OP Corporate Bank plc's Report by the Board of Directors and Financial Statements 2020

OP

Contents

Report by the Board of Directors 2020

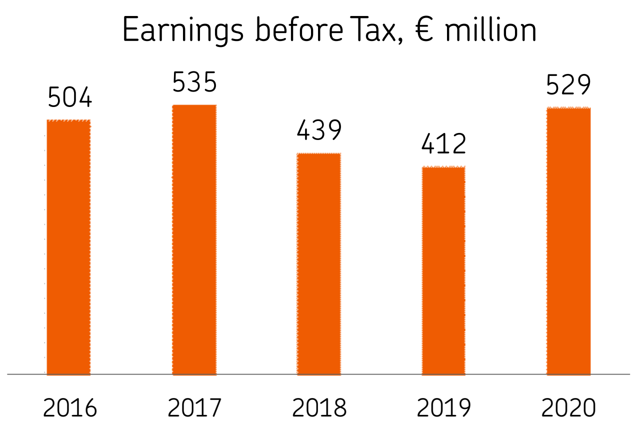
Earnings before tax Q1–4/2020	Net interest income Q1–4/2020	Net insurance income Q1–4/2020	CET1 ratio 31 Dec 2020
€529 million	+10%	+38%	15.1%

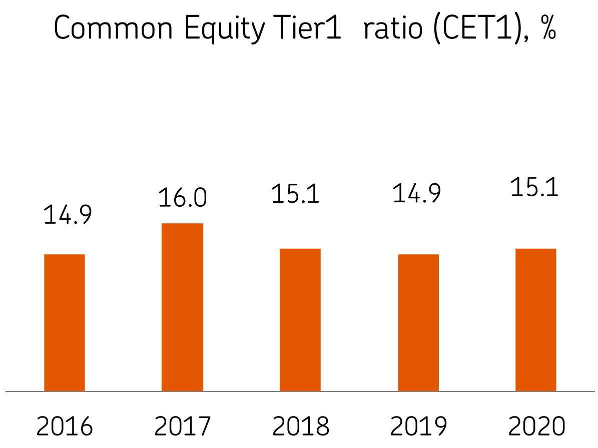
- **Consolidated** earnings before tax rose to EUR 529 million (412). Net insurance income increased by 38% to EUR 555 million (402) and net interest income by 10% to EUR 325 million (295). Transferring the rest of the management of the statutory earnings-related pension insurance to Ilmarinen Mutual Pension Insurance Company at the end of 2020 lowered the Group's and the Insurance segment's pension costs by EUR 85 million. Excluding the effect of the pension liability transfer, total expenses increased by 1% to EUR 641 million. The consolidated earnings were decreased by a fall of 41% in investment income to EUR 228 million (384).
- **Corporate Banking** earnings before tax increased by 15% to EUR 301 million (262). Net investment income increased by 22% to EUR 140 million (115) and net interest income by 3% to EUR 395 million (383). Corporate Banking earnings were weakened by an increase in expenses to EUR 231 million (220). Impairment loss on receivables totalled EUR 53 million (51). The loan portfolio grew in the year to December by 1% to EUR 24.0 billion (23.7).
- **Insurance** earnings before tax rose by 44% to EUR 288 million (200). Net insurance income increased by 38% to EUR 556 million (402). The reduction in the discount rate for insurance liability increased non-life insurance claims incurred by EUR 45 million (136). Investment income fell by 69% to EUR 75 million (242). The operating combined ratio improved to 87.8% (92.7).
- **Other Operations** earnings before tax were EUR –58 million (–50). Liquidity remained good despite the Covid-19 crisis.
- **The Group's** CET1 ratio was 15.1% (14.9).

OP Corporate Bank plc's key indicators

Earnings before tax, € million	Q1–4/2020	Q1–4/2019	Change, %
Corporate Banking	301	262	14.5
Insurance	288	200	44.3
Other Operations	-58	-50	-
Group total	529	**412**	**28.5**
Return on equity (ROE), %	9.2	7.8	1.4*
Return on assets (ROA), %	0.55	0.49	0.06*
	31 Dec 2020	31 Dec 2019	Change, %
CET1 ratio, %	15.1	14.9	0.1*
Loan portfolio, € million	24,485	23,829	2.8
Deposits, € million	13,300	11,103	19.8
Ratio of non-performing receivables to loan and guarantee portfolio, %	1.1	0.5	0.5*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.20	0.19	0.01*

Comparatives deriving from the income statement are based on figures reported for the corresponding periods a year ago. Unless otherwise specified, balance-sheet and other cross-sectional figures on 31 December 2019 are used as comparatives.
*Change in ratio





Business environment

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

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

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

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

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

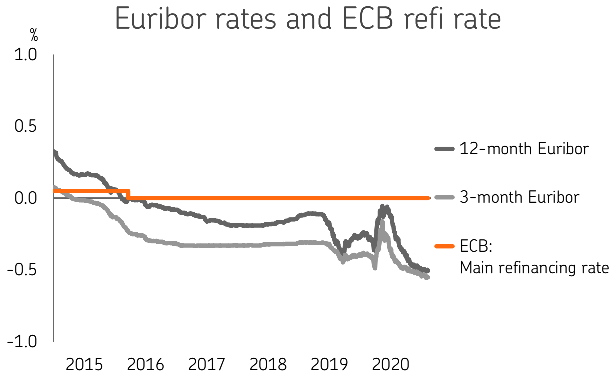
The Covid-19 pandemic will continue to cause uncertainty over the economic outlook. Increasing Covid-19 vaccination rates will support economic recovery. However, the interest rate environment is expected to remain low in the euro area.

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

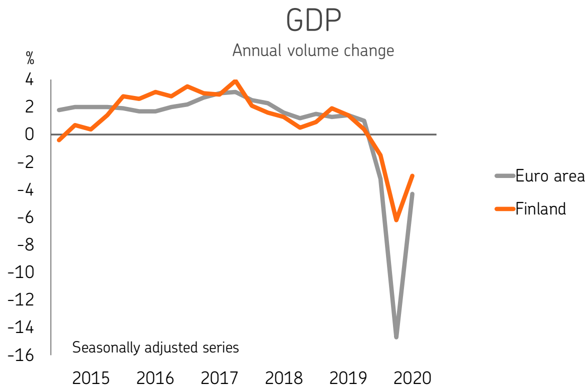
Growth in total deposits was at an exceptional level in 2020. Growth abated towards the year end from the peak of 16.8% reached in the summer, coming to 14.8% in December. In December, corporate deposits increased by 20.1% and household deposits by 8.5%.

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

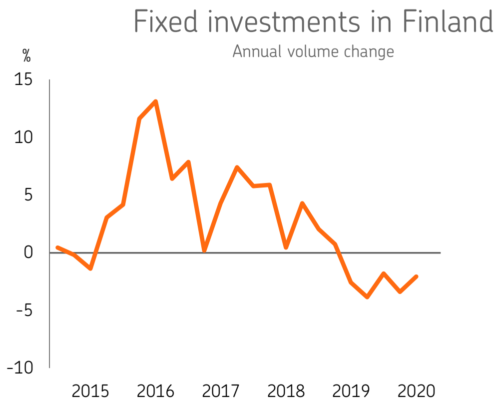
Low interest rates and the volatile equity market have hindered insurance companies' investment activities. Reduced economic activity decreased claims volumes in spring but the long-term effects of the pandemic on insurance and on customers' financial standing are still unclear.



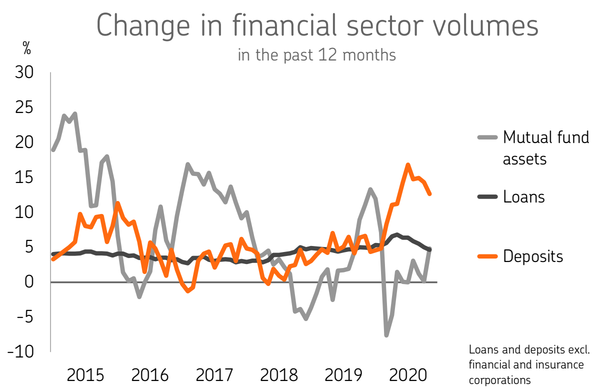
Source: Bank of Finland



Sources: Eurostat, Statistics Finland



Source: Statistics Finland



Sources: Bank of Finland, Investment Research Finland

Consolidated earnings

€ million	Q1–4/ 2020	Q1–4/ 2019	Change, %
Net interest income	325	295	10.3
Net insurance income	555	402	38.3
Net commissions and fees	5	-28	-
Net investment income	233	450	-48.2
Other operating income	29	47	-37.0
Total income	1,148	1,165	-1.5
Personnel costs	196	184	6.5
Transfer of statutory earnings-related pension liability	-85		
Depreciation/amortisation and impairment loss	53	63	-15.6
Other operating expenses	393	386	1.8
Total expenses	557	632	-12.0
Impairment loss on receivables	-53	-51	4.2
OP bonuses to owner-customers	-5	-4	3.5
Overlay approach	-5	-66	-
Total earnings before tax	**529**	**412**	**28.5**

January–December

Consolidated earnings before tax rose to EUR 529 million (412). As regards income from customer business, net insurance income and net interest income increased. The Group's total income decreased by 1.5% to EUR 1,148 million, but including the overlay approach, income increased by 4.0% to EUR 1,143 million. The effect of the Covid-19 pandemic on capital market developments weakened investment income particularly in the first quarter. Investment income fell by 40.6% year on year to EUR 228 million. Total expenses decreased by 12.0% to EUR 557 million. This decrease was affected by the transfer of the remainder of the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company, which reduced personnel costs by EUR 85 million. Excluding the effect of the pension liability transfer, expenses increased by 1%. Impairment loss on receivables totalled EUR 53 million (51).

Net interest income rose to EUR 325 million (295). Interest income increased by 20.4% to EUR 485 million and interest expenses by 43.3% to EUR 156 million. Higher interest income was mainly due to the Corporate Banking segment's higher lending margins and growth in the loan portfolio plus a decrease in the negative interest expenses for TLTRO funding granted by the European Central Bank. Furthermore, the negative interest rates for income on deposits made with OP Corporate Bank by OP Financial Group's member credit institutions increased interest income. Higher interest expenses were explained by higher negative interest expenses for central bank deposits and higher interest expenses for Tier 2 bonds and senior non-preferred bonds. During the financial year, OP Corporate Bank borrowed EUR 6 billion under TLTRO funding offered by the European Central Bank to banks, which increased to EUR 8 billion. Senior non-preferred bonds increased by EUR 0.5 billion to EUR 1.7 billion and Tier 2 bonds by EUR 1.0 billion to EUR 2.4 billion. OP Corporate Bank Group's loan portfolio grew in the first quarter but began to decrease at the end of the second quarter. However, the loan portfolio grew in the year to December by 2.8% to EUR 24.5 billion. The volume of total deposits increased vigorously from the beginning of the second quarter until the last quarter, at the end of which the deposit portfolio partly decreased. During the financial year, the deposit portfolio increased by 19.8% to EUR 13.3 billion.

Net insurance income increased by EUR 154 million to EUR 555 million. Insurance premium revenue increased by 1.9% and claims incurred decreased by 12.1%. The reduction in the discount rate for insurance liability increased claims incurred by EUR 45 million (136). Claims incurred, excluding the reduction in the discount rate, decreased by 3.7%. Within the Insurance segment, the operating combined ratio improved to 87.8% (92.7) and operating risk ratio to 61.1% (65.1).

Net commissions and fees increased by EUR 33 million to EUR 5 million. Commission income totalled EUR 169 million (171). Lower commission income from health and wellbeing services reduced commission income. Commission income from securities brokerage, issue and payment transfers increased from the previous year. Commission expenses were EUR 35 million lower than the year before. Commission expenses were reduced by lower expenses from insurance brokerage and from health and wellbeing services. Commission expenses paid to OP Financial Group's member banks decreased by EUR 15 million year on year. This decrease was affected by the change in the commission model related to derivatives within OP Financial Group.

Net investment income decreased by EUR 217 million to EUR 233 million. Net income from financial assets recognised at fair value through other comprehensive income decreased by EUR 72 million to EUR 19 million. Capital gains on notes and bonds that were lower than a year ago mainly decreased these items through other comprehensive income. Net income from financial assets recognised at fair value through profit or loss fell by EUR 137 million to EUR 238 million. This fall was mainly caused by lower year-on-year income from value changes in equities and derivative transactions. The value changes in equities as well as dividends and shares of profit dropped by EUR 93 million. An item corresponding to the change in the discount rate of the non-life insurance insurance liability, EUR 45 million (136), is shown in a positive value change in net investment income. In addition, income from derivative transactions was increased a year ago by the earnings effect of EUR 16 million arising from the discontinuance of fair value hedge accounting related to TLTRO II funding. Net income from investment property, EUR –5 million, decreased by EUR 13 million. This decrease was mainly affected by property revaluation losses and higher maintenance charges and expenses. Rental income from property was EUR 1 million lower than a year ago.

Net investment income reported by the Insurance segment fell by EUR 228 million to EUR 80 million and by EUR 16 million to EUR 10 million reported by Other Operations but rose by EUR 25 million to EUR 140 million in the Corporate Banking segment. Changes made in the valuation models of derivatives reduced Corporate Banking net investment income a year ago. The overlay approach is applied to non-life insurance equity instruments recognised at fair value through profit or loss, which reduced investment income for the financial year by EUR 5 million. A year ago, it decreased earnings by EUR 66 million. Changes in the fair value of investments within the scope of the overlay approach are presented under the fair value reserve under shareholders' equity. Including the overlay approach, Group investment income, EUR 228 million, decreased by EUR 156 million year on year. Investment income reported by the Insurance segment decreased by EUR 167 million to EUR 75 million. Return on investments by non-life insurance at fair value was 4.8% (8.4).

Other operating income, EUR 29 million, was EUR 17 million lower than the year before. A year ago, the rise in other operating income was explained by the sale of occupational healthcare service business. The financial year saw a change in the commission structure model related to OP Financial Group's internal derivatives, which decreased internal service charges presented in other operating income.

Total expenses fell by EUR 76 million year on year, to EUR 557 million. Personnel costs, EUR 111 million, decreased by EUR 73 million. The personnel costs decreased by EUR 85 million due to the transfer of the remainder of the management of the statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company. Excluding the effect of the pension liability transfer, expenses increased by 1%. Excluding the effect of this transfer, personnel costs year on year increased by EUR 12 million totalling EUR 196 million. Depreciation/amortisation and impairment loss on receivables, EUR 53 million, decreased by EUR 10 million. Impairment write-downs were EUR 16 million lower than the year before. Depreciation on right-of-use assets increased by EUR 3 million. Other operating expenses rose by EUR 7 million to EUR 393 million. This increase is mainly explained by higher amounts charged by OP Cooperative and higher ICT costs and higher year-on-year charges of financial authorities.

The impairment loss on receivables recognised that reduces earnings totalled EUR 53 million (51). Impairment loss on receivables during the financial year was increased by the effects of the Covid-19 pandemic on the loan portfolio quality and the adoption of a new definition of default in the first quarter due to regulatory change. Other factors increasing impairment loss on receivables included changes in the credit risk models used in the calculation of expected credit losses and the Covid-19-related update of macroeconomic parameters as well as the transfer of loans between impairment stages. Final net loan losses recognised for the financial year totalled EUR 55 million (3). Growth in final net loan losses was affected by rearrangements of receivables. Loss allowance was EUR 318 million (318) at the end of the financial year. The ratio of non-performing exposures to the loan and guarantee portfolio rose to 1.1% (0.5). Impairment loss on loans and receivables accounted for 0.20% (0.19) of the loan and guarantee portfolio.

Comprehensive income for the financial year, EUR 446 million increased by EUR 37 million year on year. This increase came from change in the fair value reserve. The fair values of equities, and notes and bonds decreased significantly in the first quarter but rebounded in the beginning of the second quarter. In the third quarter, the fair value reserve returned to almost its year-end level and continued to improve during the last quarter. The fair value reserve before tax increased by EUR 55 million year on year, amounting to EUR 125 million on 31 December 2020. The fair values of notes and bonds recognised through other comprehensive income increased by EUR 65 million, and the fair values of equities within the scope of the overlay approach increased by EUR 1 million.

Measures taken by OP Corporate Bank amid the Covid-19 crisis

During the Covid-19 crisis, OP Corporate Bank provided its customers with the opportunity to get a loan repayment holiday if the pandemic has caused disruptions in their business or repayment capacity. By the end of 2020, OP Corporate Bank had received around 7,000 applications from customers for loan modifications during the Covid-19 pandemic.

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

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

Pohjola Hospital made its staff available to help with critical public health functions related to the coronavirus crisis in the spring and summer. They helped, for example, in tracking the chains of infection. Pohjola Hospital paid the workers' wages.

OP Corporate Bank has ensured that services critical to society are available during the Covid-19 crisis too. OP Corporate Bank has enabled safe working conditions for its personnel in their workplace. Extensive remote working is also encouraged in those jobs where it is possible. During the rest of the year, work continued through a flexible combination of remote and in-office work based on employees' duties and the needs of the teams while taking into account the safety and wellbeing of employees and customers, and business performance.

2020 highlights

New definition of default

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

OP Corporate Bank applied a so-called two-step approach. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken later involved the calibration of credit risk parameters. The supervisory obligation related to the adoption of the new definition of default increased the average risk weights of OP Corporate Bank's loan portfolio at the first step. Growth in the expected credit losses (ECL) in the income statement caused by the change in the definition of default has been taken into account in the effect on capital adequacy. OP Corporate Bank applied the new definition of default to expected credit losses as a change in the accounting estimate. Consequently, impairment loss on receivables in the income statement increased by EUR 13 million.

Transfer of the remaining statutory earnings-related pension liability

OP Bank Group Pension Fund transferred the majority of the management of its pension liability and earnings-related pension insurance to Ilmarinen Mutual Pension Insurance Company on 31 December 2018. Transfer of the pension liability remaining with OP Bank Group Pension Fund to Ilmarinen Mutual Pension Insurance Company took place on 31 December 2020. The liability transfer applied to the following OP Corporate Bank Group employers: Pohjola Insurance Ltd and Pohjola Hospital Ltd. The Representative Assembly of OP Bank Group Pension Fund decided on the liability transfer on 4 August 2020. The earnings effect of the transfer, EUR 85 million, was recognised as a deduction in OP Corporate Bank's personnel costs. The transfer had no effect on the CET1 ratio.

Corporate responsibility

OP Financial Group's core values and principles governing corporate responsibility also guide the operations of OP Corporate Bank.

Corporate responsibility is an integral part of OP Financial Group's business and strategy. Corporate responsibility activities take economic, social and environmental responsibility into consideration. OP Financial Group's aim is to be a forerunner of corporate responsibility within its sector in Finland. OP is committed to complying with the ten principles of the UN Global Compact initiative in the areas of human rights, labour rights, the environment and anti-corruption. OP has agreed to follow the UN Principles for Responsible Investment since 2009. In 2019, OP Financial Group became a Founding Signatory of the Principles for Responsible Banking under the United Nations Environment Programme Finance Initiative (UNEP FI).

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

During the year, OP Financial Group introduced new responsible products, provided financing to businesses to support their sustainable finance, reduced its emissions and increased information on the impacts of climate change.

In 2020, OP Corporate Bank strengthened its position as a green financial services provider. It has arranged green bonds launched by companies as well as helped arrange financing for several sustainable development projects in Finland.

The ESG (Environment, Social, Governance) analysis for large corporate customers takes account of a wide range of environmental aspects. The analysis is based on aspects that are the most material for businesses in each sector. In corporate financing, OP Corporate Bank assesses a company's impact on climate change, the relevance of the company's measures to mitigate climate change and the impacts of climate change on the company. If the company itself has not performed a systematic analysis of climate risks, or if the analysis should be complemented, OP Corporate Bank's experts will suggest improvements to the analysis. Corporate financing monitors the total amount of green and sustainability-linked bonds.

In February 2020, OP published its first 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 the green bond were used to finance renewable energy, green buildings and sustainable land use. During the first year, significant positive environmental impacts were achieved with the proceeds of the green bond. OP Corporate Bank maintains a register of corporate loans eligible for Green Bonds. The register includes the loan amount corresponding to the green bond's size and the reserve of unallocated green assets that covers, for example, maturing loans.

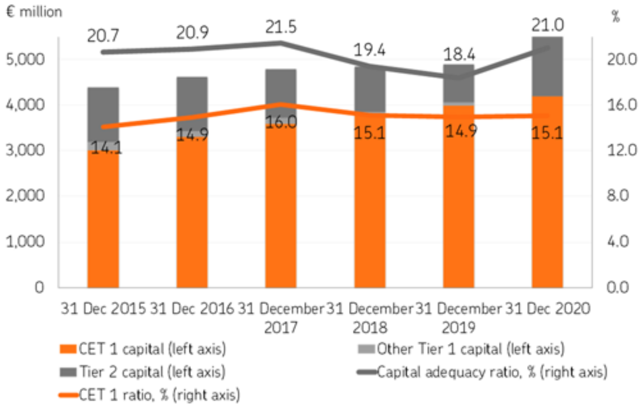
In its Lunches for Families campaign launched in June 2020, Pohjola Insurance donated 9,600 lunches to low-income families. The aim is to help low-income families and support restaurant owners. The campaign was organised together with Hope ry.

Pohjola Insurance was involved in collecting hobby equipment for children and young people together with the WFC 2020 (World Floorball Championship) partners and Hope ry. The *Give a chance* charity campaign brought joy of exercise to children and young people for whom it is not possible due their family's financial standing. The campaign period of 1–21 September 2020 involved collecting sports equipment for low-income families.

OP Financial Group's corporate responsibility reporting is based on GRI standards and it is available as part of OP's Annual Review at op-year2020.fi.

Group's capital adequacy

Capital base and capital adequacy



Capital adequacy for credit institutions

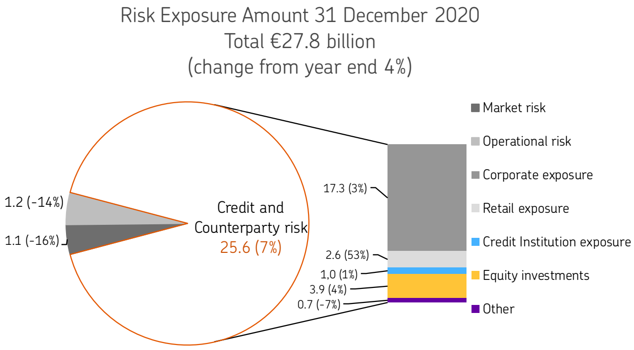
The Group's CET1 ratio was 15.1% (14.9) on 31 December 2020.

As a credit institution, the Group's consolidated 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 increases in practice the minimum capital adequacy ratio to 10.5% and the minimum CET1 ratio to 7%.

The CET1 capital totalled EUR 4.2 billion (4.0) on 31 December 2020. Insurance business result is not included in CET1 capital.

On 31 December 2020, the risk exposure amount (REA) totalled EUR 27.8 billion (26.7), or 4.5% higher than on 31 December 2019. Because of the adoption of the new definition of default, the average corporate exposure risk weights rose as result of the risk parameters set by the European Central Bank (ECB). The corporate loan portfolio grew slightly from the end of 2019. OP Financial Group treats insurance holdings within the financial conglomerate as risk-weighted assets, based on permission from the ECB. Equity investments include EUR 3.9 billion (3.7) in risk-weighted assets of the Group's internal insurance holdings. Because of the adoption of the new definition of default, the risk-weighted assets of insurance holdings rose as result of the risk weighting factors set by the ECB. OP Corporate Bank Group is part of OP Financial Group, whose capital adequacy is supervised in accordance with the Act on the Supervision of Financial and Insurance Conglomerates. As part of OP Financial Group, OP Corporate Bank plc is supervised by the ECB.

The Finnish Financial Supervisory Authority (FIN-FSA) makes a macroprudential policy decision on a quarterly basis. In December 2020, the FIN-FSA reiterated its decision not to impose a countercyclical capital buffer requirement on banks.



