month Euribor in home loans and change in the unemployment rate and the 12-month Euribor in revolving credit facilities in the comparative year). Comparatives have not been changed.

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 estimates for the non-collateral return and the cure rate for impairment stage 3 time-dependent so that they will decrease if the period of default or debt collection increases.

The macroeconomic factors and their forecasts affect the first two components.

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

Determining the period of a contract

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

Revolving credit facilities (such as credit cards) are contracts valid until further notice and an expected maturity has been modelled for them. The modelled maturity depends on the product type and rating 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 scenarios spam 2–3 years of the baseline economic scenarios. After that, the scenario converges towards an economic balance in the long term. In the long-term balance, GDP and some of other variables are calculated using production function methodology. Alternative scenarios around the baseline are defined using the autoregressive model where the paths of each variable with desired probabilities are solved from the joint probability distribution of variables. The probability distribution of the variables is based on economic shocks observed in history and on correlations between the variables. The forecast errors in OP's economic forecast are also taken into account in defining alternative scenarios. Three scenarios are used: baseline, upside and downside. The macroeconomic factors used are GDP growth rate, unemployment rate, investment growth rate, inflation rate, change in income level, 12-month Euribor rate and real 3-month Euribor. In addition, the house price index is used in LGD models.

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.

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

The target group of customers subject to the expert ECL testing method are R-rated corporate counterparties on the watch list, whose exposures have, in general, been moved to Stage 2 or 3 of ECL calculation. 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.

7.4.3 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 (seniority, covered bond status) and these are not separately assessed for each 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.

7.4.3.1 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.

7.4.4 Impairment of off-balance-sheet items

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

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

7.4.5 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.

7.4.6 Write-off

A write-off constitutes a derecognition event. When OP Financial Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof, the final credit loss is recognised to 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.

7.5 Cash and cash equivalents

Cash and cash equivalents consist of cash and receivables from credit institutions repayable on demand (Note 17. Liquid assets).

7.6 Classification and subsequent measurement of financial liabilities

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

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

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

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.

7.7 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 (Note 44. Financial assets and liabilities in the balance sheet or subject to enforceable master netting arrangement or similar agreements).

7.8 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 (Note 19. Derivative contracts).

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.

7.8.1 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.

7.8.2 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.

7.9 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 13.3.2 describes Life Insurance hedging.

The relationship between hedging and hedged instruments is formally documented. The documentation contains information on the Risk Appetite Framework, 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, the central cooperative consolidated 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.

7.9.1 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 loans with an interest rate cap and interest rate corridor or demand deposit current and savings accounts with a fixed interest rate. OP Financial 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 rate 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 interestrate 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.

7.9.2 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. The LIBOR is expected to be replaced with a new reference rate and 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 2021.

8. 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 (Note 21. Investment property).

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 (Note 41. Recurring fair value measurements by valuation technique).

9. Intangible assets

Goodwill, brands, acquired insurance portfolios, customer relationships, information systems and other intangible assets are presented in the intangible assets group on the balance sheet (Note 24. Intangible assets). Section 8.1 Impairment of PPE and intangible assets describes impairment of intangible assets.

9.1 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.

9.2 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.

Impairment loss on goodwill may not be reversed under any circumstances.

9.3 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.

9.4 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.

9.5 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 the non-life insurance business plus an asset-specific risk premium or 3%. The testing period of the brands has been determined to be five years under IAS 36.

9.6 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.

The development costs of internally generated intangible assets (software) are capitalised from the time when they can be determined reliably, completing the asset is technically feasible and the asset can be used or sold and it has been demonstrated that the software will generate future economic benefit. 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.

9.7 Cloud computing arrangements

In cloud computing arrangements, in other words Software as a Service (SaaS) or Infrastructure as a Service (IaaS), the software vendor has partial or full control over the software or service concerned, and OP Financial Group does not capitalise fees for software or services controlled by the vendor as intangible assets.

The development costs of a cloud computing arrangement, before its implementation, are recognised in prepayments under other assets. The amount capitalised in prepayments constitutes costs related to the implementation project and customisation that are performed by the service provider before the service provider is able to produce the service for OP Financial Group. Costs capitalised in prepayments are an integral part of the service and they are not separable from the service itself. Prepayment costs are spread over the contract period from the date when the service is ready for use.

10. 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 (Note 25. Property, plant and equipment).

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.

10.1 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.

In respect of property in own use, OP Financial 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.

11. 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 applies IAS 36 Impairment of assets to determine whether the right-of-use asset concerned has impaired. On every day at the end of the reporting period, OP Financial Group assesses whether there is any indication of impairment of an asset. If there is such indication, OP Financial Group will assess the asset's recoverable amount. An asset has impaired when its carrying amount exceeds its recoverable amount.

OP Financial Group's leased contracts are mainly those related to premises, company cars and safety devices (Note 26. Leases).

12. Employee benefits

12.1 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 of OP Bank Group Pension Fund 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. 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 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 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.

12.2 Short-term employee benefits

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 estimated amount under 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.

OP Financial Group has a personnel fund into which bonuses are paid on the basis of pre-agreed principles, depending on the achievement of OP Financial Group's targets. Bonuses transferred to the Fund are recognised under 'Wages and salaries' in the profit and loss account and the counterpart as 'Deferred expenses' in the balance sheet until they are disbursed to their beneficiaries (Note 10. Personnel costs).

13. Insurance assets and liabilities

Notes 31. Insurance liabilities and 32. Liabilities from unit-linked insurance and investment contracts present itemised insurance liabilities. Notes 21. Investment assets and 22. Assets covering unit-linked contracts present investments related to insurance business.

13.1 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.

13.2 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 type 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.

13.3 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. The non-life insurance 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.

13.3.1 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.

13.3.2 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.

Life insurance's interest rate risk associated with insurance liability is reduced by entering into interest rate derivative contracts and making direct fixed income investments that are recognised at fair value through profit or loss. The value of derivatives is included in the insurance liability because any benefit from the derivatives is used for the 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.

13.4 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.

13.5 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 (Note 6. Net insurance income).

13.5.1 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.

13.6 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.

13.7 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.

13.8 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.

13.9 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 on 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.

14. 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 in a note (Note 34. Provisions and contingent liabilities).

15. 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 (Note 36. Equity capital).

16. Income 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 deferred tax on the basis of the current tax rate or the tax rate approved by the balance sheet date concerning years to come.

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 (Note 16. Income tax).

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 (Note 12. Other operating expenses).

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 determines the contribution for each member bank but charges the amount directly from the former Deposit Guarantee Fund. The deposit guarantee contribution had no effect on OP Financial Group in 2020 and 2021 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 (Note 14. OP bonuses to owner-customers).

19. 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 carrying amount 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.

20. New standards and interpretations

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

20.1 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 insurance 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.

The initial application of IFRS 17 and IFRS 9 and data in the comparative year (published on 9 December 2021) will take effect on 1 January 2023. The amendment also concerns entities that have already applied IFRS 9 and adds an option to apply an optional classification overlay of financial assets and allows data to be presented in the comparative year as if the classification and measurement had been performed according to IFRS 9. This removes any accounting mismatch between insurance contract liabilities and any related financial assets on initial application of IFRS 17. The amendment has not yet been adopted by the EU.

IFRS 17 affects the measurement 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 adopted the IFRS 17 on 19 November 2021.

20.2 Other upcoming amendments to standards

Amendments to IAS 37, IFRS 16 and IFRS 3 took effect on 1 January 2022. The amendments will not have any significant effect on OP Financial Group's financial statements.

Note 2. OP Financial Group's Risk Appetite Framework

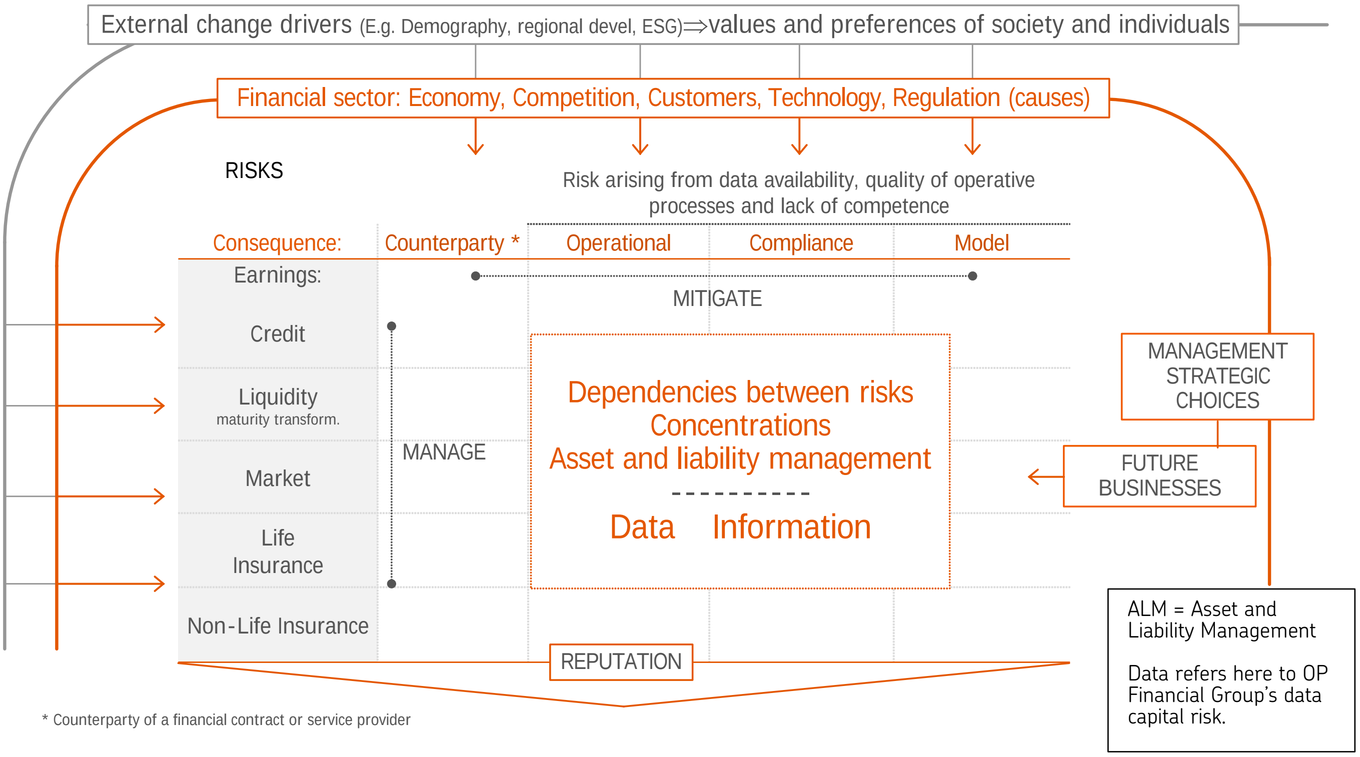
1 Overview of OP Financial Group's significant risks

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 revenue logic (by product and service). The bases for establishing revenue generation models 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 revenue logic, except for Group-level risks that apply to all revenue 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 graph 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 graph's table:

- Taking earnings risks may cause consequential risks in addition to the sources and causes of OP Financial Group's external risks.
- The combined effect of earnings and consequential risks may result in new Group-level risks, 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.



* Counterparty of a financial contract or service provider

The Banking revenue generation models contain both the Retail Banking segment and the Corporate Banking segment. The Banking revenue generation models are grouped into three revenue logics in risk management: Banking through the balance sheet, Markets and Asset Management revenue logics. Life and Non-life Insurance revenue generation models belong to the Insurance segment.

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 in advance. 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 business concerned makes business decisions and is responsible for the quality of its customer service, its business continuity as well as its earnings and risks.
- For consideration by OP Financial Group's management, 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 its 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 timing and amounts cash flows related to 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 risks also involve 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 on when an insured person's incapacity for work begins differ 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 may result from insufficient or incorrect practices, processes, systems or external factors. OP Financial Group's operational risks also include ICT and security risks. The data capital risk included in operational risks means potential losses, loss of reputation or deterioration of operations caused by uncertainty in decision-making, management and reporting related to data and the information derived from it.
Compliance risks	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
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. Concentration risk can also arise due to a concentration of service providers or processes.
Risks associated with future business	Risk associated with the conditions and volumes on which similar or entirely new agreements are based. The underlying factor behind this may lie in inadequate reaction and inflexibility for change when changes occur in the business and competitive environment or in the values of customers or in technology. The key means of managing the risks of future business lie in management decisions.

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.

Drivers of change in the business environment

The general drivers of change in the business environment, such as climate change and other sustainability factors, that is to say ESG factors (environmental, social, governance), affect the needs and preferences of customers and society. These together with, for example, technological progress and demographic changes may affect demand and supply in the financial sector, which, for its part, will govern the terms and conditions of the new agreements made by OP Financial Group. OP Financial Group reviews external drivers of change to understand the preconditions for the customer's future success. Ensuring such future success is crucial for the Group's future success.

The drivers of change in the business environment as such are not risks but they are channelled into financial risks in the banking and insurance business through various impact chains. In addition to the external drivers of change providing opportunities, they can jeopardise the conditions to operate in some industries. For example, where climate change may contribute to agriculture in Finland and its competitiveness, it may weaken profitability in some industries as a result of change in customer behaviour, lower collateral values in some areas and an increase in regulation-related costs higher than predicted. The abovementioned effects on a credit institution are directly or indirectly reflected, for example, in credit, liquidity, reputational and operational risks.

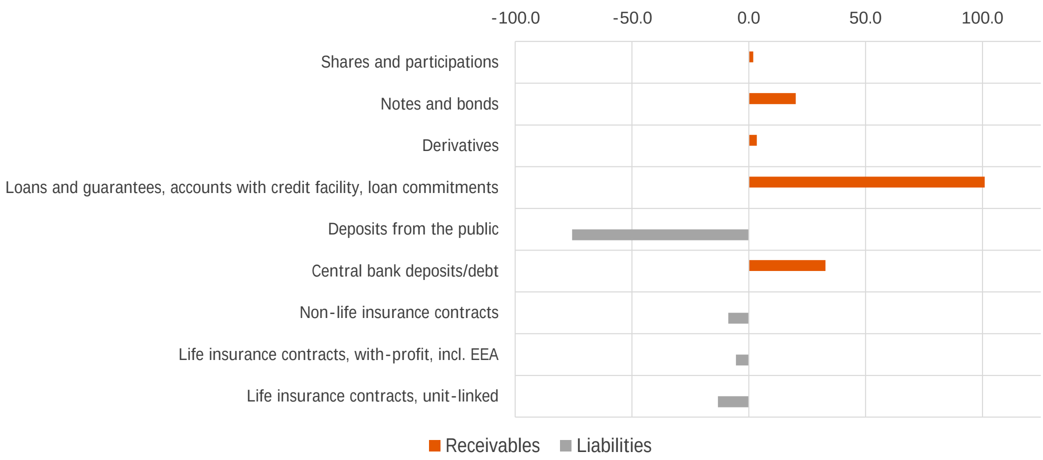
What is essential is to assess the long-term effect of change in the external business environment. The trend may lead to a change in customer behaviour, which affects demand and the product range. The long-term drivers of change in the business environment may be a threat to business continuity (e.g. the price and availability of funding). The effects of the one and the same driver of change may at the same time be very local and global trends. The effects may provide opportunities on the one hand but can limit the conditions to operate on the other hand.

At customer level, risks are managed by providing customers with advice and monitoring how customer relationship develops. Pricing is based on risks. The ESG projects and/or investments to be financed must be financially sustainable. Attending to the customers' future success ensures that the Group's business remains profitable in the long term too and that the risk buffers for operations are sufficient for capital and liquidity. By providing customers with advice, the Group seeks to generate added value that shows in the customers' better financial standing and wellbeing.

Key instruments and risk types

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 2021).

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

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. Credit risk is also managed 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 selection and the avoidance of risk concentrations. In addition, techniques are used to reduce 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 provides 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 rating 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 rating grade gives a true picture of the customer's creditworthiness risk. Each business unit ensures that its customers' rating 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 hard collateral securities used to 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 is the asset owner's financial standing, 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 such decisions must have 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 clearly increased, or whose repayment capacity is subject to another significant threat, 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 customer 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 rating 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 a 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 rating grade, the loan portfolio target status is presented 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

Rating means models, methods, processes, supervision, data collection and IT systems that support credit risk management, credit risk assessment, 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 rating system applies to all Group entities. The Board of Directors of OP Cooperative considers and approves the credit rating principles as part of the Risk Appetite Framework document.

OP Financial Group uses an internal 16-level scale of A–F to assess the probability of default for its personal customer agreements, with F representing borrowers in default. The Group assesses monthly all personal 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 rating 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.

The probability of default of **corporate customers** is assessed using the 20-level credit rating system on a scale of 1.0–12.0, with 11–12 rating 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 rating 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. The rating Alfa risk scores and OP Financial Group's internal payment behaviour data resulting in default are used to generate OP Financial Group's rating 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 rating grade of A rated customers and they must assess customers with a low rating grade and those on the watch list on a half-yearly basis. Responsibility for the assessment rests with the bank in charge. The rating 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.

OP Financial Group uses a 20-level credit rating system on a scale of 1.0–12.0, with 11–12 rating grades representing customers in default, to assess the probability of default of **credit institution counterparties.**

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 for companies. 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. Credit institution ratings are decided on 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.

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 and business representatives perform 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 MB'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

OP Financial 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 maturing items on the balance sheet, wherein agreements are not renewed but ended at maturity. Based on a financial perspective, OP Financial Group measures the sufficiency of the liquidity buffer based on stress testing.

OP Financial Group measures funding concentration risk by calculating the amount of bond funding with a maturity of 12 months and rolling 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. Implementation of the plan is monitored regularly and the plan is updated, where needed, during the year. 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 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. Foreign currencies account for only a small proportion of the balance sheet and the liquidity risk due to currency availability has been minimised by the operating model.

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, the liquidity buffer consists of deposits in the Bank of Finland and unencumbered notes and bonds eligible as collateral for central bank refinancing held by OP Corporate Bank. It also includes other notes and bonds marketable on the secondary market and unencumbered corporate loans eligible as collateral for central bank refinancing.

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).

The Group's Treasury is responsible for preparing the investment plan at least once a year. The bond investments in the liquidity buffer held by the Treasury are included in it. OP Corporate Bank's Board of Directors approves the plan. 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. Group Treasury monitors collateral on a centralised basis, 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

OP Financial 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 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 management 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 Financial Group's liquidity and wholesale funding plan and authorisations to raise capital on the financial markets are subject to approval by the Boards of Directors of OP Corporate Bank and OP Mortgage Bank. 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 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/deposits, or by using another practice.

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

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 which emerges due to the nature of a business. The interest rate risk in the banking book is hedged using products offered by Group Treasury. Each member bank must demonstrate adequate knowledge of using derivatives for hedging purposes.

Interest rate risk in the banking book is limited to a level that avoids taking too great a short-term or long-term interest rate risk in relation to each member bank's risk-bearing capacity.

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:

- 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 interest rate risk management 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.
- Stress tests on the interest rate risk are carried out on a regular basis.

- Few fixed-rate loans have been issued at the moment. Because receivables are chiefly based on floating reference interest rates, the bank's earnings do not markedly depend on the difference between long and short-term rates. However, some of the bank's earnings could be based more extensively on the difference between long and short-term interest rates, while remaining within the current interest rate limits.

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.

Using the risk assessment procedure applied to OP Financial Group's new products, services, operating 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. The removal of zero floors would require a legislative amendment defining 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 subordinate loans. Share capital, cooperative capital and retained earnings are all 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 Banking risk policy.

Management of other market risks in Banking through the balance sheet

Other market risks associated with revenue 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. Because these securities most often have fixed interest rates, their value varies depending on movements in market rates and credit spreads. A 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 have therefore 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 covering credit spread and liquidity risk. Derivatives are used to hedge interest rate risk. Derivative transactions can be executed within OP Corporate Bank, whereupon the interest rate risk is transferred for management by the Group Treasury.
- 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. Short-term investments in local authority papers can be made in addition to the investments described in the investment plan.
- OP Corporate Bank 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.

OP Corporate Bank 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 Financial Group 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 prices 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.

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, volatility risk of options, credit spread risk and counterparty risk. Repurchases of structured investment products also generate a degree of equity 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. This is important in order to understand the risks of rare market movements and those with 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, OP Corporate Bank 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 interest-rate hedges 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, costs and environmental and social impacts 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 set for risks within the risk type, 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 revenue generation models to the Risk Committee of the Board of Directors and the senior management.