In OP Financial Group's view, the most significant open changes in the regulatory and supervisory environment affecting capital adequacy for credit institutions include obligations, if any, imposed by the supervisor due to the ECB's review of OP's internal models (TRIM, Targeted Review of Internal Models), and changes resulting from the update of the EU capital requirements regulation (CRR2). The ECB's decision based on the review of internal models for corporate exposures (TRIM) is expected to reduce OP Corporate Bank's CET1 ratio by around 1.0 percentage points during the first half of 2021. The CRR2 changes are expected to reduce OP Corporate Bank's CET1 ratio by around 1.0 percentage point during the second quarter of 2021.

OP Financial Group has begun discussions with the ECB on reassessing the extent of application of internal models (IRBA, Internal Ratings-Based Approach). Based on the current estimate, the change in the scope of IRBA will decrease OP Financial Group's CET1 ratio by around 0.7 percentage points during 2021. The final effect and its schedule will be specified after discussions with the supervisor and the approval process related to the scope of IRBA.

Liabilities under the Resolution Act

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

Solvency of non-life insurance company

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

	31 Dec 2020	31 Dec 2019
Capital base, € million*	1,205	1,008
Solvency capital requirement (SCR), € million*	762	699
Solvency ratio, %*	158	144
Solvency ratio, % (excl. transitional provision)	158	144

*including transitional provisions

Credit ratings

OP Corporate Bank plc's credit ratings on 31 December 2020

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

Pohjola Insurance Ltd's financial strength ratings on 31 December 2020

Rating agency	Rating	Outlook
Standard & Poor's	A+	Negative
Moody's	A2	Stable

OP Corporate Bank plc has credit ratings affirmed by Standard & Poor's Global Ratings Europe Limited and Moody's Investors Service (Nordics) AB. Pohjola Insurance Ltd has financial strength ratings affirmed by Standard & Poor's Credit Market Services Europe Limited and Moody's Deutschland GmbH. When assessing the companies' credit ratings, credit rating agencies take account of the entire OP Financial Group's financial standing.

On 19 May 2020, Standard & Poor's revised the outlook on OP Corporate Bank plc's long-term credit rating from stable to negative after the trend in Finland's Banking Industry Country Risk Assessment (BICRA) changed from stable to negative. Standard & Poor's also changed the outlook on Pohjola Insurance Ltd's financial strength rating to negative alongside its revision of the parent company OP Corporate Bank plc.

Other ratings of OP Corporate Bank plc or Pohjola Insurance Ltd did not change in 2020.

On 22 January 2021, Standard & Poor's restored the outlook on OP Corporate Bank plc's long-term credit rating from negative to stable after the trend in the BICRA score, which describes the status of the Finnish banking system, restored from negative to stable. Standard & Poor's also changed the outlook on Pohjola Insurance Ltd's financial strength rating to stable alongside its revision of the parent company OP Corporate Bank plc.

Risk exposure

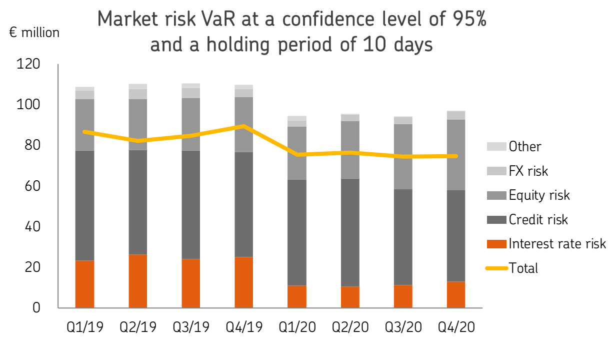
OP Corporate Bank implements its strategy by operating responsibly, taking moderate risk and maintaining a strong capital base and sufficient liquidity. When entering 2020, OP Corporate Bank had a strong risk-bearing capacity and sufficient capital base and liquidity in view of targets.

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

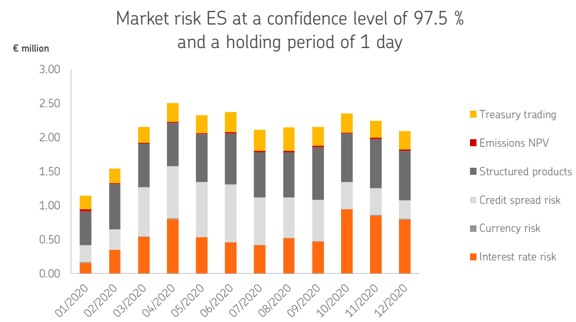
The Covid-19 pandemic affects OP Corporate Bank in three ways. The financial standing of customers affects OP Corporate Bank Group's account funds and the credit risk and insurance risk exposure. The crisis has increased the volume of deposit funds. The Covid-19 pandemic has weakened customers' debt-servicing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

The Group's funding and liquidity position is good. The availability of funding has remained good. In general, the Covid-19 crisis was also reflected in the price and availability of wholesale funding for banks. During the second quarter, the price and availability of wholesale funding began to normalise and risk premiums had already decreased by the end of the year to the pre-crisis level, due to strong support measures taken by central banks.

The market risk level of the Group's long-term investments remained moderate. No major changes were made to the asset class allocation during the financial year. The Value-at-Risk (VaR) metric, a measure of market risks, was EUR 75 million (90) on 31 December 2020. The VaR risk metric includes the balance sheet total of the non-life insurance company concerned, the liquidity buffer and long-term banking bond investments. The non-life insurance balance sheet total contains investments, insurance liabilities and derivatives that hedge against interest rate risk associated with insurance liabilities. The 2020 figures no longer include risk associated with Markets nor the interest rate risk exposure of Group Treasury.



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



Operational risks remained moderate as targeted. Materialised operational risks resulted in a gross loss of EUR 1.8 million (0.7) during 2020. From the operational risk perspective, the implications of the Covid-19 pandemic on OP Corporate Bank Group were mild during the financial year.

Corporate Banking

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

So far, the Covid-19 pandemic has not substantially weakened banking credit risk exposure, but there is still risk for a negative development if the consequences of the pandemic materialise.

Repayment holidays and loan modifications due to the Covid-19 crisis OP Corporate Bank granted by the end of December totalled around EUR 1.0 billion in customer exposures. In OP Corporate Bank's 20-tier internal system for rating corporate customers, 9% of the corporate exposures to which a loan modification or repayment holiday was granted were categorised in the highest nine rating grades (excellent or good creditworthiness), while 9% were in the lowest five rating grades. The majority of the changes, 80%, applied to the six other grades.

Of the corporate exposures involving repayment holidays or loan modifications, 23% concerned operating and renting of real estate and 22% concerned transportation and storage. A total of 15% of the repayment holidays and loan modifications applied to the service sector.

At the end of December, expected credit losses were most recognised in the exposures of the forest industry, service sector and construction companies. Expected credit losses in all sectors are, however, moderate.

Corporate Banking's interest rate risk in the banking book measured as the effect of a one-percentage point change on a 12-month net interest income was EUR –21 million at the end of December. A rise in interest rates increases interest income risk. 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.

Forborne loans and non-performing receivables

	Performing forborne exposures (gross)		Non-performing receivables (gross)		Doubtful receivables (gross)		Loss allowance		Doubtful receivables (net)	
	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
More than 90 days past due, € billion			0.10	0.13	0.10	0.13	0.08	0.11	0.02	0.02
Unlikely to be paid, € billion			0.35	0.24	0.35	0.24	0.13	0.13	0.21	0.12
Forborne exposures, € billion	0.25	0.11	0.08	0.02	0.33	0.13	0.05	0.01	0.28	0.11
Total, € billion	0.25	0.11	0.53	0.39	0.78	0.50	0.26	0.25	0.52	0.25

In March 2020, OP Corporate Bank adopted a new definition of default, which increased the number of defaulted contracts.

Key ratios	31 Dec 2020	31 Dec 2019
Ratio of doubtful receivables to loan and guarantee portfolio, %	2.0	0.9
Ratio of non-performing receivables to loan and guarantee portfolio, %	1.1	0.5
Ratio of performing forborne exposures to loan and guarantee portfolio, %	0.9	0.4
Ratio of performing forborne exposures to doubtful receivables, %	45.9	42.1
Ratio of loss allowance (receivables from customers) to doubtful receivables, %	85.5	59.3

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

For OP Corporate Bank plc, one customer's exposure exceeded 10% of the capital base covering customer risk, after allowances and other recognition of credit risk mitigation. Large customer risks amounted to EUR 0.5 billion.

Exposures by the Baltic Banking were EUR 3.6 billion (3.8), accounting for 9.2% (9.8) of total banking exposures of the Corporate Banking segment.

Insurance

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

A one-year increase in life expectancy would increase insurance liability for annuities by EUR 48 million (48). A 0.1 percentage point decrease in interest rates used in insurance liability valuation would increase insurance liabilities by EUR 29 million (26).

No significant changes took place in non-life insurance's underwriting risks. Non-life insurance's most significant market risk is associated with increasing insurance liability value and capital requirement resulting from lower market interest rates. The Group uses derivative contracts to dampen earnings volatility caused by changes in interest rates used in insurance liability valuation.

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

Other Operations

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

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

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

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

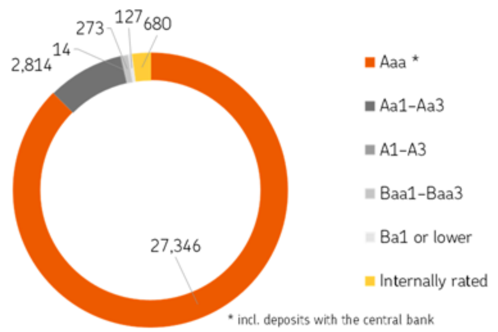
OP Financial Group monitors its long-term funding sufficiency, for example, by means of the Net Stable Funding Ratio (NSFR), which measures structural funding risk. In regulation, no minimum requirement for the NSFR has been set as yet. OP Financial Group's NSFR was 123% (112) at the end of the financial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

Liquidity buffer

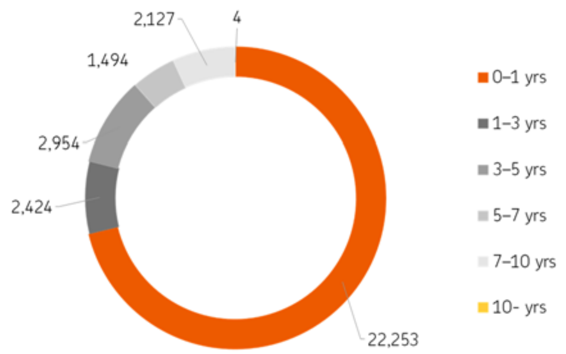
€ billion	31 Dec 2020	31 Dec 2019	Change, %
Deposits with central banks	21.6	11.9	81.1
Notes and bonds eligible as collateral	8.7	11.1	-21.9
Corporate loans eligible as collateral	-	0.0	-
Total	30.2	23.0	31.2
Receivables ineligible as collateral	1.0	2.0	-48.7
Liquidity buffer at market value	31.3	25.0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

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

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



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



For OP Corporate Bank plc acting as OP Financial Group's central financial institution, OP cooperative banks and OP Cooperative with its subsidiaries form a significant customer group. Of the aggregated exposures of the segments Other Operations and Corporate Banking, exposures of OP Financial Group entities represented 18.4%. These exposures increased during the year by EUR 4.5 billion. All exposures of OP cooperative banks and OP Cooperative are investment-grade exposures.

Financial performance by segment

OP Corporate Bank Group's business segments are Corporate Banking and Insurance. Non-business segment operations are presented in the Other Operations segment. Segment reporting is based on the accounting policies applied in OP Corporate Bank's consolidated financial statements.

Corporate Banking

- Earnings before tax increased by 14.5% to EUR 301 million.
- Total income increased by 9.6%. Net interest income increased by 3.0%. Net investment income increased by 21.6%. Value changes in Credit Valuation Adjustment (CVA) in derivatives owing to market changes decreased earnings by EUR 19 million (–12).
- Total expenses rose by 4.8% to EUR 231 million (220), of which the increase in ICT costs accounted for EUR 1 million and the increase in the EU stability contribution for EUR 2 million.
- The loan portfolio grew in the year to December by 1.2% to EUR 24.0 billion.
- Impairment loss on receivables increased by EUR 3 million to EUR 53 million (51). Non-performing receivables accounted for 1.1% (0.5) of the loan and guarantee portfolio.
- The most significant development investments involved the development of finance and payment systems.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net interest income	395	383	3.0
Net commissions and fees	36	11	229.0
Net investment income	140	115	21.6
Other operating income	16	26	-39.4
Total income	587	536	9.6
Personnel costs	62	58	7.7
Depreciation/amortisation and impairment loss	12	14	-12.1
Other operating expenses	156	148	5.3
Total expenses	231	220	4.8
Impairment loss on receivables	-53	-51	5.1
OP bonuses to owner-customers	-2	-2	2.3
Earnings before tax	301	262	14.5
Cost/income ratio, %	39.3	41.1	-1.78*
Ratio of non-performing receivables to loan and guarantee portfolio, %	1.1	0.5	0.5*
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	0.20	0.19	0.01*
Return on assets (ROA), %	1.03	0.91	0.12*
Return on assets, excluding OP bonuses, %	0.98	0.92	0.06*

	31 Dec 2020	31 Dec 2019	Change, %
Loan portfolio, € billion	24.0	23.7	1.2
Guarantee portfolio, € billion	2.6	3.1	-16.7
Deposits, € billion	13.1	11.2	17.2

*Change in ratio

The Corporate Banking segment provides corporate and institutional customers with financing and liquidity management services and financing services for foreign trade. The services also range from the arrangement of debt issues, corporate finance services, custody, equity, foreign exchange, money market, derivative products and asset and sales finance solutions to investment research. OP Corporate Bank's branches and subsidiaries in Estonia, Latvia and Lithuania provide asset and sales finance solutions.

Corporate Banking's loan portfolio increased in the year to December by 1.2% to EUR 24.0 billion. The guarantee portfolio totalled EUR 2.6 billion (3.1) and committed standby credit facilities amounted to EUR 4.3 billion (4.2). Demand for capital market products increased from the previous year.

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

Large Finnish corporations ranked OP Corporate Bank as Finland's best corporate bank in the Prospera Corporate Banking 2020 survey.

During the financial year, OP Financial Group joined the European Payments Initiative (EPI) as a founding shareholder. The EPI has the objective of creating a unified and innovative European payment solution. The solution is aimed at creating a new payment system for European consumers and merchants.

In 2020, OP launched a new OP Corporate Hub service. It is a digital service that helps companies with liquidity and cash management and comprehensive financial monitoring. OP was the first bank in Finland to extend real-time SEPA instant credit transfers into businesses' mass payments in the corporate file transfer channel.

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

Financial performance for the financial year

Corporate Banking earnings before tax increased by 14.5% to EUR 301 million (262). Total income increased by 9.6%. Total expenses increased by 4.8%. The cost/income ratio improved to 39.3% (41.1) year on year.

Net interest income grew by 3.0% to EUR 395 million (383) as a result of an increase in the loan portfolio and higher lending margins. Net commissions and fees increased to EUR 36 million (11). The increase in net commissions and fees was affected by the change in commissions paid to cooperative banks within OP Financial Group.

Net investment income totalled EUR 140 million, up 21.6% year on year. CVA valuation weakened earnings by EUR 19 million (–12). Income from client trading rose. Compared with the first quarter in particular, the narrowing of credit spreads increased the valuation of the trading book. Changes made in the valuation models of derivatives reduced net investment income a year ago by EUR 25 million.

Other operating income amounted to EUR 16 million (26). Impairment loss on receivables totalled EUR 53 million (51). The new definition of default adopted in March and the Covid-19 related changes in the macroeconomic parameters used in the calculation of expected credit losses increased, for their part, the impairment loss on receivables. Final net loan losses recognised for the financial year totalled EUR 55 million (3). Non-performing receivables accounted for 1.1% (0.5) of the loan and guarantee portfolio.

Total expenses were EUR 231 million (220). Personnel costs increased by 7.7% to EUR 62 million (58). Other operating expenses increased by 5.3% to EUR 156 million. ICT costs increased by EUR 1 million and the EU stability contribution by EUR 2 million.

Insurance

- Earnings before tax increased by 44.3% to EUR 288 million (200). The transfer of statutory earnings-related pension liability improved earnings by EUR 85 million. Lower investment income reduced earnings.
- Insurance premium revenue increased by 1.9% and claims incurred decreased by 3.7%, excluding the effect of the change in the discount rate.
- Investment income totalled EUR 75 million (242), including the overlay approach. Net return on investments at fair value totalled EUR 25 million (96).
- The operating combined ratio improved to 87.8% (92.7) and operating risk ratio to 61.1% (65.1). The operating cost ratio was 26.6% (27.7).
- Development investments focused on development of electronic services and the core system upgrade.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Insurance premium revenue	1,506	1,479	1.9
Claims incurred	951	1,077	-11.7
Net insurance income	556	402	38.2
Non-life insurance, net commissions and fees	-36	-49	27.1
Health and wellbeing, net commissions and fees	8	13	-39.9
Net commissions and fees	-28	-36	22.3
Net investment income	80	308	-74.0
Other net income	1	-4	118.4
Total income	609	671	-9.2
Personnel costs	130	125	4.0
Transfer of statutory earnings-related pension liability	-85		
Depreciation/amortisation and impairment loss	39	47	-17.8
Other operating expenses	229	230	-0.6
Total expenses	313	403	-22.2
OP bonuses to owner-customers	-2	-2	4.8
Overlay approach	-5	-66	92.3
Earnings before tax	288	200	44.3
Return on assets (ROA), %	4.07	2.93	1.15*
Return on assets, excluding OP bonuses, %	4.10	2.96	1.15*
Operating combined ratio, %	87.8	92.7	
Operating risk ratio, %	61.1	65.1	
Operating cost ratio, %	26.6	27.7	

*Change in ratio

The Insurance segment comprises non-life insurance plus the health and wellbeing business. Non-life insurance products include non-life products sold to corporate and private customers. The segment consists of Pohjola Insurance Ltd and Pohjola Hospital Ltd with five hospitals. A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020.

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

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

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

Customers have been satisfied with services provided by Pohjola Hospital. Among surgery customers, the NPS was 97 (97) between January and December.

Financial performance for the financial year

Earnings before tax amounted to EUR 288 million (200). Net insurance income increased to EUR 556 million (402). The non-life insurance discount rate was decreased from 1.0% to 0.85%, which reduced net insurance income by EUR 45 million (136). An item corresponding to the change in the discount rate of the non-life insurance insurance liability, EUR 45 million (136), is shown in a positive value change in net investment income.

Insurance premium revenue

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

Insurance premium revenue from private customers increased and that from corporate customers decreased during the financial year. Insurance premium revenue increased by a total of 1.9%.

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

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

The transfer of statutory earnings-related pension liability reduced pension costs by EUR 85 million. Excluding the transfer of the statutory earnings-related pension liability, expenses decreased by 1.2%, down EUR 5 million from a year ago. The operating cost ratio (including indirect loss adjustment expenses) was 26.6% (27.7).

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

Investment

Investment income

€ million	Q1–4/2020	Q1–4/2019
At fair value through other comprehensive income	13	84
At fair value through profit or loss	94	249
Amortised cost	-3	1
Non-life insurance items	-21	-27
Associated companies	-3	1
Net investment income	80	308
Overlay approach	-5	-66
Total	75	242

Investment income totalled EUR 75 million (242), including the overlay approach. Capital gains on investments totalled EUR 23 million (90).

Non-life insurance: key investment indicators

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

* Net return on investments at fair value is calculated by deducting the value change in market-consistent insurance liability from income from total investment assets.

Other Operations

- Earnings before tax amounted to EUR –58 million (–50).
- The EBT included EUR 5 million (7) in capital gains on notes and bonds.
- Liquidity remained good despite the Covid-19 crisis.

Key figures and ratios

€ million	Q1–4/2020	Q1–4/2019	Change, %
Net interest income	-59	-64	-
Net commissions and fees	-2	-2	-
Net investment income	10	26	-60.2
Other operating income	15	7	99.9
Total income	-37	-33	-
Personnel costs	3	1	284.1
Other expenses	19	17	11.0
Total expenses	22	18	24.3
Impairment loss on receivables	1	0	369.3
Earnings before tax	-58	-50	-
Receivables and liabilities from/to the amalgamation's central cooperative and member credit institutions, net position, € billion	-9.5	-3.8	-

Functions supporting OP Financial Group, such as Group Treasury, are centralised within Other Operations. Group Treasury is responsible for the management of the funding and liquidity of member credit institutions and the central cooperative consolidated. It is also in charge of OP Financial Group's wholesale funding together with OP Mortgage Bank. Income generated by Other Operations derives mainly from net interest income and net investment income. The most significant risk categories are market risks and credit risk. In addition, income, expenses, investments and capital which have not been allocated to the business segments are reported under Other Operations.

Financial performance for the financial year

Other Operations earnings before tax amounted to EUR –58 million (–50). Earnings before tax at fair value were EUR –21 million (–51). The widening credit spread due to the coronavirus crisis reduced the fair value reserve in the first quarter. Later on, the European Central Bank's stimulus measures narrowed credit spreads and the fair value reserve has improved.

Net interest income was EUR –59 million (–64). Net interest income was improved by TLTRO III (Targeted longer-term refinancing operations) funding provided by the ECB to banks and the ECB's change in the deposit facility rate in the second half of 2019.

Net investment income totalled EUR 10 million (26). Net investment income included EUR 5 million (7) in capital gains on notes and bonds. The earnings effect of EUR 16 million arising from the discontinuance of TLTRO II funding improved net investment income reported a year ago.
In December 2020, the average margin of senior and senior non-preferred wholesale funding and TLTRO funding was 20 basis points (22). The cost is lowered by TLTRO funding.

OP Corporate Bank's access to funding remained good. In January–December, OP Corporate Bank issued long-term bonds worth EUR 5.9 billion. In March, the wholesale funding market was disrupted due to the Covid-19 crisis. Particularly in short-term wholesale funding, prices rose sharply, and it was not possible to renew maturing contracts for a certain period of time. Long-term unsecured wholesale funding too experienced a markedly steep rise in risk premiums. During the second quarter, the wholesale funding market clearly began to recover. By the end of the year, risk premiums had already decreased to the pre-crisis level, due to strong support measures taken by central banks.

In January, OP Corporate Bank issued a senior non-preferred bond of EUR 500 million with a maturity of 7 years. In May and June, it issued two senior bonds of EUR 1 billion with a maturity of 5.25 and 4 years. In addition, OP Corporate Bank issued in November a senior bond of EUR 1 billion with a maturity of 7 years.

In May and June, OP Corporate Bank issued two Tier 2 bonds, one worth SEK 3.25 billion and the other worth EUR 1 billion. The Tier 2 bonds have a maturity of 10 years, but they can be called in after 5 years from the issue date. In August, OP Corporate Bank redeemed early a Tier 2 bond with a maturity of 10 years and worth SEK 3.5 billion, whose maturity date was 25 August 2025.

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

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

On 31 December 2020, investments by the amalgamation's central cooperative and the member credit institutions in OP Corporate Bank were EUR 9.5 billion higher than funding borrowed by them from Group Treasury. The change in the net position was mainly due to OP Mortgage Bank's covered bond funding which results in higher volumes of OP cooperative banks' investments in Group Treasury than before. In addition, since April the member credit institutions have made a liquidity deposit in Group Treasury, enabling the allocation of the liquidity requirement to the member credit institutions.

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

Service development

OP Corporate Bank invests in developing its operations and improving customer experience on an ongoing basis. ICT investments make up a significant portion of the costs of developing these services.

ICT costs of OP Corporate Bank's service development and production maintenance totalled EUR 208 million (204). These include licence fees, purchased services, other external costs related to projects and inhouse work. Production ICT costs increased by EUR 37 million to EUR 174 million. Total development costs declined by EUR 36 million to EUR 70 million. The capitalised development expenditure totalled EUR 36 million (38).

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

More detailed information on OP Corporate Bank's investments can be found in each business segment's section in this Report by the Board of Directors.

Group restructuring

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

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

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

Corporate governance and management

OP Corporate Bank's management system is based on business segments. Management of OP Corporate Bank is part of OP Financial Group's management system.

On 18 March 2020, the Annual General Meeting (AGM) of OP Corporate Bank plc elected OP Financial Group's President and Group Chief Executive Officer Timo Ritakallio as Chair of OP Corporate Bank's Board of Directors. As other Board members, the AGM elected OP Financial Group's Chief Financial Officer Vesa Aho, Helsinki Area Cooperative Bank's Managing Director Jarmo Viitanen, OP Keski-Suomi Managing Director Pasi Sorri and OP Turun Seudun Managing Director Olli-Pekka Saario.

The AGM re-elected KPMG Oy Ab, a firm of authorised public accountants, to act as OP Corporate Bank's auditor for the financial year 2020, with Juha-Pekka Mylén, APA, acting as the chief auditor, appointed by KPMG Oy Ab.

On 21 July 2020, the Board of Directors elected Jari Jaulimo (LL.M, Trained on the bench, MBA), Head of Transaction Banking, as new Deputy President and CEO of OP Corporate Bank. He took up his duties on 1 August 2020 when the then Deputy President and CEO Hannu Jaatinen retired.

OP Corporate Bank plc has published its Corporate Governance Statement in a separate report that is available at www.op.fi.

Personnel and remuneration

On 31 December 2020, the Group had 2,916 employees (2,675). Personnel increased from the 2019-end level in the Insurance segment in particular. The increase was chiefly caused by the transfer of OP cooperative banks' non-life insurance sales to Pohjola Insurance.

Personnel at year-end

	31 Dec 2020	31 Dec 2019
Corporate Banking	741	700
Insurance	2,136	1,947
Other Operations	39	28
Total	2,916	2,675

Variable remuneration applied by OP Financial Group and OP Corporate Bank in 2020 consists of the performance-based bonus scheme and the personnel fund covering all personnel. 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.

Joint and several liability

OP Corporate Bank plc is a member of the central institution (OP Cooperative) of an amalgamation, as referred to in the Act on the Amalgamation of Deposit Banks and belongs to said amalgamation.

The amalgamation is formed by OP Corporate Bank, OP Cooperative as the central institution of the amalgamation, other companies belonging to the central institution's consolidation group, the central institution's member credit institutions and companies belonging to their consolidation groups, and credit institutions, financial institutions and service companies in which the abovementioned institutions jointly hold more than half of the voting rights. OP Corporate Bank Group's insurance companies are not members of the aforementioned amalgamation.

The member credit institutions within the amalgamation (137 OP cooperative banks, OP Corporate Bank plc, OP Mortgage Bank and OP Card Company Plc) and the central institution are jointly and severally liable for each other's debts. A creditor who has not received payment of an overdue amount (principal debt) may demand payment from the central institution when the principal debt falls due. In such a case, the central institution must produce a statement referred to in said Act, showing the amount of liability apportioned to each member credit institution. This liability between the credit institutions is determined in proportion to the total assets shown in their most recently adopted balance sheets.

The member credit institutions, including OP Corporate Bank plc, are obliged to participate in any necessary support measures aimed at preventing another member credit institution from going into liquidation, and to pay a debt for another member credit institution as referred to in section 5 of the Act on the Amalgamation of Deposit Banks.

Furthermore, upon default of the central institution, a member credit institution shall have unlimited refinancing liability for the central institution's debts as laid down in the Co-operatives Act.

The central institution supervises its member credit institutions as specified in the Act on the Amalgamation of Deposit Banks, confirms the operating principles referred to in section 5 of said Act with which it must comply, and issues instructions to the member credit institutions on capital adequacy and risk management, good corporate governance and internal control to secure liquidity and capital adequacy, as well as instructions on compliance with uniform accounting policies in the preparation of the amalgamation's consolidated financial statements.

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

OP Corporate Bank plc belongs to the Deposit Guarantee Fund and to the Investors' Compensation Fund.

Under the law governing the Deposit Guarantee Fund, deposit banks as members of the amalgamation of cooperative banks (including OP Corporate Bank plc) are regarded as a single bank with respect to deposit guarantee. The Deposit Guarantee Fund reimburses a maximum total of EUR 100,000 to an individual account holder who has receivables from deposit banks belonging to the amalgamation of cooperative banks.

Under the law governing the Investors' Compensation Fund, the amalgamation of the cooperative banks is considered to constitute a single credit institution in respect of investors' compensation. An investor's receivables are compensated up to a total maximum of EUR 20,000. The Fund does not cover losses incurred due to changes in the prices of securities or to wrong investment decisions. The Fund safeguards only retail investors' claims.

Deposit guarantee is the responsibility of the Financial Stability Authority operating under the Ministry of Finance.

Proposal by the Board of Directors for profit distribution

As shown in the financial statements of 31 December 2020, the company's distributable funds, which include EUR 59,620,449.54 in profit for the financial year, totalled EUR 1,216,623,784.29. The company's distributable funds totalled EUR 1,548,004,621.35.

The Board of Directors proposes that no dividend be distributed and that the profit for the financial year 2020 is entered in the account of retained earnings/loss.

The company's financial position has not undergone any material changes since the end of the financial year 2020. The company has good liquidity.

Outlook for 2021

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

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

The most significant uncertainties affecting earnings performance due to the Covid-19 crisis relate to changes in the interest rate and investment environment and to the developments in impairment losses. In addition, future earnings performance will be affected by the market growth rate, change in the competitive situation and the effect of large claims on claims expenditure.

Full-year earnings estimates for 2021 will only be provided at the OP Financial Group level, in its financial statements bulletin and interim reports.

All forward-looking statements in this Report by the Board Directors expressing the management's expectations, beliefs, estimates, forecasts, projections and assumptions are based on the current view of the future development in the business environment and the future financial performance of OP Corporate Bank Group and its various functions, and actual results may differ materially from those expressed in the forward-looking statements.

Key income statement and balance sheet items

Key income statement items, € million	2018	2019	2020
Net interest income	274	295	325
Net insurance income	548	402	555
Net commissions and fees	-23	-28	5
Net investment income	200	450	233
Other income	47	47	29
Personnel costs	159	184	111
Other expenses	452	448	446
Impairment loss on receivables	13	51	53
OP bonuses to owner-customers	-2	-4	-5
Overlay approach	19	-66	-5
Earnings before tax	439	412	529

Key balance sheet items – assets, € million			
Cash and cash equivalents	12,239	11,914	21,764
Receivables from credit institutions	9,726	9,126	11,252
Derivative contracts	3,663	4,874	5,370
Receivables from customers	22,351	23,829	24,485
Investment assets	16,353	17,174	18,433
Property, plant and equipment, and intangible assets	838	823	842
Other items	1,554	1,385	1,845
Total assets	66,725	69,126	83,991

Key balance sheet items – liabilities and equity, € million			
Liabilities to credit institutions	15,575	15,334	28,888
Derivative contracts	3,287	3,882	4,265
Liabilities to customers	16,422	15,503	15,894
Insurance liabilities	3,157	3,234	3,326
Debt securities issued to the public	20,338	22,726	21,903
Other liabilities	3,800	4,074	4,918
Shareholders' equity	4,147	4,374	4,797
Total liabilities and shareholders' equity	66,725	69,126	83,991

Consolidated earnings by quarter

€ million	Q1/ 2020	Q2/ 2020	Q3/ 2020	Q4/ 2020	Q1–4/ 2020	Q1–4/ 2019
Net interest income	81	84	79	81	325	295
Net insurance income	131	157	175	93	555	402
Net commissions and fees	1	-6	2	8	5	-28
Net investment income	-57	82	89	119	233	450
Other operating income	10	5	5	10	29	47
Total income	**166**	**322**	**349**	**310**	**1148**	**1165**
Personnel costs	50	49	41	-29	111	184
Depreciation/amortisation and impairment loss	12	12	14	15	53	63
Other operating expenses	109	99	87	98	393	386
Total expenses	**171**	**159**	**143**	**84**	**557**	**632**
Impairment loss on receivables	49	18	-2	-12	53	51
OP bonuses to owner-customers	-1	-1	-1	-1	-5	-4
Overlay approach	82	-32	-26	-28	-5	-66
Earnings before tax	**27**	**111**	**181**	**210**	**529**	**412**
Income tax	5	21	36	46	108	79
Profit for the financial year	**22**	**90**	**144**	**164**	**421**	**332**

Financial indicators

	2018	2019	2020
Return on equity (ROE), %	8.5	7.8	9.2
Return on equity at fair value (ROE), %	5.3	9.6	9.7
Return on assets (ROA), %	0.5	0.5	0.5
Equity ratio, %	6.2	6.3	5.7
Cost/income ratio, %	58.4	54.3	48.5
Average personnel	2,638	2,695	2,834
Share-related figures and ratios			
Equity per share, €	12.73	13.45	14.87
Dividend per share, €*	0.54	-	-
Dividend payout ratio, %*	49.9	-	-
Number of shares, year end	319,551,415	319,551,415	319,551,415

* Board proposal 2020

OP Cooperative holds all OP Corporate Bank plc shares. The number of shares did not change during the financial year.

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 financial years. The formulas for the used Alternative Performance Measures are presented below.

Alternative Performance Measures

Return on equity (ROE), %	Profit for the financial year / Equity capital (average at beginning and end of financial year)	x 100
Return on equity (ROE) excluding OP bonuses, %	Profit for the financial year + OP bonuses after tax / Shareholders' equity (average of the beginning and end of financial year)	x 100
Return on equity (ROE) at fair value, %	Total comprehensive income for financial year / Equity capital (average at beginning and end of financial year)	x 100
Return on assets (ROA), %	Profit for the financial year / Average balance sheet total (average at beginning and end of financial year)	x 100
Return on assets (ROA) excluding OP bonuses, %	Profit for the financial year + OP bonuses after tax / Average balance sheet total (average at beginning and end of financial year)	x 100
Equity per share	Shareholders' equity / Share-issue adjusted number of shares on the balance sheet date	
Dividend per share	Dividends paid for the financial year / Share-issue adjusted number of shares on the balance sheet date	
Dividend payout ratio, %	Dividend per share / Earnings per share	x 100
Cost/income ratio, %	Total expenses / Total income	x 100
Investment income	Net investment income + Overlay approach	
Loan portfolio	Balance sheet item Receivables from customers	
Ratio of impairment loss on receivables to loan and guarantee portfolio, %	Impairment loss on receivables / Loan and guarantee portfolio at end of financial year	x 100
Deposits	Deposits included in balance sheet item Liabilities to customers	
Coverage ratio, %	Loss allowance / Receivables from customers (on-balance-sheet and off-balance-sheet items)	x 100
Default capture rate, %	New defaulted contracts at step 2 a year ago / New defaulted contracts in financial year	x 100

Non-life insurance key ratios:

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

Key indicators based on a separate calculation

Capital adequacy ratio, %	Total capital / Total risk exposure amount x 100
Tier 1 ratio, %	Total Tier 1 capital / Total risk exposure amount x 100
CET1 ratio, %	CET1 capital / Total risk exposure amount x 100
Solvency ratio, %	Capital base / Solvency capital requirement (SCR) x 100
Leverage ratio, %	Tier 1 capital (T1) / Exposure amount x 100
Liquidity coverage requirement (LCR), %	Liquid assets / Liquidity outflows – liquidity inflows under stressed conditions x 100
Net stable funding ratio (NSFR), %	Available stable funding / Required stable funding x 100
Capital adequacy ratio under the Act on the Supervision of Financial and Insurance Conglomerates*	Conglomerate's total capital base / Conglomerate's total minimum capital requirement x 100

Ratio of non-performing receivables to loan and guarantee portfolio, %	Non-performing receivables (net)** / Loan and guarantee portfolio at the end of financial year	x 100
Ratio of doubtful receivables to loan and guarantee portfolio, %	Doubtful receivables (net)*** / Loan and guarantee portfolio at the end of financial year	x 100
Ratio of performing forborne exposures to loan and guarantee portfolio, %	Performing forborne exposures (net)*** / Loan and guarantee portfolio at the end of financial year	x 100
Ratio of performing forborne exposures to doubtful receivables, %	Performing forborne exposures (net)*** / Doubtful receivables at the end of financial year	x 100
Ratio of loss allowance (receivables from customers) to doubtful receivables, %	Loss allowance for receivables from customers in the balance sheet / Doubtful receivables at the end of financial year	x 100
Loan and guarantee portfolio	Loan portfolio + guarantee portfolio	

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

Non-life insurance operating result

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

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

Capital adequacy and solvency

Capital adequacy for credit institutions

Capital base, € million	31 Dec 2020	31 Dec 2019
OP Corporate Bank Group's equity	**4,796**	**4,374**
The effect of insurance companies on the Group's equity is excluded	-407	-202
Fair value reserve, cash flow hedge	-2	0
Common Equity Tier 1 (CET1) before deductions	**4,388**	**4,171**
Intangible assets	-40	-51
Excess funding of pension liability and valuation adjustments	-28	-26
Planned profit distribution		
Shortfall of ECL minus expected losses	-125	-112
CET1 capital	**4,195**	**3,982**
Hybrid capital to which transitional provision is applied	55	88
Additional Tier 1 capital (AT1)	**55**	**82**
Tier 1 capital (T1)	**4,249**	**4,064**
Debenture loans	1,602	811
Excess of ECL minus expected losses		26
Tier 2 capital (T2)	**1,602**	**837**
Total capital	**5,852**	**4,900**

Risk exposure amount, € million	31 Dec 2020	31 Dec 2019
Credit and counterparty risk	**25,414**	**23,753**
Standardised Approach (SA)	**2,943**	**2,687**
Central government and central banks exposure	78	78
Credit institution exposure	9	8
Corporate exposure	2,796	2,540
Retail exposure	0	8
Equity investments	11	8
Other	49	45
Internal Ratings-based Approach (IRB)	**22,361**	**21,066**
Credit institution exposure	1,029	1 023
Corporate exposure	14,455	14,148
Retail exposure	2,646	1,725
Equity investments	3,934	3,772
Other	406	399
Market and settlement risk (Standardised Approach)	**1,096**	**1,309**
Operational risk (Standardised Approach)	**1,190**	**1,387**
Valuation adjustment (CVA)	**138**	**191**
Other risks		**11**
Total risk exposure amount	**27,838**	**26,651**

Ratios, %	31 Dec 2020	31 Dec 2019
CET1 capital ratio	15.1	14.9
Tier 1 ratio	15.3	15.2
Capital adequacy ratio	21.0	18.4

Ratios, fully loaded, %	31 Dec 2020	31 Dec 2019
CET1 capital ratio	15.1	14.9
Tier 1 ratio	15.1	14.9
Capital adequacy ratio	20.8	18.1

Capital requirement, EUR million	31 Dec 2020	31 Dec 2019
Capital base	5,852	4,900
Capital requirement	2,925	2,824
Buffer for capital requirements	2,927	2,077

The capital requirement comprises the minimum requirement of 8%, the capital conservation buffer of 2.5% and the changing capital conservation buffers by country for foreign exposures.

Consolidated financial statements, IFRS

Financial statements

Consolidated income statement

EUR million	Notes	2020	2019
Net interest income	4	325	295
Net insurance income	5	555	402
Net commissions and fees	6	5	-28
Net investment income	7	233	450
Other operating income	8	29	47
Total income		1,148	1,165
Personnel costs*	9	111	184
Depreciation/amortisation	10	53	63
Other expenses	11	393	386
Total expenses		557	632
Impairments loss on receivables	12	-53	-51
OP bonuses to owner-customers		-5	-4
Temporary exemption (overlay approach)	13	-5	-66
Earnings before tax		529	412
Income tax expense	14	108	79
Profit for the financial year		421	332
Attributable to:			
Profit for the financial year attributable to owners of the Parent		429	328
Profit for the financial year attributable to non-controlling interest		-8	5
Profit for the financial year		421	332

* The transfer of the remaining statutory earnings-related pension liability reduced pension costs for 2020 by EUR 85 million.

Consolidated statement of comprehensive income

EUR million	Notes	2020	2019
Profit for the financial year		421	332
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	31	-38	-6
Items that may be reclassified to profit or loss			
Change in fair value reserve			
Measurement at fair value	33	60	35
Cash flow hedge	33	2	0
Temporary exemption (overlay approach)	33	7	66
Income tax			
Items that will not be reclassified to profit or loss			
Gains/(losses) arising from remeasurement of defined benefit plans	25	8	1
Items that may be reclassified to profit or loss			
Measurement at fair value	33	-12	-7
Cash flow hedge	33	0	0
Temporary exemption (overlay approach)	33	-1	-13
Total comprehensive income for the financial year		446	409
Attributable to:			
Total comprehensive income for the financial year attributable to owners of the Parent		454	404
Total comprehensive income for the financial year attributable to non-controlling interests		-8	5
Total comprehensive income for the financial year		446	409

Consolidated balance sheet

EUR million	Notes	31 Dec 2020	31 Dec 2019
Cash and cash equivalents	15	21,764	11,914
Receivables from credit institutions	16	11,252	9,126
Derivative contracts	17	5,370	4,874
Receivables from customers	18	24,485	23,829
Investment assets	19	18,433	17,174
Intangible assets	21	706	709
Property, plant and equipment (PPE)	22	136	114
Other assets	24	1,812	1,334
Tax assets	25	33	51
Total assets		83,991	69,126
Liabilities to credit institutions	26	28,888	15,334
Derivative contracts	27	4,265	3,882
Liabilities to customers	28	15,894	15,503
Insurance liabilities	29	3,326	3,234
Debt securities issued to the public	30	21,903	22,726
Provisions and other liabilities	31	1,982	2,148
Tax liabilities	25	492	452
Subordinated liabilities	32	2,444	1,474
Total liabilities		79,194	64,752
Equity capital	33		
Capital and reserves attributable to owners of the parent			
Share capital		428	428
Fair value reserve		125	70
Other reserves		1,093	1,093
Retained earnings		3,108	2,710
Non-controlling interests		44	74
Total equity capital		4,797	4,374
Total liabilities and equity capital		83,991	69,126

Consolidated statement of changes in equity

	Attributable to owners						
EUR million	Share capital	Fair value reserve	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 1 January 2019	428	-12	1,093	2,559	4,067	80	4,147
Total comprehensive income for the period		81		323	404	5	409
Profit for the period				328	328	5	332
Other comprehensive income		81		-5	77		77
Profit distribution				-173	-173	-11	-184
Other			0	0	0	1	1
Balance at 31 December 2019	428	70	1,093	2,710	4,299	74	4,374

	Attributable to owners						
EUR million	Share capital	Fair value reserve	Other reserves	Retained earnings	Total	Non-controlling interests	Total equity capital
Balance at 1 January 2020	428	70	1,093	2,710	4,299	74	4,374
Total comprehensive income for the period		55		399	454	- 8	446
Profit for the period				429	429	- 8	421
Other comprehensive income		55		-30	25		25
Profit distribution						-8	-8
Other				0	0	-14	-15
Balance at 31 December 2020	428	125	1,093	3,108	4,753	44	4,797

Consolidated cash flow statement

EUR million	Notes	2020	2019
Cash flow from operating activities			
Profit for the period		421	332
Adjustments to profit for the period		-23	249
Increase (-) or decrease (+) in operating assets		-5,383	-1,482
Receivables from credit institutions	16	-3,032	471
Derivative contracts	17	-22	-53
Receivables from customers	18	-693	-1,503
Investment assets	19	-1,159	-433
Other assets	24	-478	36
Increase (+) or decrease (-) in operating liabilities		13,605	-1,110
Liabilities to credit institutions	26	13,456	-414
Derivative contracts	27	-276	5
Liabilities to customers	28	391	-918
Insurance liabilities	29	10	- 14
Provisions and other liabilities	31	25	231
Income tax paid		-54	-53
Dividends received		25	32
A. Net cash from operating activities		8,590	-2,032
Cash flow from investing activities			
Acquisition of subsidiaries, net of cash acquired		0	
Purchase of PPP and intangible assets	21.22	-37	-42
Proceeds from sale of PPE and intangible assets	21.22	4	4
B. Net cash used in investing activities		-32	-39
Cash flow from financing activities			
Subordinated liabilities, change	32	978	- 0
Debt securities issued to the public, change	30	-944	2,278
Dividends paid		0	-173
Lease liabilities	23	-5	- 3
C. Net cash used in financing activities		29	2,102
Net change in cash and cash equivalents (A+B+C)		8,586	32
Cash and cash equivalents at period-start		12,902	13,355
Effect of foreign exchange rate changes*		357	- 485
Cash and cash equivalents at period-end		21,846	12,902
Interest received		941	1,097
Interest paid		-681	-763
Non-cash items and other adjustments			
Impairment losses on receivables		53	51
Changes in technical items		46	124
Changes in value of financial instruments		-194	-30
Changes in fair value of investment property		9	-1
Defined benefit pension plans		-72	
Planned amortisation and depreciation		53	63
Share of associates' profits/losses		-2	-1
Income tax paid		108	53
Other		-25	-9
Total adjustments		-23	249
Cash and cash equivalents			
Liquid assets	15	21,764	11,914
Receivables from credit institutions payable on demand		82	988
Total		21,846	12,902

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

Segment reporting

OP Corporate Bank Group's business segments are Corporate Banking and Insurance. Non-business segment operations are presented under the Other Operations segment. Segment reporting conforms to the Group's accounting policies applied to the consolidated financial statements. Defining segments and presentation are based on management reporting. The segments' earnings and profitability are assessed in terms of EBT.

Corporate Banking

The Corporate Banking segment provides corporate and institutional customers with financing and cash management services and financing services for foreign trade. The services also range from the arrangement of debt issues, corporate finance, custody, equity, foreign exchange, money market and derivative products to investment research. OP Corporate Bank has branches as well as subsidiaries providing asset and sales finance services in Estonia, Latvia and Lithuania. Corporate Banking net income derives mainly from net interest income, commissions and fees, and net investment income. Expenses mainly come from personnel and ICT costs. Credit risk is the most significant risk type for the segment. Market risks and operational risks are also involved in the segment.

Insurance

The Insurance segment consists of Pohjola Insurance Ltd and Pohjola Hospital Ltd with five hospitals. Pohjola Insurance Ltd products include non-life products sold to corporate and private customers. Net income generated by non-life insurance derives mainly from net insurance income and net investment income. The most significant risks in non-life insurance pertain to underwriting risks and investment risks. Pohjola Hospitals focus on orthopaedics and sports clinic services. Pohjola Hospital's earnings come from doctor's fees and billing for treatment and diagnostics. A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020.

Other Operations

Functions supporting OP Financial Group and its business, such as Group Treasury and the liquidity buffer, have been centralised within Other Operations. Other Operations is also responsible for the management of the funding and liquidity of member credit institutions and the central cooperative consolidated. It is also in charge of OP Financial Group's wholesale funding together with OP Mortgage Bank. Net income generated by Other Operations derives mainly from net interest income and net investment income. The most significant risk categories are market risks and credit risk. In addition, income, expenses, investments and capital which have not been allocated to the business segments are reported under Other Operations.

Segment accounting policies

Segment reporting conforms to the Group's accounting policies applied to the consolidated financial statements. Income, expenses, assets and liabilities which have been considered to relate directly to and be reasonably attributable to the segments are allocated to the segments. Income, expenses, investments and capital which have not been allocated to segments, and inter-segment Group eliminations are reported under 'Group eliminations'.