2.3 Risks of insurance operations

Life insurance risks

Biometric risks associated with life insurance products occur when death or disability causes higher claim payouts 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.

OP Financial 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.

OP Financial 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 central cooperative consolidated manages expense risks through adequate cost control and prudent pricing. OP Financial 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.

OP Financial 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 rating 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.

OP Financial Group limits the economic capital requirement tied up in underwriting risks relative to its 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.

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.

OP Financial 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.

OP Financial 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 insurance risk premium 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.

Insurance periods within non-life insurance are one year or less, and changes in the underwriting risk level can usually be passed quickly onto insurance premiums. 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 disasters 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 rating 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.

OP Financial Group limits the economic capital requirement tied up in underwriting risks relative 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.

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 customer 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. A decrease in interest rates and the 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 account of factors such as the structural interest rate risk arising from the cash flow structure of insurance liabilities, and the other requirements that insurance liabilities impose on investment assets and their liquidity. Application of the principle of equity in life insurance 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. Insurance companies' risk concentrations 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 market and concentration risks as specified in the investment plans approved by the company's Board of Directors in line with the risk policies for each revenue logic. Asset class limits are set for liquid and illiquid investments. Separate investment plans are 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 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 rating grades and counterparties in accordance with the reinsurance principles confirmed by the Board of Directors and in the investment plans.

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

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

Note 3. Changes in accounting policies and presentation

1. Effective interest rate of TLTRO III loans

The effective interest rate has been calculated on TLTRO loans based on management judgement related to the fulfilment of net lending criteria for upcoming review periods. If changes occur later in this management judgement, they will be treated as changes in the loan's carrying amount. The gross carrying amount of the loan is recalculated in such a way that it corresponds to the present value of the reassessed cash flows that is discounted at the loan's original effective interest rate. The resulting adjustment is recognised through profit or loss.

In 2021, the conditional additional margin of –0.5% exceeding the ECB's deposit facility rate under TLTRO III funding increased net interest income by EUR 103 million (18). The future cash flows of TLTRO III funding were changed in the cash flow measurement as a result of the fulfilment of the criteria for net lending performance that were the condition for the additional margin. In this change, the conditional additional margin for the current interest period was added to cash flows and the repayment periods of the funding were updated. The gross carrying amount of TLTRO funding was determined under IFRS 9 to correspond to the present value of the reassessed cash flows by discounting them by the original effective interest rates for tranches of finance. The resulting adjustment was recognised through profit or loss under IFRS 9.

Note 3. Net interest income presents the revenue recognition of the conditional additional margin exceeding the ECB's deposit facility rate under TILTRO III funding. In the segment report, the revenue recognition of the additional margin is presented in net interest income of the Other Operations segment, from where it was allocated to other operating income of the Retail Banking and Corporate Banking segments through other operating expenses of the Other Operations segment.

2. Effect of Interest Rate Benchmark Reform on accounting policies

On 1 January 2021, OP Financial Group adopted a document entitled Interest Rate Benchmark Reform (Phase 2) that will amend IFRS 9, IAS 39 and IFRS 7, IFRS 4 and IFRS 16. These amendments are a continuation of the Interest Rate Benchmark Reform document (Phase 1) adopted in 2020.

The amendments to Phase 2 bring two practical reliefs and they are applied from the date when the benchmark rate has changed. The first one applies to 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. This amendment will have no significant effect on OP Financial Group because the majority of receivables and liabilities are linked to the Euribor and the Euribor is still a reference interest rate in use. Libor-linked liabilities and receivables are only small in number. The other amendment applies to hedge accounting which is not discontinued although the reference interest rate changes during the hedging relationship but the risk to be hedged and related cash flows are redetermined when the reference rate changes. Similarly, hedging documentation will be changed in respect of the hedged risk and the hedging instrument. The resulting change in valuation is presented as part of hedge effectiveness. This change will have no significant effect on OP Financial Group because hedges are mostly linked to the Euribor.

3. Classification of Pohjola Hospital as a non-current asset held for sale

Based on decisions made, OP Financial Group classified Pohjola Hospital as a non-current asset held for sale in the second quarter. Pohjola Hospital is a hospital chain that specialises in orthopaedic care, i.e. treatment for musculoskeletal conditions and injuries, in five Finnish cities with university hospitals: Helsinki, Tampere, Turku, Oulu and Kuopio. The company had 266 employees, on average, in 2020. Pohjola Hospital was in its entirety presented in the Insurance segment's balance sheet of 31 December 2021.

Itemised non-current assets held for sale:

Assets, € million	31 Dec 2021
Property, plant and equipment	0
Intangible assets	1
Other assets	8
Total assets (A)	8
Liabilities, € million	31 Dec 2021
Provisions and other liabilities	8
Total liabilities (B)	8
Balance sheet net worth (A–B)	1

Pohjola Insurance Ltd has sold all shares of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy, part of Pihlajalinna Group. The corporate transaction was published on 2 July 2021. The net debt free transaction price was EUR 31.8 million. The Finnish Competition and Consumer Authority approved the corporate transaction on 14 January 2022. Pohjola Hospital became part of Pihlajalinna on 1 February 2022. More detailed information on the sale is available under the events after the financial year.

4. Accounting for configuration or customisation costs in a cloud computing arrangement

In April 2021, the IFRS Interpretations Committee issued a final agenda decision on accounting for configuration or customisation costs in a cloud computing arrangement. In its agenda decision, the Committee considered whether an intangible asset, applying IAS 38, is recognised for the configuration or customisation of the application and if no intangible asset is recognised, how such configuration or customisation costs is recognised. During autumn 2021, OP Financial Group analysed the effect of the agenda decision on the accounting policies applied to the costs of implementing a cloud computing solution. Based on the analysis, there was no need to make adjustments to the figures previously reported by OP Financial Group. OP Financial Group updated its accounting policies regarding the cloud computing arrangements as described below.

Cloud computing arrangements

In cloud computing arrangements, in other words Software as a Service (SaaS) or Infrastructure as a Service (IaaS), the software vendor has partial or full control over the software or service concerned, and OP Financial Group does not capitalise fees for software or services controlled by the vendor as intangible assets.

The development costs of a cloud computing arrangement, before its implementation, are recognised in prepayments under other assets. The amount capitalised in prepayments constitutes costs related to the implementation project and customisation that are performed by the service provider before the service provider is able to produce the service for OP Financial Group. Costs capitalised in prepayments are an integral part of the service and they are not separable from the service itself. Prepayment costs are spread over the contract period from the date when the service is ready for use.

Note 4. 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 Retail Customers plc, OP Mortgage Bank and Pivo Wallet Oy. 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 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 consists of OP Financial Group’s non-life insurance company Pohjola Insurance Ltd and life insurance company OP Life Assurance Company Ltd. The segment’s products include non-life and life insurance products sold to corporate and personal 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.

The Other Operations segment consists of functions that support other segments. The segment includes the majority of OP Cooperative 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 2021, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group eliminations	OP Financial Group
Net interest income	959	414	-2	10	29	1,409
of which internal net income before tax		-9		9		
Net insurance income			754		-11	743
Net commissions and fees	753	204	96	-2	-18	1,034
Net investment income	-16	171	288	-5	-62	376
Other operating income	78	97	0	684	-804	54
Total income	**1,773**	**886**	**1,135**	**687**	**-866**	**3,616**
Personnel costs	447	93	160	216	-1	914
Depreciation/amortisation	69	14	66	137	-2	283
Other operating expenses	705	211	267	444	-819	810
Total expenses	**1,221**	**318**	**493**	**797**	**-822**	**2,007**
Impairments loss on receivables	-84	-74	0	0	0	-158
OP bonuses to owner-customers	-165	-20	-21		0	-205
Temporary exemption (overlay approach)			-117	0	-1	-118
Earnings before tax	**304**	**474**	**504**	**-109**	**-46**	**1,127**

Net income of OP Corporate Bank's Baltic branches totalled EUR 29 million.

Q1-4 earnings 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group 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 of OP Corporate Bank's Baltic branches totalled EUR 29 million.

Balance sheet at 31 December 2021, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group eliminations	OP Financial Group
Cash and cash equivalents	57	183	0	32,606		32,846
Receivables from credit institutions	26,228	138	1,908	13,950	-41,683	541
Derivative contracts	324	3,441	85	271	-653	3,467
Receivables from customers	70,952	25,666	0	580	-251	96,947
Investment assets	624	492	9,472	21,714	-9,356	22,945
Assets covering unit-linked contracts			13,137			13,137
Intangible assets	27	189	768	234	-5	1,212
Property, plant and equipment (PPE)	299	4	13	137	-7	446
Other assets	397	567	988	827	-360	2,419
Tax assets	48	0	26	19	49	141
Non-current assets held for sale			8			8
Total assets	**98,957**	**30,679**	**26,405**	**70,337**	**-52,267**	**174,110**
Liabilities to credit institutions	12,196	111	68	43,439	-39,163	16,650
Derivative contracts	285	2,553	27	117	-715	2,266
Liabilities to customers	62,222	15,448		2,801	-2,573	77,898
Insurance liabilities			8,773			8,773
Liabilities from unit-linked insurance and investments contracts			13,210			13,210
Debt securities issued to the public	16,420	1,406		21,355	-4,286	34,895
Provisions and other liabilities	707	776	430	1,454	-232	3,134
Tax liabilities	471	11	226	399	1	1,109
Subordinated liabilities			380	1,994	-392	1,982
Liabilities associated with non-current assets held for sale			8			8
Total liabilities	**92,301**	**20,304**	**23,123**	**71,559**	**-47,360**	**159,926**
Equity						**14,184**

Net assets of OP Corporate Bank's Baltic branches totalled EUR 1,677 million.

Balance sheet at 31 December 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group 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 contracts			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**

Net assets of OP Corporate Bank's Baltic branches totalled EUR 1,502 million.

Notes to the income statement

Note 5. Net interest income

EUR million	2021	2020
Interest income		
Receivables from credit institutions	0	1
Receivables from customers		
Loans	1,238	1,254
Finance lease receivables	31	30
Impaired loans and other commitments		0
Total	1,269	1,285
Notes and bonds		
Measured at fair value through profit or loss	0	1
At fair value through other comprehensive income	52	62
Amortised cost	0	3
Total	52	66
Derivative contracts		
Fair value hedge	-144	-128
Cash flow hedge	49	49
Ineffective portion of cash flow hedge	-4	-3
Total	-99	-83
Liabilities to credit institutions		
Negative interest	172	43
Liabilities to customers		
Negative interest	35	22
Other	12	10
Total	**1,441**	**1,344**
Interest expenses		
Liabilities to credit institutions	-1	3
Liabilities to customers	12	55
Notes and bonds issued to the public	136	226
Subordinated liabilities		
Subordinated loans	0	0
Other	58	53
Total	58	53
Derivative contracts		
Cash flow hedge	-262	-267
Other	-35	-87
Total	-296	-354
Receivables from credit institutions		
Negative interest	120	68
Other	5	6
Total	**34**	**58**
Net interest income before fair value adjustment under hedge accounting	**1,408**	**1,286**
Hedging derivatives	-154	96
Value changes of hedged items	156	-99
Total	**1,409**	**1,284**

Interest income calculated using the effective interest method totalled EUR 1,472 (1,351) million.

The conditional additional margin of –0.5% exceeding the ECB's deposit facility rate under TLTRO III funding increased net interest income by EUR 103 million (18). The future cash flows of TLTRO III funding were changed in the cash flow measurement as a result of the fulfilment of the criteria for net lending performance that were the condition for the additional margin. In this change, the conditional additional margin for the current interest period was added to cash flows and the repayment periods of the funding were updated. The gross carrying amount of TLTRO funding was determined under IFRS 9 to correspond to the present value of the reassessed cash flows by discounting them by the original effective interest rates for tranches of finance. The resulting adjustment was recognised through profit or loss under IFRS 9.

Note 6. Net insurance income

EUR million	2021	2020
Net insurance premium revenue		
Premiums written	1,543	1,499
Insurance premiums ceded to reinsurers	14	7
Change in provision for unearned premiums	-13	-8
Reinsurers' share	0	-1
Total	1,545	1,497
Net Non-life Insurance claims		
Claims paid	-892	-954
Insurance claims recovered from reinsurers	47	27
Change in provision for unpaid claims*	-5	-24
Reinsurers' share	17	8
Total	-834	-943
Other Non-life Insurance items	-1	-7
Life Insurance risk premiums collected	34	26
Total	743	572

* The item includes EUR –42 million (45) as a result of changes in reserving bases of insurance liability.

Note 7. Net commissions and fees

Q1–4 2021, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group eliminations	OP Financial Group
Commission income						
Lending	96	51		0	-1	146
Deposits	21	3		0	0	24
Payment transfers	282	39		12	-12	321
Securities brokerage	11	28			-10	28
Securities issuance	0	6			0	6
Fund fees	47	253	95	0	-115	279
Asset management	30	40		1	-25	45
Legal services	25	0			0	25
Guarantees	11	13		0	0	24
Housing service	78				0	78
Insurance brokerage	106		24		-76	53
Life insurance total expense loadings			104			104
Health and wellbeing services			14		0	14
Other	84	2		1	-81	7
Total	790	436	237	13	-321	1,155
Commission expenses						
Lending	0	1		0	-1	0
Payment transfers	27	5	1	3	-10	25
Securities brokerage		4	0	0	0	4
Securities issuance	0	2		1	-2	1
Mutual funds		116	0		-115	1
Asset management		10	0	4	0	14
Guarantees		0				0
Insurance brokerage	-6		134		-76	53
Health and wellbeing services			5		0	5
Other	16	93	0	8	-98	20
Total	37	231	141	15	-303	121
Total net commissions and fees	753	204	96	-2	-18	1,034

Q1–4 2020, EUR million	Retail Banking	Corporate Banking	Insurance	Other operations	Group eliminations	OP Financial Group
Commission income						
Lending	92	47		5	-1	144
Deposits	1	3		0	0	3
Payment transfers	273	36		14	-13	310
Securities brokerage	9	27			-8	27
Securities issuance	0	11		0	0	11
Fund fees	38	211	82	0	-99	233
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
Health and wellbeing services			13		0	12
Other	85	7		1	-86	6
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

Note 8. Net investment income

EUR million	2021	2020
Net income from assets at fair value through other comprehensive income		
Notes and bonds		
Interest income	37	50
Other income and expenses	-3	-14
Capital gains and losses	14	22
Currency fair value gains and losses	18	-26
Impairment losses and their reversal*	2	5
Total	67	37

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

Net income recognised at fair value through profit or loss	2021	2020
Financial assets held for trading		
Notes and bonds		
Interest income and expenses	3	5
Fair value gains and losses	-5	4
Total	-2	8
Shares and participations		
Fair value gains and losses	1	0
Dividend income and share of profits	4	12
Total	5	12
Derivatives		
Interest income and expenses	35	118
Fair value gains and losses	-130	242
Total	-95	360
Total	-92	380
Financial assets that must measured at fair value through profit or loss		
Notes and bonds		
Interest income	18	23
Fair value gains and losses	-55	7
Total	-38	29
Shares and participations		
Fair value gains and losses	219	-22
Dividend income and share of profits	71	30
Total	290	8
Total	252	37
Financial assets designated as at fair value through profit or loss		
Notes and bonds		
Interest income	37	31
Fair value gains and losses	-57	29
Total	-20	61
Shares and participations		
Fair value gains and losses	-4	-26
Dividend income and share of profits	7	11
Total	3	-15
Derivatives		
Fair value gains and losses	-15	-25
Total	-15	-25
Total	-32	21
Total net income from financial assets recognised at fair value through profit or loss	129	438

Net income from investment property		
Rental income	51	54
Fair value gains and losses	31	-35
Maintenance charges and expenses	-37	-51
Other	1	1
Net income from investment property total	45	-30

Net income from loans and receivables measured at amortised cost

Loans and receivables		
Interest income	8	8
Interest expenses	-8	-4
Capital gains and losses		0
Impairment losses and their reversal	3	1
Loans and receivables total	3	4

Non-life Insurance		
Unwinding of discount, Non-life Insurance	-17	-21

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% (0.85).

Life Insurance		
Interest credited on customers' insurance savings	-79	-82
Change in supplementary interest rate provisions	135	-65
Other technical items**	66	-116
Total	122	-263

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

Associates and joint ventures		
Accounted for using the fair value method	18	4
Consolidated using the equity method	10	15
Total	27	18
Total net investment income	376	184

Note 9. Other operating income

EUR million	2021	2020
Rental income from property in own use	9	10
Capital gains on property in own use	3	5
Leasing agreements	1	1
ICT income	1	0
Debt collection	2	1
Other*	39	114
Total	54	131

* The sale of Checkout Finland Ltd to Paytrail Oyj on 30 April 2021 increased other operating income. A year ago, the sale of the Vallila property increased capital gains. 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 10. Personnel costs

EUR million	2021	2020
Wages and salaries	653	616
Variable remuneration	105	54
Pension costs*		
Defined contribution plans	113	90
Defined benefit plans**	8	-76
Other personnel related costs	36	30
Total	914	715

* The transfer of the remaining statutory earnings-related pension liability to Ilmarinen Mutual Pension Insurance Company at the end of 2020 reduced pension costs a year ago 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 2021 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 net growth in customers using OP as their main bank and insurer with a weight of 50%. Profit-based bonuses for 2021 transferred to the Fund account for some 3% (2.5) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2021

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 schemes 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 schemes amounted to EUR 0.8 million (1.3) on 31 December 2021.

Performance-based bonus scheme

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 2021

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, among other things, are highlighted in the metrics.

Performance metrics of the performance-based bonus scheme in 2021

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

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, among other things, are highlighted in the metrics.

Conditions for payment of variable remuneration in 2021

Bonuses will be paid to their beneficiaries provided that OP Financial Group's CET1 ratio exceeds the CET1 ratio on the payout date which, if exceeded, no restrictions on profit distribution occur +2% and the LCR exceeds 110% in the financial statements preceding the year of the bonus payout date. Another condition is that the person is in the employ of OP Financial Group until the payout date and an OP Financial Group company or the customer business shows profit.

Bonuses earned based on the balanced scorecard will be reduced before bonus payout if binding internal guidelines within the Group or task or regulatory requirements have been ignored and risk management elements have been materialised. If an offence or negligence becomes apparent only after the bonus payout, bonus reduction or clawback can also be applied retrospectively.

Expenses for the scheme are recognised from the beginning of the performance period up to the date of payout (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses.

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 companies belonging to the Group can select the scheme metrics and set related targets.

Deferment of variable remuneration

The Act on Credit Institutions (233/2021) and the Act on Investment Services (213/2012) prescribe 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.

If the bonus of a member of identified staff for the performance year exceeds €50,000 or accounts for at least a third of the combined annual bonuses, 60% of the bonus will be paid during the year following the performance year. The remaining part 40% of the bonus will be paid in four (five) equal instalments over the course of four years (five years for members of the Executive Management Team) in such a way that the time between the payments is at least one year. 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 value of 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	2021	2020
Personnel fund	19	9
Performance-based bonuses	86	45
Long-term schemes:		
Scheme for 2014–16		2
Scheme for 2017–20	1	0
Total	**105**	**55**

* Excl. social expenses.

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

Note 11. Depreciation/amortisation and impairment loss

EUR million	2021	2020
Depreciation and amortisation		
Buildings	17	20
Machinery and equipment	10	11
Intangible assets related to business combinations	10	11
Information systems and other	192	184
Right-of-use assets	31	30
Leased out assets	-1	0
Other	1	3
Total	260	260
Impairment loss		
Property in own use	17	10
Information systems	0	2
Right-of-use assets	4	
Other	1	
Total	22	13
Total	283	273

Note 12. Other operating expenses

EUR million	2021	2020
ICT costs		
Production	231	268
Development	133	127
Buildings	53	48
Government charges and audit fees*	69	58
Purchased services	115	130
Data communications	32	36
Marketing	31	30
Corporate social responsibility	9	10
Insurance and security costs	10	9
Other	125	136
Total	810	852

* In 2021, audit fees paid to auditors totalled EUR 3.0 million (3.2), whereas assignments as referred to in chapter 1, section 1, subsection 1, paragraph 2 of the Auditing Act totalled 0.2 million (0.2), fees for tax advisory services EUR 0.3 million (0.1) and fees for other services EUR 1.0 million (0.5). Non-audit services provided by KPMG Oy Ab to OP Financial Group companies totalled EUR 1.3 million (0.5) (excl. VAT). The corresponding figures for 2020 are shown in brackets.

OP Financial Group's stability contribution calculated for 2021 amounted to EUR 53.0 million (41.3).

The deposit guarantee contribution of EUR 33.5 million (28.8) calculated for OP Financial Group for 2021 has been fully covered by payments accounted for from the old Deposit Guarantee Fund.

Development costs

€ million	2021	2020
ICT development costs	133	127
Share of own work	62	56
Total development costs in the income statement	**195**	**183**
Capitalised ICT costs	84	84
Capitalised share of own work	15	14
Total capitalised development costs	99	97
Total development costs	294	282
Depreciation/amortisation and impairment loss	177	184

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 13. Impairment losses on receivables

EUR million	2021	2020
Receivables written down as loan and guarantee losses	126	117
Recoveries of receivables written down	-13	-10
Expected credit losses** (ECL) on receivables from customers and off-balance-sheet items	46	119
Expected credit losses** (ECL) on notes and bonds*	0	-1
Total	158	225

* The expected credit losses on notes and bonds in insurance operations are presented in net investment income.

** Loss allowance is itemised in Note 37. Loss allowance regarding receivables and notes and bonds.

Note 14. OP bonuses to owner-customers

EUR million	2021	2020
New OP bonuses accrued to owner-customers	210	255
Unused, expired OP bonuses	-5	-5
Total	205	251

Liite 15. Temporary exemption (overlay approach)

EUR million	2021	2020
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	221	-22
Total (A)	221	-22
Net investment income within the scope of the overlay approach measured according to IFRS 39		
Shares and participations		
Capital gains and losses	115	36
Impairment losses and their reversals	-13	-61
Total (B)	103	-25
Effect of the overlay approach on the income statement (-A+B)	-118	-3
Effect of the overlay approach on the statement of comprehensive income - (-A+B)	118	3

Section 7.3.5 of the accounting policies deals with the overlay approach.

Note 16. Income tax

EUR million	2021	2020
Current tax	213	113
Tax for previous financial years	-3	0
Deferred tax	13	30
Income tax expense	224	144
Corporate income tax rate	20.0	20.0
Reconciliation between tax expense in the income statement and tax expense		
Earnings before tax	1,127	785
Tax calculated at a tax rate of 20%	225	157
Tax for previous financial years	-3	0
Tax-exempt income	-7	-2
Non-deductible expenses and income portions of limited partnerships	6	4
Re-evaluation of unrecognised tax losses	-3	-27
Tax adjustments	5	0
Effect of capital gain on intra-Group transaction		1
Other items	0	12
Income tax expense	224	144

Notes to assets

Note 17. Liquid assets

EUR million	31 Dec 2021	31 Dec 2020
Cash	181	218
Deposits with central banks repayable on demand		
OP Corporate Bank plc's minimum reserve deposit	863	818
Cheque account*	32,665	21,609
Total liquid assets	**32,846**	**21,827**

* The cheque account includes EUR –11 (–31) 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 18. Receivables from credit institutions

EUR million	31 Dec 2021	31 Dec 2020
Receivables from credit institutions		
Deposits		
Repayable on demand	283	229
Other	70	1
Total	353	230
Loans and receivables		
Repayable on demand	0	0
Other	189	77
Total	189	77
Total	542	306
Loss allowance*	-1	0
Total receivables from credit institutions	**541**	**306**

* Loss allowance is itemised in Note 37. Loss allowance regarding receivables and notes and bonds.

Note 19. Derivative contracts

Assets

EUR million	31 Dec 2021	31 Dec 2020
Held for trading		
Interest rate derivatives	2,262	3,837
Currency derivatives	401	454
Equity and index derivatives	0	0
Credit derivatives	0	
Commodity derivatives	7	4
Total	2,672	4,295
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	556	759
Currency derivatives	239	164
Interest rate derivatives		-2
Total	796	920
Total derivative contracts	**3,467**	**5,215**

* The balance sheet item includes positive changes in fair value of derivative contracts as well as premiums paid.

Liabilities

EUR million	31 Dec 2021	31 Dec 2020
Held for trading		
Interest rate derivatives	1,492	2,509
Currency derivatives	412	437
Credit derivatives	0	0
Other	29	8
Total	1,933	2,953
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	333	405
Currency derivatives	1	65
Interest rate derivatives	0	0
Total	333	470
Total derivative contracts	**2,266**	**3,424**

* The balance sheet item includes negative changes in value of derivative contracts as well as premiums received.

Derivatives held for trading 31 December 2021

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	6,958	21,900	45,220	74,078	1,611	826
Cleared by the central counterparty	4,675	14,536	26,779	45,990	6	8
Settled-to-market (STM)	4,434	14,316	26,611	45,361	6	8
Collateralised-to-market (CTM)	241	219	168	629	0	0
OTC interest rate options						
Call and caps						
Purchased	2,901	4,139	964	8,005	154	8
Written	2,281	4,819	2,950	10,051	58	224
Put and floors						
Purchased	852	4,699	3,609	9,160	199	49
Written	1,235	7,456	1,412	10,104	39	137
Total OTC interest rate derivatives	14,228	43,014	54,156	111,397	2,061	1,244
Interest rate futures	517	950		1,467	0	0
Total exchange traded derivatives	517	950		1,467	0	0
Total interest rate derivatives	14,745	43,964	54,156	112,864	2,061	1,244
Currency derivatives						
Forward exchange agreements	38,834	1,354	3	40,191	389	400
Interest rate and currency swaps	568	2,937	403	3,908	151	182
Currency options						
Call						
Purchased	111			111	1	0
Written	138			138	0	2
Put						
Purchased	132			132	1	0
Written	101			101	0	1
Total OTC currency derivatives	39,885	4,291	406	44,582	543	585
Total currency derivatives	39,885	4,291	406	44,582	543	585
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	34	783	110	926	2	35
Total credit derivatives	34	783	110	926	2	35
Other						
Other forward contracts	36	44		81	3	24
Other swaps	196	500	28	724	101	19
Other options						
Put						
Purchased		600		600	0	
Written		600		600		0
Total other OTC derivatives	233	1,744	28	2,005	104	43
Other futures contracts	28			28	0	0
Total other derivatives	260	1,744	28	2,032	104	43
Total derivatives held for trading	**54,925**	**50,782**	**54,700**	**160,406**	**2,710**	**1,908**

Derivatives held for trading 31 December 2020

EUR million	Nominal values/residual maturity <1 year	1–5 years	>5 years	Total	Fair values* 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**

Derivative contracts for hedging purposes - fair value hedging 31 December 2021

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	5,591	22,216	22,646	50,454	31	9
Cleared by the central counterparty	5,511	22,216	22,498	50,226	5	4
Settled-to-market (STM)	1,581	9,243	8,226	19,051	2	1
Collateralised-to-market (CTM)	3,930	12,973	14,272	31,175	2	3
OTC interest rate options						
Call and caps						
Purchased	690	5,855	6,790	13,335	356	164
Put and floors						
Written		1,358	313	1,671	4	28
Total OTC interest rate derivatives	6,281	29,430	29,749	65,460	391	201
Total interest rate derivatives	6,281	29,430	29,749	65,460	391	201
Currency derivatives						
Forward exchange agreements	17			17	18	0
Interest rate and currency swaps	730	1,217	351	2,297	63	83
Total OTC currency derivatives	746	1,217	351	2,314	81	84
Total currency derivatives	746	1,217	351	2,314	81	84
Total derivative contracts, fair value hedge	**7,028**	**30,646**	**30,100**	**67,774**	**473**	**285**

Derivative contracts for hedging purposes – cash flow hedge 31 December 2021

	Nominal values/residual term to maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	151	1,593	2,604	4,347	1	1
Cleared by the central counterparty	141	1,543	2,589	4,272	0	1
Settled-to-market (STM)	141	1,043	2,474	3,657	0	1
Collateralised-to-market (CTM)		500	114	614	0	0
Total OTC interest rate derivatives	151	1,593	2,604	4,347	1	1
Total interest rate derivatives	151	1,593	2,604	4,347	1	1
Currency derivatives						
Forward exchange agreements	3,978			3,978	158	0
Total OTC currency derivatives	3,978			3,978	158	0
Total currency derivatives	3,978			3,978	158	0
Total derivative contracts, cash flow hedge	**4,129**	**1,593**	**2,604**	**8,325**	**159**	**1**
Total derivative contracts held for hedging	**11,156**	**32,240**	**32,704**	**76,099**	**632**	**287**

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	Total	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

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	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**

Total derivatives 31 December 2021

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives	21,176	74,987	86,509	182,671	2,453	1,447
Cleared by the central counterparty	10,327	38,295	51,866	100,487	11	13
Settled-to-market (STM)	6,155	24,603	37,311	68,069	9	11
Collateralised-to-market (CTM)	4,171	13,692	14,554	32,418	2	3
Currency derivatives	44,610	5,508	757	50,874	782	669
Equity and index-linked derivatives	2			2	0	
Credit derivatives	34	783	110	926	2	35
Other derivatives	260	1,744	28	2,032	104	43
Total derivatives	**66,081**	**83,021**	**87,403**	**236,506**	**3,342**	**2,195**

Total derivatives 31 December 2020

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	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**

* 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 2021

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	1.103	0.297	0.205	0.341
OTC interest rate derivatives	3.362		3.040	3.169
Total interest rate derivatives	1.144	0.297	0.223	0.354

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 prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2021

	<1 year	1–5 years	>5 years	Total
Forward exchange agreements: EUR:USD	1.1327			

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 December 2021

	<1 year	1–5 years	>5 years	Total
AUD			2.440	2.440
GBP	2.500	1.326	0.880	1.569
HKD		2.959		2.959
JPY			1.300	1.300
NOK			3.800	3.800
USD	1.943	1.954	3.611	2.783

Average interest rates of interest rate swaps and currency swaps in hedge accounting related to significant currencies 31 December 2020

	<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 interest rates of interest rate derivative contracts in hedge accounting – cash flow hedge 31 December 2021

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
OTC interest rate derivatives	1.048	0.750	0.881	0.854
Total interest rate derivatives	1.048	0.750	0.881	0.854

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 2021

	<1 year	1–5 years	>5 years	Total
Currency derivatives				
Forward exchange agreements				
Average EUR:CHF	1.0769			1.0769
Average EUR:GBP	0.8934			0.8934
Average EUR:SGD	1.6250			1.6250
Average EUR:USD	1.1998			1.1998

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

Effects of hedge accounting on financial position and result

	Interest rate risk hedge	
EUR million	31 Dec 2021	31 Dec 2020
Fair value hedges		
Carrying amount of hedged receivables*	32,235	29,636
- of which the accrued amount of hedge adjustments	94	667
Carrying amount of hedged liabilities**	26,440	31,253
- of which the accrued amount of hedge adjustments	264	1,030
Remaining hedge adjustment amount of discontinued hedges	53	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.

	Interest rate risk hedge	
EUR million	31 Dec 2021	31 Dec 2020
Fair value hedges		
Changes in fair value of hedging derivatives	-154	98
Change in value of hedged item that is used as basis for recognition of ineffective hedge during period	156	-99
Hedge ineffectiveness presented in income statement	2	-1

	Interest rate risk hedge	
EUR million	31 Dec 2021	31 Dec 2020
Cash flow hedges		
Changes in fair value of hedging derivatives	-127	113
Change in value of hedged item that is used as basis for recognition of ineffective hedge during period	131	-110
Hedge ineffectiveness presented in income statement	4	3
Change in cash flow hedge reserve concerning continuous hedges	-131	110
Change in cash flow hedge reserve concerning terminated hedges	2	-32

Note 20. Receivables from customers

EUR million	31 Dec 2021	31 Dec 2020
Loans to the public and public sector entities	95,535	92,021
Finance lease receivables*	2,120	2,278
Guarantee receivables	6	7
Total	97,662	94,306
Loss allowance**	-715	-662
Total receivables from customers	**96,947**	**93,644**

* Finance lease receivables are itemised in Note 26.

** Loss allowance is itemised in Note 37. Loss allowance regarding receivables and notes and bonds.

Note 21. Investment assets

EUR million	31 Dec 2021	31 Dec 2020
Financial assets held for trading		
Notes and bonds	331	330
Shares and participations	78	73
Total	409	402
Financial assets that must measured at fair value through profit or loss		
Notes and bonds	356	408
Shares and participations (Overlay approach)	1,557	1,336
Shares and participations (other than those under Overlay approach)	68	62
Total	1,981	1,806
Financial assets designated as at fair value through profit or loss		
Notes and bonds	1,987	2,172
Shares and participations	218	206
Total	2,206	2,378
Financial assets at fair value through other comprehensive income		
Notes and bonds	17,411	18,134
Total	17,412	18,134
Amortised cost		
Notes and bonds	1	1
Other	50	54
Total	51	55
Investment property	724	623
Associated companies		
Associates	163	152
Joint ventures	0	11
Total	163	163
Total investment assets	**22,945**	**23,562**

Changes in investment property, EUR million	**2021**	**2020**
Acquisition cost 1 Jan.	653	708
Increases	13	12
Decreases	-86	-56
Transfers between items	107	-11
Acquisition cost 31 Dec.	687	653
Accumulated changes in fair value 1 Jan.	-30	6
Changes in fair value during the financial year	31	-33
Decreases	21	-3
Other changes	15	0
Accumulated changes in fair value 31 Dec.	37	-30
Carrying amount 31 Dec.	724	623

Increases in investment property include EUR 13 million (10) in capitalised expenses recognised after the acquisition. Any 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. During the financial year, hospital real estates were transferred from property in own use to investment property.

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 26.

Investment property contains property used as collateral worth EUR 2 million (3).

Information on associated companies can be found in Note 23. Investments accounted for using the equity method.

Note 22. Assets covering unit-linked contracts

EUR million	31 Dec 2021	31 Dec 2020
Shares and participations	12,873	11,116
Other investments	264	170
Total	**13,137**	**11,285**

Note 23. Investments accounted for using the equity method

Amounts entered in the balance sheet:

EUR million	31 Dec 2021	31 Dec 2020
Associates	162	152
Joint ventures	1	11
Total	**163**	**163**

Amounts entered in the income statement:

EUR million	31 Dec 2021	31 Dec 2020
Associates and joint ventures	27	18
Total	**27**	**18**

Investments in associates and joint ventures

OP Financial Group has 16 (16) 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 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020	31 Dec 2021	31 Dec 2020
Profit of continuing operations	8	1	17	17	2	
Comprehensive income	**8**	**1**	**17**	**17**	**2**	

Note 24. 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 2021	633	166	507	1,460	2,767
Increases*				108	108
Decreases	-2			-637	-639
Transfer of itemised non-current assets held for sale				-1	-1
Transfers between items				1	1
Acquisition cost 31 December 2021	631	166	507	932	2,236
Acc. amortisation and impairments 1 January 2021	-3	-4	-450	-998	-1,455
Amortisation during the financial year			-10	-192	-202
Impairments during the financial year				0	0
Decreases				634	634
Other changes				-2	-2
Acc. amortisation and impairments 31 December 2021	-3	-4	-461	-558	-1,025
Carrying amount 31 December 2021	629	162	46	374	1,212

* Internal development work accounts for EUR 15 million.

** The decrease in goodwill, EUR 2 million, has been caused by the sale of all shares of Checkout Finland Ltd.

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 for the period			-11	-185	-196
Impairments for the period				-2	-2
Decreases				2	2
Other changes				6	6
Accumulated 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.

Information systems and other

Carrying amount, EUR million	31 Dec 2021	31 Dec 2020
Information systems	302	241
Information systems under development	76	145
Other	-5	77
Total	**374**	**462**

An intangible right not yet available for use is tested for impairment twice a year and whenever there is any indication that the value of the unfinished intangible right may be impaired. An unfinished intangible asset is tested for its ability to generate sufficient future economic benefits to recover its carrying amount.

Intangible assets with indefinite economic lives

EUR million	31 Dec 2021	31 Dec 2020
Goodwill	629	631
Brands	162	162
Total	**791**	**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.

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 Ltd 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 life insurance contracts are charged to expenses according to planned amortisation, over their estimated useful lives.

Goodwill impairment test

Goodwill, EUR million

Segment	Acquired business	31 Dec 2021	31 Dec 2020
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	180	182
Total		**629**	**631**

Testing goodwill for impairment

At the end of 2021, 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 2021, the discount rate used in the calculations before tax varied from 5.4 to 7.2%. In 2020, the discount rate varied from 5.5 to 7.5%. Based on market information, OP Financial Group decreased the discount rate for non-life and life insurance by 0.3 percentage points to 7.2 percentage points. For asset management and mutual fund business, the discount rate was decreased by 0.6 percentage points to 6.2 percentage points and for Transaction Banking by 0.1 percentage points to 5.4 percentage points. Impairment testing in 2021 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, %	7.2	10.0
			Combined ratio, %	87.3–89.6	9.9
			Net investment income, %	1.5–2.4	-3.9
	OP Life Assurance Company Ltd	49	Discount rate, %	7.2	3.8
			Growth in operating expenses, %	-0.8–7.6	4.0
			Net investment income percentage, %	-0.1–0.5	-0.9
Corporate Banking	OP Asset Management Ltd	97	Discount rate, %	6.2	16.1
			Growth in assets under management, %	2.0–7.1	-14.9
			Growth in expenses, %	-5.0–0.8	11.4
	OP Fund Management Company Ltd	71	Discount rate, %	6.2	40.0
			Growth in mutual fund assets, %	2.0–7.1	-18.1
			Growth in expenses of fixed type, %	-13.1–41.1	24.7
	Transaction Banking business division	13	Discount rate, %	5.4	8.1
			Loan portfolio growth, %	2.0–6.7	-49.0
			Growth in expenses, %	-2.0–5.6	46.2

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 cash flow forecasts for the next 5 years derived from them. A 2% growth expectation was used as growth in cash flows for post-forecast periods. The cash flow forecasts include 2-year net sales of Pohjola Hospital Ltd forecast for 2022. In other respects, Pohjola Hospital's cash flow forecasts are not included in the cash flow forecasts used in testing brands for impairment. The forecast operating income of Pohjola Hospital is included in the cash flow forecasts for the comparative year. On the basis of impairment testing, there is no need to recognise any impairment loss on brands in the financial statements 2021.

Note 25. Property, plant and equipment

EUR million	31 Dec 2021	31 Dec 2020
Property in Group use		
Land and water areas	40	48
Buildings	201	332
Machinery and equipment	27	35
Other tangible assets	13	13
Right-of-use assets	165	205
Leased-out assets		0
Total property, plant and equipment	**446**	**633**
of which construction in progress	1	7

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 2021	857	84	15	2	958
Increases	31	7	1		40
Decreases	-74	-43	-1	0	-119
Transfers to liabilities associated with non-current assets held for sale					0
Transfers between items	-146	1	0	0	-146
Acquisition cost 31 December 2021	669	48	15	1	733
Accumulated depreciation and impairments 1 January 2020	-477	-49	-2	-1	-530
Depreciation for the financial year	-17	-10	0		-28
Impairments for the financial year	-17				-17
Reversal of impairments during the financial year	1				1
Decreases	45	38	1		85
Transfers between items	38				38
Other changes	0	0	0		0
Accumulated depreciation and impairments 31 December 2021	-428	-21	-1	-1	-452
Right-of-use asset*					165
Carrying amount 31 December 2021	241	27	13	0	446

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 depreciations and impairments 1 January 2019	-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 depreciations 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

* Note 26.

Note 26. Leases

Right-of-use assets, EUR million	Buildings	Cars	IT equipment	Machinery and equipment	Total
Carrying amount 1 January 2021	188	2	2	11	205
Increases	8	2		2	11
Decreases				-1	-1
Depreciation for the financial year	-23	-1	-1	-5	-31
Impairment loss on receivables in financial year	-4				-4
Value changes for the financial year	-15	0		0	-15
Other changes	1				1
Carrying amount 31 December 2021	**154**	**2**	**2**	**7**	**165**

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
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**

Lease liabilities, EUR million	31 Dec 2021	31 Dec 2020
* Carrying amount	242	281
Contractual maturities		
< 1 year	34	33
1–2 years	30	31
2–3 years	28	29
3–4 years	22	24
4–5 years	21	22
Over 5 years	124	159

* Note 34 Provisions and other liabilities.