Q1–4 earnings 2020, EUR million	Corporate Banking	Insurance	Other operations	Group eliminations	Group total
Net interest income	395	-6	-59	-4	325
of which internal net income before tax	-25		25		
Net insurance income		556		-1	555
Net commissions and fees	36	-28	-2	-1	5
Net investment income	140	80	10	3	233
Other operating income	16	7	15	-8	29
Total income	**587**	**609**	**-37**	**-11**	**1,148**
Personnel costs	62	46	3	0	111
Depreciation/amortisation	12	39	2	- 0	53
Other operating expenses	156	229	17	-9	393
Total expenses	**231**	**313**	**22**	**-9**	**557**
Impairments loss on receivables	-53	0	1		-53
OP bonuses to owner-customers	-2	-2			-5
Temporary exemption (overlay approach)		-5			-5
Earnings before tax	**301**	**288**	**-58**	**-1**	**529**

Net income from the Baltic countries came to EUR 12 million

Q1–4 earnings 2019, EUR million	Corporate Banking	Insurance	Other operations	Group eliminations	Group total
Net interest income	383	-19	-64	-5	295
of which internal net income before tax	-3	-14	17		
Net insurance income		402	0	-1	402
Net commissions and fees	11	-36	-2	-1	-28
Net investment income	115	308	26	1	450
Other operating income	26	16	7	-2	47
Total income	**536**	**671**	**-33**	**-8**	**1,165**
Personnel costs	58	125	1	0	184
Depreciation/amortisation	14	47	1	0	63
Other operating expenses	148	230	16	-8	386
Total expenses	**220**	**403**	**18**	**-8**	**632**
Impairments loss on receivables	-51	0	0		-51
OP bonuses to owner-customers	-2	-2			-4
Temporary exemption (overlay approach)		-66			-66
Earnings before tax	**262**	**200**	**-50**	**0**	**412**

Net income from the Baltic countries came to EUR 11 million

Balance sheet 31 December 2020, EUR million	Corporate Banking	Insurance	Other operations	Group eliminations	Group total
Cash and cash equivalents	224	0	21,540		21,764
Receivables from credit institutions	97	620	11,180	-645	11,252
Derivative contracts	5,144	25	209	-8	5,370
Receivables from customers	24,701	0	482	-699	24,485
Investment assets	491	3,667	14,303	-28	18,433
Intangible assets	35	654	18	0	706
Property, plant and equipment (PPE)	4	130	1	0	136
Other assets	559	719	545	-11	1,812
Tax assets	0	6	27	0	33
Total assets	**31,254**	**5,821**	**48,305**	**-1,390**	**83,991**
Liabilities to credit institutions	564		29,014	-690	28,888
Derivative contracts	4,082	1	192	-10	4,265
Liabilities to customers	13,182	136	3,221	-645	15,894
Insurance liabilities		3,326			3,326
Debt securities issued to the public	855		21,076	-28	21,903
Provisions and other liabilities	746	333	919	-16	1,982
Tax liabilities	2	104	386	0	492
Subordinated liabilities	0	135	2,309		2,444
Total liabilities	**19,431**	**4,035**	**57,116**	**-1,388**	**79,194**
Equity					**4,797**

Net assets from the Baltic countries came to EUR 55 million.

Balance sheet 31 December 2019, EUR million	Corporate Banking	Insurance	Other operations	Group eliminations	Group total
Cash and cash equivalents	19	617	11,891	-613	11,914
Receivables from credit institutions	124	12	9,023	-33	9,126
Derivative contracts	4,384	23	468	0	4,874
Receivables from customers	24,502	0	111	-784	23,829
Investment assets	1,005	3,503	12,699	-34	17,174
Intangible assets	45	645	19	0	709
Property, plant and equipment (PPE)	1	111	2	0	114
Other assets	339	684	321	-10	1,334
Tax assets	0	11	40		51
Total assets	**30,418**	**5,606**	**34,576**	**-1,474**	**69,126**
Liabilities to credit institutions	757		15,361	-784	15,334
Derivative contracts	3,657	38	195	-8	3,882
Liabilities to customers	11,349	136	4,664	-646	15,503
Insurance liabilities		3,234			3,234
Debt securities issued to the public	1,441		21,318	-34	22,726
Provisions and other liabilities	764	388	998	-2	2,148
Tax liabilities	2	95	355	0	452
Subordinated liabilities	9	135	1,329		1,474
Total liabilities	**17,979**	**4,026**	**44,221**	**-1,474**	**64,752**
Equity					**4,374**

Net assets from the Baltic countries came to EUR 44 million.

Notes to the consolidated financial statements

Contents

Note 1. OP Corporate Bank Group's Accounting Policies

General

OP Corporate Bank Group (OP Corporate Bank) is the leading non-life insurer and ranks among the leading corporate banks in Finland. OP Corporate Bank has a well-established and broad customer base consisting of companies and institutions to which it provides an extensive range of banking and non-life insurance services. In addition, it provides private customers with non-life insurance services. OP Corporate Bank also acts as the central bank for OP Financial Group's cooperative banks.

OP Corporate Bank plc belongs to OP Financial Group, which consists of 137 cooperative banks and their central cooperative, OP Cooperative, with its subsidiaries. OP Financial Group's member credit institutions comprise OP Corporate Bank plc, Helsinki Area Cooperative Bank, OP Card Company Plc and OP Cooperative's member cooperative banks.

In accordance with the Act on the Amalgamation of Deposit Banks, the member credit institutions, OP Corporate Bank included, and OP Cooperative are ultimately jointly and severally liable for each other's debts and commitments. If a member credit institution's own capital is depleted to such a low level owing to losses that the criteria, specified in the Act, for being placed in liquidation are fulfilled, OP Cooperative has the right to collect from its member credit institutions extra contributions on the basis of the combined balance sheets previously adopted.

OP Corporate Bank is domiciled in Helsinki and the address of its registered office is Gebhardinaukio 1, FI-00510 Helsinki. The postal address of its registered office is P.O. Box 308, FI-00013 OP. A copy of OP Corporate Bank's consolidated financial statements is available at www.op.fi or the company's registered office.

OP Corporate Bank plc's parent company is OP Cooperative and OP Corporate Bank's consolidated accounts are included in its consolidated financial statements.

Copies of the financial statements of OP Cooperative are available at the following address: Gebhardinaukio 1, FI-00510 Helsinki. OP Financial Group's financial statements are available at www.op.fi or the company's registered office at Gebhardinaukio 1, FI-00510 Helsinki.

The Board of Directors of OP Corporate Bank approved the consolidated financial statements bulletin for issue on 10 February 2021 and the Board of Directors approved the financial statements on 10 February 2021.

1 Basis of preparation

These consolidated financial statements were prepared in accordance with the International Financial Reporting Standards (IFRS), applying IASs, IFRSs and SIC and IFRIC interpretations effective on 31 December 2020. The International Financial Reporting Standards refer to standards and their interpretations adopted in accordance with Regulation (EU) No. 1606/2002 of the European Parliament and of the Council. OP Corporate Bank's notes also conform to the requirements of Finnish accounting and company legislation that complement IFRS regulations.

In 2020, OP Corporate Bank adopted the following standards and interpretations:

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

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

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

OP Corporate Bank 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), derivative contracts and investment property measured at fair value.

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

OP Corporate Bank Group presents Pillar III disclosures in compliance with EU Regulation No. 575/2013 of the European Parliament and of the Council in a separate OP Financial Group Risk and Capital Adequacy Report. A summary of capital adequacy is presented in OP Corporate Bank Group's Report by the Board of Directors.

2 Use of estimates

The preparation of the financial statements in conformity with IFRS requires the management to make judgements, estimates and assumptions in the application of the accounting policies. Section 18 "Critical accounting estimates and judgements" provides more detailed information on applying accounting policies requiring management assessment and judgement".

3 Consolidation principles

The Consolidated Financial Statements contain the parent company OP Corporate Bank plc and any subsidiaries that the parent company controls. OP Corporate Bank Group has control over a company if it is exposed, or has rights, to variable returns from its involvement with the company and has the ability to affect those returns through its power over the company (including structured entities). Most of the subsidiaries are wholly owned by the Group, which means that control is based on votes.

OP Corporate Bank both acts as investor and manages various mutual funds in order to gain investment income and various commissions. Funds that have been classified as structured entities have been consolidated into the consolidated financial statements when the Group's control is not based on votes but the control of significant operations, exposure to varying income from the fund, and organising the fund's management. Changes in control concerning various fund investments consolidated into the Group are monitored quarterly. When estimating the amount of control, OP Corporate Bank takes into account the investor's power to direct relevant activities over an investee and the investor's exposure to varying returns.

When the Group ceases to have control, any retained interest in the company 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 fund are accounted for as if the 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 shareholding has 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, in which OP Corporate Bank holds 20–50% of voting shares and over which OP Corporate Bank exercises significant influence but not control, are accounted for using the equity method. 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. If the 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 the Group is committed to fulfil the obligations of associates. Private equity funds treated as associates are measured at fair value through profit or loss in compliance with IFRS 9 as permitted by IAS 28.

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

3.1 Non-controlling interests

Profit for the financial year attributable to the owners of the parent and non-controlling interests is presented in the income statement, and total comprehensive income attributable to the owners of the parent and non-controlling interests is presented in the statement of comprehensive income.

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

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

4 Foreign currency translation

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

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

5 Financial instruments

5.1 Fair value determination

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

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

If the market has a commonly used valuation technique applied to a financial instrument to which the fair value is not directly available, 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 or a shorter period taking account of the product's structure and counterparty. 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 Corporate Bank's balance sheet.

5.2 Financial assets and liabilities

5.2.1. Amortised cost

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

The effective interest method uses the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial asset or financial liability to the gross carrying amount of a financial asset or to the amortised cost of a financial liability. When calculating the effective interest rate, OP Corporate Bank 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 office and origination fees

related to loan drawdown and they are amortised over the expected life of the financial instrument or a shorter period if that is appropriate. Fees that are not an integral part of the effective interest rate of a financial instrument and are accounted for in accordance with IFRS 15 include fees charged for servicing a loan, for example.

OP Corporate Bank 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 Corporate Bank 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 Corporate Bank applies the effective interest rate to the amortised cost of the financial asset (i.e. to the net carrying amount after the deduction of the expected credit loss).

5.2.2. Initial recognition and measurement

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

5.3 Classification and subsequent measurement of financial assets

OP Corporate Bank classifies financial assets into the following categories:

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

5.3.1 Loans and notes and bonds

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

a) OP Corporate Bank'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 Corporate Bank 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 Corporate Bank manages its financial assets in order to generate cash flows. OP Corporate Bank's business model determines whether cash flows will result solely from collecting contractual cash flows or from collecting contractual cash flows and cash flows and by selling a financial asset, or whether the purpose is held for trading. Financial assets within the trading business model are measured through profit or loss. When assessing the business model, OP Corporate Bank 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 Corporate Bank holds corporate loans it has granted to collect contractual cash flows. For example, the objective of the business model of OP Corporate Bank'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 Corporate Bank's operations. OP Cooperative's Board of Directors decides on changes in the business model. The business model changes in case OP Corporate Bank 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 Corporate Bank's business model is other than trading, OP Corporate Bank 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 Corporate Bank's financial assets are basic lending arrangements.

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

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

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

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

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

5.3.2 Equity instruments

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

Equity instruments are subsequently measured at fair value through profit or loss.

5.3.3 Modification of contractual cash flows

Modifications in the contractual payment terms are made as a normal measure related to the management of customer relationship but also in situations where the customer's repayment capacity has deteriorated. The modification to the loan due to the customer's deteriorated repayment capacity is recognised as forbearance which typically means a moratorium for a limited time. Generally in these cases, the contractual cash flows of a loan are renegotiated or otherwise modified and the renegotiation or modification does not result in the derecognition of that loan. In such a case, OP Corporate Bank 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 Corporate Bank 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 Corporate Bank 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 Corporate Bank derecognises financial assets when the contractual rights to the cash flows from the financial asset expire or it transfers the financial asset to another party and the transfer qualifies for derecognition.

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

A financial asset is measured at fair value through profit or loss unless it is measured at amortised cost or at fair value through other comprehensive income. OP Corporate Bank may designate 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.

5.3.5 Overlay approach

Equity instruments and mutual fund investments related to OP Corporate Bank's non-life insurance investment operations are classified as financial assets measured at fair value through profit or loss. OP Corporate Bank applies an overlay approach to a considerable proportion of these equity instruments, which will restore the profit/loss impact of these instruments to be aligned with IAS 39. These investments are treated as available-for-sale financial assets under IAS 39. Changes in the fair value of investments within the scope of the overlay approach are presented under the fair value reserve under equity. The central cooperative consolidated will stop applying the overlay approach at the latest when IFRS 17 Insurance Contracts becomes effective. The overlay approach is aimed at reconciling temporary earnings volatility resulting from the different dates of entry into force of IFRS 9 and IFRS 17 when investments are measured at fair value through profit or loss in accordance with IFRS 9 but the related insurance liability cannot yet be measured at fair value through profit or loss in accordance with IFRS 17.

At the time of their acquisition, available-for-sale financial assets under IAS 39 are recognised at cost, which equals the fair value of the consideration paid plus transaction costs directly attributable to their acquisition. Available-for-sale financial assets are subsequently measured at fair value.

Any changes in their fair value are recognised in other comprehensive income, from where they are transferred to the income statement when the asset is derecognised or there is objective evidence that the asset is impaired. In the case of available-for-sale financial assets, a significant or prolonged decline in the equity instrument's fair value below its cost, constitutes objective evidence.

If a security's market value continues to fall following impairment recognition, the impairment loss will be recognised in the income statement. If the fair value of an impaired equity instrument increases subsequently, this increase will be recognised in other comprehensive income.

5.4 Impairment

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

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

5.4.1 Classification of contracts into three impairment stages

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

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

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

Definition of default

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

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

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

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

Significant increase in credit risk

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

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

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

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

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

5.4.2 Measurement methods

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

5.4.2.1 PD/LGD method

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

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

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

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

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

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

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

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

Determining the period of a contract

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

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

Forward-looking information

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

Preparing macroeconomic forecasts and projecting them into the future up to 30 years involves a large amount of uncertainty, which is why actual results may differ significantly from the forecasts. OP Corporate Bank 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 Corporate Bank's best view of potential scenarios and outcomes.

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

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

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

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

5.4.3 Impairment of notes and bonds

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

OP Corporate Bank 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 Corporate Bank primarily uses the averages of external credit ratings and secondarily internal credit ratings, in case no external credit ratings exist.

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

5.4.3.1 Classification of notes and bonds into impairment stages

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

5.4.4 Impairment of off-balance-sheet items

Several products provided by OP Corporate Bank 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 Corporate Bank 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 Corporate Bank 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 Corporate Bank'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 Corporate Bank 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 Corporate Bank has a contractual ability to demand repayment and cancel the undrawn commitment but it does not limit OP Corporate Bank's exposure to credit losses during the contractual notice period.

5.4.5 Recognition of expected credit losses

OP Corporate Bank 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 Corporate Bank cannot separately identify the expected credit losses on the loan commitment component from those on the financial asset component, the expected credit losses on the loan commitment are recognised together with the loss allowance for the financial asset.

5.4.6 Write-off

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

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

5.5 Cash and cash equivalents

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

5.6 Classification and subsequent measurement of financial liabilities

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

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

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

OP Corporate Bank 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 Corporate Bank 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 Corporate Bank has not made any exchanges of financial liabilities for the existing financial liabilities.

5.7 Netting

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

5.8 Derivative contracts

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

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

5.8.1 Hedging derivatives

OP Corporate Bank 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 Corporate Bank 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 Corporate Bank, the hedgeable risk categories are fair value and cash flow interest rate risks as well as currency risk.

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

5.8.2 Derivatives held for trading

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

5.9 Hedge accounting

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

The relationship between hedging and hedged instruments is formally documented. The documentation contains information on risk management principles, hedging strategy and the methods used to demonstrate hedge effectiveness. Hedge effectiveness is tested at the inception of the hedge and in subsequent periods by comparing respective changes in the fair value or cash flows of the hedging instrument and the hedged item. The hedge is considered highly effective if the change in the fair value of the hedging instrument or in cash flows offsets the change in the fair value of the hedged contract or portfolio or in cash flows within a range of 80–125%. Due, however, to the Interest Rate Benchmark Reform, if the real result of the retrospective effectiveness test is outside of the limits concerned, OP Corporate Bank 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 Corporate Bank's hedging relationship. OP Corporate Bank 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 Corporate Bank 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 Corporate Bank 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 Corporate Bank will adopt reformed reference rate in new contracts, based on market practice. When it comes to the old portfolio of contracts, the changes will be implemented by adopting practices applied in the market to replace IBORs.

5.9.1 Fair value hedges

Fair value hedging against interest rate risk involves long-term fixed-rate debt instruments (such as central bank debt, own issues and certain term deposit issues), individual bond and loan portfolios, as well as individual loans. OP Corporate Bank applies the fair value portfolio hedging model to hedging interest ate corridor loans. OP Corporate Bank 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 equity fund 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. Any ineffectiveness that may arise from a hedge relationship may be caused by the timing differences between the cash flows of the hedging instrument and the hedged item, and it is correspondingly recognised in the abovementioned items.

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

5.9.2 Cash flow hedges

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

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

6 Investment property

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

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

If no comparable market data is available on the actual transaction prices of the property comparable with the property under review, OP Corporate Bank 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 Corporate Bank 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 it 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 Corporate Bank obtains information on market rental and cost levels from sources outside OP Corporate Bank, 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 Corporate Bank's internal expertise. In the fair value of undeveloped plots, OP Corporate Bank has taken account of the planning and market situation at the time of appraisal. The fair value of major property holdings is based on valuation reports drawn up by Authorised Property Valuers. External valuers use a cash flow analysis as the basis for their appraisal.

7 Intangible assets

7.1 Goodwill

For business combinations, OP Corporate Bank 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 Corporate Bank'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 the 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 Corporate Bank reorganises its internal reporting structure, goodwill is allocated to the cash-generating units subject to such reorganisation in proportion to their fair values or on the basis of another method, which would better reflect goodwill related to the transferred business.

7.2 Testing goodwill for impairment

The cash-generating unit to which goodwill has 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 Corporate Bank was, for the goodwill testing, determined by the Excess Returns method. Accordingly, the return on equity capital is deducted from the recoverable amount for the current and future financial periods. Any excess return is discounted by a discount rate corresponding to the return rate on equity capital in order to determine the present value of cash flows.

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

7.3 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 Corporate Bank Group's acquired customer relationships is 10–15 years.

7.4 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 Corporate Bank's brands originate entirely from the acquisition of Pohjola Group plc's business operations. Impairment testing was carried out separately for the Pohjola and A-Vakuutus (A-Insurance) brands, in accordance with IAS 36.

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

7.5 Other intangible assets

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

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

7.6. Software as a service (SaaS)

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

8 Property, plant and equipment

Property, plant and equipment (PPE) assets are carried at cost less depreciation and any impairment losses. These assets are depreciated on a straight-line basis over their estimated useful lives. Land is not subject to depreciation.

Subsequent expenditures are capitalised at the asset's carrying amount only if it is probable that the asset will generate greater economic benefits than initially estimated.

The estimated useful lives are mainly as follows:

Buildings	20–50 years
Machinery and equipment	3–10 years
ICT hardware	3–5 years
Cars	5–6 years
Other PPE assets	3–10 years

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

8.1 Impairment of PPE and intangible assets

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

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

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

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

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

9 Leases

At the inception of the lease, OP Corporate Bank 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 Corporate Bank Group companies or its employees have the right to decide on the use of the asset throughout the lease period when OP Corporate Bank Group is the lessee and the customer and its Group companies have decision-making powers related to the use of the asset when OP Corporate Bank Group is the lessor
- The contract includes rights and obligations and related payments
- The asset identified in the contract is used only by OP Corporate Bank Group companies or employees when OP Corporate Bank Group is the lessee, and by the customer or its Group companies when OP Corporate Bank Group is the lessor.

Recognition of assets leased out

On the date of inception, OP Corporate Bank 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 Corporate Bank defines the lease term as follows:

i. A fixed term that cannot be extended or terminated without any good reason or sanction or
ii. 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.
iii. 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

iv. 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 Corporate Bank usually uses the incremental borrowing rate of the lessor. The interest rate quoted by the OP Corporate Bank Group Treasury is used as the incremental borrowing rate that Treasury uses to lend OP cooperative banks and OP Financial Group's subsidiaries.

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

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

10 Employee benefits

10.1 Pension benefits

Statutory pension cover for OP Corporate Bank 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 Corporate Bank transferred the majority of the management of the statutory pension insurance portfolio to Ilmarinen Mutual Pension Insurance Company on 31 December 2018 and the remaining portfolio was transferred on 31 December 2020. Some OP Corporate Bank Group companies provide their employees with supplementary pension cover through OP Bank Group Pension Foundation or an insurance company.

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

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

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

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

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

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

10.2 Remuneration scheme

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

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

11 Insurance assets and liabilities

11.1 Classification of assets and liabilities within insurance business

The section "Classification and recognition" under Financial Instruments contains information on the classification of financial assets and liabilities within Non-life Insurance.

11.2 Classification of insurance contracts issued by insurers

An insurance contract is a contract which transfers significant insurance risk from the policyholder to the insurer, as defined in IFRS 4. Other contracts which the insurance company may issue under its licence represent investment or claims management contracts. If a contract does not involve any significant insurance risk on the balance sheet date but the policyholder has the right to change the contract in such a way that the contract transfers significant insurance risk to the insurer, the contract is classified as an insurance contract. Almost all of the contracts issued by non-life insurers are insurance contracts.

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 and differences in the duration of contract periods 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).

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

Short-term insurance contract usually have a policy term of 12 months or less, very rarely over 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.

Descriptions of insurance contracts can be found in the section OP Corporate Bank Group's Risk Appetite Framework, Insurance operations.

11.3 Recognition and measurement of insurance contracts issued by insurers

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

Insurance contracts are measured and accounted for in accordance with IFRS 4 Insurance Contracts. 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.

The liabilities comprise the provision for unearned premiums and the provision for outstanding claims. Non-life provisions for unearned premiums equal the liabilities arising from claims and other expenses expected for the remaining coverage periods of the recognised policies. Provision for outstanding claims arises from reported and non-reported claims incurred and from their claims and settlement expenses paid in the future.

11.3.1. Measurement of insurance contracts issued by non-life insurers

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

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

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

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

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

11.4 Liability adequacy test on insurance contracts

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

11.5 Premiums written

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

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

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

11.5.1 Receivables and payables related to insurance contracts

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

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

11.6 Salvage and subrogation reimbursements

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

11.7 Reinsurance contracts

Reinsurance taken out by the 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 the 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.

Benefits received under reinsurance contracts held are included in other assets, reinsurance assets in the balance sheet, with the latter assets corresponding to reinsurers' share of provision for unearned premiums and provision for outstanding claims of the insurance contracts reinsured by the Group. Premiums unpaid to reinsurers are included in other liabilities, reinsurance liabilities.

11.8 Coinsurance and pools

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

The 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. The 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. The Group recognises liabilities and receivables based on joint liability if joint liability is likely to materialise.

12 Provisions and contingent liabilities

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

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

13 Income tax and deferred tax

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

Deferred tax liabilities are recognised for all temporary differences between the carrying amount and tax base of assets and liabilities. 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 insofar as taxable profits are likely not be generated against which taxable losses or refunds can be utilised. The greatest temporary differences in the Group are tax provisions (e.g. credit loss provision), measurement of investments at fair value, and elimination of equalisation provision within non-life insurance.

OP Corporate Bank 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.

14 Revenue recognition

14.1 Interest income

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

14.2 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 Corporate Banking segment, commissions and fees are charged from private customers and corporate customers. Commissions and fees consist of those from lending and payment transactions. In Corporate Banking, fees are also charged outside OP Corporate Bank, such as for securities brokerage, investment management and guarantees. The abovementioned items consist of several 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, investment management and guarantee fees are mainly fulfilled over time while other those of other Banking fees at a point in time. The amount of consideration for the services is mainly the list price or a contractually stated price.

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. Commissions and fees mainly consist of income from health and wellbeing services as well as from insurance brokerage fees. Income from health and wellbeing services is recognised for each treatment visit after the service has been rendered. The fee is charged from the customer after the service based on the list of charges and fees. In occupational healthcare agreements, income is recognised over time during the contract period and the fee is charged from the customer on a monthly basis as agreed. In healthcare and wellbeing services, OP Corporate Bank acts as the principal under IFRS 15, in which case the fee paid to the relevant entrepreneur is presented in commission expenses. OP Corporate Bank'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.

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

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

15 Summary of presentation of income statement items:

Net interest income	Received and paid interest on fixed-income instruments, the recognised difference between the nominal value and acquisition value, interest on interest-rate derivatives and fair value change in fair value hedging Fees that are regarded as compensation for the risk taken by the bank associated with the financial instrument and as being an integral part of the financial instrument's effective interest rate
Net insurance income	Insurance premium revenue from Non-life Insurance claims and Non-life Insurance claims
Net commissions and fees	Commission income from lending, deposits, payment transactions, securities brokerage, securities issuance, mutual funds, investment management, legal services, guarantees, insurance brokerage, as well as from healthcare and wellbeing services. Commission expenses for payment transactions, securities brokerage, securities issuance, 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. Associated companies' income consolidated using the fair value and equity method.
Other operating income	Central banking service fees and other operating income
Personnel costs	Wages and salaries, pension costs, 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.