Items entered in the income statement, EUR million	31 Dec 2021	31 Dec 2020
Interest expenses	-3	0
Depreciation on right-of-use assets	-31	-30
Impairment of right-of-use assets	-4	
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	-1	101
Expenses of short-term and low-value leases	-10	-7
Total cash flow from leases	-49	-44

Lessor's operating leases

OP Financial Group companies have leased out investment property they own. 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 2021	31 Dec 2020
< 1 year	37	43
1–2 years	26	30
2–3 years	23	25
3–4 years	19	22
4–5 years	15	19
Over 5 years	64	88
Total	**183**	**228**

Finance lease receivables

OP uses finance leases to finance moveable capital assets, real property units and other premises.

EUR million	31 Dec 2021	31 Dec 2020
Maturity of finance lease receivables		
< 1 year	666	678
1–2 years	569	564
2–3 years	380	443
3–4 years	220	245
4–5 years	170	148
Over 5 years	202	292
Gross investment in finance leases	2,207	2,371
Unearned finance income (–)	-83	-92
Present value of minimum lease payments	**2,124**	**2,278**
Present value of minimum lease payment receivables		
< 1 year	637	648
1–2 years	550	544
2–3 years	369	430
3–4 years	213	237
4–5 years	167	144
Over 5 years	189	276
Total	**2,124**	**2,278**

Items entered in the income statement, € million	31 Dec 2021	31 Dec 2020
Interest income from finance lease receivables	31	30
Capital gain/loss accrued from finance leases	1	0

Note 27. Other assets

EUR million	31 Dec 2021	31 Dec 2020
Payment transfer receivables	252	299
Pension assets	86	31
Accrued income and prepaid expenses		
Interest	360	192
Interest on derivatives receivables	41	20
Commission receivables from asset management	5	3
Performance-based management fees from asset management	1	0
Subscription, redemption and management fee receivables	31	27
Other	122	128
Derivatives receivables, central counterparty clearing	8	15
CSA receivables from derivative contracts	488	503
Securities receivables	5	8
Direct insurance receivables	142	294
Claims administration contracts	165	177
Reinsurance receivables	90	78
Reinsurers' share of provisions for unearned premiums	7	7
Reinsurers' share of provisions for unpaid claims	123	106
Other receivables	492	347
Total	**2,419**	**2,236**

Note 28. Tax assets and liabilities

EUR million	31 Dec 2021	31 Dec 2020
Income tax assets	7	30
Deferred tax assets	135	158
Total tax assets	**141**	**188**

EUR million	31 Dec 2021	31 Dec 2020
Income tax liabilities	75	23
Deferred tax liabilities	1,034	1,046
Total tax liabilities	**1,109**	**1,069**

Deferred tax assets	31 Dec 2021	31 Dec 2020
Due to financial assets at fair value through other comprehensive income	0	0
Due to depreciation and impairments	12	9
Due to provisions and impairments on loans	1	2
Due to losses related to taxation	4	7
Cash flow hedge	0	
Due to hedging of interest rate risk associated with technical provisions	41	51
Due to timing difference of derivatives	8	2
Due to defined-benefit pension plans	15	
Due to consolidation of Group accounts	27	25
Due to other temporary differences	72	84
Set-off against deferred tax liabilities	-46	-22
Total	**135**	**158**

Deferred tax liabilities	31 Dec 2021	31 Dec 2020
Due to appropriations	749	730
Due to financial assets at fair value through other comprehensive income	38	36
Cash flow hedge	32	60
Due to elimination of equalisation provision	82	68
Due to fair value measurement of investment	112	108
Allocation of price of corporate acquisitions	39	41
Defined benefit pension plans	26	1
Due to consolidation of Group accounts	17	21
Due to other temporary differences		4
Set-off against deferred tax assets	-62	-23
Total	**1,034**	**1,046**
Net deferred tax asset (+)/liability (-)	**-899**	**-888**

Changes in deferred taxes	31 Dec 2021	31 Dec 2020
Deferred tax assets /liabilities 1 January	-888	-848
Recognised in the income statement		
Appropriations	-19	-21
Amortisation/depreciation and impairments	3	1
Eliminations of equalisation provisions	-14	-6
Defined-benefit pension plans	1	-17
Due to hedging of interest rate risk associated with technical provisions	-22	17
Due to timing difference of derivatives	19	-15
Investment valuation	8	14
Other	12	11
Recognised in statement of comprehensive income		
Available-for-sale financial assets		
Changes in fair value	-12	-17
Cash flow hedge	27	-15
Transfers to the income statement	-3	0
Actuarial gains/losses on post-employment benefit obligations	-10	1
Other		7
Total deferred tax assets 31 December, asset (+)/liability (-)	**-899**	**-888**
Income tax assets, asset (+)/liability (-)	**-68**	**7**
Total tax assets, asset (+)/liability (-)	**-968**	**-881**

Tax losses for which a deferred tax asset was not recognised came to EUR 38 million (EUR 81 million) at the end of 2021. The losses will expire before 2030.

Notes to liabilities and equity capital

Note 29. Liabilities to credit institutions

EUR Million	31 Dec 2021	31 Dec 2020
Liabilities to central banks	16,000	8,000
Liabilities to credit institutions		
Repayable on demand		
Deposits	503	53
Other liabilities	1	0
Total	503	53
Other than repayable on demand		
Deposits	68	32
Other liabilities	79	2
Total	147	33
Total liabilities to credit institutions and central banks	**16,650**	**8,086**

OP Financial Group's TLTRO III funding amounted to a total of EUR 16 billion (8) at the end of December. In 2020, the Governing Council of the European Central Bank modified the terms and conditions of TLTRO III to stimulate bank lending to those hardest hit by the Covid-19 pandemic. 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 interest rate for 24 June 2020–23 June 2021 was determined by the net lending performance period expired on 31 March 2021 and the interest rate for 24 June 2021–23 June 2022 was determined by the net lending performance period expired on 31 December 2021. In respect of the interest period for 24 June 2020–23 June 2021, the Bank of Finland has confirmed that OP Financial Group has fulfilled the criteria for net lending performance. In respect of the interest period for 24 June 2021–23 June 2022, OP Financial Group assesses that it has fulfilled the criteria. The final interest rate will be determined when the TLTRO III operation matures. More detailed information on the matter can be found in Note 5. Net interest income.

Note 30. Liabilities to customers

EUR million	31 Dec 2021	31 Dec 2020
Deposits		
Repayable on demand		
Private	44,826	42,199
Companies and public-sector entities	29,983	27,664
Total	74,809	69,863
Other		
Private	790	878
Companies and public-sector entities	13	199
Total	803	1,077
Total deposits	75,612	70,940
Other financial liabilities		
Repayable on demand		
Private	6	7
Companies and public-sector entities	1	1
Total	7	8
Other		
Companies and public-sector entities	2,280	2,474
Total	2,280	2,474
Total other financial liabilities	2,287	2,482
Total liabilities to customers	**77,898**	**73,422**

Note 31. Insurance liabilities

EUR million	31 Dec 2021	31 Dec 2020
Non-life Insurance insurance liabilities	3,297	3,326
Insurance liability of Life Insurance other than guaranteed portions of unit-linked insurance	5,559	6,086
Life Insurance liability other than guaranteed portions of unit-linked investment contracts	1	2
Total	**8,858**	**9,414**

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 Dec 2021			31 Dec 2020		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims for annuities	1,535	-7	1,528	1,596	-7	1,589
Other provisions by case	275	-103	172	195	-84	111
Special provision for occupational diseases	7		7	8		8
Collective liability (IBNR)	770	-13	757	764	-16	748
Reserved loss adjustment expenses	151		151	153		153
Provision for unearned premiums	606	-7	600	593	-7	586
Interest rate hedge for insurance liabilities	-48		-48	16		16
Total Non-life Insurance insurance liabilities	**3,297**	**-130**	**3,168**	**3,326**	**-113**	**3,213**

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

	2021			2020		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims						
Provision for unpaid claims 1 Jan.	2,733	-106	2,627	2,650	-98	2,552
Claims paid in financial year	-1,042	47	-995	-1,051	27	-1,024
Change in liability/receivable	1,047	-64	983	1,073	-33	1,041
Current period claims	1,180	-64	1,116	1,052	-17	1,035
Increase (decrease) from previous financial years	-91	0	-91	-24	-16	-39
Change in discount rate	-42		-42	45		45
Unwinding of discount	17		17	19		19
Value change in interest rate hedges	-64		-64	38		38
Sold business operations				4	-3	1
Foreign exchange gains (losses)	0		0			
Provision for unpaid claims 31 Dec.	2,691	-123	2,568	2,733	-106	2,627
Liability for remaining contract period						
Insurance liability 1 Jan.	593	-7	586	584	-7	576
Increase	555	-7	548	537	-7	531
Decrease	-542	7	-536	-529	7	-521
Unwinding of discount	1		1	1		1
Insurance liability 31 Dec.	606	-7	600	593	-7	586
Total Non-life Insurance insurance liabilities	**3,297**	**-130**	**3,168**	**3,326**	**-113**	**3,213**

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 2021, the discount rate used was 0.85 % (0.85). 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	2021	2020
Effect of changes in methods and assumptions on amount of liability	-42	45
Total	**-42**	**45**

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	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Estimated total claims expenditure											
0*	815	903	931	976	1,000	1,043	1,121	1,116	1,052	1,180	10,137
n+1	802	879	905	887	1,006	1,063	1,149	1,116	1,041		
n+2	805	861	920	902	995	1,078	1,164	1,097			
n+3	821	885	939	910	998	1,079	1,161				
n+4	836	891	929	912	996	1,080					
n+5	840	888	930	912	1,000						
n+6	840	900	931	913							
n+7	838	903	931								
n+8	843	903									
n+9	840										
Current estimate of total claims expenditure	840	903	931	913	1,000	1,080	1,161	1,097	1,041	1,180	10,145
Accumulated claims paid	-816	-862	-890	-871	-945	-1,011	-1,070	-988	-807	-669	-8,927
Provision for unpaid claims for 2012-2021	**24**	**40**	**41**	**42**	**55**	**69**	**92**	**109**	**234**	**511**	**1,218**
Provision for unpaid claims for previous years											210

* = 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
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
2021	7	52	-6	-3	1	-2

Development of annuities confirmed as final, EUR million

Financial year	Year-start	Year-end	New annuity capital	Annuities paid	Changes in reserving basis*	Adequacy
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
2021	1,245	1,240	116	63	-31	27

* Effect of changes in the discount rate and the mortality model on final annuity capital.

Claims triangles, net business, EUR million

Occurrence year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Estimated total claims expenditure											
0*	796	861	897	957	992	1,019	1,081	1,092	1,034	1,117	9,847
n+1	782	829	868	877	1,000	1,026	1,109	1,089	1,012		
n+2	786	819	875	892	990	1,045	1,114	1,073			
n+3	804	843	887	898	994	1,046	1,118				
n+4	818	847	887	901	992	1,050					
n+5	823	847	885	900	997						
n+6	823	858	886	902							
n+7	822	859	887								
n+8	827	859									
n+9	824										
Current estimate of total claims expenditure	824	859	887	902	997	1,050	1,118	1,073	1,012	1,117	9,838
Accumulated claims paid	-800	-822	-847	-860	-942	-983	-1,042	-974	-804	-648	-8,723
Provision for unpaid claims for 2011-2020	**24**	**37**	**40**	**41**	**55**	**67**	**76**	**99**	**208**	**468**	**1,115**
Provision for unpaid claims for previous years											191

* = 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 3 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 2021	Growth in liability arising from insurance premiums	Dis-charged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2021
Other than unit-linked contract liabilities							
Other insurance liability than unit-linked liability discounted with interest rate guarantee	2,697	128	-218	79	-97	6	2,594
Separated balance sheet 1	804	0	-38	29	-4	-56	735
Separated balance sheet 2	2,025	4	-197	59	9	-140	1,759
Other liability than unit-linked investment contracts discounted with interest rate guarantee	2	0	0	0	0	0	1
Reserve for decreased discount rate	237					-26	211
Effect of discounting with market interest rate	253					-109	145
Other items	70					45	115
Total	6,088	132	-453	166	-92	-280	5,560

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

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 2021	31 Dec 2020
Unit-linked contract liabilities		
Liabilities for unit-linked insurance contracts	5,290	4,796
Liabilities for unit-linked investment contracts	7,836	6,486
Total	**13,125**	**11,282**

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. 2021	Growth in liability arising from insurance premiums	Discharged liabilities	Credited interest and changes in value	Other charges and credits	Other items	31 Dec 2021
Unit-linked contract liabilities							
Liabilities for unit-linked insurance contracts	4,796	176	-246	614	-17	-34	5,290
Liabilities for unit-linked investment contracts	6,486	747	-357	966	-22	15	7,836
Total	**11,282**	**924**	**-602**	**1,580**	**-39**	**-19**	**13,125**

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**

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 2021	31 Dec 2020
Bonds	10,838	12,217
Subordinated bonds (SNP)	3,926	1,689
Covered bonds	12,353	13,252
Other		
Certificates of deposit	297	273
Commercial paper	7,539	7,347
Included in own portfolio in trading (–)*	-58	-72
Total debt securities issued to the public	**34,895**	**34,706**

* 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 2021	**34,706**	**2,261**
Changes in cash flows from financing activities		
Increases in bonds	3,148	
Increases in covered bonds	807	
Increases in certificates of deposit	371	
Increases in commercial papers	8,145	
Increases total	**12,471**	
Decreases in bonds	-2,497	
Decreases in covered bonds	-1,028	
Decreases in certificates of deposit	-348	
Decreases in commercial papers	-7,953	-43
Decreases in subordinated loans		-211
Decreases total	**-11,825**	**-254**
Total changes in cash flows from financing activities	**646**	**-254**
Valuations	-457	-24
Balance sheet value 31 December 2021	**34,895**	**1,982**

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**

Most significant issues in 2021	Nominal amount	Interest rate
OP Corporate Bank plc		
OP Corporate Bank plc Issue of EUR 500 Million Floating Rate Senior Unsecured Notes Due January 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	EUB3 + 1,000%
OP Corporate Bank plc Issue of 5yr EUR 500 000 000 Fixed Rate Senior Non-Preferred Instruments due 24 March 2026 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0,250%
OP Corporate Bank plc Issue of 7yr EUR 500 000 000 Fixed Rate Senior Non-Preferred Instruments due 16 June 2028 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0,375%
OP Corporate Bank plc Issue of 7.25yr EUR 500 000 000 Fixed Rate Senior Non-Preferred Instruments due 8 December 2028 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0,375%
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.100 per cent. Instruments due 16 November 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0,100%
OP Mortgage Bank		
OP Mortgage Bank issue of EUR 750.000.000 0,05 per cent. Covered Notes due 25 March 2031 under the EUR 20,000,000,000 Euro Medium Term Covered Note Programme	750.0	Fixed 0,050%
OP Mortgage Bank issue of EUR 1.000.000.000 3 month Euribor + 1,00 per cent. Covered Notes due 24 May 2023 under the EUR 20,000,000,000 Euro Medium Term Covered Note Programme	1,000.0	EUB3 + 1,000%
OP Mortgage Bank issue of EUR 1.000.000.000 3 month Euribor + 1,00 per cent. Covered Notes due 27 May 2023 under the EUR 20,000,000,000 Euro Medium Term Covered Note Programme	1,000.0	EUB3 + 1,000%
OP Mortgage Bank issue of EUR 1.000.000.000 3 month Euribor + 1,00 per cent. Covered Notes due 31 May 2023 under the EUR 20,000,000,000 Euro Medium Term Covered Note Programme	1,000.0	EUB3 + 1,000%

Note 34. Provisions and other liabilities

EUR million	31 Dec 2021	31 Dec 2020
Provisions		
Loss allowance	22	29
Reorganisation provision	0	0
Other provisions	6	3
Other liabilities		
Payment transfer liabilities	1,057	1,101
Accrued expenses		
Interest payable	168	203
Interest payable on derivatives	19	1
Other accrued expenses	498	421
CSA liabilities from derivatives	807	573
Pension liabilities	49	38
Lease liabilities	242	281
Accounts payable on securities	4	8
Payables based on purchase invoices	34	29
Direct insurance liabilities	51	52
Reinsurance liabilities	26	21
Claims administration contracts	152	152
Total	3,106	2,878
Other	0	521
Total provisions and other liabilities	**3,134**	**3,431**

EUR million	Loss allowance	Reorgani-sation	Other provisions	Total
1 January 2021	29	0	3	32
Increase in provisions			4	4
Provisions used	-7	-0	-0	-7
Reversal of unused provisions			-1	-1
31 December 2021	22	0	6	28

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
31 December 2020	29	0	3	32

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 and OP Bank Group Pension Foundation. Schemes related to supplementary pensions in OP Bank Group Pension Foundation are treated as defined benefit plans. Old-age pension and disability pension funded under TyEL that were managed by OP Bank Group Pension Fund until the end of 2020 are also 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. In 2020, 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.

	Defined benefit obligations		Fair value of pension assets		Net liabilities (assets)	
Balance sheet value of defined benefit plans, EUR million	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Opening balance 1 Jan	**595**	**771**	**-589**	**-728**	**7**	**42**
Defined benefit pension costs recognised in income statement						
Current service cost	7	19			7	19
Interest expense (income)	2	6	-2	-6	0	0
Effect of plan curtailment, change and fulfilment of obligation or previous service cost		-241		144		-97
Administrative expenses			1	1	1	1
Total	**9**	**-216**	**-1**	**140**	**8**	**-76**
Losses (gains) recognised in other comprehensive income arising from remeasurement						
Actuarial losses (gains) arising from changes in economic expectations	27	60			27	60
Actuarial losses (gains) arising from changes in demographic expectations	0				0	
Return on TyEL interest rate difference and growth in old-age pension liabilities (net)		3		-3		
Experience adjustments	11	15			11	15
Return on plan assets, excluding amount (–) of net defined benefit liability (asset)			-87	-28	-87	-28
Total	**38**	**78**	**-87**	**-31**	**-50**	**47**
Other						
Employer contributions			-2	-7	-2	-7
Benefits paid	-25	-38	25	38		
Total	**-25**	**-38**	**23**	**31**	**-2**	**-7**
Closing balance 31 Dec	**617**	**595**	**-654**	**-589**	**-37**	**7**

Liabilities and assets recognised in the balance sheet, EUR million	**31 Dec 2021**	**31 Dec 2020**
Net liabilities/assets (Pension Foundation)	-86	-31
Net liabilities (Other pension plans)	49	38
Total net liabilities	**49**	**38**
Total net assets	**-86**	**-31**

Pension Foundation assets, 31 December 2021, EUR million	Total
Shares and participations	97
Notes and bonds	180
Real property	12
Mutual funds	257
Derivatives	0
Other assets	31
Total	**577**

Pension Foundation assets, 31 December 2020, EUR million	Total
Shares and participations	77
Notes and bonds	169
Real property	11
Mutual funds	230
Derivatives	0
Other assets	22
Total	**508**

Pension plan assets include, EUR million,	31 Dec 2021	31 Dec 2020
Other receivables from OP Financial Group companies	32	23
Total	**32**	**23**

Contributions payable under the defined benefit pension plan in 2022 are estimated at EUR 3 million.

The duration of the defined benefit pension obligation in the Pension Foundation on 31 December 2021 was 15.6 years and in other plans 20.8 years.

Key actuarial assumptions used, 31 December 2021, EUR million	Pension Foundation	Insurance companies
Discount rate, %	0.9	1.0
Future pay increase assumption, %	2.9	3.0
Future pension increases, %	2.3	2.3
Turnover rate, %	0.0	0.0
Inflation rate, %	2.1	2.2
Estimated remaining service life of employees in years	5.2	7.2
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 2020, EUR million	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

Sensitivity analysis of key actuarial assumptions, 31 December 2021	Pension Foundation Change in defined benefit pension obligation EUR million	%	Supplementary pension schemes of insurance companies change in defined benefit net pension liability EUR million	%
Discount rate				
0.5 pp increase	-34	-6.9	-4	-10.0
0.5 pp decrease	38	7.8	5	11.6
Pension increases				
0.5 pp increase	34	7.0	11	23.8
0.5 pp decrease	-32	-6.5	-10	-21.9
Mortality				
1-year increase in life expectancy	19	3.9	2	3.9
1-year decrease in life expectancy	-18	-3.7	-2	-3.7

Sensitivity analysis of key actuarial assumptions, 31 December 2020	Pension Foundation Change in defined benefit pension obligation EUR million	%	Supplementary pension schemes of insurance companies change in defined benefit net pension liability 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

Note 35. Subordinated liabilities

EUR million	31 Dec 2021	31 Dec 2020
Subordinated loans		50
Other		
Debentures	1,982	2,210
Total subordinated liabilities	**1,982**	**2,261**

Principal terms and conditions of the hybrid bonds/subordinated loans are as follows:

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.