16 Charges of financial authorities

OP Corporate Bank pays charges to various authorities. 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.

16.1 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 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.

16.2 Deposit guarantee contribution

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

16.3 Financial Stability Authority's administrative fee

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

16.4 Financial Supervisory Authority's supervision fee

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

16.5 European Central Bank's supervisory fee

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

17 Segment reporting

Financial information, which the executive in charge monitors regularly, serves as the basis of defining operating segments. The reportable operating segments are Corporate Banking, Insurance, and Other Operations.

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

18 Critical accounting estimates and judgements

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

Liabilities arising from insurance contracts involve several discretionary factors and uncertainty. With respect to non-life insurance, estimates are based on assumptions about the business environment and on the actuarial analyses of OP Corporate Bank'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. Information on uncertainties included in assumptions related to insurance contracts and their effects can be found in Note 51 Sensitivity analysis of Non-life Insurance.

When estimating the control over structured entities, OP Corporate Bank 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 the Group's share of the variable returns exceeds 37% and there is a link between the control and the returns.

Goodwill, assets with indefinite useful lives and intangible assets not yet available for use are tested annually for impairment. The recoverable amount determined in the impairment test is usually based on value in use, and its calculation requires estimates of future cash flows and the applicable discount rate. Information on the effects of these assumptions and estimates can be found in Note 21 Intangible assets.

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

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

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

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

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

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

The present value of pension obligations depends on several factors determined by using several assumptions. The discount rate, future increases in salaries and pension payments and the inflation rate are the assumptions used to determine net costs (or income) arising from pensions. Changes in actuarial assumptions affect the carrying amount of pension obligations. This is presented in more detail in Note 31 Provisions and other liabilities.

The measurement of investment property at fair value is partially based on the management's estimates of the market value of property holdings. Investment property is also measured using a calculation model based on the income capitalisation approach utilising estimates of future net yield on property holdings. This is presented in greater details in Note 37 Recurring fair value measurements by valuation technique. Income probably generated in the future by property in own use is based on the management's judgement (Note 22. Property, plant and equipment).

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 book value and received payments However, government grant will be recognised only when it is reasonably certain that the entity fulfils the related terms and condition and that the grant will be given. Grants related to income are reduced from respective expenses in the financial statements and are recognised through profit for the periods when the expenses are recognised as expenditure that the grant is meant to cover.

20 New standards and interpretations

The IASB (International Accounting Standards Board) has also 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 Corporate Bank's non-financial risk describing risk appetite and
- The contractual service margin which is measured at the time of recognition of the contract in such a way that no profit results from the contract at recognition but loss is recognised immediately. The contractual service margin represents unearned profits and it is recognised as revenue during the policy period based on how the insurance service is produced.

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

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

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

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

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

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

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

IFRS 17 must be applied for accounting periods beginning on or after 1 January 2021. The European Union has not yet adopted IFRS 17.

20.2 Other upcoming amendments to standards

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

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

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

Note 2. OP Corporate Bank Group's Risk Appetite Framework

1 Overview of OP Corporate Bank's significant risks

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

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

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

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

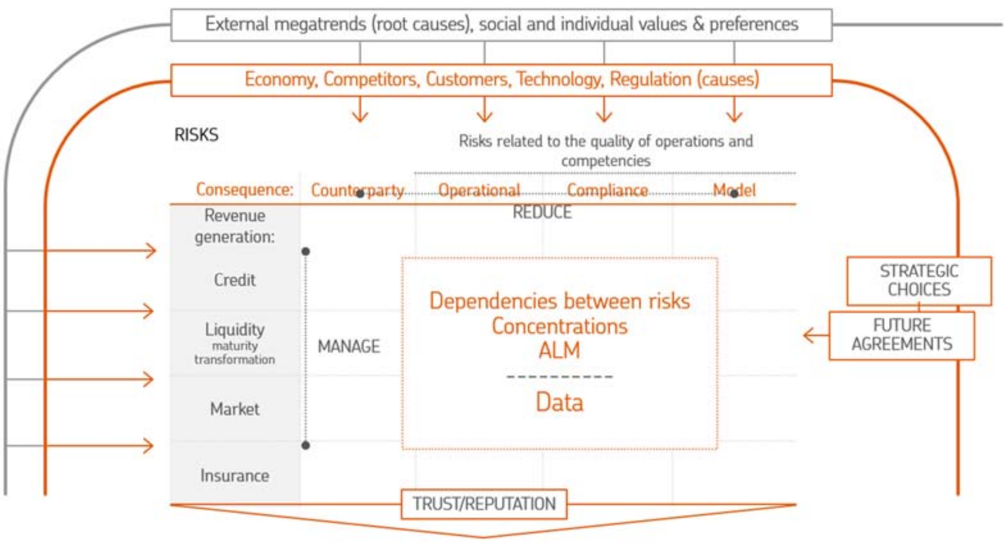
The graph below shows a summary of OP Financial Group's significant risks and their sources. The sources and root causes of significant risks are presented in shaded grey and orange in the periphery of the figure's table. Similarly, the negative effect of the potential materialisation of risks on OP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

• The combined effect of earnings and consequential risks may result in new Group-level, due, for example, to concentrations and interdependencies between risks.

• Due to the different function of earnings and consequential risks, the Group primarily aims to manage earnings risks whereas it primarily aims to reduce consequential risks.



ALM = Asset and Liability Management

Data = Refers here to OP Financial Group's data capital risk.

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

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

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

2 OP Corporate Bank'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 Corporate Bank'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 of granting and obtaining financing, insufficient collateral needed to obtain financing and the temporal and counterparty- and instrument-specific concentration. This may lead to a company's weaker liquidity if it has not sufficiently prepared for liquidity. Liquidity 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.
Counterparty risks	Counterparty risk refers to the risk of the contracting party not fulfilling its financial obligations. Counterparty risk may be related to a derivative contract, trading or a reinsurance contract.
Operational risks	Operational risk is caused by all business operations and it may result from insufficient or incorrect practices, processes, systems or external factors. OP Financial Group's operational risks also include ICT and security risks.
Compliance risks	Risks caused by non-compliance with external regulation, internal policies, appropriate procedures or ethical principles governing customer relationships.
Data capital risk	Data capital risk means potential losses, loss of reputation or deterioration of operations caused by uncertainty in decision-making, management and reporting related to data and information.
Model risks	Model risk refers to potential losses or loss of reputation caused by decisions made on the basis of the results of models due to errors made in the development, implementation or use of models. The model means a method used to translate the source data based on mathematics, statistics and expert assessments into data guiding business decisions or quantitative data related to financial position or risk exposure.
Reputational risks	Risk of the loss of reputation or trust caused by negative publicity or materialisation of a risk.
Concentration risks	Risks that may arise due to a business having an excess concentration of risk in individual customers, products, lines of business, maturity periods or geographical areas.

Risks associated with future business	Risk associated with the conditions and volumes on which similar or entirely new agreements are based.

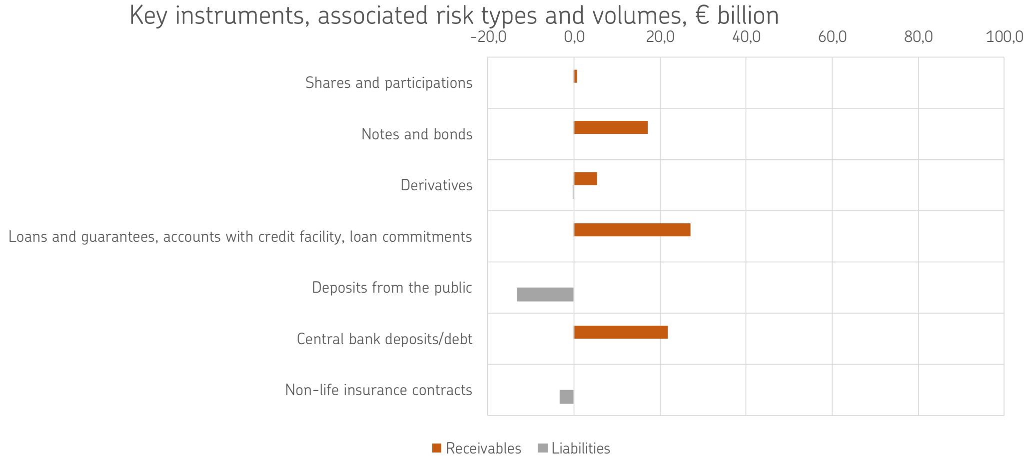
Counterparty risks and risks associated with future business are not dealt with as a specific whole because risks associated with future business may emerge in the form of various significant risks and counterparty risks emerge as part of various risk types.

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

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

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

Key instruments, associated risk types and volumes, € billion



Credit	Market	Operational	Under-writing	Liquidity
	X	X		X
X	X	X		X
X	X	X		X
X	X	X		X
	X	X		X
	X	X		X
	X	X		X
	X	X		X
	X	X	X	X

2.2 Banking risks

2.2.1 Credit risks

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

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

The customer's sufficient repayment capacity is a prerequisite for all lending. Creating a group of connected clients properly 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 borrower grade. Sufficient and correct basic information is used to ensure that the customer can be rated with a correct credit rating model and that the borrower grade gives a true picture of the customer's creditworthiness risk. Each business unit ensures that its customers' borrower grades are constantly valid and up to date and, if necessary, updates the grade if the customer's situation changes. This is how the loan portfolio of the bank concerned and the entire OP Financial Group can be monitored on a real-time basis.

Collateral management is based on an independent collateral assessment, the validity of pledges and the fact that the collateral can be realised so that we can continuously maintain a realistic view of the hard collateral securities that secure receivables. The values of assets pledged in security of receivables must give a true and real-time picture of the collateral position related not only to an individual customer but also the entire loan portfolio. When valuing illiquid collateral securities, it is necessary to consider the financial standing of the collateral asset owner. The weaker 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 the decisions must be aware of all information relevant to decision-making. All credit risk decisions are made on a business-specific basis. Decision-making is guided by OP Financial Group's Risk Appetite Statement (RAS) and the target risk exposure specified in the risk policy. Decisions that deviate from the target risk status specified in the risk policy must be explained on a broader basis. The central cooperative's Risk Management assesses compliance of the most significant financing projects with the risk policy and reports to the management of OP Financial Group and the management of Group banking entities a situational picture of compliance with the risk policy.

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

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

Customers that are most significant to the bank and whose risk of default has increased clearly or another significant threat is related to their repayment capacity must be placed under special control. For these customers, the bank must prepare an action plan on what measures should be taken to resolve the customer' situation from the bank's perspective and to minimise the risk the bank may be exposed if materialised. Monitoring and documenting potential customers in default or actual 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 borrower grade baskets, and the average rating of corporate exposure. The risk policy sets limits for these metrics. In addition, loan portfolio concentrations are monitored by customer, industry and country. The Group also measures the growth differential of the loan portfolio and credit risk economic capital to ensure balance between growth and risk-taking. Limits deriving from Group-level limits have been set for the business segments engaged in banking.

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

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

OP Financial Group utilises internal credit risk models in risk assessment. In addition to the models used for assessing probability of default (PD), the Group uses models for predicting loss given default (LGD) and exposure at default (EAD) to measure credit risk. Exposure at Default (EAD) refers to the estimated amount of the bank's receivable from the customer at default. Off-balance-sheet exposures at default are determined on the basis of the conversion factor (CF). Loss Given Default (LGD) is an estimate of a financial loss incurred by the bank, as a share of EAD, if the customer defaults. Procedures based on model risk management are applied to the models used in credit risk assessment.

OP Financial Group's internal credit rating system

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

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

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

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

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

The R rating for mid-size and large corporate customers is based on the company's financial indicators and qualitative background data on the basis of which a statistical model generates a proposal for rating. An expert familiar with the customer makes a rating proposal on the basis of what is suggested by the model and of any other information available. Any changes and uncertainties relating to the future outlook will be regarded as warning signs and exceptions to the rating provided by the model. The borrower grade is determined by the central cooperative's independent Risk Management, based on the rating proposal, at least once a year and, in respect of weak customers, on a half yearly basis.

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

Low exposure corporate customers are rated using a rating model for low exposures (P). The rating model is an automated rating model calculated on a monthly basis that is created on the basis of the customer's basic data, transaction data and payment behaviour data.

A specific L rating model is used to assess the probability of default of credit institutions as counterparties, the structure of which corresponds to the R rating model. The statistical model as the basis of the credit rating is based on financial indicators in financial statements and on qualitative background data. Such rating can be revised by an expert with warning signs and, in many cases, rating is also affected by the parent company's support to the banking group and by the Sovereign Ceiling rule whereby the counterparty cannot be better than the country concerned in terms of creditworthiness. The central cooperative consolidated decides on credit institution ratings at least once a year.

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

2.2.2 Liquidity risks

Identifying liquidity risks

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

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

Assessment and measurement

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

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

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

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

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

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

Liquidity stress testing

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

Funding plan

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

Non-euro liquidity management

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

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

Management of intraday liquidity

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

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

Liquidity buffer

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

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

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

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

Collateral management and asset encumbrance

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

Central bank operations and derivatives business are mainly other sources of asset encumbrance. From the perspective of preparing for liquidity needs, the Group restricts asset encumbrance through quantitative limits specified in its Risk Policy.

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

Securing liquidity in stress conditions

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

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

Liquidity risk reporting

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

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

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

Liquidity management and control within the amalgamation

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

The central cooperative senior management is responsible for organising OP Financial Group's centralised liquidity risk management according to the liquidity strategy policy lines. It must ensure that the management and supervision of the amalgamation's liquidity 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 Corporate Bank's Board of Directors and OP Mortgage Bank's Board of Directors approve OP Financial Group's funding plan. The central cooperative's senior management approves the Liquidity Contingency Plan which contains the control and supervision procedures of the liquidity status based on various threshold levels as well as funding sources.

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

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

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

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

Allocation of liquidity risk costs within the amalgamation

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

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

2.2.3 Market risks

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

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

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

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

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

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

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

Using the risk assessment procedure applied to OP Financial Group's new products, services, 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. Implementing the removal of zero floors of the total interest rate requires a legislative amendment which defines how customers are compensated for the negative reference interest rate and how it is treated in taxation. Stress tests are used to assess the effects of the removal of zero floors.

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

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

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

Managing other market risks in banking through the balance sheet

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

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

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

- The earnings of the liquidity buffer portfolio are based on covering credit spread risk. Derivatives are used to hedge interest rate risk.

- The Banking risk policy determines the risk measurement methods and risk-taking limits, as well as other restrictions.

- An investment plan is prepared for the investment portfolio, describing the goals of investment activities and the principles of portfolio management. OP Corporate Bank's Board of Directors approves the investment plan.

- The Group ensures sufficient portfolio diversification by means of restrictions by issuer.

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

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

In car dealer financing, OP can offer products where the risk of the car's resale value at the end of the contract period is borne by OP Corporate Bank. If the actual selling 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.

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

Risk management in Markets

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

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

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

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

2.3 Risks of insurance operations

2.3.1 Non-life insurance risks

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

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

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

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

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

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

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

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

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

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

2.3.2 Market and counterparty risk management in non-life insurance

Management of structural interest rate risk and other investment risks

The management of market risks in 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. Decreases in interest rates and narrowing of credit spreads cause the present value of insurance liabilities to increase. In respect of the level of the credit spread related to interest rate risk on the balance sheet, the consistency of the risk profiles of assets and liabilities is essential. Insurance liabilities can be hedged against interest rate risks using direct fixed income investments and interest rate derivatives such that the net interest rate risk consists of the interest rate risk associated with insurance liabilities and the risk profiles of the fixed-income investments and hedging derivatives used to cover the insurance liabilities.

Investment operations take into consideration factors such as the structural interest rate risk arising from the (assumed) cash flow structure of insurance liabilities and the other requirements that insurance liabilities impose on investment assets and their liquidity.

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

Market risks associated with interest rate risk on the balance sheet are managed using limits on issuers, fund investments, and interest rate risks as specified in the investment plans approved by the company's Board of Directors in line with the risk policies for each earnings logic. Asset class restrictions are set for risky fixed income investments, equities and real estate, as well as for illiquid investments. The boards of directors of the insurance companies will also approve principles for the use of derivatives for inclusion in the investment plans. In addition to the Group's risk policy lines and limits, the investment portfolios are also restricted by the responsible investment principles confirmed by the companies' boards of directors.

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

Counterparty risk management

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

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

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

Note 3. Changes in accounting policies and presentation

Definition of default

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

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

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

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

OP Corporate Bank will apply a so-called two-step approach of the EBA Guidelines. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken later involves the calibration of credit risk parameters. The adoption of the first step increased the number of defaulted exposures and that of the number of transfers to impairment stage 3. Expected credit losses increased by 13 million euros, which was recognised as a change in the accounting estimate in profit or loss. Impairment loss on receivables is presented in Note 7.

Calculation of expected credit loss on notes and bonds

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

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

Changes in ECL models and parameters:

In November, OP Corporate Bank updated its estimates of two LGD model parameters: the non-collateral return and the cure rate. The cure rate for impairment stages 1 and 2 was updated based on data complying with the new definition of default adopted in Q1/2020. The estimates for the non-collateral return and the cure rate for impairment stage 3 were made time-dependent so that they will decrease if the period of default or debt collection increases. Expected credit losses increased by roughly EUR 3 million, which was recognised as a change in the accounting estimate in profit or loss.

In December, OP Corporate Bank updated its lifetime PD model for corporate exposures based on data complying with the new definition of default adopted in Q1/2020, among other things. In addition, the Group further specified model segmentation and revised the explaining macroeconomic factors so as to include GDP and real interest rate (previously, the factors included GDP and 12-month Euribor for large companies and investments for other companies). Expected credit losses decreased by EUR 7 million , which was recognised as a model change in profit or loss.

In addition, the effect of the calibration of the private customer credit rating model in December has been taken into account based on the data according to the new definition of default adopted in Q1/2020. Expected credit losses increased by EUR 3 million, which was recognised as a change in the accounting estimate in profit or loss.

Notes to the income statement

Note 4. Net interest income

EUR million	2020	2019
Interest income		
Receivables from credit institutions		
Interest	29	17
Negative interest	56	11
Total	85	27
Receivables from customers		
Loans	361	346
Finance lease receivables	37	31
Impaired loans and other commitments	0	0
Negative interest	27	15
Total	425	392
Notes and bonds		
Measured at fair value through profit or loss	0	1
At fair value through other comprehensive income	62	81
Amortised cost	0	0
Total	62	81
Derivative contracts		
Fair value hedge	-99	-109
Cash flow hedge		0
Ineffective portion of cash flow hedge		0
Other	4	6
Total	-94	-103
Other	7	5
Total	**485**	**403**
Interest expenses		
Liabilities to credit institutions		
Interest	78	88
Negative interest	102	66
Total	179	154
Liabilities to customers	9	9
Notes and bonds issued to the public	150	171
Subordinated liabilities		
Subordinated loans	4	4
Other	58	45
Total	62	49
Derivative contracts		
Cash flow hedge	-162	-164
Other	-87	-115
Total	-249	-279
Other	5	5
Total	**156**	**109**
Net interest income before fair value adjustment under hedge accounting	**329**	**294**
Hedging derivatives	15	14
Value changes of hedged items	-18	-13
Total	**325**	**295**

Interest income calculated using the effective interest method totalled EUR 510 (420) million.

Note 5. Net insurance income

EUR million	2020	2019
Net insurance premium revenue		
Premiums written	1,508	1,494
Insurance premiums ceded to reinsurers	7	-2
Change in provision for unearned premiums	-8	-14
Reinsurers' share	-1	0
Total	1,506	1,478
Net Non-life Insurance claims		
Claims paid	-954	-1,017
Insurance claims recovered from reinsurers	27	21
Change in provision for unpaid claims*	-24	-79
Reinsurers' share	8	2
Total	-943	-1,073
Other Non-life Insurance items	-7	-4
Total	555	402

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

Note 6. Net commissions and fees

Q1–4 2020, EUR million	Corporate Banking	Insurance	Other operations	Eliminations	OP Financial Group
Commission income					
Lending	47		0	-1	46
Deposits	3		0	0	2
Payment transfers	32		0	-8	24
Securities brokerage	27			0	27
Securities issuance	11		0	0	11
Mutual funds	0	0	0		0
Asset management	14			0	14
Legal services	0				0
Guarantees	12		0	0	12
Insurance brokerage		13		0	13
Health and wellbeing services		13		0	12
Other	0		0	7	7
Total	146	25	0	-3	169
Commission expenses					
Lending	1		0		1
Payment transfers	2	1	0	-1	2
Securities brokerage	4		0	0	4
Securities issuance	2		0	0	2
Mutual funds		0			0
Asset management	3	0	1		4
Guarantees	0			0	0
Insurance operations		48		0	48
Health and wellbeing services		5		0	4
Other*	97	0	1	0	97
Total	110	53	2	-1	164
Total net commissions and fees	36	-28	-2	-1	5

Q1–4 2019, EUR million	Corporate Banking	Insurance	Other operations	Eliminations	Group total
Commission income					
Lending	46	0	0	-1	45
Deposits	2		0	0	1
Payment transfers	37		0	-14	23
Securities brokerage	21		0	0	21
Securities issuance	6		0	0	6
Mutual funds	0		0		0
Asset management	13			0	13
Legal services	0				0
Guarantees	12		0	0	12
Insurance brokerage		13			13
Health and wellbeing services		22		0	21
Other				13	13
Total	138	35	0	-2	171
Commission expenses					
Lending	0		0		0
Payment transfers	2	1	0	-1	2
Securities brokerage	8		0	0	7
Securities issuance	2		0		2
Asset management	3	0	1		4
Insurance operations		62			62
Health and wellbeing services		8			8
Other*	113	0	1	0	114
Total	127	71	2	-1	199
Total net commissions and fees	67	33	2	-201	-28

* In 2020, the item includes EUR 90 million (106) in commission expenses paid to member banks arising from derivative trading.

Note 7. Net investment income

EUR million	2020	2019
Net income from assets at fair value through other comprehensive income		
Notes and bonds		
Interest income	27	36
Other income and expenses	-3	-9
Capital gains and losses	11	58
Currency fair value gains and losses	-14	3
Impairment losses and their reversal*	-2	2
Total	19	91

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

Net income recognised at fair value through profit or loss		
Financial assets held for trading		
Notes and bonds		
Fair value gains and losses	2	-1
Interest income and expenses	4	6
Total	6	4
Shares and participations		
Fair value gains and losses	-4	-5
Dividend income and share of profits	9	5
Total	5	0
Derivatives		
Fair value gains and losses*	199	248
Interest income and expenses	9	11
Total	208	259
Total	219	264
Financial assets that must measured at fair value through profit or loss		
Notes and bonds		
Fair value gains and losses	3	-3
Interest income	2	2
Total	5	0
Shares and participations		
Fair value gains and losses	-1	85
Dividend income and share of profits	16	27
Total	15	112
Total	19	112
Total net income from financial assets recognised at fair value through profit or loss	238	375

* Net income from hedging derivatives amounted to 13.4 million euros (2.5).

Net income from investment property		
Rental income	26	27
Fair value gains and losses	-7	3
Maintenance charges and expenses	-26	-19
Other	1	-4
Net income from investment property total	**-5**	**7**

Net income from loans and receivables measured at amortised cost

Loans and receivables		
Interest income	5	5
Interest expenses	-4	-1
Impairment losses and their reversal	0	-2
Loans and receivables total	**0**	**3**

Non-life Insurance		
Unwinding of discount, Non-life Insurance	-21	-27

The increase in the discounted insurance liabilities in Non-life Insurance due to passage of time is unwinding of discount. Unwinding of discount is computed monthly applying the discount rate at the end of the previous month and the insurance liabilities discounted at the beginning of the current month. The discount rate stood at 0.85% (1.0).

Associated companies		
Consolidated using the equity method	2	1
Total	**2**	**1**

Total net investment income	**233**	**450**

Note 8. Other operating income

EUR million	2020	2019
Rental income from property in own use	2	3
Capital gains on property in own use	2	
Leasing agreements	0	0
ICT income	2	2
OP Financial Group's internal income	18	23
Other	5	18
Total	**29**	**47**

Note 9. Personnel costs

EUR million	2020	2019
Wages and salaries	143	139
Variable remuneration	14	12
Pension costs	-52	27
Defined contribution plans	20	17
Defined benefit plans*	-72	10
Other personnel related costs	6	6
Total	**111**	**184**

* Note 31.