Debentures

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%.

The debenture loan of EUR 100 million, which is a 10-year bullet loan, will mature on 25 September 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a fixed interest rate of 2.405% p.a.

Debenture loan of SEK 3,250 million (euro equivalent 317 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 2021	31 Dec 2020
Capital and reserves attributable to OP Financial Group owners		
Cooperative capital, cooperative shares	215	212
of which cancelled cooperative shares	7	7
Cooperative capital, profit shares	3,244	2,962
of which cancelled profit shares	330	301
Reserves		
Restricted reserves		
Reserve fund	795	795
Fair value reserve		
Cash flow hedge	96	203
Measurement at fair value		
Notes and bonds	56	100
Loss allowance regarding notes and bonds	7	9
Shares and participations	0	0
Shares and participations (overlay approach)	164	70
Other restricted reserves	13	1
Non-restricted reserves		
Other non-restricted reserves	1,375	1,375
Retained earnings		
Profit (loss) for previous financial years	7,191	6,606
Profit (loss) for the financial year	900	641
Equity capital attributable to OP Financial Group's owners	**14,057**	**12,975**
Non-controlling interests	128	137
Total equity capital	**14,184**	**13,112**

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 2020-21, 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 2020	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**
Increase in cooperative capital	103	4,045	4,148
Refund of cooperative capital	-72	-1,222	-1,294
31 December 2021	**2,153**	**32,440**	**34,593**

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 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**

	Fair value through other comprehensive income			
EUR million	Notes and bonds	Shares and participations (overlay approach)	Cash flow hedging	Total
Opening balance 1 January 2021	**109**	**70**	**203**	**382**
Fair value changes	-43	167	-88	36
Capital gains transferred to income statement	-14	-56		-70
Impairment loss transferred to income statement		7		7
Transfers to net interest income			-47	-47
Deferred tax	11	-24	27	15
Closing balance 31 December 2021	**63**	**164**	**96**	**323**

The fair value reserve before tax amounted to EUR 404 million (478) at the end of the reporting period and the related deferred tax asset/liability was EUR -81 million (-96). The loss allowance on notes and bonds recognised at fair value through other comprehensive income totalled EUR 2 million (-3) in the fair value reserve during the reporting period.

Other restricted reserves

The reserves consist of retained earnings for prior financial years based on the Articles of Association or other rules defining 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. Hospital real estates were classified as investment property in 2021. They were previously presented as property in own use. At the time of classification, the difference of EUR 12 million between the fair value and the carrying amount was recognised in the revaluation reserve.

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 on-balance and off-balance sheet items

Note 37. 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 7.4 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 2021

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	61,835	7,608	8	7,615	2,095	71,545
Corporate Banking	24,673	1,058	247	1,304	508	26,486
Total	**86,508**	**8,665**	**254**	**8,919**	**2,603**	**98,031**
Off-balance-sheet limits						
Retail Banking	6,445	277	10	286	36	6,767
Corporate Banking	4,279	190	88	278	75	4,631
Total	**10,724**	**466**	**98**	**564**	**110**	**11,398**
Other off-balance-sheet commitments						
Retail Banking	3,397	46		46	16	3,458
Corporate Banking	7,196	121		121	78	7,396
Total	**10,593**	**166**		**166**	**94**	**10,854**
Notes and bonds						
Other Operations	13,160	31		31		13,191
Insurance	4,180	36		36	7	4,223
Total	**17,340**	**67**		**67**	**7**	**17,414**
Total exposures within the scope of accounting for expected credit losses	**125,165**	**9,365**	**352**	**9,717**	**2,815**	**137,697**

* A total of 86 million euros of Stage 3 exposures are purchased or originated credit-impaired financial assets (POCI).

Loss allowance by stage 2021

On-balance-sheet exposures and related off-balance-sheet limits*	Stage 1		Stage 2		Stage 3 ****	
EUR million		Not more than 30 DPD	More than 30 DPD	Total		Total loss allowance
Receivables from customers						
Retail Banking	-19	-59	-2	-61	-319	-398
Corporate Banking	-23	-23	-2	-25	-269	-317
Total	**-42**	**-82**	**-4**	**-86**	**-588**	**-715**
Off-balance-sheet commitments**						
Retail Banking	-1	-1		-1	-1	-2
Corporate Banking	-3	-3		-3	-14	-20
Total	**-4**	**-3**		**-3**	**-15**	**-22**
Notes and bonds***						
Other Operations	-2	-1		-1		-2
Insurance	-7	-2		-2	-3	-12
Total notes and bonds	**-8**	**-2**		**-2**	**-3**	**-14**
Total	**-54**	**-87**	**-4**	**-91**	**-606**	**-751**

* 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 23 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 2021	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	71,676	7,930	17	7,947	2,146	81,770
Corporate Banking	36,149	1,368	335	1,703	661	38,513
Loss allowance						
Retail Banking	-20	-59	-2	-61	-319	-400
Corporate Banking	-26	-25	-2	-27	-283	-337
Coverage ratio, %						
Retail Banking	-0.03%	-0.75%	-12.91%	-0.77%	-14.87%	-0.49%
Corporate Banking	-0.07%	-1.85%	-0.63%	-1.61%	-42.83%	-0.88%
Receivables from customers; total on-balance-sheet and off-balance-sheet items	**107,825**	**9,298**	**352**	**9,650**	**2,808**	**120,283**
Total loss allowance	**-46**	**-85**	**-4**	**-89**	**-603**	**-737**
Total coverage ratio, %	**-0.04%**	**-0.91%**	**-1.23%**	**-0.92%**	**-21.46%**	**-0.61%**
Carrying amount, notes and bonds						
Other Operations	13,160	31		31		13,191
Insurance	4,180	36		36	7	4,223
Loss allowance						
Other Operations	-2	-1		-1		-2
Insurance	-7	-2		-2	-3	-12
Coverage ratio, %						
Other Operations	-0.01%	-2.00%		-2.00%		-0.02%
Insurance	-0.16%	-4.16%		-4.16%	-49.03%	-0.28%
Total notes and bonds	**17,340**	**67**		**67**	**7**	**17,414**
Total loss allowance	**-8**	**-2**		**-2**	**-3**	**-14**
Total coverage ratio, %	**-0.05%**	**-3.17%**		**-3.17%**	**-49.03%**	**-0.08%**

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 31 December

On-balance-sheet exposures and related off-balance-sheet limits*	Stage 1	Stage 2			Stage 3 ****	
EUR million		Not more 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**
Other 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%**

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 2.2. 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 2021 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.

31.12.2021	Total home loans	
LTV %, € million	Exposure amount in balance sheet	Loss allowance
0–50%	10,170	0
51–70%	18,086	-18
Over 70%	13,061	-59
Total	**41,317**	**-78**

30.12.2020	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**

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 7.4.1 describes impairment stages.

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 2021	**65**	**93**	**533**	**692**
Transfers from Stage 1 to Stage 2	-3	30		26
Transfers from Stage 1 to Stage 3	-1		34	33
Transfers from Stage 2 to Stage 1	2	-13		-10
Transfers from Stage 2 to Stage 3		-19	78	60
Transfers from Stage 3 to Stage 1	1		-6	-5
Transfers from Stage 3 to Stage 2		5	-16	-11
Increases due to origination and acquisition	15	11	27	53
Decreases due to derecognition	-21	-14	-55	-89
Changes in risk parameters (net)	-16	-6	86	65
Changes due to update in the methodology for estimation (net)	2	0		2
Decrease in allowance account due to write-offs		0	-78	-78
Net change in expected credit losses	**-19**	**-6**	**70**	**45**
Loss allowance 31 December 2021	**46**	**89**	**603**	**737**

The table below shows a change in exposures within the scope of the calculation of expected credit losses by impairment Stage for 2021 resulting from the effect of the following factors:

Receivables from customers and off-balance-sheet items, EUR million	Stage 1	Stage 2	Stage 3	Total
Receivables from customers; on-balance-sheet and off-balance-sheet items 1 January 2021	**104,895**	**9,203**	**2,587**	**116,685**
Transfers from Stage 1 to Stage 2, incl. repayments	-4,982	4,660		-322
Transfers from Stage 1 to Stage 3, incl. repayments	-370		320	-49
Transfers from Stage 2 to Stage 1, incl. repayments	2,370	-2,593		-223
Transfers from Stage 2 to Stage 3, incl. repayments		-758	696	-62
Transfers from Stage 3 to Stage 1, incl. repayments	54		-62	-8
Transfers from Stage 3 to Stage 2, incl. repayments		187	-207	-20
Unchanged Stage, incl repayments	-5,369	-279	-224	-5,872
Increases due to origination and acquisition	27,550	862	153	28,565
Decreases due to derecognition	-16,322	-1,626	-342	-18,291
Recognised as final credit loss		-6	-113	-119
Receivables from customers; on-balance-sheet and off-balance-sheet items 31 December 2021	**107,825**	**9,650**	**2,808**	**120,283**

Transfers from Stage 1 to Stage 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 81% (see the default capture rate below) have been reported in Stage 2 during 2021, 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 2021 with a delay of one month.

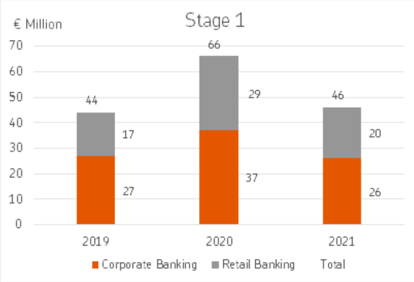
The majority of the loans have transferred to Stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to Stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to Stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to Stage 2 in all ratings in personal 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.

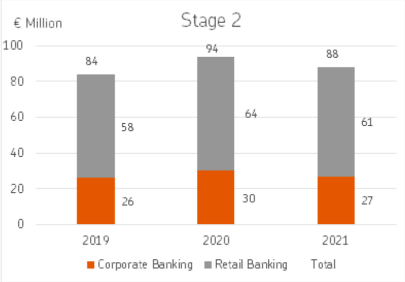
In Q1/2021, OP Financial Group calibrated its internal rating model for retail customers to correspond to the new 2020 definition of default. This had an effect in April on the PD model under IFRS 9 and on the quantitative SICR model that is used to decide on transferring the agreement from impairment Stage 1 to Stage 2. OP Financial Group calibrated the original PD curves used in the SICR model to be comparable, in which case the calibration had no significant effect on the amount of the ECL. As part of its normal model update, OP Financial Group updated the actual PD model for retail customers under IFRS 9 and the quantitative SICR model during Q4/2021.

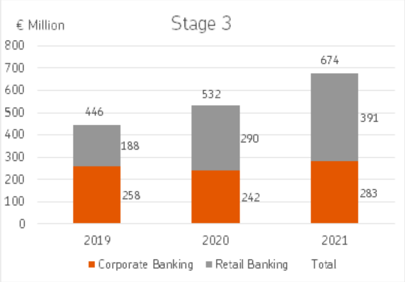
The PD model for retail customers under IFRS 9 was updated based on data complying with the new definition of default, among other things. In addition, we further specified segmentation for the model and the 12-month Euribor, with the effect of inflation and change in GDP deducted, the real 3-month Euribor, with the effect of inflation deducted, and change in the unemployment rate deducted (previously GDP change, 12-month Euribor and change in the unemployment rate). ECL increased by EUR 2 million and it is presented as a change in model assumptions and methodology.

OP Financial Group has exercised management discretion and made an additional 31-million euro ECL provision, concerning mainly CRE-backed loans in stage 3. The provision is aimed at anticipating growth in the ECL caused by the update of the collateral assessment of riskier collateral real estate holdings and probable default statutes. The provision will be reversed after the collateral assessment probably ends during 2022.

The following graphs illustrate the trend in the expected credit losses of customer receivables by impairment stage during the last few years, showing their growth during the Covid-19 pandemic and how the growth has levelled off.







OP Financial Group still provides its customers with the opportunity to get a maximum of 12-month repayment holiday on their home loans. As regards corporate customers, changes in repayment schedules will be evaluated on a case-by-case basis, and guarantees provided by Finnvera will be used extensively. In loan modifications, forborne loans and customers in default are identified according to the normal set of instructions.

In ECL measurement, macroeconomic factors are updated on a quarterly basis. The ECL is measured as the weighted average under three scenarios. Scenario weights have been at normal level, or downside 20%, baseline 60% and upside 20%. Macroeconomic forecast updates in 2021 have increased expected credit losses by EUR 7 million.

Notes and bonds, EUR million	**Stage 1**	**Stage 2**	**Stage 3**	
	12 months	**Lifetime**	**Lifetime**	**Total**
Loss allowance 1 January 2021	**7**	**3**	**6**	**16**
Transfers from Stage 1 to Stage 2	0	0		0
Transfers from Stage 2 to Stage 1	0	1		0
Increases due to origination and acquisition	2	5	0	2
Decreases due to derecognition	-2	6	-1	-4
Changes in risk parameters (net)	0	7	0	0
Net change in expected credit losses	**0**	**-1**	**-1**	**-2**
Loss allowance 31 December 2021	**7**	**2**	**5**	**14**

The table below shows the change in loss allowance by impairment stage during 2020 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 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
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**

The table below shows a change in exposures within the scope of the measurement of expected credit losses by impairment Stage for 2020 resulting from the effect of the following factors:

Receivables from customers and off-balance-sheet items, EUR million	Stage 1	Stage 2	Stage 3	Total
Receivables from customers; on-balance-sheet and off-balance-sheet items 1 January 2020	**103,279**	**10,784**	**1,445**	**115,509**
Transfers from Stage 1 to Stage 2, incl. repayments	-4,183	3,887		-295
Transfers from Stage 1 to Stage 3, incl. repayments	-473		424	-49
Transfers from Stage 2 to Stage 1, incl. repayments	2,464	-2,726		-262
Transfers from Stage 2 to Stage 3, incl. repayments		-1,093	979	-114
Transfers from Stage 3 to Stage 1, incl. repayments	44		-50	-6
Transfers from Stage 3 to Stage 2, incl. repayments		53	-63	-11
Unchanged Stage, incl repayments	-4,000	-285	-37	-4,323
Increases due to origination and acquisition	23,058	893	149	24,101
Decreases due to derecognition	-15,295	-2,308	-166	-17,769
Recognised as final credit loss		-2	-93	-96
Receivables from customers; on-balance-sheet and off-balance-sheet items 31 December 2020	**104,895**	**9,203**	**2,587**	**116,685**

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 85% (see the default capture rate below) have been reported in Stage 2 during 2018, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2018 with a delay of three months.

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.

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.

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		1	1
Transfers from Stage 2 to Stage 1				
Transfers from Stage 2 to Stage 3				
Transfers from Stage 3 to Stage 2		0	0	0
Transfers from Stage 3 to Stage 1	0		-1	-1
Increases due to origination and acquisition	3	1	2	5
Decreases due to derecognition	-1	-1	-1	-3
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	**1**	**1**	**1**	**3**
Loss allowance 31 December 2020	**7**	**3**	**6**	**16**

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 2.2.1 describes OP Financial Group's ratings. Net exposure has been calculated for each contract and it excludes overcollateralisation.

31.12.2021

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	116			162			151			0		
2	2,397	6		2059	14		2603	8		0	0	
3	5,672	113		2518	36		4507	113		0	0	
4	5,457	75		2291	44		2438	75		-2	0	
5	10,203	67		3046	19		2892	17		-3	0	
6	8,259	317		2539	34		2228	17		-6	0	
7	5,584	476		1514	74		1324	77		-12	-2	
8	1,714	943		469	275		309	197		-10	-18	
9	1	390		0	58		1	33			-6	
10	5	153		0	14		5	21			-7	
11			812			172			298			-324
12			83			3			66			-67
A	23,048	234		3965	2		2771	9		0	0	
B	12,490	843		1996	33		1816	57		-2	-1	
C	7,695	1,238		561	43		980	113		-3	-3	
D	3,863	2,043		196	46		699	216		-9	-11	
E		2,022	1		39	0		344	0		-40	0
F			1,708			29			234			-211
Total	**86,506**	**8,919**	**2,603**	**21,317**	**731**	**205**	**22,726**	**1,295**	**598**	**-46**	**-89**	**-603**

30.12.2020

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		1,527	5		1,843	0		0	0	
3	5,072	55		2,674	21		3,665	54		-1	0	
4	4,295	7		1,674	2		2,592	7		-1	0	
5	9,613	120		2,538	84		2,823	31		-3	-1	
6	8,134	390		1,984	73		2,282	49		-6	-2	
7	5,507	607		1,393	120		1,797	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		4,768	10		4,027	13		-3	-3	
B	8,816	1,169		1,427	21		1,741	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**

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 179 (144) million on 31 December 2021.

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 7.4.1).

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 2021 (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.

A specific model has been developed for the SICR criterion for a relative increase in PD, whose parameters are calculated from historical data. In addition to these parameters, the SICR model is affected, for example, by the contract rating grade, segment and macroeconomic variables which together determine the PD of the contract lifetime, In addition, the comparison of the relative increase is affected by the contract’s passed and remaining lifetime. For these reasons, no general threshold has been determined for an increase in the PD. It can, however, be stated that, on average, a doubling or trebling of the PD causes the quantitative SICR criterion to trigger.

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 2021–2050 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 December 2021.

Economic variable	Scenario	Average (%)	Minimum (%)	Maksimum (%)
GDP growth	Downside	0.6	-0.6	2.8
	Baseline	1.5	1.1	3.5
	Upside	2.3	2.0	5.1
Unemployment rate	Downside	8.4	7.5	9.1
	Baseline	6.6	6.5	7.8
	Upside	4.7	4.1	7.7
House price index	Downside	1.2	-0.8	2.9
	Baseline	2.8	2.0	4.0
	Upside	3.8	3.0	4.9
12-month Euribor	Downside		-2.0	0.6
	Baseline	0.4	-2.1	1.2
	Upside	0.9	-2.4	-1.8
3-month real interest rate	Downside	-0.6	-2.6	-0.1
	Baseline	-0.4	-2.8	0.4
	Upside	-0.1	-3.2	0.9

On 31 December 2021, 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 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 December 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 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 2021.

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	46	43	39
Stage 2	85	91	84	79
Stage 3	554	554	554	554
Total	**681**	**691**	**681**	**672**

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2021.

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**

All personal and corporate customer risk parameters affect in a parallel way in such a way that loss allowance is 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, real 3-month Euribor where the effect of inflation and GDP growth has been deducted. Changes used in sensitivity analyses include a 1 percentage point increase in the 12-month Euribor rate, a 1 percentage point increase the 3-month Euribor rate, a 1 percentage point increase in the inflation rate and a 3.5 percentage point 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 of household and corporate customers on 31 December 2021, when the economic situation weakens due to the combined effect of changes in interest rates, the real interest rate, inflation rate and GDP:

Group Stage	Loss allowance 31.12.2021	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	12	12	2.9 %
Stage 2	51	58	12.5 %
Corporate customers			
Stage 1	30	33	8.5 %
Stage 2	34	45	32.7 %
Total	**127**	**147**	**16.0 %**

* 1 percentage point increase in the 12-month Euribor rate, 1 percentage point increase in the real 3-month Euribor rate. 1 percentage point increase in the inflation rate and a 3.5 percentage point decrease in the GDP growth 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 interest rates increases the amount of loss allowance in both private customers and corporate customers. 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 significantly. Changes are considerably smaller in personal 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 2020, when the economic situation weakens due to changes in the combined effects of interest rates, investment growth rate and GDP:

Group Stage	Loss allowance 31.12.2020	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	6	7	5.1 %
Stage 2	26	29	10.0 %
Corporate customers			
Stage 1	45	51	13.4 %
Stage 2	51	63	22.9 %
Total	**129**	**149**	**16.1 %**

* 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

Note 38. Collateral given

EUR million	31 Dec 2021	31 Dec 2020
Given on behalf of own liabilities and commitments		
Pledges	1	136
Loans (as collateral for covered bonds)	19,429	15,722
Others	18,526	9,784
Total collateral given*	**37,955**	**25,643**
Secured derivative liabilities	744	1,078
Other secured liabilities	16,004	8,143
Covered bonds	12,353	13,252
Total	**29,101**	**22,473**

* In addition, bonds with a book value of EUR 2.0 billion have been pledged in the central bank, of which EUR 1.0 billion in intraday settlement collateral. Given that the bonds are available for withdrawal without the central bank's advance permission, they are not presented in the table above.

Note 39. Financial collateral held

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

EUR million	31 Dec 2021	31 Dec 2020
Fair value of collateral received		
Other	678	420
Total	**678**	**420**

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 678 million on the balance sheet date (420). The Group had no securities received as collateral on the balance sheet date.

Note 40. Classification of financial assets and liabilities

			Fair value through profit or loss				
Assets, EUR million	Amortised cost	Fair value through other comprehen-sive income	Financial assets held for trading	Financial assets designated as at fair value through profit or loss	Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	32,846						32,846
Receivables from credit institutions	541						541
Derivative contracts			2,672			796	3,467
Receivables from customers	96,947						96,947
Assets covering unit-linked contracts				13,137			13,137
Notes and bonds	1	17,411	331	1,987	356		20,087
Equity instruments		0	78	218	1,624		1,921
Other financial assets	2,469						2,469
Financial assets							**171,415**
Other than financial instruments							2,695
Total 31 December 2021	**132,805**	**17,412**	**3,080**	**15,342**	**1,981**	**796**	**174,110**

			Fair value through profit or loss				
Assets, EUR million	Amortised cost	Fair value through other comprehen-sive income	Financial assets held for trading	Financial assets designated as at fair value through profit or loss	Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	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**

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		16,650		16,650
Derivative contracts	1,933		333	2,266
Liabilities to customers		77,898		77,898
Insurance liabilities		8,773		8,773
Liabilities from unit-linked insurance and investment contracts	13,210			13,210
Debt securities issued to the public		34,895		34,895
Subordinated loans		1,982		1,982
Other financial liabilities		2,581		2,581
Financial liabilities				**158,256**
Other than financial liabilities				1,670
Total 31 December 2021	**15,143**	**142,780**	**333**	**159,926**

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**

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 337 (810) million higher than their carrying amount, based on information available in markets and employing commonly used valuation techniques. Subordinated liabilities are carried at amortised cost. Their fair values are higher than their amortised costs, but determining reliable fair values involves uncertainty.

Note 41. Recurring fair value measurements by valuation technique

Fair value of assets on 31 December 2021, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	909	316	696	1,920
Debt instruments	1,814	640	221	2,675
Unit-linked contracts	8,517	4,619		13,137
Derivative financial instruments	1	3,360	106	3,467
Fair value through other comprehensive income				
Debt instruments	14,119	2,758	534	17,411
Total financial instruments	**25,360**	**11,694**	**1,557**	**38,610**
Investment property			724	724
Total	**25,360**	**11,694**	**2,281**	**39,335**

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 liabilities on 31 December 2021, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Unit-linked contracts	8,565	4,645		13,210
Other		0		-0
Derivative financial instruments	2	2,234	30	2,266
Total	**8,566**	**6,879**	**30**	**15,476**

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 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'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 2021	916	61	301	1,278
Total gains/losses in profit or loss	-197	45	0	-152
income			0	0
Purchases	99		2	101
Sales	-88		-8	-96
Settlements	-5		-3	-8
Transfers into Level 3	193		378	571
Transfers out of Level 3	0		-137	-137
Closing balance 31 December 2021	**916**	**106**	**534**	**1,557**

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
income	0		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**	**302**	**1,278**

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 January 2021	42	42
Total gains/losses in profit or loss	-11	-11
Closing balance 31 December 2021	**30**	**30**

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**

Total gains/losses included in profit or loss by item for the financial year on 31 December 2021

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)	-233	36	0	-198
Unrealised net gains (losses)	57		0	56
Total net gains (losses)	**-177**	**36**	**0**	**-141**

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	0	-22
Total net gains (losses)	**-519**	**-73**	**0**	**-592**

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 2021.

Sensitivity analysis of input parameters involving uncertainty on 31 December 2021

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	47		47	4.7	10%
Illiquid investments	174		174	26.1	15%
Private equity funds*	543		543	54.3	10%
Real estate funds***	153		153	30.6	20%
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity**	106	-30	76	8.4	11%
Fair value through profit or loss					
Bond investments	534		534	53.4	10%
Investment property					
Investment property***	724		724	144.8	20%

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%

* 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.

Note 42. Off-balance-sheet commitments

EUR million	31 Dec 2021	31 Dec 2020
Guarantees	641	686
Other guarantee liabilities	2,727	2,160
Loan commitments	15,203	13,826
Commitments related to short-term trade transactions	679	255
Other*	1,378	1,535
Total off-balance-sheet commitments	**20,629**	**18,461**

* Of which Non-life Insurance commitments to private equity funds amount to EUR 195 million (174).

Note 43. Contingent liabilities and assets

Insurance companies belonging to OP Financial Group underwrite insurance policies through pools. Pool members are primarily responsible for their own proportionate share of the risk. Proportionate shares are based on contracts confirmed annually. In certain pools, pool members are responsible for an insolvent member's liabilities in proportion to their shares in the pool. Group insurance companies recognise liabilities and receivables based on joint liability if joint liability is likely to materialise.

Note 44. Financial assets and liabilities offset in the balance sheet or subject to enforceable master netting arrangements or similar agreements

Financial assets

				Financial assets not set off in the balance sheet		
31 December 2021, EUR million	Gross amount of financial assets	Gross amount of financial liabilities deducted from financial assets	Net amount presented in the balance sheet	Master agreements*	Collateral received	Net amount
Derivatives	3,829	-361	3,467	-1,958	-678	832

				Financial assets not set off in the balance sheet		
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	Master agreements*	Collateral received	Net amount
Derivatives	5,778	-562	5,215	-2,185	-377	2,654

Financial liabilities

				Financial liabilities not set off in the balance sheet		
31 December 2021, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities	Net amount presented in the balance sheet	Master agreements*	Collateral given	Net amount
Derivatives	2,611	-345	2,266	-1,958	-488	-180

				Financial liabilities not set off in the balance sheet		
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	Master agreements*	Collateral given	Net amount
Derivatives	4,012	-589	3,424	-2,185	-542	697

* 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. Notes to the cash flow statement

EUR million	2021	2020
Interest received	**1,476**	**1,778**
Interest paid	**-350**	**-552**
Adjustments to profit for the financial year		
Non-cash items and other adjustments		
Impairment losses on receivables	171	235
Changes in technical items	-365	-222
Changes in value of financial instruments	404	-27
Changes in fair value of investment property	-23	33
Defined benefit pension plans	8	-76
Depreciation/amortisation	283	276
Share of associates' profits/losses	-27	-18
Income tax paid	224	144
Other	-99	-46
Items presented outside cash flow from operating activities		
Capital gains, share of cash flow from investing activities	-35	-189
Total adjustments	**540**	**111**
Cash and cash equivalents		
Liquid assets	32,846	21,827
Receivables from credit institutions payable on demand	283	229
Total	**33,129**	**22,055**

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 2021

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	38,286	379	53,071	64,472	398	573	815	157,994
Baltic countries	167		3,761	105			28	4,062
Other Nordic countries	68	402	1,860	144	11	1,648	0	4,133
Germany	2,362	279	108	89		1,451	55	4,343
France	219	350	84	262	0	993	0	1,908
UK	31	354	109	213	0	28		736
Italy	109	17	24	23				173
Spain		15	9	14			0	38
Other EU countries	2,764	445	637	212	31	830	0	4,919
Rest of Europe		89	92	36	20		0	236
USA	152	146	62	484	127	34	0	1,004
Russia		77	2	5				84
Asia		549	164	33		10		756
Other countries	31	71	170	47	1,739	1,577	2,522	6,156
Total	**44,188**	**3,173**	**60,152**	**66,139**	**2,325**	**7,145**	**3,420**	**186,542**

* Also includes EUR 35 million in bond funds.

** Comprises RMBS, ABS and Covered Bond investments.

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	1 541***	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.

Risk exposure of Retail and Corporate Banking

Note 47. Loan losses and impairment losses

EUR million	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021
Receivables written down as loan and guarantee losses		70	68	117	126
Impairment losses on receivables	147				
Reversal of impairment losses	-91				
Payments on eliminated receivables	-15	-15	-23	-10	-13
Expected credit losses (ECL) on receivables from customers and off-balance-sheet items		-10	41	119	46
Expected credit losses (ECL) on notes and bonds		1	0	-1	0
Net change in impairments of collectively assessed loans and receivables	7				
Total	**48**	**46**	**87**	**225**	**158**

Note 48. Structure of OP Financial Group funding

EUR million	31 Dec 2021	%	31 Dec 2020	%
Liabilities to credit institutions	16,650	12.1	8,086	6.5
Financial liabilities at fair value through profit or loss	0	0.0	0	0.0
Liabilities to customers				
Deposits	75,612	54.8	70,940	56.7
Other	2,287	1.7	2,482	2.0
Debt securities issued to the public				
Certificates of deposit, commercial papers and ECPs (Euro Commercial Paper)	7,835	5.7	7,620	6.1
Bonds	10,780	7.8	12,145	9.7
Subordinated bonds (SNP)	3,926	2.8	1,689	1.4
Covered bonds	12,353	9.0	13,252	10.6
Other liabilities	3,134	2.3	3,431	2.7
Subordinated liabilities	1,982	1.4	2,261	1.8
Membership capital contributions	215	0.2	212	0.2
Profit shares	3,244	2.4	2,962	2.4
Total	**138,019**	**100.0**	**125,080**	**100.0**

Note 49. Maturity of financial assets and liabilities by residual maturity

31 December 2021, EUR million	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Financial assets						
Liquid assets	32,846					32,846
Receivables from credit institutions	395	28	12	3	103	541
Receivables from customers	6,495	8,723	38,314	20,358	23,057	96,947
Investment assets						
Financial assets held for trading	132	68	72	59	0	331
Financial assets that must measured at fair value through profit or loss	6	2	347	0	2	356
Financial assets designated as at fair value through profit or loss	30	31	1,091	633	203	1,987
Financial assets at fair value through other comprehensive income	394	1,061	9,619	6,145	192	17,411
Amortised cost		0	1			1
Total financial assets	**40,298**	**9,913**	**49,455**	**27,199**	**23,557**	**150,421**

Financial liabilities	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liabilities to credit institutions	645	2,000	14,000	6		16,650
Liabilities to customers	77,514	300	51	33		77,898
Debt securities issued to the public	4,883	7,677	12,896	9,077	362	34,895
Subordinated liabilities	495		1,487			1,982
Total financial liabilities	**83,537**	**9,977**	**28,435**	**9,115**	**362**	**131,426**
Guarantees	112	78	193	7	252	641
Other guarantee liabilities	328	741	825	579	253	2,727
Loan commitments	15,203					15,203
Commitments related to short-term trade transactions	118	396	155	0	9	679
Other	526	655	0	197		1,378
Total off-balance-sheet commitments	**16,288**	**1,870**	**1,173**	**783**	**514**	**20,629**

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
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**

Note 50. Maturities of financial assets and liabilities by maturity or repricing

31 December 2021, 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	32,846						32,846
Receivables from credit institutions	380	21	28	4	7	100	541
Receivables from customers	15,210	20,489	55,669	465	2,873	2,241	96,947
Investment assets							
Financial assets held for trading	22	78	85	10	67	69	331
Financial assets that must measured at fair value through profit or loss	0		326	18	6	6	356
Financial assets designated as at fair value through profit or loss			61	222	909	796	1,987
Financial assets at fair value through other comprehensive income	612	200	1,145	2,036	7,216	6,204	17,411
Amortised cost	0			0	1		1
Total financial assets	**49,071**	**20,787**	**57,314**	**2,755**	**11,079**	**9,416**	**150,421**
Financial liabilities							
Liabilities to credit institutions	16,650	0	0		0	0	16,650
Liabilities to customers	76,108	1,487	294	8	1	0	77,898
Debt securities issued to the public	2,927	3,946	6,403	2,851	9,436	9,332	34,895
Subordinated liabilities	77	804	7		1,094		1,982
Total financial liabilities	**95,762**	**6,237**	**6,704**	**2,859**	**10,532**	**9,332**	**131,426**

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**

Note 51. Sensitivity analysis of interest rate and market risk

Interest rate risk associated with balance sheet

	2021		2020	
Currency EUR million	**-200bp**	**+200bp**	**-200bp**	**+200bp**
EUR	2,729	1,115	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. In the calculation, the model "Markkinakoron muutosten välittyminen talletuskorkoihin" (Passing on changes in the market interest rate to deposit interest rates) is applied to calculate the interest rate sensitivity of non-maturity deposits and the early repayments model to loans.

Interest income risk associated with banking book of retail banking

	-100bp		+100bp	
Currency EUR million	**2021**	**2020**	**2021**	**2020**
EUR	-90	-57	380	288

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		**2021**	**2020**
Interest rate volatility*	10bp	-2	0
Currency volatility*	10 pps	0	0
Credit risk premium**	10bp	-55	-61

* 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 2021, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
Aaa*	32,837	603	604	226	254		34,524	91.7
Aa1–Aa3	106	346	439	391	329	0	1,609	4.3
A1–A3	2	2	0	8	2		15	0.0
Baa1–Baa3	1	112	101	41	11	0	267	0.7
Ba1 or lower	0	66	30	39	0		134	0.4
Internally rated	305	213	115	267	196		1,095	2.9
Total	**33,250**	**1,342**	**1,289**	**971**	**792**	**0**	**37,645**	**100.0**

* incl. deposits with the central bank

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 2020, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion, %
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

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 4.4 years.

Risk exposure by Insurance

Note 53. Sensitivity analysis of non-life insurance

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

Risk parameter	Total in 2021, EUR million	Change in risk parameter	Effect on profit/ solvency, EUR million	Effect on combined ratio
Insurance premium revenue *	1,555	Up by 1%	16	Up by 1.0 pp
Claims incurred *	983	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 *	140	Up by 8%	-11	Down by 0.6 pps
Expenses by function **	431	Up by 4%	-17	Down by 0.6 pps
Inflation for collective liability	757	Up by 0.25 pps	-5	Down by 0.4 pps
Life expectancy for discountedinsurance liabilities	1,931	Up 1 year	-45	Down by 3.1 pps
Discount rate for discountedinsurance liabilities	1,931	Down by 0.1 pp	-29	Down by 1.8 pps

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
2021	16	23	14	22
2020	12	10	7	14

* 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
2021		7	11	3
2020	3	5	10	3

* TSI = Total Sum Insured

Sums insured in decennial insurance

The sum insured of insurance contracts depicts the volume of decennial insurance (construction defects insurance). The gross and net amounts of the sum insured are itemised in the table below. The liability period of decennial insurance is 10 years.

	Gross		Net*	
EUR million	2021	2020	2021	2020
Decennial insurance	1812	1890	1812	1890

* 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 2017–2021

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
2017				7		
2018				17	3	
2019	2			9	3	
2020	1			16	1	
2021	1			16	2	
				Total claims, EUR million	403	

Gross amount, total claims, EUR million

2017–2021	**9**			**359**	**35**	

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
2017				7		
2018				15	3	
2019	2			9	3	
2020	1			16	1	
2021	1			13	1	
				Total claims, EUR million	287	

Net amount, total claims, EUR million

2017–2021	**9**			**255**	**22**	

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.

2021, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	415	414	69 %	79 %
Other accident and health	319	318	82 %	82 %
Hull and cargo	333	332	89 %	89 %
Property and business interruption	435	396	93 %	93 %
Liability and legal expenses	106	94	85 %	85 %
Long-term	2	2	32 %	32 %
Total	**1,610**	**1,555**	**85 %**	**88 %**

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 %**

* 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 2021	31 Dec 2020
Net insurance contract liabilities (EUR million)		
Latent occupational diseases	7	8
Other	3,161	3,205
Total (before transfers)	**3,168**	**3,213**
Duration of debt (years)		
Discounted insurance contract liabilities	15.4	15.4
Undiscounted insurance contract liabilities	2.3	2.2
Total	**10.2**	**10.5**
Discounted net debt (EUR million)		
Provision for known unpaid claims for annuities	1,598	1,662
Collective liability (IBNR)	298	351
Provision for unearned premiums	36	39
Total	**1,931**	**2,052**

Note 58. Non-life insurance insurance liabilities by estimated maturity

31 December 2021, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15 yrs	Over 15 yrs	Total
Provision for unearned premiums*	433	123	24	7	12	600
Provision for unpaid claims						
Undiscounted	360	267	74	14	5	720
Discounted	89	373	345	283	758	1,848
Total insurance contract liabilities**	**882**	**763**	**443**	**304**	**775**	**3,168**

* Includes EUR 36 million in discounted liability.

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

31 December 2020, EUR million	0–1 yr	1–5 yrs	5–10 yrs	10–15yrs	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 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.

Note 59. Non-life Insurance asset allocation

	31 Dec 2021		31 Dec 2020	
Investment asset portfolio allocation	Fair value*, EUR million	%	Fair value*, EUR million	%
Money market total	**596**	**14**	**461**	**11**
Money market instruments and deposits**	590	14	456	11
Derivatives***	7	0	5	0
Total bonds and bond funds	**2,555**	**60**	**2,684**	**65**
Governments	432	10	605	15
Inflation-linked bonds		0	10	0
Investment Grade	1,750	41	1,602	39
Emerging markets and High Yield	187	4	280	7
Structured Investments****	187	4	188	5
Total equities	**629**	**15**	**525**	**13**
Finland	113	3	112	3
Developed markets	328	8	237	6
Emerging markets	114	3	110	3
Unlisted equities	6	0	6	0
Private equity investments	69	2	59	1
Total alternative investments	**33**	**1**	**33**	**1**
Hedge funds	33	1	33	1
Total property investment	**473**	**11**	**398**	**10**
Direct property investment	301	7	251	6
Indirect property investment	172	4	148	4
Total	**4,287**	**100**	**4,102**	**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.

				Effect on solvency capital, EUR million	
Non-life Insurance	**Portfolio at fair value, 31 Dec 2021, EUR million**	**Risk parameter**	**Change**	**31 Dec 2021**	**31 Dec 2020**
Bonds and bond funds*	3,152	Interest rate	1 pp	100	103
Equities**	587	Market value	10 %	111	91
Venture capital funds and unlisted shares	75	Market value	10 %	15	13
Real property	473	Market value	10 %	47	40
Currency	85	Value of currency	10 %	44	36
Credit risk premium***	3,152	Credit spread	0.1 pp	35	37
Derivatives	7	Volatility	10 pps	1	0

* 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 2021**	**31 Dec 2020**
0–1 year	712	749
>1–3 years	692	579
>3–5 years	672	664
>5–7 years	453	557
>7–10 years	230	245
>10 years	103	143
Total	**2,862**	**2,937**
Modified duration	3.3	3.5
Effective interest rate, %	0.9	1.0

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

Fixed-income portfolio by maturity and credit rating on 31 December 2021*, EUR million

Year(s)	**0–1**	**1–3**	**3–5**	**5–7**	**7–10**	**10–**	**Total**	**Proportion, %**
Aaa	13	110	46	46	3	50	267	9.3%
Aa1–Aa3	502	87	56	25	11	10	690	24.1%
A1–A3	60	130	169	135	64	22	580	20.3%
Baa1–Baa3	91	294	347	206	133	15	1,087	38.0%
Ba1 or lower	30	39	28	11	8	6	121	4.2%
Internally rated	15	33	26	30	11	1	116	4.1%
Total	**712**	**692**	**672**	**453**	**230**	**103**	**2,862**	**100.0%**

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%**

* 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 3.3 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 2021	31 Dec 2020
USD	69	35
SEK	1	1
JPY		0
GBP	9	0
Other	6	25
Total*	**85**	**60**

* The currency exposure was 2.0% (1.5%) 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 2021		31 Dec 2020	
Credit rating, consistent with Moody's, EUR million	Investment*	Insurance**	Investment*	Insurance**
Aaa	267	0	457	
Aa1–Aa3	690	24	689	26
A1–A3	580	70	565	48
Baa1–Baa3	1,087	0	998	0
Ba1 or lower	121	0	147	
Internal rating	116	42	81	42
Total	**2,862**	**137**	**2,937**	**117**

* 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 of insurance liabilities

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 2021

	Liability, 31 Dec 2021, EUR million	Number of insureds or contracts	Duration on yield curve, 31 Dec 2021
Unit-linked contracts	**13,125**	**317,726**	**10.9**
Unit-linked insurance contracts	**5,290**	**193,165**	**10.8**
Life Insurance/Savings	3,417	74,641	10.7
Individual pension insurance	1,725	112,297	10.5
Group pension insurance	147	6,227	14.1
Unit-linked investment contracts	**7,836**	**124,561**	**11.0**
Saving	4,855	73,040	12.8
Individual pension contracts	1,779	43,592	8.0
Group pension contracts	104	5,342	10.7
Capital redemption contracts	1,098	2,587	7.9
Other than unit-linked contracts	**5,560**	**481,647**	**9.4**
Insurance contracts discounted with technical interest rate	**5,299**	**481,643**	**9.6**
Life Insurance/Savings	1,194	43,354	9.1
Rate of guaranteed interest 4.5%	34	382	8.2
Rate of guaranteed interest 3.5%	317	5,414	11.8
Rate of guaranteed interest 2.5%	106	5,198	9.0
Rate of guaranteed interest 1.5%	1	87	13.2
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	735	32,273	7.4
Individual pension insurance	2,663	60,010	8.4
Rate of guaranteed interest 4.5%	232	5,750	5.6
Rate of guaranteed interest 3.5%	427	15,872	7.8
Rate of guaranteed interest 2.5%	244	18,069	14.6
Rate of guaranteed interest 1.5%	1	83	13.3
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	1,759	20,236	7.9
Group pension insurance	1,355	36,392	12.4
Defined benefit 3.5%	842	21,022	12.0
Defined benefit 2.5%	86	2,334	13.6
Defined benefit 1.5%	266	7,183	16.7
Defined benefit 0.5%	88	2,194	11.6
Defined contribution 3.5%	7	67	12.8
Defined contribution 2.5%	58	3,249	13.4
Defined contribution 1.5%	7	285	14.1
Defined contribution 0.5%	0	58	17.8
Individual term life policies	84	337,692	4.1
Group life insurance	3	4,195	1.5
Other than unit-linked investment contracts discounted with technical interest rate	**1**	**4**	**6.1**
Capital redemption contracts	1	4	6.1
Rate of guaranteed interest 2.5%	1	3	4.5
Rate of guaranteed interest 1.5%	1	1	8.7
Effect of discounting with market interest rate	**145**		
Other insurance liability items	**115**		
Total	18,686	799,373	10.5

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 technica	**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

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 28 million (27).