* The transfer of the remaining statutory earnings-related pension liability to Ilmarinen Mutual Pension Insurance Company at the end of 2020 reduced pension costs by EUR 85 million.

Personnel fund

OP Financial Group's personnel fund covers the employees of OP Corporate Bank and its subsidiaries who are not included in the management remuneration scheme or the Baltic operations.

Payment of profit-based bonuses to OP Financial Group's Personnel Fund in 2020 was based on the achievement of the following targets: Growth differential between OP Financial Group's income and expenses with a weight of 50% and the number of active mobile customers with a weight of 50%. Profit-based bonuses for 2020 transferred to the Fund account for some 2.5% (2.3%) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2020 totalled EUR 1.5 million (2.9).

Long-term remuneration schemes

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

Expenses for the long-term management remuneration schemes for 2014–2016 and 2017–2019 are recognised from the beginning of the performance period up to the date of payout (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses. A liability recognised under the scheme amounted to EUR 0 million (1.2) on 31 December 2020.

Performance-based bonus scheme in 2020

The performance period of the performance-based bonus scheme is 6 or 12 months. Short-term remuneration schemes are based on targets set for each company, team and person derived from the annual plan, covering all personnel of OP Corporate Bank Group.

The bonus is determined by the job grade and the maximum bonuses correspond to a 1–4-month annual salary. The maximum bonuses for separately specified duties may not exceed the amount equalling the person's annual salary.

Performance metrics of the performance-based bonus scheme in 2020

A factor applies to the bonus created through the achievement of the targets achieved in OP Corporate Bank Group 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.

Determination and payout of performance-based bonuses in 2020

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

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

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

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

Deferral of variable remuneration

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

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

If the euro maximum for deferment is exceeded, some bonus is paid immediately, while the rest is deferred and the deferred bonus will be paid in equal instalments within the next three years. In such a deferment situation, half of the variable remuneration is paid in cash and half is tied to the value of the reference instrument decided by OP Cooperative's Supervisory Board or the Remuneration Committee appointed by the Supervisory Board. The bonus tied to the reference instrument will be paid to its beneficiary after a one-year retention period.

Remuneration for persons in charge of control duties

The remuneration objectives of persons in charge of control duties independent of business lines, such as risk management, internal audit, compliance and actuarial duties, may not jeopardise the independence of the duties. Variable remuneration must be independent of the business line under control and the Chief Risk Officer's metrics may not include any direct sales-based targets. It is also recommended that the balanced scorecard also includes a qualitative metric that measures the performance of control duties.

Monitoring of OP Financial Group's remuneration

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

OP Cooperative' Board of Directors annually monitors how paid bonuses are in proportion to OP Financial Group's success vis-à-vis benchmark companies and refunds paid to customers. OP Financial Group also makes internal, Group-level comparisons of remuneration and structures on a regular basis.

Expenses recognised for variable remuneration*

EUR million	2020	2019
Personnel fund	3	3
Performance-based bonuses	11	10
Long-term schemes:		
Scheme for 2014–16	0	0
Scheme for 2017–19	0	-1
Total	**14**	**12**

* Excl. social expenses.

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

Note 10. Depreciation/amortisation and impairment loss

EUR million	2020	2019
Depreciation and amortisation		
Buildings	9	6
Machinery and equipment	0	0
Information systems and other	39	38
Right-of-use assets	5	3
Leased out assets	0	1
Other	0	0
Total	54	48
Impairment loss		
Information systems		13
Total	-1	15
Total	53	63

Note 11. Other operating expenses

EUR million	2020	2019
ICT costs		
Production	174	137
Development	34	67
Buildings	0	7
Government charges and audit fees*	52	40
Purchased services	34	34
Data communications	10	10
Marketing	11	13
Corporate social responsibility	3	2
Insurance and security costs	3	4
Other	72	72
Total	393	386

* In 2020, audit fees in OP Corporate Bank Group for audit paid to auditors totalled EUR 551,000 million (337,000), whereas fees for assignments as referred to in chapter 1, section 1, sub-section 2, paragraph 1 of the Auditing Act were EUR 1,000 (11,000), those for tax counselling EUR 87,000 (158,000) and for other services EUR 237,000 (178,000). Non-audit services rendered by KPMG Oy Ab totalled EUR 179,000 (154,000) (excl. VAT). The corresponding figures for 2019 are shown in brackets.

Development costs

€ million	2020	2019
ICT development costs	34	67
Share of own work	0	1
Total development costs in the income statement	**34**	**68**
Capitalised ICT costs	36	38
Capitalised share of own work		0
Total capitalised development costs	**36**	**38**
Total development costs	**70**	**106**
Depreciation/amortisation and impairment loss	37	49

The development investments ensure the competitiveness and continuity of the present-day business and regulatory compliance and create conditions for new customer-driven business models.

Note 12. Impairment losses on receivables

EUR million	2020	2019
Receivables written down as loan and guarantee losses	-55	-4
Recoveries of receivables written down	1	1
Expected credit losses** (ECL) on receivables from customers and off-balance-sheet items	1	-47
Expected credit losses** (ECL) on notes and bonds*	1	0
Total	-53	-51

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

** Loss allowance is itemised in Note 38. Loss allowance regarding receivables and notes and bonds.

Note 13. Temporary exemption (overlay approach)

EUR million	2020	2019
Net investment income within the scope of the overlay approach recognised according to IFRS 9		
Financial assets that must measured at fair value through profit or loss		
Shares and participations		
Fair value gains and losses	-2	85
Total (A)	-2	85
Net investment income within the scope of the overlay approach measured according to IFRS 39		
Shares and participations		
Capital gains and losses	19	34
Impairment losses and their reversals	-26	-15
Total (B)	-7	19
Effect of the overlay approach on the income statement (-A+B)	-5	-66
Effect of the overlay approach on the statement of comprehensive income - (-A+B)	5	66

Note 14. Income tax

EUR million	2020	2019
Current tax	56	92
Tax for previous financial years	1	-2
Deferred tax	51	-10
Income tax expense	108	79
Corporate income tax rate	20.0	20.0
Reconciliation between tax expense in the income statement and tax expense		
Earnings before tax	529	412
Tax calculated at a tax rate of 20%	106	82
Tax for previous financial years	1	-2
Tax-exempt income	1	-4
Non-deductible expenses and income portions of limited partnerships	1	0
Re-evaluation of unrecognised tax losses	-2	0
Tax adjustments	-1	1
Effect of capital gain on intra-Group transaction	0	
Other items	2	1
Tax expense	108	79

Notes to assets

Note 15. Liquid assets

EUR million	31 Dec 2020	31 Dec 2019
Cash	155	2
Deposits with central banks repayable on demand		
OP Corporate Bank plc's minimum reserve deposit	818	767
Cheque account*	21,609	11,145
Total liquid assets	**21,764**	**11,914**

* The cheque account includes EUR –31 million (–177) 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 16. Receivables from credit institutions

EUR million	31 Dec 2020	31 Dec 2019
Deposits		
Repayable on demand	82	988
Other	0	
Total	82	988
Loans and receivables		
Repayable on demand		
From other credit institutions	0	0
Other		
From OP Financial Group institutions	11,094	8,072
From other credit institutions	77	67
Total	11,171	8,139
Loss allowance*		
From other credit institutions	0	0
Total	0	0
Total receivables from credit institutions	**11,252**	**9,126**

* Loss allowance is itemised in Note 38. Loss allowance regarding receivables and notes and bonds.

Note 17. Derivative contracts

EUR million	31 Dec 2020	31 Dec 2019
Held for trading		
Interest rate derivatives	4,707	4,144
Currency derivatives	449	238
Equity and index derivatives	0	0
Credit derivatives	0	10
Commodity derivatives	4	14
Total	5,161	4,407
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	48	56
Currency derivatives	162	412
Total	209	468
Total derivative contracts	5,370	4,874

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

Note 18. Receivables from customers

EUR million	31 Dec 2020	31 Dec 2019
Loans to the public and public sector entities	22,485	16,292
Finance lease receivables*	2,278	2,340
Guarantee receivables	2	2
Receivables		5,488
Total	24,765	24,122
Loss allowance**	-281	-293
Total receivables from customers	**24,485**	**23,829**

* Finance lease receivables are itemised in Note 23.

** Loss allowance is itemised in Note 38. Loss allowance regarding receivables and notes and bonds.

Note 19. Investment assets

EUR million	31 Dec 2020	31 Dec 2019
Financial assets held for trading		
Notes and bonds	332	1,033
Shares and participations	19	23
Total	350	1,056
Financial assets that must measured at fair value through profit or loss		
Notes and bonds	24	42
Shares and participations (Overlay approach)	775	689
Shares and participations (other than those under Overlay approach)		5
Total	799	737
Financial assets at fair value through other comprehensive income		
Notes and bonds	16,052	14,899
Shares and participations	0	0
Total	16,052	14,899
Amortised cost		
Notes and bonds	814	
Other	27	59
Total	841	59
Investment property	306	339
Associated companies		
Associates	73	76
Joint ventures	11	8
Total	84	84
Total investment assets	**18,433**	**17,174**

Changes in investment property, EUR million	2020	2019
Acquisition cost 1 Jan.	292	283
Increases		12
Decreases	-8	-1
Transfers between items	-20	-1
Acquisition cost 31 Dec.	264	292
Accumulated changes in fair value	46	38
Changes in fair value during the financial year	-4	3
Decreases		4
Other changes		1
Accumulated changes in fair value 31 Dec.	42	46
Carrying amount 31 Dec.	**306**	**339**

Increases in investment property do not include 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.

Breakdown of investment property leased out under operating lease can be found in Note 23.

Investment property does not include real property received as collateral in 2020 and 2019.

A total of 89% of investment property holdings, or EUR 273 million, was appraised by external property valuers, all of them being authorised property valuers (AKA).

Information on associated companies can be found in Note 20. Investments accounted for using the equity method.

Note 38 describes expected credit losses of items measured at fair value through other comprehensive income and at amortised cost.

Note 20. Investments accounted for using the equity method

Amounts entered in the balance sheet:

EUR million	31 Dec 2020	31 Dec 2019
Associates	73	76
Joint ventures	11	8
Total	**84**	**84**

Amounts entered in the income statement:

EUR million	31 Dec 2020	31 Dec 2019
Associates	2	1
Total	**2**	**1**

Investments in associates and joint ventures

OP Corporate Bank Group has two (2) associates and one (1) joint venture which are not significant when reviewing them one by one. The table above shows OP Corporate Bank Group's share of the profit/loss of these associates.

OP Corporate Bank Group's investments in associates and joint ventures have no quoted market price and no contingent liabilities are involved in them. 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.

Note 21. Intangible assets

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs	Information systems and other	Total
Acquisition cost 1 January 2020	421	166	282	359	1,228
Increases				36	36
Decreases	0			-1	-1
Acquisition cost 31 December 2020	421	166	282	395	1,263
Acc. amortisation and impairments 1 January 2020	-3	-4	-273	-240	-519
Amortisation during the financial year			-1	-38	-39
Decreases				1	1
Acc. amortisation and impairments 31 December 2020	-3	-4	-274	-277	-557
Carrying amount 31 December 2020	**419**	**162**	**7**	**118**	**706**

Changes in intangible assets, EUR million	Goodwill	Brands	Customer relationships related to insurance contracts and policy acquisition costs	Information systems and other	Total
Acquisition cost 1 January 2019	421	166	282	394	1,263
Increases*				39	39
Decreases				-74	-74
Acquisition cost 31 December 2019	421	166	282	359	1,228
Acc. amortisation and impairments 1 January 2019		-4	-272	-266	-541
Amortisation for the period			-1	-36	-38
Impairments for the period	-3			-11	-13
Decreases				73	73
Accumulated amortisation and impairments 31 December 2019	-3	-4	-273	-240	-519
Carrying amount 31 December 2019	**419**	**162**	**9**	**119**	**709**

Information systems and other

Carrying amount, EUR million	31 Dec 2020	31 Dec 2019
Information systems	52	79
Information systems under development	52	43
Other	14	-4
Total	**118**	**119**

Intangible assets with indefinite economic lives

EUR million	31 Dec 2020	31 Dec 2019
Goodwill	419	419
Brands	162	162
Total	**581**	**581**

The useful lives of brands acquired through business combinations are estimated to be indefinite, since they will generate cash flows for an indefinable period.

Goodwill impairment test

Goodwill, EUR million

Segment	Acquired business	31 Dec 2020	31 Dec 2019
Insurance	Acquisition of Pohjola Group plc's non-life business	406	406
Corporate Banking	Acquisition of Pohjola Finance Ltd's businesses	13	13
Total		**419**	**419**

Testing goodwill for impairment

At the end of 2020, goodwill totalled EUR 419 million (419).

The testing period was determined to be five years under IAS 36, and a growth expectation in cash flows for the previous forecast period or of a maximum of 2% was used as growth in cash flows for post-forecast periods. 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 using a discount rate corresponding to the return on equity requirement. Market data 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. The discount rate used in the calculations related to the Non-life Insurance cash-generating units was 7.5% (6.9) and the assets and sales finance solutions cash-generating unit 5.5% (6.0). Impairment testing in 2020 proved that the recoverable amount of the tested cash-generating units exceeded their requirement for return on equity, and the surplus/deficit was positive in each tested cash-generating unit. So, no need for impairment loss recognition of goodwill was discovered based on the testing.

Sensitivity analysis of goodwill

A sensitivity analysis applied to the cash-generating units was carried out separately for each cash-generating unit on the basis of key variables of each cash-generating unit. Sensitivity was reviewed as a change in one variable in relation to values used in forecasts. The sensitivity analysis does not include simultaneous changes in all key variables. In addition, a relative change of each cash-generating unit's key variable, which would cause goodwill impairment risk, was derived from the sensitivity analysis.

Key assumptions used in calculating the recoverable amount of a cash-generating unit and a relative change that would cause goodwill impairment risk.

Segment	Cash-generating unit	Goodwill € million	Key variables	Value used in cashflow forecasts, %	Change caused by impairment risk, pp
Insurance	Non-life insurance business	406	Discount rate, %	7.5	7.4
			Combined ratio, %	87.7–90.0	7.8
			Net investment income, %	0.7-1.2	-2.8
Corporate Bank	Asset and sales finance solutions	13	Discount rate, %	5.5	3.4
			Loan portfolio growth, %	1.9-2.9	-39.0
			Growth in expenses, %	1.5-8.0	20.4

Impairment testing of brands

Impairment testing for brands was carried out separately for the Pohjola and A-Vakuutus (A-Insurance) brands. Forecasts used in cash flow statements are based on long-term plans approved by the Non-life Insurance management and on forecasts derived from them for 2021–2025. A 2% growth expectation was used as growth in cash flows for post-forecast periods. On the basis of testing, there is no need to recognise any impairment loss on brands in the financial statements 2020.

Note 22. Property, plant and equipment

EUR million	31 Dec 2020	31 Dec 2019
Property in Group use		
Land and water areas	11	10
Buildings	109	97
Machinery and equipment	1	1
Other tangible assets	1	2
Right-of-use assets	13	5
Leased-out assets	0	0
Total property, plant and equipment	**136**	**114**

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	148	-20	2	1	132
Increases	0	0	0		1
Decreases	-3	0	-1		-4
Transfers between items	20	0		0	20
Acquisition cost 31 December 2020	165	-19	1	2	149
Accumulated depreciation and impairments 1 January 2020	-41	20	0	-1	-22
Depreciation for the financial year	-5	0	0		-5
Decreases	2	0	0		2
Other changes	0	0	0		0
Accumulated depreciation and impairments 31 December 2020	-45	20	0	-1	-26
Right-of-use assets*					13
Carrying amount 31 December 2020	**121**	**1**	**1**	**0**	**136**

Changes in property, plant and equipment (PPE), and investment property, EUR million	Property in Group use	Machinery and equipment	Other tangible assets	Leased-out assets	Total PPE
Acquisition cost 1 January 2019	148	27	2	1	179
Increases	3	1		0	4
Decreases	-4	-48	0		-51
Transfers between items	1				1
Acquisition cost 31 December 2019	148	-20	2	1	132
Accumulated depreciations and impairments 1 January 2019	-34	-27	0	-1	-62
Depreciation for the financial year	-6	0			-6
Impairments for the financial year	-2				-2
Decreases		47	0		48
31 December 2019	-41	20	0	-1	-22
Right-of-use assets*					5
Carrying amount 31 December 2019	**107**	**1**	**2**	**0**	**114**

* Note 23. Leases

Note 23. Leases

Right-of-use assets, EUR million	Buildings	Cars	IT equipment	Machinery and equipment	Total
Carrying amount 1 January 2020	4	1	0	0	5
Increases	3	0	1	1	5
Decreases	0	0	0		0
Depreciation for the financial year	-1	0	0	-4	-5
Value changes for the financial year	-2	0	0		-2
Other changes		0	0	10	10
Carrying amount 31 December 2020	4	1	1	7	13

Right-of-use assets, EUR million	Buildings	Cars	IT equipment	Machinery and equipment	Total
Carrying amount 1 January 2019	6	0	1		7
Increases	0	0	0	0	1
Decreases	1	0			1
Depreciation for the financial year	-2	0	0	0	-3
Value changes for the financial year	-1	0			-1
Carrying amount 31 December 2019	4	1	0	0	5

Lease liabilities, EUR million	31 Dec 2020	31 Dec 2019
* Carrying amount	5	5
Contractual maturities		
< 1 year	1	2
1–2 years	1	1
2–3 years	1	1
3–4 years	0	0
4–5 years	0	0
Over 5 years	1	

* Note 31. Provisions and other liabilities

Items entered in the income statement, EUR million	31 Dec 2020	31 Dec 2019
Interest expenses	0	0
Depreciation on right-of-use assets	-5	-3
Lease income received from sublease	0	1
Expenses related to variable lease payments not included in lease liabilities	0	0
Expenses of short-term and low-value leases	-2	-2
Total cash flow from leases	-7	-6

Lessor's operating leases

OP Corporate Bank Group companies have leased out investment property it owns. Due to the Covid-19 crisis, OP Corporate Bank Group granted brief rent concessions to their customers on a case-by-case basis, particularly in the second quarter. These concessions extended the entire term of the lease agreement or they increased lease payments after the end of the rent concessions.

Minimum lease payments receivable under operating leases

EUR million	31 Dec 2020	31 Dec 2019
< 1 year	26	55
1–2 years	20	65
2–3 years	16	41
3–4 years	14	33
4–5 years	12	18
Over 5 years	52	13
Total	140	224

Finance lease receivables
OP Corporate Bank Group uses finance leases to finance moveable capital assets, real property units and other premises. Due to the Covid-19 crisis, OP Corporate Bank Group granted brief rent concessions to their customers on a case-by-case basis. The duration of the rent concessions was 3–6 months. These concessions extended the entire term of the lease agreement or they increased lease payments after the end of the rent concessions.

EUR million	31 Dec 2020	31 Dec 2019
Maturity of finance lease receivables		
< 1 year	678	663
1–2 years	564	571
2–3 years	443	429
3–4 years	245	318
4–5 years	148	156
Over 5 years	292	300
Gross investment in finance leases	2,371	2,436
Unearned finance income (–)	-92	-96
Present value of minimum lease payments	**2,278**	**2,340**
Present value of minimum lease payment receivables		
< 1 year	648	632
1–2 years	544	550
2–3 years	430	415
3–4 years	237	310
4–5 years	144	151
Over 5 years	276	283
Total	2,278	2,340

Items entered in the income statement, € million	31 Dec 2020	31 Dec 2019
Interest income from finance lease receivables	30	31
Capital gain/loss accrued from finance leases	0	-1

Note 24. Other assets

EUR million	31 Dec 2020	31 Dec 2019
Payment transfer receivables	296	16
Pension assets	3	6
Accrued income and prepaid expenses		
Interest	136	90
Interest on derivatives receivables	20	22
Other insurance operations' items	20	21
Other	20	16
Derivatives receivables, central counterparty clearing	15	1
CSA receivables from derivative contracts	0	432
Securities receivables	8	6
Direct insurance receivables	289	290
Claims administration contracts	0	181
Reinsurance receivables	38	22
Reinsurers' share of provisions for unearned premiums	7	7
Reinsurers' share of provisions for unpaid claims	106	98
Other receivables	174	124
Total	1,812	1,334

Note 25. Tax assets and liabilities

EUR million	31 Dec 2020	31 Dec 2019
Income tax assets	12	16
Deferred tax assets	22	35
Total tax assets	**33**	**51**

EUR million	31 Dec 2020	31 Dec 2019
Income tax liabilities	16	18
Deferred tax liabilities	476	434
Total tax liabilities	**492**	**452**

Deferred tax assets	31 Dec 2020	31 Dec 2019
Due to financial assets at fair value through other comprehensive income	1	2
Due to depreciation and impairments	1	0
Due to defined-benefit pension plans	13	13
Due to consolidation of Group accounts		2
Due to unused tax credits	0	
Due to other temporary differences	11	8
Set-off against deferred tax liabilities	-5	-2
Total	**22**	**35**

Deferred tax liabilities	31 Dec 2020	31 Dec 2019
Due to appropriations	327	296
Due to financial assets at fair value through other comprehensive income	18	9
Cash flow hedge	0	0
Due to elimination of equalisation provision	68	62
Due to fair value measurement of investment	21	30
Allocation of price of corporate acquisitions	32	32
Defined benefit pension plans	10	2
Due to consolidation of Group accounts	6	1
Due to other temporary differences	1	5
Set-off against deferred tax assets	-7	-2
Total	**476**	**434**
Net deferred tax asset (+)/liability (-)	**-454**	**-399**

Changes in deferred taxes	31 Dec 2020	31 Dec 2019
Deferred tax assets /liabilities 1 January	-399	-390
Effect of losses		
Provisions and impairments on receivables		0
Appropriations	-31	-2
Elimination of equalisation provision	-6	4
Defined benefit pension plans	-16	1
Other	-8	-2
Recognised in statement of comprehensive income		
Available-for-sale financial assets		
Fair value measurement	-14	-18
Cash flow hedges	0	0
Transfers to the income statement	0	-2
Actuarial gains/losses on post-employment benefit obligations	0	1
Other	7	3
Total deferred tax assets 31 December, asset (+)/liability (-)	**-454**	**-399**
Income tax assets, asset (+)/liability (-)	**0**	**-1**
Total tax assets, asset (+)/liability (-)	**-454**	**-401**

Tax losses for which a deferred tax asset was not recognised came to EUR 23 million (EUR 14 million) at the end of 2020. The losses will expire before 2030.

A deferred tax liability has not been recognised for the EUR 43 million (EUR 32 million) of undistributed profits of the Baltic subsidiaries, since the assets have been permanently invested in these countries.

Notes to liabilities and equity capital

Note 26. Liabilities to credit institutions

EUR Million	31 Dec 2020	31 Dec 2019
Liabilities to central banks	8,000	2,000
Liabilities to credit institutions		
Repayable on demand		
Deposits		
With OP Financial Group entities	2,789	634
With other credit institutions	24	8
Other liabilities		
With OP Financial Group entities	0	788
Total	2,813	1,430
Other than repayable on demand		
Deposits		
With OP Financial Group entities*	18,043	11,561
With other credit institutions	32	342
Total	18,075	11,903
Total liabilities to credit institutions and central banks	**28,888**	**15,334**

* The item includes LCR deposits by member credit institutions.

During 2020, the Governing Council of the European Central Bank modified the conditions of TLTRO III financing in order to stimulate bank lending to actors which have been hardest hit by the spread of Covid-19. According to the modified conditions, the interest rate between 24 June 2020 and 23 June 2022 can be the ECB's deposit facility rate (–0.50% on the reporting date) less 0.50%, and the ECB's deposit facility rate for the subsequent loan maturity at its best. The reduced interest rate is conditional on fulfilling the criteria for net lending performance. The final interest rate will not be determined until the TLTRO III operations mature (or during repayment). Changes in the interest rate are reflected in the effective interest rate. "Liabilities to central banks" include EUR 8.0 billion in the ECB's TLTRO III funding (Targeted longer-term refinancing operations). The bank assesses that it will fulfil the net lending performance criteria affecting the price of financing.