Since in savings insurance and investment insurance, the mortality and longevity risks almost offset each other, no mortality supplement has been needed.

The company has complied with the FAS in establishing insurance contract liabilities, with the exception that the company has moved closer to a real-time interest rate in the discount rate. The company has insurance contract savings at its own risk with guaranteed interest rate ranging between 0.5% and 4.5%. The insurance liability of the contracts with a technical interest rate of 4.5% has been permanently supplemented in such a way that the discount rate of the insurance liability is 3.5% (excl. insurance assets transferred from Suomi Mutual that are included OP Life Assurance Ltd's balance sheets separated from the other balance sheet). In addition, insurance liabilities of contracts with guaranteed interest have been supplemented with supplementary short-term interest rate provisions until 31 December 2022 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 2022, 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 145 million (253).

In financial statements based on national regulation, lowering the discount rate by 0.1 percentage point would increase the technical provisions by EUR 24 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

	Duration						
31 December 2021, EUR million	2022–2023	2024–2025	2026–2030	2031–2035	2036–2040	2041–2045	2046–
Unit-linked contracts	**-1,651**	**-1,688**	**-3,402**	**-2,228**	**-1,609**	**-1,073**	**-1,204**
Insurance contracts	**-578**	**-653**	**-1,348**	**-828**	**-538**	**-351**	**-467**
Life Insurance/Savings	-471	-469	-915	-548	-366	-241	-349
Individual pension insurance	-97	-166	-387	-249	-150	-96	-85
Group pension insurance	-10	-18	-45	-31	-22	-14	-32
Investment contracts	**-1,073**	**-1,035**	**-2,055**	**-1,400**	**-1,070**	**-722**	**-738**
Saving	-548	-499	-1,127	-922	-695	-637	-659
Individual pension contracts	-288	-343	-565	-279	-143	-69	-62
Group pension contracts	-10	-13	-34	-26	-17	-9	-6
Capital redemption contracts	-226	-179	-329	-172	-215	-7	-11
Other than unit-linked contracts	**-927**	**-870**	**-1,650**	**-865**	**-484**	**-303**	**-453**
Insurance contracts	**-823**	**-828**	**-1,608**	**-850**	**-481**	**-301**	**-449**
Life Insurance/Savings	-181	-168	-384	-252	-93	-56	-68
Rate of guaranteed interest 4.5%	-7	-5	-15	-11	-3	-2	-1
Rate of guaranteed interest 3.5%	-54	-45	-108	-77	-51	-36	-53
Rate of guaranteed interest 2.5%	-27	-20	-31	-16	-10	-7	-10
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 1)	-94	-98	-230	-149	-29	-12	-3
Individual pension insurance	-443	-486	-868	-337	-197	-111	-171
Rate of guaranteed interest 4.5%	-38	-69	-127	-22	-4	-1	0
Rate of guaranteed interest 3.5%	-50	-109	-197	-72	-33	-17	-14
Rate of guaranteed interest 2.5%	-20	-18	-87	-33	-52	-30	-77
Rate of guaranteed interest 1.5%	0	0	0	0	0	0	0
Rate of guaranteed interest 4.5% (Separate balance sheet 2)	-335	-289	-456	-209	-108	-63	-80
Group pension insurance	-179	-164	-344	-257	-191	-134	-210
Defined benefit 3.5%	-143	-128	-262	-196	-145	-101	-143
Defined benefit 2.5%	-12	-10	-21	-16	-14	-11	-19
Defined benefit 1.5%	-5	-5	-12	-11	-9	-8	-19
Defined benefit 0.5%	-11	-10	-19	-13	-9	-6	-10
Defined contribution 3.5%	-1	-2	-4	-1	-1	-1	-2
Defined contribution 2.5%	-5	-8	-25	-19	-11	-6	-14
Defined contribution 1.5%	-1	-1	-2	-2	-2	-1	-2
Defined contribution 0.5%	0	0	0	0	0	0	0
Individual pure risk insurance	-16	-11	-13	-3	0	0	0
Group life insurance	-3	0	0				
Investment contracts	**0**	**0**	**-1**	**0**			
Capital redemption contracts	0	0	-1	0			
Rate of guaranteed interest 2.5%	0	0	-1				
Rate of guaranteed interest 1.5%	0	0	0	0			
Reserve for decreased discount rate	-103	-42	-41	-15	-3	-2	-5
Total	**-2,577**	**-2,558**	**-5,053**	**-3,094**	**-2,093**	**-1,376**	**-1,657**

				Duration			
31 December 2020, EUR million	2021–2022	2023–2024	2025–2029	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			
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**

Note 66. Profitability of life insurance business

		31 Dec 2021			31 Dec 2020	
EUR million	Risk income	Claims incurred	Claim ratio	Risk income	Claims incurred	Claim ratio
Life insurance	**448**	**425**	**95 %**	**426**	**404**	**95 %**
Term life insurance	37	18	50 %	36	18	49 %
Insurance saving	411	407	99 %	390	387	99 %
Pension insurance	**55**	**52**	**95 %**	**41**	**41**	**101 %**
Defined benefit	26	21	80 %	22	22	100 %
Defined contribution	29	31	108 %	19	20	102 %
OP Life Assurance Company	**503**	**477**	**95 %**	**467**	**446**	**95 %**

Claims expenditure of defined benefit group pension includes the longevity provision of EUR 0.9 million in 2021 and EUR 0.6 million in 2020.

Note 67. Life Insurance asset allocation

Investment asset portfolio allocation	31 Dec 2021 Fair value*, EUR million	%	31 Dec 2020 Fair value*, EUR million	%
Total money market instruments	**748**	**21%**	**493**	**14%**
Money market investments and deposits**	743	20%	490	14%
Derivatives***	5	0%	3	0%
Total bonds and bond funds	**2,126**	**58%**	**2,414**	**67%**
Governments	256	7%	447	12%
Inflation-linked bonds		0%	9	0%
Investment Grade	1,586	43%	1,497	42%
Emerging markets and High Yield	121	3%	191	5%
Structured investments****	163	4%	270	7%
Total equities	**546**	**15%**	**471**	**13%**
Finland	91	2%	86	2%
Developed markets	283	8%	214	6%
Emerging markets	98	3%	101	3%
Fixed assets and unquoted equities	3	0%	3	0%
Private equity investments	70	2%	67	2%
Total alternative investments	**40**	**1%**	**40**	**1%**
Hedge funds	40	1%	40	1%
Total real property investments	**186**	**5%**	**185**	**5%**
Direct property investments	23	1%	50	1%
Indirect property investments	163	4%	135	4%
Total	**3,646**	**100%**	**3,602**	**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.

Investment asset portfolio allocation	31 Dec 2021 Fair value*, EUR million	%	31 Dec 2020 Fair value*, EUR million	%
Total money market instruments	**43**	**6%**	**42**	**5%**
Money market investments and deposits**	43	6%	41	5%
Derivatives***	0	0%	1	0%
Total bonds and bond funds	**641**	**87%**	**708**	**89%**
Governments	200	27%	213	27%
Inflation-linked bonds		0%	2	0%
Investment Grade	388	52%	418	52%
Emerging markets and High Yield	23	3%	25	3%
Structured investments****	30	4%	50	6%
Total equities	38	5%	32	4%
Developed markets	26	4%	19	2%
Emerging markets	1	0%	1	0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	10	1%	12	1%
Total real property investments	**18**	**2%**	**18**	**2%**
Direct property investments	8	1%	8	1%
Indirect property investments	10	1%	10	1%
Total	**740**	**100%**	**800**	**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 18 million (6). 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 2021		31 Dec 2020	
Investment asset portfolio allocation	**Fair value*, EUR million**	**%**	**Fair value*, EUR million**	**%**
Total money market instruments	**65**	**4%**	**100**	**5%**
Money market investments and deposits**	65	4%	98	5%
Derivatives***	0	0%	2	0%
Total bonds and bond funds	**1,585**	**89%**	**1,780**	**88%**
Governments	612	35%	641	32%
Inflation-linked bonds		0%	5	0%
Investment Grade	826	47%	930	46%
Emerging markets and High Yield		0%	5	0%
Structured investments****	147	8%	200	10%
Total equities	**80**	**5%**	**80**	**4%**
Developed markets	50	3%	47	2%
Emerging markets	1	0%	3	0%
Fixed assets and unquoted equities	0	0%	0	0%
Private equity investments	29	2%	31	2%
Total real property investments	**42**	**2%**	**53**	**3%**
Direct property investments	19	1%	30	1%
Indirect property investments	23	1%	22	1%
Total	**1,772**	**100%**	**2,013**	**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 40 million (15). 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

				Effect on equity capital, EUR million	
Life insurance	**Portfolio at fair value, EUR million 31 Dec 2021**	**Risk parameter**		**31 Dec 2021**	**31 Dec 2020**
Bonds and bond funds*	2,874	Interest rate	1 pp	83	84
Equities**	513	Market value	10%	95	79
Private equity investments and unquoted equities	73	Market value	10%	15	14
Commodities		Market value	10%		
Real property	186	Market value	10%	19	18
Currency	72	Market value	10%	35	30
Credit risk premium***	2,874	Credit spread	0.1 pp	31	32
Derivatives	5	Volatility	10 pps	1	0

* 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

				Effect on equity capital, EUR million	
Separated balance sheet of individual life insurance portfolio (separated balance sheet 1)	**Portfolio at fair value, EUR million 31 Dec 2021**	**Risk parameter**		**31 Dec 2021**	**31 Dec 2020**
Bonds and bond funds	684	Interest rate	1 pp	32	35
Equities **	28	Market value	10%	6	4
Private equity investments and unquoted equities	10	Market value	10%	2	2
Real property	18	Market value	10%	2	2
Currency	23	Market value	10%	5	4
Credit risk premium***	684	Credit spread	1 pp	6	9
Derivatives	0	Volatility	10 pps	0	0

Investment and customer behaviour risks associated with the portfolio in the separated balance sheet 1 have been buffered through future supplementary benefits. The buffers are sufficient to cover a significant negative return on the investment assets included in the separated portfolios, after which OP Financial Group will bear all the risks associated with the portfolio. Changes in investments income above the buffer will affect OP Financial Group's equity capital. The buffer of the separated balance sheet 1 is EUR 98 million (90).

* 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

				Effect on equity capital, EUR million	
Separated balance sheet of individual life insurance portfolio (separated balance sheet 2)	**Portfolio at fair value, EUR million 31 Dec 2021**	**Risk parameter**		**31 Dec 2021**	**31 Dec 2020**
Bonds and bond funds	1,650	Interest rate	1 pp	79	88
Equities **	51	Market value	10%	10	10
Private equity investments and unquoted equities	29	Market value	10%	6	6
Commodities		Market value	10%		
Real property	42	Market value	10%	4	5
Currency	65	Market value	10%	10	10
Credit risk premium***	1,650	Credit spread	0.1 pp	13	22
Derivatives	0	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 201 million (200).

* 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 2021	31 Dec 2020
0–1 year	988	1,061
>1–3 years	498	512
>3–5 years	547	496
>5–7 years	355	414
>7–10 years	236	246
>10 years	95	127
Total	**2,719**	**2,856**
Modified duration	3.0	3.2
Average interest rate, %	0.9	1.0

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

Fixed-income portfolio by maturity and credit rating on 31 December 2021*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	10	13	3	40	62	32	159	5.9%
Aa1–Aa3	768	40	28	12	5	9	862	31.7%
A1–A3	97	97	149	71	68	23	505	18.6%
Baa1–Baa3	92	307	316	189	88	24	1,016	37.3%
Ba1 or lower	14	21	18	6	6	4	69	2.5%
Internally rated	8	21	33	37	6	2	108	4.0%
Total	**998**	**498**	**547**	**355**	**236**	**95**	**2,719**	**100.0%**

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%**

* 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 3.0 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 2021	31 Dec 2020
0–1 year	75	88
>1–3 years	139	136
>3–5 years	190	145
>5–7 years	105	180
>7–10 years	95	105
>10 years	46	68
Total	**650**	**722**
Modified duration	5.0	5.5
Average interest rate, %	0.6	0.9

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

Fixed-income portfolio by maturity and credit rating on 31 December 2021*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	0	36	52	27	38	18	170	26.2 %
Aa1–Aa3	44	26	17	8	4	19	119	18.3 %
A1–A3	9	17	36	16	17	5	101	15.5 %
Baa1–Baa3	16	44	68	37	28	4	196	30.2 %
Ba1 or lower	5	7	5	1	0	0	20	3.0 %
Internally rated	1	8	11	16	7	0	43	6.7 %
Total	**75**	**139**	**190**	**105**	**95**	**46**	**650**	**100.0 %**

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		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		60	8.3%
Total	**88**	**136**	**145**	**180**	**105**	**68**	**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 A2, according to Moody's rating.

The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 1 (based on call dates and maturity dates) is 5.0 years.

Note 75. Risk exposure of fixed-income investments under separated balance sheet 2

Fair value by term to maturity or repricing date, € million *	31 Dec 2021	31 Dec 2020
0–1 year	85	157
>1–3 years	412	313
>3–5 years	388	444
>5–7 years	251	347
>7–10 years	194	217
>10 years	159	226
Total	**1,488**	**1,704**
Modified duration	5.5	5.8
Average interest rate, %	0.5	1.8

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

Fixed-income portfolio by maturity and credit rating on 31 December 2021*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Proportion
Aaa	3	137	121	81	78	59	479	32.2%
Aa1-Aa3	47	65	40	19	39	86	297	20.0%
A1-A3	19	73	54	63	16	5	230	15.5%
Baa1-Baa3	16	123	156	60	51	8	414	27.8%
Internally rated		13	16	28	10	1	68	4.6%
Total	**85**	**412**	**388**	**251**	**194**	**159**	**1,488**	**100.0%**

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		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%
Internally rated	25	17	20	23	3	0	87	5.1%
Total	**157**	**313**	**444**	**347**	**217**	**226**	**1,704**	**100.0%**

* Excludes credit derivatives.

The maturity is presented until the end of the term to maturity. If the paper includes a call option, the maturity is presented until the first possible Call date.

The average credit rating of the fixed-income portfolio in the separated balance sheet 2 is A1, according to Moody's rating.

The average residual term to maturity of the fixed-income portfolio in the separated balance sheet 2 (based on call dates and maturity dates) is 5.5 years.

Note 76. Currency risk associated with Life Insurance investments

Foreign currency exposure, EUR million	31 Dec 2021	31 Dec 2020
USD	57	27
SEK	1	0
GBP	9	1
Other	6	39
Total*	**72**	**67**

* Total net currency exposure.

The currency exposure was 2.0% (1.9) of the investment portfolio.

Note 77. Currency risk associated with investments under separated balance sheet 1

Foreign currency exposure, EUR million	31 Dec 2021	31 Dec 2020
USD	18	13
SEK	0	
JPY		0
GBP	0	0
Other	5	4
Total*	**23**	**17**

* Total net currency exposure.

The currency exposure was 3.2% (2.2) of the investment portfolio.

Note 78. Currency risk associated with investments under separated balance sheet 2

Foreign currency exposure, EUR million	31 Dec 2021	31 Dec 2020
USD	50	49
SEK	0	0
GBP	0	0
Other	15	18
Total*	**65**	**66**

* Total net currency exposure.

The currency exposure was 3.7% (3.3) of the investment portfolio.

Note 79. Counterparty risk associated with Life Insurance investments

Credit rating, € million	31 Dec 2021	31 Dec 2020
Moody's equivalent	Investment*	Investment*
Aaa	159	372
Aa1–Aa3	862	793
A1–A3	505	499
Baa1–Baa3	1,016	910
Ba1 or lower	69	91
Internally rated	108	190
Total	**2,719**	**2,856**

* 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 2021	31 Dec 2020
Moody's equivalent	Investment*	Investment*
Aaa	170	188
Aa1–Aa3	119	130
A1–A3	101	107
Baa1–Baa3	196	215
Ba1 or lower	20	22
Internally rated	43	60
Total	**650**	**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 Moody's equivalent	31 Dec 2021 Investment*	31 Dec 2020 Investment*
Aaa	479	537
Aa1–Aa3	297	373
A1–A3	230	244
Baa1–Baa3	414	463
Internally rated	68	87
Total	**1,488**	**1,704**

* Includes money-market investments and deposits, bonds, and bond funds.

Note 82. Credit risk associated with investments under separated balance sheet 1

	31 Dec 2021		31 Dec 2020		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	**43**		**42**			
Money market investments and deposits**	43		41			
Derivatives***	0		1			
Total bonds and bond funds	**641**		**708**		**9**	**0**
Governments	200		213		2	
Inflation-linked bonds			2		0	
Investment Grade	388		418		6	0
Emerging markets and High Yield	23		25		0	
Structured investments****	30		50			
Total	**684**		**750**		**9**	**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

	31 Dec 2021		31 Dec 2020		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	**65**		**100**			
Money market investments and deposits**	65		98			
Derivatives***	0		2			
Total bonds and bond funds	**1,585**		**1,780**		**22**	**0**
Governments	612		641		6	
Inflation-linked bonds			5		0	
Investment Grade	826		930		15	0
Emerging markets and High Yield			5		0	
Structured investments****	147		200			
Total	**1,650**		**1,881**		**22**	**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.

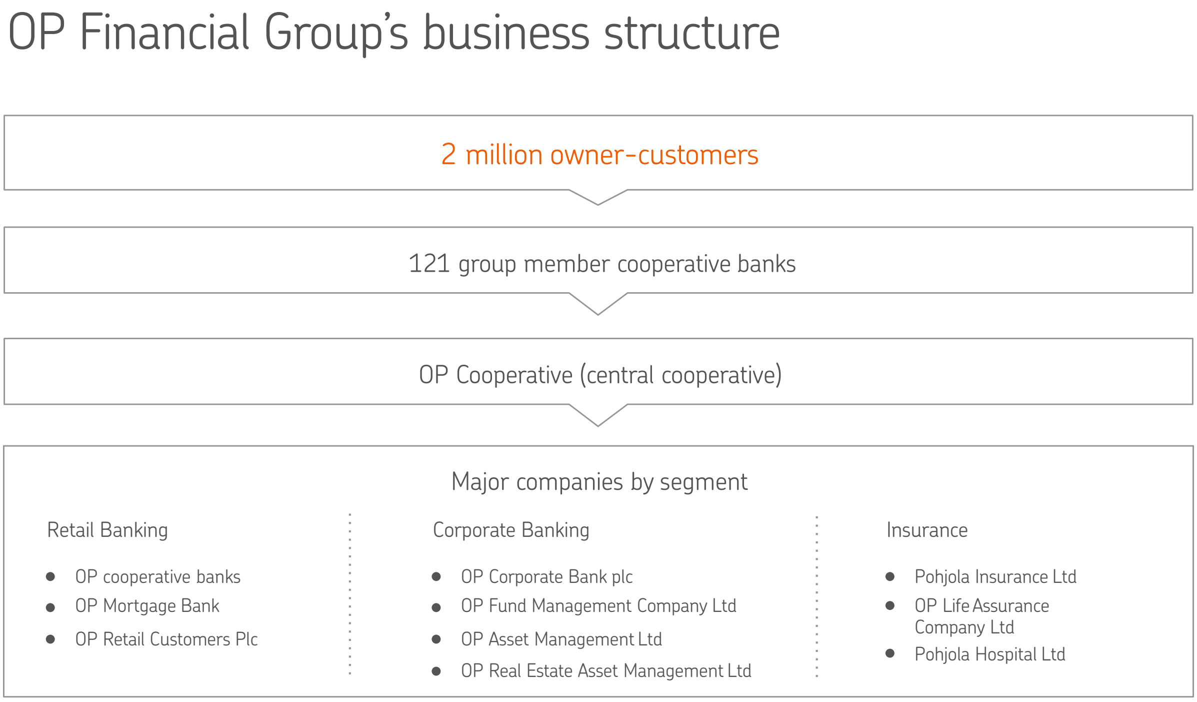
***** Running yield deducted from total return of liquid fixed income investments, excluding Money market and investment result relative to the EUR swap curve.