Note 27. Derivative contracts

EUR million	31 Dec 2020	31 Dec 2019
Held for trading		
Interest rate derivatives	3,617	3,437
Currency derivatives	445	231
Credit derivatives	0	1
Other	8	14
Total	4,070	3,683
Hedging derivative contracts*		
Fair value hedging		
Interest rate derivatives	129	178
Currency derivatives	65	21
Total	195	199
Total derivative contracts	**4,265**	**3,882**

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

Note 28. Liabilities to customers

EUR million	31 Dec 2020	31 Dec 2019
Deposits		
Repayable on demand		
Private	22	70
Companies and public-sector entities	12,757	10,664
Total	12,779	10,733
Other		
Private	0	0
Companies and public-sector entities	520	370
Total	520	370
Total deposits	13,300	11,103
Other financial liabilities		
Repayable on demand		
Private		3
Companies and public-sector entities	1	0
Total	1	3
Other		
Companies and public-sector entities	2,593	4,396
Total	2,593	4,396
Total other financial liabilities	2,594	4,400
Total liabilities to customers	**15,894**	**15,503**

Note 29. Insurance liabilities

EUR million	31 Dec 2020	31 Dec 2019
Non-life Insurance insurance liabilities	3,326	3,234
Total	3,326	3,234

Non-life Insurance contract liabilities and reinsurers' share

	31 Dec 2020			31 Dec 2019		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims for annuities	1,596	-7	1,589	1,571	-4	1,567
Other provisions by case	195	-84	111	197	-81	116
Special provision for occupational diseases	8		8	10		10
Collective liability (IBNR)	764	-16	748	779	-13	766
Reserved loss adjustment expenses	153		153	114		114
Provision for unearned premiums	593	-7	586	584	-7	576
Interest rate hedge for insurance liabilities	16		16	-22		-22
Total Non-life Insurance insurance liabilities	3,326	-113	3,213	3,234	-106	3,128

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

	2020			2019		
EUR million	Gross	Reinsurers' share	Net	Gross	Reinsurers' share	Net
Provision for unpaid claims						
Provision for unpaid claims 1 Jan	2,650	-98	2,552	2,588	-97	2,491
Claims paid in financial year	-1,051	27	-1,024	-1,140	21	-1,119
Change in liability/receivable	1,073	-33	1,041	1,219	-23	1,196
Current period claims	1,052	-17	1,035	1,116	-24	1,092
Increase (decrease) from previous financial years	-24	-16	-39	-25	1	-24
Change in discount rate	45		45	128		128
Unwinding of discount	19		19	27		27
Value change in interest rate hedges	38		38	-43		-43
Sold business operations	4	-3	1	0	0	0
Foreign exchange gains (losses)				0		0
Provision for unpaid claims 31 Dec	2,733	-106	2,627	2,650	-98	2,552
Liability for remaining contract period						
Insurance liabilities 1 Jan	584	-7	576	569	-8	561
Increase	537	-7	531	530	-7	523
Decrease	-529	7	-521	-516	8	-509
Unwinding of discount	1		1	1		1
Insurance liabilities 31 Dec	593	-7	586	584	-7	576
Total Non-life Insurance insurance liabilities	3,326	-113	3,213	3,234	-106	3,128

The insurance liability for the remaining contract period of insurance contracts has mainly been determined in accordance with the pro rata parte temporis rule for each contract.

Determination of insurance liabilities arising from non-life insurance contracts

a) Methods and assumptions used
The amount of insurance liability has been estimated in such a way that it is, in reasonable probability, sufficient to cover the liabilities arising from insurance contracts. This has been performed by estimating an expected value for the insurance liability and, after that, by determining a safety margin based on the degree of uncertainty related to the liability.

The provision for unpaid claims for annuities corresponds to the discounted present value of cash flow of compensation for loss of income payable as continuous annuity. The discount rate is determined taking account of the current interest rate, security required by law and the maximum discount rate set by the authorities and expected reasonable return on assets covering insurance liabilities. On 31 December 2020, the discount rate used was 0.85% (1.0). The mortality model applied is the cohort mortality model which is based on Finnish demographic statistics and which assumes the current trend of an increase in life expectancy to continue.

The provision for unpaid claims includes asbestos liabilities which arise from occupational diseases coverable under statutory workers' compensation insurance. The forecasted cash flow of these claims is based on an analysis which takes account of to what extent asbestos was used annually as raw material in Finland and how the latency periods of different asbestos diseases are distributed. Trends in asbestos-related claims are monitored annually and the outcome has corresponded well to the forecast.

Determining collective liability is based on different statistical methods: Bornhuetter-Ferguson, Cape Cod and Chain Ladder. When applying these methods, other selections must also be made, in addition to the selection of the method, such as deciding on how many occurrence years' statistics the methods will be applied.

In the valuation of collective liability, the largest risks relate to

- Estimating the future rate of inflation (excl. indemnities for loss of income payable on the basis of statutory insurance)
- Adjustment of changes due to changed compensation practices and legislation in the development triangle of claims (i.e. whether history provides a correct picture of the future)
- Adequacy of historical information over dozens of years.

Of the collective liability, only the liability for annuities has been discounted.

For the assessment of collective liability, the Group's non-life insurance portfolio is divided into several categories by risk and eg maturity of the cash flow applying to compensation paid. In each category, collective liability is first calculated using each statistical method stated above, and the method that best suits the category under review is chosen. The selection criteria used includes how well the model would have predicted developments in prior years of occurrence and the sensitivity of the estimate generated by the model with respect to the number of statistical years used. The safety margin of 2–15% is added to the expected value generated by the selected model. The safety margin is determined by the uncertainty associated with future cash flows and duration, as well as the quality of historical data.

When estimating the collective liability for medical expenses and rehabilitation expenses benefits in statutory workers' compensation and motor liability insurance, the Group has taken account of the fact claims paid for losses occurred more than 10 years ago are financed through the pay-as-you-go system.

Effect of changes in methods and assumptions on amount of liability	2020	2019
EUR million (increase +/decrease - in liability)		
Effect of changes in methods and assumptions on amount of liability	45	147
Total	**45**	**147**

b) Claims development

The claims triangle compares the actual claims incurred with previous estimates. The triangles describing claims development have been drawn up by occurrence year.

With the exception of long-term liabilities, claims development for the gross business is presented over a period of ten years. The claims triangle does not monitor the shares of pools. The capital value of finalised annuities is treated as if the annuities had been paid equalling the capital amount in connection with confirmation as final. For long-term liabilities, i.e. annuities confirmed as final and asbestos-related claims, information on the adequacy of insurance liabilities is provided.

Claims triangles, gross business, EUR million

Occurrence year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Estimated total claims expenditure											
0*	784	815	903	931	976	1,000	1,043	1,121	1,116	1,052	9,741
n+1	751	802	879	905	887	1,006	1,063	1,149	1,116		
n+2	752	805	861	920	902	995	1,078	1,164			
n+3	757	821	885	939	910	998	1,079				
n+4	771	836	891	929	912	996					
n+5	786	840	888	930	912						
n+6	785	840	900	931							
n+7	783	838	903								
n+8	784	843									
n+9	788										
Current estimate of total claims expenditure											
	788	843	903	931	912	996	1,079	1,164	1,116	1,052	9,783
Accumulated claims paid											
	-759	-807	-854	-882	-852	-927	-983	-1,029	-929	-568	-8,590
Provision for unpaid claims for 2011-20											
	29	37	49	49	59	68	97	135	187	484	1,194
Provision for unpaid claims for previous years											244

* = At the end of the occurrence year

Development of claims due to latent occupational diseases, EUR million

Financial year	Collective liability	Known liabilities for annuities	Claims paid	Claims incurred	Changes in reserving basis*	Adequacy
2011	35	50	-3	-6	5	-2
2012	32	53	-4	-4	2	-1
2013	28	53	-4	-1	1	0
2014	22	53	-4	-2	2	0
2015	19	54	-4	-2	2	-1
2016	17	53	-5	-1	2	1
2017	14	53	-5	-3	3	0
2018	13	51	-6	-2		-2
2019	10	52	-5	-3	3	0
2020	9	54	-5	-6	1	-5

Development of annuities confirmed as final, EUR million

Financial year	Year-start	Year-end	New annuity capital	Annuities paid	Changes in reserving basis*	Adequacy
2011	794	895	66	35	77	7
2012	895	940	66	34	31	18
2013	940	965	51	37	23	12
2014	965	1,010	54	40	36	5
2015	1,010	1,046	53	44	30	2
2016	1,046	1,080	54	49	31	3
2017	1,080	1,141	54	52	75	16
2018	1,141	1,145	56	54		-2
2019	1,145	1,206	38	56	80	1
2020	1,206	1,245	82	54	25	14

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

Claims triangles, net business, EUR million

Occurrence year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Estimated total claims expenditure											
0*	721	796	861	897	957	992	1,019	1,081	1,092	1,034	9,451
n+1	697	782	829	868	877	1,000	1,026	1,109	1,089		
n+2	710	786	819	875	892	990	1,045	1,114			
n+3	714	804	843	887	898	994	1,046				
n+4	727	818	847	887	901	992					
n+5	741	823	847	885	900						
n+6	743	823	858	886							
n+7	742	822	859								
n+8	744	827									
n+9	747										
Current estimate of total claims expenditure											
	747	827	859	886	900	992	1,046	1,114	1,089	1,034	9,496
Accumulated claims paid											
	-719	-791	-815	-839	-842	-925	-962	-1,010	-919	-568	-8,389
Provision for unpaid claims for 2011-2020											
	29	37	44	48	58	66	85	105	169	467	1,107
Provision for unpaid claims for previous years											232

* = At the end of the occurrence year

Change in claims incurred based on loss events for prior financial years

Claims incurred for losses occurred in prior financial years increased by EUR 3 million while those for the previous financial year increased by EUR 104 million. Change in claims incurred based on loss events for prior financial years describes the adequacy of insurance liabilities, which on average is positive due to the security of insurance liabilities.

Note 30. Debt securities issued to the public

EUR million	31 Dec 2020	31 Dec 2019
Bonds	12,666	11,955
Other		
Certificates of deposit	273	
Commercial paper	7,347	9,716
Subordinated bonds (SNP)	1,689	1,156
Included in own portfolio in trading (–)*	-72	-101
Total debt securities issued to the public	**21,903**	**22,726**

*Own bonds held by OP Corporate Bank Group have been set off against liabilities.

Reconciliation of changes in liabilities in cash flows from financing activities against balance sheet items

EUR million	Debt securities issued to the public	Subordinated liabilities
Balance sheet value 1 Jan 2020	22,726	1,474
Changes in cash flows from financing activities		
Increases in bonds	9,723	
Increases in certificates of deposit	350	
Increases in commercial papers	18,012	
Increases in debentures		1,326
Increases total	28,085	1,326
Decreases in bonds	-8,571	
Decreases in certificates of deposit	-77	
Decreases in commercial papers	-20,381	
Decreases in debentures		-348
Decreases total	-29,029	-348
Total changes in cash flows from financing activities	-944	978
Valuations	122	-8
Balance sheet value 31 Dec 2020	21,903	2,444

EUR million	Debt securities issued to the public	Subordinated liabilities
Balance sheet value 1 Jan 2019	20,338	1,482
Changes in cash flows from financing activities		
Increases in bonds	5,728	
Increases in certificates of deposit	77	
Increases in commercial papers	22,268	
Increases total	28,073	
Decreases in bonds	-2,899	
Decreases in certificates of deposit	-182	
Decreases in commercial papers	-22,714	
Decreases in debentures		0
Decreases total	-25,795	0
Total changes in cash flows from financing activities	2,278	0
Valuations	110	-8
Balance sheet value 31 Dec 2019	22,726	1,474

Long-term loans and interest rate bases	Nominal amount	Interest rate	Maturity
OP Corporate Bank plc Issue of EUR 750,000,000 2 per cent. Instruments due 3 March 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	750.0	Fixed 2.000 %	3 March 2021
OP Corporate Bank plc Issue of EUR 500,000,000 Floating Rate Instruments due May 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	EUB3M + 0.500 %	22 May 2021
OP Corporate Bank plc Issue of GBP 200,000,000 Floating Rate Instruments due May 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	222.5	GBL3M + 0.340 %	30 May 2021
OP Corporate Bank plc Issue of EUR 500,000,000 0.875 per cent. Instruments due 21 June 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.875%	21 June 2021
OP Corporate Bank plc Issue of CHF 300,000,000 1.000 per cent. Instruments due 14 July 2021 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	277.7	Fixed 1.000%	14 July 2021
OP Corporate Bank plc Issue of EUR 60,000,000 Floating Rate Instruments due 25 January 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	60.0	EUB3 + 0.750%	25 Jan 2022
OP Corporate Bank plc Issue of EUR 60,000,000 3.75 per cent. Instruments due 1 March 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	60.0	Fixed 3.750 %	1 March 2022
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.75 per cent. Instruments due March 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0.750 %	3 March 2022
OP Corporate Bank plc Issue of EUR 35,000,000 Floating Rate Instruments due 18 May 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	35.0	EUB3 + 0.550%	18 May 2022
OP Corporate Bank plc Issue of GBP 400,000,000 2.500 per cent. Instruments due 20 May 2022 under the EUR 15,000,000,000 Programme for the Issuance of Debt Instruments	444.9	Fixed 2.500 %	20 May 2022
OP Corporate Bank plc Issue of SEK 2,600,000,000 Floating Rate Instruments due May 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	259.1	SES3M + 0.750%	31 May 2022
OP Corporate Bank plc Issue of EUR 25,000,000 0.139 per cent. Fixed Rate Instruments due June 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	25.0	Fixed 0.139%	10 June 2022
OP Corporate Bank plc Issue of EUR 55,000,000 Floating Rate Instruments due June 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	55.0	EUB3 + 1.050%	11 June 2022
OP Corporate Bank plc Issue of EUR 300,000,000 Floating Rate Instruments due 13 June 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	300.0	EUB3M + 0.75 %	13 June 2022
OP Corporate Bank plc Issue of EUR 20,000,000 0.01 per cent. Instruments due 18 July 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	20.0	Fixed 0.010%	18 July 2022
OP Corporate Bank plc Issue of EUR 400,000,000 Floating Rate Instruments due August 2022 to be consolidated and form a single series with the existing Issue of EUR 250,000,000 Floating Rate Instruments due August 2022 issued on 10 August 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	650.0	EUB3 + 1.050%	10 Aug 2022
OP Corporate Bank plc Issue of EUR 50,000,000 Floating Rate Instruments due August 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	50.0	EUB3M + 0.50 %	17 Aug 2022
OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Instruments due 11 Oct 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.375 %	11 Oct 2022
OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Instruments due 29 Aug 2023 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.375 %	29 Aug 2023
OP Corporate Bank plc Issue of EUR 10,000,000 0.55 per cent. Instruments due 5 Oct 2023 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 0.550 %	5 Oct 2023
OP Corporate Bank plc Issue of EUR 20,000,000 1.097 per cent. Instruments due 16 February 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	20.0	Fixed 1.097 %	16 Feb 2024

OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Instruments due 26 February 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.375%	26 Feb 2024
OP Corporate Bank plc Issue of EUR 15,000,000 Fixed Rate Notes due 14 June 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	15.0	Fixed 0.780%	14 June 2024
OP Corporate Bank plc Issue of EUR 500,000,000 0.375 per cent. Senior Non-Preffered Instruments due 19 June 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.375%	19 June 2024
OP Corporate Bank plc Issue of EUR 10,000,000 0.725 per cent. Instruments due 20 June 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	10.0	Fixed 0.725%	20 June 2024
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.125 per cent. Unsubordinated Instruments due 1 July 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0.125%	1 July 2024
OP Corporate Bank plc Issue of EUR 20,000,000 0.55 per cent. Instruments due 30 Aug 2024 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	20.0	Fixed 0.550%	30 Aug 2024
OP Corporate Bank plc Issue of AUD 200,000,000 Floating Rate Senio Non-Preffered Instruments due 25 November 2024 under the AUD 3 000,000,000 Programme for the Issuance of Debt Instruments	125.8	BBSW + 1.150%	25 Nov 2024
OP Corporate Bank plc Issue of EUR 57,000,000 1.07 per cent. Notes due 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	57.0	Fixed 1.070%	12 May 2025
OP Corporate Bank plc Issue of EUR 500,000,000 1.00 per cent. Instruments due 22 May 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments.	500.0	Fixed 1.000%	22 May 2025
OP Corporate Bank plc Issue of EUR 1,000,000,000 0.500 per cent. Unsubordinated Instruments due 12 August 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	1,000.0	Fixed 0.500%	12 Aug 2025
OP Corporate Bank plc Issue of HKD 1,270,000,000 Floating Rate Note due September 2025 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	133.5	Fixed 3.001%	4 Sept 2025
OP Corporate Bank plc Issue of EUR 20,000,000 0.91 per cent. Fixed Rate Notes due 14 January 2026 under the EUR 20,000,000 Programme for the Issuance of Debt Instruments	20.0	Fixed 0.910%	14 Jan 2026
OP Corporate Bank plc Issue of HKD 663,000,000 2.88 per cent. Instruments due 21 January 2026 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	69.7	Fixed 2.880%	21 Jan 2026
OP Corporate Bank plc Issue of EUR 50,000,000 0.25 per cent. Fixed Rate Notes due 1 July 2026 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	50.0	Fixed 0.250%	21 July 2026
OP Corporate Bank plc Issue of EUR 500,000,000 0.600 per cent. Senior Non-Preferred Instruments due 18 January 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.600%	18 Jan 2027
OP Corporate Bank plc Issue of EUR 10,000,000 1.058 per cent. Instruments due 18 May 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 1.058%	18 May 2027
OP Corporate Bank plc Issue of EUR 50,000,000 3.086 per cent. Instruments due 23 August 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	50.0	Fixed 3.086%	23 Aug 2027
OP Corporate Bank plc Issue of EUR 25,000,000 1.00 per cent. Notes due 2027 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	25.0	Fixed 1.000%	8 Oct 2027
OP Corporate Bank plc Issue of USD 60,000,000 3.692 per cent. Instruments due 15 Jun 2028 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	48.9	Fixed 3.692%	15 June 2028
OP Corporate Bank plc Issue of EUR 10,000,000 1.30 per cent. Instruments due 23 Oct 2028 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 1.300%	23 Oct 2028
OP Corporate Bank plc Issue of USD 100,000,000 3.901 per cent. Instruments due 7 Dec 2028 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	81.5	Fixed 3.901%	7 Dec 2028
OP Corporate Bank plc Issue of EUR 10,000,000 1.310 per cent. Fixed Rate Instruments due 24 January 2029 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 1.310%	24 Jan 2029
OP Corporate Bank plc Issue of EUR 19,000,000 1.005 per cent. Fixed Rate Instruments due 6 March 2029 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	19.0	Fixed 1.005%	6 March 2029

OP Corporate Bank plc Issue of NOK 200,000,000 3.80 per cent. Instruments due 27 May 2029 under the EUR 15,000,000,000 Programme for Debt Instruments	19.1	Fixed 3.800%	27 May 2029
OP Corporate Bank plc Issue of AUD 197,000,000 2.440 per cent.	123.9	Fixed 2.440%	10 July 2029
OP Corporate Bank plc Issue of USD 50,000,000 Fixed Rate Senior Non-Preferred Instruments due 17 July 2029 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	40.7	Fixed 2.933%	17 July 2029
OP Corporate Bank plc Issue of EUR 500,000,000 0.625 per cent. Senior Non-Preferred Instruments due 12 November 2029 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	500.0	Fixed 0.625%	12 Nov 2029
OP Corporate Bank plc Issue of EUR 10,000,000 0.53 per cent. Fixed Rate Instruments due 15 November 2029 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 0.530%	15 Nov 2029
OP Corporate Bank plc Issue of EUR 30,000,000 1.70 per cent. Notes due 2030 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	30.0	Fixed 1.700%	21 Aug 2030
OP Corporate Bank plc Issue of EUR 50,000,000 2.045 per cent. Instruments due 18 November 2030 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	50.0	Fixed 2.045%	18 Nov 2030
OP Corporate Bank plc Issue of EUR 10,000,000 1.865 per cent. Instruments due 27 January 2031 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	10.0	Fixed 1.865%	27 Jan 2031
OP Corporate Bank plc Issue of EUR 50,000,000 1.706 per cent. Instruments due 12 Dec 2033 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	50.0	Fixed 1.706%	12 Dec 2033
OP Corporate Bank plc Issue of EUR 30,000,000 3.068 per cent. Instruments due 21 March 2034 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	30.0	Fixed 3.068%	21 March 2034
OP Corporate Bank plc Issue of EUR 30,000,000 Fixed Rate Notes due 2034 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	30.0	Fixed 3.015%	31 March 2034
OP Corporate Bank plc Issue of EUR 40,000,000 Fixed Rate Notes due 2034 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	40.0	Fixed 3.000%	11 April 2034
OP Corporate Bank plc Issue of EUR 40,000,000 1.40 per cent. Instruments due 16 March 2035 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	40.0	Fixed 1.400%	16 March 2035
OP Corporate Bank plc Issue of EUR 30,000,000 2.155 per cent. Instruments due 20 November 2035 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	30.0	Fixed 2.155%	20 Nov 2035
OP Corporate Bank plc Issue of JPY 2,500,000,000 1.30 per cent. Instruments due 27 November 2035 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments	19.8	Fixed 1.300%	27 Nov 2035

The interest rate is the rate according to the issue currency. The euro equivalents are calculated using the average rate of the European Central Bank on the balance sheet date. The nominal amount of structured bonds issued by OP Corporate Bank plc was EUR 1,112 million (1,130). The bonds' interest rate is determined on the basis of interest, equity, equity index or similar underlying instruments. Any possible additional return on the bonds to the investor is hedged using a corresponding derivative structure.

Note 31. Provisions and other liabilities

EUR million	31 Dec 2020	31 Dec 2019
Provisions		
Loss allowance	27	16
Reorganisation provision	0	4
Other statutory provisions	2	
Other liabilities		
Payment transfer liabilities	809	805
Accrued expenses		
Interest payable	144	118
Interest payable on derivatives	0	1
Other accrued expenses	70	68
CSA liabilities from derivatives	573	728
Pension liabilities	27	70
Lease liabilities	5	5
Accounts payable on securities	8	12
Payables based on purchase invoices	12	20
Direct insurance liabilities	51	50
Reinsurance liabilities	21	20
Claims administration contracts	152	162
Other	81	69
Total provisions and other liabilities	1,982	2,148

Changes in provisions

EUR million	Loss allowance	Re-organisation	Other provisions	Total
1 Jan 2020	16	4		21
Increase in provisions	11		2	13
Provisions used	0	-4		-4
31 Dec 2020	27	0	2	29

EUR million	Loss allowance	Re-organisation	Other provisions	Total
1 Jan 2019	4	3	5	12
Increase in provisions	12	4	0	17
Provisions used		-2	-4	-7
Reversal of unused provisions		-1	0	-1
31 Dec 2019	16	4		21

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 Corporate Bank Group has funded assets of its pension schemes through insurance companies, OP Bank Group Pension Fund and OP Bank Group Pension Foundation. Schemes related to supplementary pensions in the Pension Foundation and insurance companies, as well as the TyEL (Employees' Pensions Act) funded old-age and disability pension schemes managed until the end of 2020 by the Pension Fund are treated as defined benefit plans. Statutory pension cover managed by Ilmarinen Mutual Pension Insurance Company is treated as a defined contribution plan.

OP Bank Group Pension Fund

Pension Insurance Company. The remaining pension liabilities of 9.2% were transferred to Ilmarinen on 31 December 2020. The transferred solvency capital totalled EUR 30 million. The transfer reduced OP Corporate Bank Group's pension costs and improved earnings before tax by EUR 85 million. This pension portfolio transferred on 31 December 2020 consisted mainly of Pohjola Insurance's pension liabilities transferred on 31 December 2015 from Ilmarinen Mutual Pension Insurance Company to OP Bank Group Pension Fund. 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 Corporate Bank. 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 pension institution's investment plan related tc its assets. A pension institution's chief actuary prepares annually a forecast for developments in insurance liabilities and pension costs. On this basis, investment asset allocation takes account of the requirements set by the nature of insurance liabilities for investment operations with respect to the level of security, productivity and liquidity, as well as the Pension Foundation's risk-bearing capacity.