***** 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

OP Asset Management Execution Services Oy merged into OP Asset Management Ltd through a subsidiary merger on 30 April 2021.

OP Cooperative sold all shares of its subsidiary, Checkout Finland Ltd, to Paytrail Oyj. The sale was finalised on 30 February 2021.

The business name of OP Card Company Plc changed to OP Retail Customers plc as of 1 June 2021.

OP Corporate Bank plc's Baltic subsidiaries OP Finance AS (Estonia), OP Finance SIA (Latvia) and AB OP Finance (Lithuania) merged into their parent company OP Corporate Bank plc on 31 October 2021 through a cross-border subsidiary merger.

OP-Services Ltd merged into OP Cooperative on 30 November 2021 through a subsidiary merger.

On 29 November 2021, OP Corporate Bank plc implemented a partial demerger in such a way that the shares of Pohjola Insurance Ltd, OP Corporate Bank plc's subsidiary engaged in non-life insurance business, were transferred to the direct ownership of OP Cooperative. Technically, this was implemented in such a way that OP Corporate Bank plc demerged through a partial demerger into OP Insurance Holding Ltd, an ancillary company wholly owned by OP Cooperative, on 29 November 2021, which merged into OP Cooperative through a subsidiary merger on 30 November 2021.

Pohjola Insurance Ltd sold all shares of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy, part of Pihlajalinna Group. The corporate transaction was published on 2 July 2021. The net debt free transaction price is EUR 31.8 million. The Finnish Competition and Consumer Authority approved the corporate transaction on 14 January 2022. Pohjola Hospital was transferred to Pihlajalinna's ownership on 1 February 2022.

OP Corporate Bank plc sold all shares of its subsidiary OP Custody Ltd to OP Cooperative on 30 November 2021.

Major subsidiaries included in the financial statements of OP Financial Group in 2021

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 Retail Customers Plc	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
OP Property Management Ltd	Helsinki	100.0	100.0
OP Asset Management Limited	Helsinki	100.0	100.0
Pohjola Hospital Ltd	Helsinki	100.0	100.0
Pohjola Insurance Ltd	Helsinki	100.0	100.0
OP Custody Ltd	Helsinki	100.0	100.0

* Helsinki Area Cooperative Bank is a cooperative. Every representative of its Representative Assembly has one vote. The Representative Assembly has 20 representatives appointed by the central cooperative and 10 owner-customer representatives.

In addition to the subsidiaries, 40 (43) 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, 26 (21) other subsidiaries have been consolidated.

Member cooperative banks forming the technical parent company of OP Financial Group in 2021

Name	Balance sheet 2021, EUR million	Capital adequacy, % 31 Dec 2021	Managing Director 31 Dec 2021
Alajärven Op	375	43.3	Jari Leivo
Ala-Satakunnan Op	310	56.7	Jari Katila
Alavieskan Op	92	36.2	Antero Alahautala
Alavuden Seudun Op	308	45.5	Jussi Ruuhela
Andelsbanken för Åland	634	23.4	Johnny Nordqvist
Andelsbanken Raseborg	525	31.0	Mats Enberg
Askolan Op	171	31.8	Kari Leskinen
Etelä-Hämeen Op	2127	48.0	Mika Helin
Etelä-Karjalan Op	2307	39.9	Petri Krohns

Etelä-Pirkanmaan Op	832	41.6	Juha Luomala
Etelä-Pohjanmaan Op	1636	27.2	Olli Tarkkanen
Euran Op	303	58.5	Timo Viitanen
Haapamäen Seudun Op	76	72.8	Hannu Petjoi
Hailuodon Op	59	47.8	Jani Isomaa
Humppilan-Metsämaan Op	107	57.6	Jari Salokangas
Itä-Uudenmaan Op	1597	25.6	Mauri Molander
Janakkalan Op	506	57.5	Mikko Suutari
Jokilaaksojen Op	472	38.1	Juha Pajumaa
Jokioisten Op	153	40.0	Ville Aarnio
Joki-Pohjanmaan Op	448	28.3	Markku Niskala
Jämsän Seudun Op	423	72.4	Kari Mäkelä
Järvi-Hämeen Op	572	55.1	Teemu Sarhemaa
Kainuun Op	1044	42.8	Teuvo Perätalo
Kangasalan Seudun Op	603	37.6	Jyrki Turtiainen
Kangasniemen Op	226	60.9	Seppo Laurila
Kemin Seudun Op	492	43.7	Heikki Palosaari
Kerimäen Op	102	56.8	Sakari Kangas
Keski-Pohjanmaan Op	1607	29.8	Jyrki Rantala
Keski-Suomen Op	4090	34.8	Pasi Sorri
Kiteen Seudun Op	385	75.8	Jani Pakarinen
Koitin-Pertunmaan Op	92	78.3	Jorma Somero
Korpilahden Op	114	44.8	Tuomas Uppsala
Korsnäs Andelsbank	162	42.8	Jan-Erik Westerdahl
Kronoby Andelsbank	156	44.2	Kaj Nylund
Kuhmon Op	273	67.9	Martti Pulkkinen
Kuortaneen Op	85	37.9	Suvi-Katariina Kangastie
Kuusamon Op	325	37.6	Kari Kivelä
Kymenlaakson Op	2348	47.1	Juha Korhonen
Kärkölän Op	118	49.6	Mikael Hanhilahti
Laihian Op	136	42.1	Markku Jaatinen
Lapin Op	122	44.4	Juha Teerialho
Lehtimäen Op	85	24.4	Veli-Jussi Haapala
Lemin Op	108	32.2	Petteri Mattila
Limingan Op	158	27.4	Petteri Juusola
Liperin Op	284	38.7	Jukka Asikainen
Lounaismaan Op	2010	41.6	Jouni Hautala
Lounaisrannikon Op	865	28.7	Sami Peura
Lounais-Suomen Op	813	57.3	Leena Nikula
Luhangan Op	65	33.2	Tuomas Puttonen
Luopioisten Op	62	57.5	Sirpa Leppäkoski
Luumäen Op	130	64.2	Markku Niskanen
Länsi-Kymen Op	559	28.3	Saila Rosas
Länsi-Suomen Op	3752	42.9	Matti Kiuru
Maaningan Op	174	45.1	Ari Väänänen
Miehikkälän Op	92	68.7	Teemu Tuukkanen
Mouhijärven Op	106	41.1	Kirsi Soltin
Multian Op	99	65.9	Arto Laitinen
Mäntsälän Op	304	50.7	Mikko Purmonen
Nagu Andelsbank	103	25.3	Alice Björklöf
Nakkila-Luvian Op	299	40.7	Jussi Kuvaja
Niinijokivarren Op	89	91.8	Kaisa Markula
Nilakan Seudun Op	210	36.3	Eeva Karppinen
Orimattilan Op	353	58.0	Jukka Sipilä
Op Harjuseutu	161	35.0	Sanna Metsänranta
Op Kantrisalo	133	46.1	Bo Hellén
Op Vakka-Auranmaa	1045	51.2	Lasse Vehviläinen
Oulun Op	4659	25.1	Keijo Posio
Outokummun Op	198	64.2	Ari Karhapää
Paltamon Op	89	39.6	Maarit Korpinen
Pedersörenejdens Andelsbank	617	27.5	Agneta Ström-Hakala
Peräseinäjoen Op	148	46.6	Juha Mäki

Petäjäveden Op	113	50.7	Jaakko Ylitalo
Pohjois-Hämeen Op	586	36.7	Pertti Pyykkö
Pohjois-Karjalan Op	2115	37.3	Jaana Reimasto-Heiskanen
Pohjois-Savon Op	3944	40.9	Seppo Pääkkö
Pohjolan Op	1909	28.5	Mikko Kokkonen
Polvijärven Op	182	68.1	Ari Noponen
Posion Op	145	66.9	Vesa Jurmu
Pudasjärven Op	274	51.1	Pertti Purola
Pukkilan Op	123	46.2	Simo Näveri
Pulkkilan Op	55	58.3	Marja Hyvärinen
Punkalaitumen Op	110	70.6	Petri Antila
Purmo Andelsbank	51	30.2	Tommy Olin
Päijät-Hämeen Op	2205	29.3	Mika Kivimäki
Raahentienoon Op	835	43.9	Ari Pohjola
Rantasalmen Op	162	49.8	Jaana Vänskä
Rautalammin Op	90	36.1	Esko-Pekka Markkanen
Riistaveden Op	167	25.7	Ismo Salmela
Rymättylän Op	100	46.2	Minnaliisa Vehkala
Rääkkylän Op	93	57.1	Heli Silvennoinen
Sallan Op	114	45.9	Jaakko Ovaskainen
Sastamalan Op	405	32.9	Janne Pohjolainen
Satakunnan Op	678	54.8	Olli Näsi
Satapirkan Op	400	35.0	Antti Suomijärvi
Savitaipaleen Op	142	64.1	Samppa Oksanen
Siikajoen Op	79	34.5	Petri Mattila
Siikalatvan Op	103	35.5	Jarmo Pistemaa
Suomenselän Op	1155	36.3	Timo Suhonen
Suur-Savon Op	2922	38.5	Jari Himanen
Taivalkosken Op	109	39.8	Piia Mourujärvi
Tampereen Seudun Op	5530	28.4	Jani Vilpponen
Tervolan Op	101	31.3	Jussi Kuittinen
Tervon Op	73	25.9	Jani Kääriäinen
Tornion Op	416	27.7	Terhi Luokkanen
Turun Seudun Op	4956	20.7	Petteri Rinne
Tuusniemen Op	175	30.8	Esa Simanainen
Tyrnävän Op	129	26.3	Antto Joutsiniemi
Utajärven Op	239	43.2	Terttu Hagelin
Uudenmaan Op	4230	34.0	Jussi Huttunen
Vaara-Karjalan Op	543	53.1	Raili Hyvönen
Vasa Andelsbank	1243	24.6	Ulf Nylund
Vehmersalmen Op	115	34.5	Petri Tyllinen
Vesannon Op	100	42.7	Katri Ollila
Vimpelin Op	104	59.0	Matti Mäkinen
Ylitornion Op	120	58.3	Laura Harju-Autti
Ylä-Kainuun Op	347	37.6	Eija Sipola
Yläneen Op	88	50.1	Heikki Eskola
Ylä-Pirkanmaan Op	534	34.7	Leena Selkee
Ylä-Savon Op	596	42.1	Mikko Paananen
Ypäjän Op	90	54.7	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 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, % 2021	Interest, % 2020	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	**2021**	**2020**
Cash and cash equivalents	0	0
Investments	3	5
Other assets	1	1
Total assets	**4**	**6**
Other liabilities	-1	-1
Total liabilities	**-1**	**-1**
Net assets	**5**	**7**
Accrued share of non-controlling interests	4	5
Statement of comprehensive income in summary		
Net sales	-1	-1
Profit or loss of continuing operations after tax	0	0
Comprehensive income	**0**	**0**
Comprehensive income attributable to non-controlling interests	0	0
Share of profit paid to non-controlling interests	0	3
Cash flows in summary		
Net cash flow from operating activities	1	4
Net cash flow from investing activities		
Net cash flow from financing activities	-1	-4
Net change in cash flows	**0**	**0**
Cash and cash equivalents at year start	0	0
Cash and cash equivalents at year end	0	0

Joint operations

Some 712 (797) 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 25 Property, plant and equipment on the balance sheet. The rest of the property companies are investment property holdings included in Notes 21.

Summary of the effect of consolidation of joint operations on the balance sheet

EUR million	2021	2020
Property in own use	88	230
Investment property	724	552
Total assets	812	783
Total liabilities	3	2

Most significant joint operations consolidated into OP Financial Group's financial statements in 2021

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 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
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
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 Tuusulan Jatke	Tuusula	Property holding and management	100.0
Keskinäinen Kiinteistö Oy Marikko	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 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
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 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 234 million (192) on 31 December 2021.

Note 85. Information by country

OP Financial Group operates mainly in Finland. OP Corporate Bank plc has, however, branches engaged in banking and asset and sales finance operations in Estonia, Latvia and Lithuania. On 10 February 2021, OP Corporate Bank plc's Board of Directors approved a merger plan whereby the Baltic subsidiaries OP Finance AS (Estonia), OP Finance SIA (Latvia) and AB OP Finance (Lithuania) will merge into their parent company OP Corporate Bank plc on 31 October 2021 through a cross-border merger.

2021

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

Financial information 31 December 2021, EUR million	Estonia	Latvia	Lithuania	Total
Total operating income	16	19	21	**56**
Total EBIT	4	10	9	**23**
Total current tax	2	1	2	**5**
Total personnel in man-years	38	35	43	**115**

2020

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 31 December 2020, EUR million	Estonia	Latvia	Lithuania	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**

Note 86. Related-party transactions

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 Financial Group's Personnel Fund 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 2021

EUR 1,000	Associates	Key management personnel	Others
Loans	110,244	16,410	
Deposits	6,554	8,022	32,118
Other liabilities			280
Interest income	1,454	88	0
Interest expenses		5	0
Insurance premium revenue		56	7,928
Commission income	1	7	
Commission expenses		1	0
Impairment losses on loans	6		
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits		5,763	
Related-party holdings			
Number of holdings		219	

Related-party transactions 2020

EUR 1,000	Associates	Key management personnel	Others
Loans	110	7,985	0
Receivables	0	0	1
Deposits	4	8	27
Interest income	0	0	0
Interest expenses	0	0	0
Insurance premium revenue		0	8
Commission income	1	0	0
Commission expenses	0	0	0
Salaries and other short-term benefits, and performance-based pay			
Salaries and other short-term benefits	0	4	0
Related-party holdings			
Number of holdings	0	80	0

Pension obligations of key management persons

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. Key persons in the management also include three directors who directly report 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 298,000 (230,000). 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 34 provides more detailed information on OP Financial Group's pension plans.

EUR 1,000	2021	2020
Pension costs under TyEL plan*		115
Pension costs of defined contribution plans under TyEL	1,519	1,197
IFRS expense of voluntary supplementary pension	577	487
Pension obligation of voluntary supplementary pension	13,124	11,600
Pension costs of supplementary defined contribution plans	336	327

* IFRS expense has been used for the portion of the TyEL defined benefit plan and the equalisation portion of an employee's contribution less the employee's portion of the contribution has been used for the defined contribution plan.

Note 87. Events after the balance sheet date

Pohjola Insurance sold its hospital business

Pohjola Insurance Ltd, part of OP Financial Group, sold all shares of Pohjola Hospital Ltd to Pihlajalinna Terveys Oy, part of Pihlajalinna Group. On 14 January 2022, the Finnish Competition and Consumer Authority approved the corporate transaction, which was finalised on 1 February 2022. The net debt free transaction price was EUR 31.8 million.

OP Corporate Bank plc issued a new green bond

OP Corporate Bank plc issued a green bond worth EUR 500 million in accordance with its updated Green Bond Framework. The green bond will support the green transition, and proceeds raised with it will be allocated to sustainable corporate lending. Targeted at international responsible institutional investors, the bond is OP Corporate Bank's first senior non-preferred, unsecured green bond, which amounts to EUR 500 million and has a maturity of 5.5 years. Eligible sectors to be funded include renewable energy, green buildings and environmentally sustainable management of living natural resources and land use. The green bond was priced on 20 January 2022 and issued on 27 January 2022.

OP Financial Group will apply an RWA floor, based on the standardised approach, in the calculation of its capital adequacy ratio

In the calculation of its capital adequacy ratio, OP Financial Group has decided to apply an RWA floor – based on the standardised approach – in the second quarter of 2022. This is due to enhanced regulatory requirements and discussions with the European Central Bank on the application of the Internal Ratings Based Approach (IRBA).

OP Financial Group's capital adequacy will remain strong, despite the application of the floor. Application of the floor will decrease OP Financial Group's CET1 ratio by an estimated 3 percentage points and its FiCo ratio by an estimated 30 percentage points. After the floor has been applied, it is estimated that the Group's CET1 ratio will exceed the regulatory minimum level by over 5 percentage points, and the financial conglomerate's FiCo ratio by approximately 20 percentage points.

Application of the floor is a temporary capital measure which will not affect OP Financial Group's good risk position. The impact of the floor will be eliminated in stages over the coming years, as the ECB approves the Group's development measures regarding the Internal Ratings Based Approach.

Application of the floor will have no material impact on OP Financial Group's bond issuance plan for 2022.

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 2021 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, 1 March 2022

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	Jari Himanen
Kati Levoranta	Pekka Loikkanen
Tero Ojanperä	Riitta Palomäki
Petri Sahlström	Olli Tarkkanen
Mervi Väisänen	

Auditors' note

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

Helsinki, 2 March 2022

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 2021. 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 12 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, 13, 20 and 37 to the financial statements)	
Receivables from customers, totalling €96.9 billion, are the most significant item on the OP Financial Group's consolidated balance sheet representing 56 percent of the total assets. Calculation of expected credit losses (ECL) 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 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 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 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. The main focus areas in our audit of ECL were the most significant factors requiring management judgement in the calculation of ECL, cash flow based ECL calculation based on expert assessment, impacts of the COVID-19 pandemic on the credit risk position and accounting for expected credit losses, validation process for ECL models as well as recalculation of the most significant ECL models and sensitivity analysis. 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, 8, 19, 21 and 37 to the financial statements)

The carrying value of investment assets totals €22.9 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are €3.5 billion and derivative liabilities €2.3 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.

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.

In respect of derivative contracts, we considered the accounting treatment and the valuation process 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.

KPMG IFRS and financial instruments specialists were involved in the audit.

Finally, we considered the appropriateness of the notes on investment assets and derivatives.

Insurance liabilities (notes 1, 6 and 31 to the financial statements)

Measurement of insurance liabilities, amounting to €8.8 billion on the OP Financial Group’s balance sheet, is based on various actuarial assumptions and calculation methods.

Calculation of insurance liabilities relies on data processed in many IT systems and combination of that data. The databases are extensive and data volumes processed by the IT systems are substantial.

Implementation of the new mortality model (K2021) has effected the amount of insurance liability during the financial year.

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 new mortality model 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.

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.	We analysed the hedging principles of interest rate risk for insurance liabilities and the appropriateness of the accounting treatment of hedging derivative instruments. Furthermore, we considered the appropriateness of the notes on insurance liabilities.

Control environment relating to financial reporting process and IT systems

In respect of the accuracy of the financial statements of OP Financial Group, the key reporting processes are dependent on information systems. Therefore, information technology plays an essential role for business continuity, incident management and the accuracy of financial reporting. Consequently, the IT environment related to the financial reporting process and the application controls of individual IT systems have a significant effect on the selected audit approach. As the consolidated financial statements of OP Financial Group are based on a large number of data flows from many systems, the financial reporting IT environment is addressed as a key audit matter.	We obtained an understanding of the IT systems related to financial reporting and the associated control environment and tested the effectiveness of the related internal controls. Our audit procedures also concentrated on monitoring key data flows and transactions, access management, 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.

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 regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Cooperative Meeting of OP Cooperative in 2002 and our appointment represents a total period of uninterrupted engagement of 20 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, 2 March 2022

KPMG OY AB

JUHA-PEKKA MYLÉN
Authorised Public Accountant, KHT