Supplementary pension has also been arranged in life insurance companies.

Balance sheet value of defined benefit plans, EUR million	Defined benefit obligations 2020	2019	Fair value of pension assets 2020	2019	Net liabilities (assets) 2020	2019
Opening balance 1 Jan	291	260	-226	-205	64	55
Defined benefit pension costs recognised in income statement						
Current service cost	13	8			13	8
Interest expense (income)	3	5	-2	-4	1	1
Effect of plan curtailment, change and fulfilment of obligation or previous service cost	-216	0	130		-85	0
Administrative expenses			0	0	0	0
Total	-200	13	128	-4	-72	9
Losses (gains) recognised in other comprehensive income arising from remeasurement						
Actuarial losses (gains) arising from changes in economic expectations	32	26			32	26
Return on TyEL interest rate difference and growth in old-age pension liabilities (net) and corporate transaction	3	0	-3	0		
Experience adjustments	6	0			6	0
Return on plan assets, excluding amount (–) of net defined benefit liability (asset)			-1	-20	-1	-20
Total	41	26	-4	-20	38	7
Other						
Employer contributions*			-6	-6	-6	-6
Benefits paid	-7	-8	7	8		
Total	-7	-8	1	2	-6	-6
Closing balance 31 Dec	125	291	-101	-226	24	64

* Include refund of OP Bank Group Pension Fund's solvency capital surplus a year ago, totalling EUR 3 million.

Liabilities and assets recognised in the balance sheet, EUR million	31 Dec 2020	31 Dec 2019
Net liabilities/assets (Pension Foundation)	-3	-6
Net liabilities/assets (Pension Fund)		43
Net liabilities (Other pension plans)	27	27
Total net liabilities	27	70
Total net assets	-3	-6
Total net liabilities and assets		

Pension Foundation assets, grouped by valuation technique, 31 Dec 2020, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	3	0	4	7
Notes and bonds	15	1	0	16
Real property			1	1
Mutual funds	7	3	13	22
Derivatives			0	0
Other assets	2			2
Total	27	4	18	49

Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec 2019, EUR million	Level 1	Level 2	Level 3	Total
Shares and participations	18	0	9	27
Notes and bonds	51		1	52
Real property			3	3
Mutual funds	24	8	51	84
Derivatives			0	0
Other assets	15		1	16
Total	**109**	**8**	**65**	**182**

The fair value of Level 1 assets is determined on the basis of the quotes in markets.

The fair value of Level 2 assets means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data.

The fair value Level 3 assets is determined using a pricing model whose input parameters involve uncertainty.

Proportion of the most significant assets of total fair value of plan assets, %	31 Dec 2020	31 Dec 2019
Shares and participations	15	15
Financial sector	1	0
Forest	0	0
Real estate	8	4
Other	6	10
Notes and bonds	33	29
Government bonds	33	28
Other	0	1
Real property	2	1
Mutual funds	45	46
Equity funds	23	17
Bond funds	2	6
Real estate funds	13	18
Hedge funds	7	5
Derivatives	0	0
Currency derivatives	0	0
Other	4	9
Total	**100**	**100**

Pension plan assets include, EUR million,	31 Dec 2020	31 Dec 2019
Other receivables from OP Financial Group companies	2	19
Total	**2**	**19**

Contributions payable under the defined benefit pension plan in 2021 are estimated at EUR 2 million.

The duration of the defined benefit pension obligation in the Pension Foundation on 31 December 2020 was 15.6 years, and in other plans 20.3 years.

Key actuarial assumptions used, 31 Dec 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

Key actuarial assumptions used, 31 Dec 2019, EUR million	Pension Fund	Pension Foundation	Insurance companies
Discount rate, %	1.0	0.8	0.9
Future pay increase assumption, %	2.3	2.1	2.1
Future pension increases, %	0.5	1.5	1.5
Turnover rate, %	3.0	0.0	0.0
Inflation rate, %	1.5	1.3	1.3
Estimated remaining service life of employees in years	23.0	7.0	8.0
Life expectancy for 65-year old people			
Men	21.4	21.4	21.4
Women	25.4	25.4	25.4
Life expectancy for 45-year old people after 20 years			
Men	23.7	23.7	23.7
Women	28.1	28.1	28.1

	Pension Foundation Change in defined benefit pension obligation		Supplementary pension schemes of insurance companies change in defined benefit net pension liability	
Sensitivity analysis of key actuarial assumptions, 31 Dec 2020	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-3	-6.9	-2	-10.5
0.5 pp decrease	4	7.8	3	12.2
Pension increases				
0.5 pp increase	3	7.1	6	27.8
0.5 pp decrease	-3	-6.6	-6	-25.6
Mortality				
1-year increase in life expectancy	2	3.8	1	3.7
1-year decrease in life expectancy	-2	-3.6	-1	-3.6

	Pension Fund Change in defined benefit pension obligation		Pension Foundation Change in defined benefit pension obligation	
Sensitivity analysis of key actuarial assumptions, 31 Dec 2019	EUR million	%	EUR million	%
Discount rate				
0.5 pp increase	-20	-11.1	-2	-6.6
0.5 pp decrease	23	13.2	3	7.4
Pension increases				
0.5 pp increase	21	12.1	3	6.7
0.5 pp decrease	-19	-10.8	-2	-6.3
Mortality				
1-year increase in life expectancy	5	3.1	1	3.7
1-year decrease in life expectancy	-5	-3.0	-1	-3.5

Note 32. Subordinated liabilities

EUR million	31 Dec 2020	31 Dec 2019
Subordinated loans	221	222
Other		
Debentures	2,223	1,252
Total subordinated liabilities	**2,444**	**1,474**

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

1. Perpetual bond of EUR 50 million

This is a perpetual loan without interest-rate step-ups, but with an 8% interest rate cap. The loan was issued on 31 March 2005 and its interest rate for the first year was 6.5% and thereafter CMS 10 years + 0.1%. Interest payments are made annually on 11 April. If interest cannot be paid for a given interest period, the obligation to pay interest for the period in question will lapse. The loan can be called in on the interest due date as of 11 April 2010 at the earliest, subject to authorisation by the supervisory authority. The loan's entire principal must be repaid in one instalment.

2. Perpetual bond of EUR 40 million

This perpetual loan carries a variable interest rate based on 3-month Euribor + 1.25% payable quarterly on 28 February, 30 May, 30 August and 30 November. If interest cannot be paid for a given interest period, the obligation to pay interest for the period in question wil lapse. Subject to authorisation by the supervisory authority, the loan may be called in on the due date of interest payment of 30 November 2010. The entire loan principal must be repaid in one instalment.

3. Pohjola Insurance Ltd's capital bond

Capital bond of EUR 50 million. Issued on 17 June 2008, the bond carries a variable interest rate based on 3-month Euribor + 3.20%, payable on a quarterly basis. Interest which cannot be paid on the interest payment date and interest which Pohjola Insurance Ltd could not have paid for previous interest payment dates constitute 'Unpaid interest'. Interest will accrue on unpaid interest in accordance with the interest rate applicable to the bonds and this additional interest accrued until each interest payment date will be added to unpaid interest on the interest payment date in question. The issuer agrees not to distribute dividends or other profit or to buy back own shares until unpaid interest has been paid in its entirety. The bond may be called in at the earliest in 2013 and its principal can be paid back only if the statutory terms and conditions are fulfilled. The bond will not be taken into account in the capital adequacy measurement under the Act on Credit Institutions but can be fully utilised in the capital adequacy measurement of the insurance company.

4. Pohjola Insurance Ltd's capital bond

Capital bond of EUR 75 million. Issued on 18 June 2015, the bond carries a variable interest rate based on 3-month Euribor + 2.60%, payable on a quarterly basis. Interest which cannot be paid on the interest payment date and interest which Pohjola Insurance Ltd could not have paid for previous interest payment dates constitute 'Unpaid interest'. Interest will accrue on unpaid interest in accordance with the interest rate applicable to the bonds and this additional interest accrued until each interest payment date will be added to unpaid interest on the interest payment date in question. The issuer agrees not to distribute dividends or other profit or to buy back own shares until unpaid interest has been paid in its entirety. The bond matures on 18 June 2040 unless the issuer will have paid it earlier under the bond terms and conditions. The bond may be called in at the earliest on 18 June 2020 and its principal can be paid back only if the statutory terms and conditions are fulfilled. The bond will not be taken into account in the capital adequacy measurement under the Act on Credit Institutions but can be fully utilised in the capital adequacy measurement of the insurance company.

5. Pohjola Insurance Ltd's capital bond

Capital bond of EUR 10 million. Issued on 18 June 2015, the bond carries a variable interest rate based on 3-month Euribor + 3.10%, payable on a quarterly basis. Interest which cannot be paid on the interest payment date and interest which Pohjola Insurance Ltd could not have paid for previous interest payment dates constitute 'Unpaid interest'. Interest will accrue on unpaid interest in accordance with the interest rate applicable to the bonds and this additional interest accrued until each interest payment date will be added to unpaid interest on the interest payment date in question. The issuer agrees not to distribute dividends or other profit or to buy back own shares until unpaid interest has been paid in its entirety. The bond matures on 18 June 2040 unless the issuer will have paid it earlier under the bond terms and conditions. The bond may be called in at the earliest on 18 June 2020 and its principal can be paid back only if the statutory terms and conditions are fulfilled. The bond will not be taken into account in the capital adequacy measurement under the Act on Credit Institutions but can be fully utilised in the capital adequacy measurement of the insurance company.

Debentures

1. A debenture loan of CHF 100 million (euro equivalent 93 million), which is a ten-year bullet loan, will mature on 14 July 2021. The loan carries a fixed interest rate of 3.375% p.a.
2. A debenture loan of EUR 100 million, which is a ten-year bullet loan, will mature on 14 September 2021. The loan carries a fixed interest rate of 5.25% p.a.
3. A debenture loan of EUR 500 million, which is a 10-year bullet loan, will mature on 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.
4. Debenture loan of JPY 10 billion (euro equivalent 79 million), which is a ten-year bullet loan, will mature on 3 July 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to the JPY Libor + 0.735%.
5. Debenture loan of 100 million euros, which is a 10-year bullet loan, will mature on 25 September 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a fixed interest rate of 2.405% p.a.
6. Debenture loan of SEK 3,250 million (euro equivalent 324 million), which is a ten-year bullet loan, will mature on 3 June 2030. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to a 3-month Stibor + 2.300%.
7. 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 1–7 were issued in international capital markets.

In addition, OP Corporate Bank plc has issued a fixed debenture loan of EUR 0.4 million related to OP Financial Group management remuneration.

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 33. Equity capital

EUR million	31 Dec 2020	31 Dec 2019
Capital and reserves attributable to owners		
Liabilities to central banks	428	428
Reserves		
Restricted reserves		
Share premium account	519	519
Reserve fund	203	203
Fair value reserve		
Cash flow hedge	2	0
Measurement at fair value		
Notes and bonds	73	26
Loss allowance regarding notes and bonds	6	5
Shares and participations (overlay approach)	44	38
Other restricted reserves	1	1
Non-restricted reserves		
Reserve for invested non-restricted equity	298	298
Other non-restricted reserves	72	72
Retained earnings		
Profit (loss) for previous financial years	2,679	2,382
Profit (loss) for the financial year	429	328
Equity capital attributable to owners	**4,753**	**4,299**
Non-controlling interests	**44**	**74**
Total equity capital	**4,797**	**4,374**

Share capital and shares

The number of shares remained unchanged, 319,551,415. The shares have no nominal value and their stated value (not an exact figure) is 1.34 euros per share. All of the shares issued have been paid in full.

Proposed distribution of dividend

The Board of Directors proposes that no dividend be distributed and that the profit for the financial year 2020 is entered in the account of retained earnings/loss. No dividend was distributed for the comparison period.

Reserves

Share premium account

The share premium account was formed during the validity of regulations in force before 1 September 2006. Items entered in the share premium account include amounts exceeding the stated value paid for shares in a rights issue and amounts exceeding the stated value of a share and paid for share subscription based on stock options.

The share premium account may be lowered in compliance with the regulations governing the reduction of share capital and may be used to increase the share capital. The amount of the subscription price exceeding the stated value of shares subscribed in September and November 2006, based on stock options, was entered in the share premium account, because the General Meeting had made the decision on issuing stock options before the entry into force of the new Companies Act. Otherwise, it has no longer been possible to increase the share premium account since 1 September 2006.

Reserve fund

The reserve fund consists of profits transferred to it during previous periods and the loan loss provisions transferred to it in 1990. The reserve fund may be used to cover losses for which the non-restricted equity is not sufficient. The reserve fund may also be used to increase the share capital and it may be reduced in the same way as the share capital. Since 1 September 2006, it has no longer been possible to increase the reserve fund.

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 increase 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 Jan 2019	**3**	**-15**	**0**	**-12**
Fair value changes	52	41	0	93
Capital gains transferred to income statement	-17	12		-4
Impairment loss transferred to income statement		13		13
Transfers to net interest income			0	0
Deferred tax	-7	-13	0	-20
Closing balance 31 Dec 2019	**31**	**38**	**0**	**70**

EUR million	Fair value through other comprehensive income Notes and bonds	Shares and participations (overlay approach)	Cash flow hedging	Total
Opening balance 1 Jan 2020	31	38	0	70
Fair value changes	65	1	2	68
Capital gains transferred to income statement	-5	1		-4
Impairment loss transferred to income statement		5		5
Deferred tax	-12	-1	0	-14
Closing balance 31 Dec 2020	79	44	2	125

The fair value reserve before tax amounted to EUR 156 million positive on 31 December 2020 and the related deferred tax liability was EUR 31 million. At the end of 2019, the fair value reserve totalled EUR 87 million and the related deferred tax liability was EUR 17 million. Due to the application of the overlay approach, the fair value reserve includes a total of EUR 61 million (51) in positive mark-to-market valuations and a total of EUR 6 million (3) in negative mark-to-market valuations. The loss allowance on notes and bonds recognised at fair value through other comprehensive income totalled EUR –1 million in the fair value reserve (2) during the financial year.

The negative fair value reserve may recover by means of asset appreciation, capital losses and recognised impairments.

Other restricted reserves

These reserves consist of retained earnings based on the Articles of Association or other rules describing their purpose.

Reserve for Invested non-restricted equity

Capital raised through the rights offering in 2009 was entered in the reserve for invested non-restricted equity.

Other non-restricted reserves

These reserves consist of retained earnings based on decisions by the General Meeting.

Retained earnings

Retained earnings also contain voluntary provisions and depreciation difference included in the separate financial statements of Group companies and insurance companies' equalisation provisions and profits/(losses) due to the redefinition of defined benefit pension plans less deferred tax.

Other notes to the balance sheet

Note 34. Collateral given

EUR million	31 Dec 2020	31 Dec 2019
Given on behalf of own liabilities and commitments		
Pledges	39	79
Others	9,710	3,496
Total collateral given*	9,749	3,575
Secured derivative liabilities	1,078	1,098
Other secured liabilities	8,046	2,093
Total	9,124	3,191

* In addition, bonds with a book value of EUR 5.3 billion have been pledged in the central bank, of which EUR 1.5 billion in intraday settlement collateral. Given that the bonds are available for withdrawal without the central bank's advance permission, they are not presented in the table above.

Note 35. Financial collateral held

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

EUR million	31 Dec 2020	31 Dec 2019
Fair value of collateral received		
Other	420	707
Total	420	707

The credit risk arising from derivatives is mitigated through collateral, which means the use of ISDA Credit Support Annex (CSA) contract associated with the ISDA general agreement. In the collateral system, the counterparty provides securities or cash in security for the receivable. The amount of CSA-related collateral received in cash totalled EUR 420 million on the balance sheet date (707). The Group had no securities received as collateral on the balance sheet date.

Note 36. Classification of financial assets and liabilities

Assets, EUR million	Amortised cost	Fair value through profit or loss: Fair value through other comprehen-sive income	Fair value through profit or loss: Financial assets held for trading	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	21,764					21,764
Receivables from credit institutions	11,252					11,252
Derivative contracts			5,161		209	5,370
Receivables from customers	24,485					24,485
Notes and bonds	814	16,052	332	24		17,222
Equity instruments		0	19	775		794
Other financial assets	1,839					1,839
Financial assets						82,726
Other than financial instruments						1,265
Total 31 December 2020	60,154	16,052	5,511	799	209	83,991

Assets, EUR million	Amortised cost	Fair value through profit or loss: Fair value through other comprehen-sive income	Fair value through profit or loss: Financial assets held for trading	Fair value through profit or loss: Must be measured at fair value through profit or loss	Hedging derivatives	Carrying amount total
Cash and cash equivalents	11,914					11,914
Receivables from credit institutions	9,126					9,126
Derivative contracts			4,407		468	4,874
Receivables from customers	23,829					23,829
Notes and bonds		14,899	1,033	42		15,975
Equity instruments		0	23	694		717
Other financial assets	1,393					1,393
Financial assets						67,828
Other than financial instruments						1,297
Total 31 December 2019	46,262	14,899	5,463	737	468	69,126

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		28,888		28,888
Derivative contracts	4,070		195	4,265
Liabilities to customers		15,894		15,894
Insurance liabilities		3,326		3,326
Debt securities issued to the public		21,903		21,903
Subordinated loans		2,444		2,444
Other financial liabilities		1,803		1,803
Financial liabilities				78,522
Other than financial liabilities				672
Total 31 December 2020	4,070	74,257	195	79,194

Liabilities, EUR million	Financial liabilities at fair value through profit or loss	Other liabilities	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		15,334		15,334
Derivative contracts	3,683		199	3,882
Liabilities to customers		15,503		15,503
Insurance liabilities		3,234		3,234
Debt securities issued to the public		22,726		22,726
Subordinated loans		1,474		1,474
Other financial liabilities		1,991		1,991
Financial liabilities				64,143
Other than financial liabilities				609
Total 31 December 2019	3,683	60,260	199	64,752

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 303 (232) 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 37. Recurring fair value measurements by valuation technique

Fair value of assets on 31 December 2020, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	377	95	321	794
Debt instruments	65	38	253	356
Derivative financial instruments	0	5,309	61	5,370
Fair value through other comprehensive income				
Equity instruments		0		0
Debt instruments	14,219	1,536	297	16,052
Total financial instruments	**14,661**	**6,978**	**933**	**22,572**
Investment property			306	306
Total	**14,661**	**6,978**	**1,238**	**22,878**

Fair value of assets on 31 December 2019, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Equity instruments	334	58	325	717
Debt instruments	484	82	510	1,076
Derivative financial instruments	11	4,789	74	4,874
Fair value through other comprehensive income				
Equity instruments		0		0
Debt instruments	12,470	1,556	874	14,899
Total financial instruments	**13,299**	**6,485**	**1,783**	**21,566**
Investment property			339	339
Total	**13,299**	**6,485**	**2,121**	**21,905**

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				
Other		0		0
Derivative financial instruments	0	4,222	42	4,265
Total	**0**	**4,223**	**42**	**4,265**

Fair value of liabilities on 31 December 2019, EUR million	Level 1	Level 2	Level 3	Total
Recognised at fair value through profit or loss				
Other		12		12
Derivative financial instruments	9	3,841	32	3,882
Total	**9**	**3,853**	**32**	**3,894**

Fair value measurement

Derivatives

The Group obtains the price of listed derivatives directly from markets. In the fair value measurement of OTC derivatives, Pohjola uses models and techniques commonly used in markets. These are needed, for instance, to create yield curves and currency conversion charts and volatility surfaces as well as for option valuation. The input data of these models can generally be derived from markets. In the fair value measurement of some contracts, however, the Group has to use models where input data cannot be observed in the market and therefore they must be assessed. Such contracts are included in Level 3.

Middle Office is responsible for the fair value measurement of Banking derivatives, incl. level 3 hierarchy, and the quality and reliability of market data, valuation curves and volatility surfaces used in them, as part of its daily fair value measurement process. Middle Office compares regularly at contract level valuation prices with valuations supplied by CSA counterparties and central counterparties and, whenever necessary, determines any possible significant valuation differences.

Risk Management Control is responsible for approval of new fair value measurement models and techniques and supervision of the fair value measurement process. Verifying fair values is based, for example, on valuation using alternative sources for market prices and other input data. In this verification process, valuation prices can be compared with prices supplied by CSA counterparties and central counterparties. In addition, it is possible to use valuation services provided by third parties.

The fair value measurement of OTC derivatives takes account of the credit risk of the parties to a transaction. Credit risk is adjusted with a Credit Valuation Adjustment (CVA) and with a Debit Valuation Adjustment (DVA). CVA and DVA valuation adjustments are calculated for each counterparty. CVA and DVA adjustments are calculated by simulating the market values of derivatives and events of default based primarily on data obtained from markets. In assessing probabilities of default, the Group utilises market data through illiquid counterparties too by combining the counterparties with liquid market data.

Fair value hierarchy

Level 1: Quoted prices in active markets

This level includes equities listed on major stock exchanges, quoted debt instruments issued by companies, governments and financial institutions as well as and exchange-traded derivatives. The fair value of these instruments is determined on the basis of the quotes in active markets.

Level 2: Valuation techniques using observable inputs

Valuation techniques based on observable input parameters. The fair value of the instruments included within this level means value derived from the market price of a financial instrument's components or similar financial instruments; or value which can be determined using commonly used valuation models and techniques if the inputs significant to the fair value measurement are based on observable market data. This hierarchy level includes the majority of OP Corporate Bank Group's OTC derivatives and quoted debt instruments issued by companies, governments and financial institutions which have not been included in Level 1.

Level 3: Valuation techniques using unobservable inputs

Valuation techniques whose input parameters involve uncertainty. The fair value determination of the instruments included within this level contains inputs not based on observable market data (unobservable inputs). Level 3 also includes bonds for which there is little, if any, market activity on the valuation date. This level includes the most complex OTC derivatives and derivatives with a long maturity for which the Group had to extrapolate the market data used in their value measurement, as well as certain private equity investments, and illiquid bonds, structured bonds, including securitised bonds and structured debt securities, and hedge funds. Level 3 fair value is based on pricing information from a third party.

Transfers between levels of the fair value hierarchy

Transfers between the levels of the fair value hierarchy are considered to take place on the date when an event causes such transfer or when circumstances change. Transfers between the levels are mainly due to the number of available market quotes.

Reconciliation of Level 3 items

Specification of financial assets and liabilities

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Fair value through other comprehen-sive income	Total assets
Opening balance 1 January 2020	834	74	875	1,783
Total gains/losses in profit or loss	-507	-13	0	-520
income			0	0
Purchases	59		1	60
Sales	-43		-3	-46
Transfers into Level 3	232		-499	-267
Transfers out of Level 3			-77	-77
Closing balance 31 December 2020	574	61	297	933

Financial assets, EUR million	Financial assets at fair value through profit or loss	Derivative contracts	Fair value through other comprehen-sive income	Total assets
Opening balance 1 January 2019	600	57	191	848
Total gains/losses in profit or loss	-265	18	0	-247
income			0	0
Purchases	93		2	95
Sales	-59		-8	-67
Issues				0
Settlements	0		-4	-4
Transfers into Level 3	465		762	1,226
Transfers out of Level 3			-69	-69
Closing balance 31 December 2019	834	74	875	1,783

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 January 2020	32	32
Total gains/losses in profit or loss	9	9
Closing balance 31 December 2020	42	42

Financial liabilities, EUR million	Derivative contracts	Total liabilities
Opening balance 1 January 2019	44	44
Total gains/losses in profit or loss	-11	-11
Closing balance 31 December 2019	32	32

Total gains/losses included in profit or loss by item for the financial year on 31 December 2020

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	-497	-11	0	-507
Unrealised net gains (losses)	-22		0	-22
Total net gains (losses)	-519	-11	0	-529

Total gains/losses included in profit or loss by item for the financial year on 31 December 2019

EUR Million	Net interest income	Net investment income	Statement of comprehensive income/ Change in fair value reserve	Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end
Realised net gains (losses)	-264	-1	0	-264
Unrealised net gains (losses)	29		0	29
Total net gains (losses)	-235	-1	1	-235

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 2020.

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	32		32	3.2	10 %
Illiquid investments	54		54	8.1	15 %
Private equity funds*	373		373	37.3	10 %
Real estate funds***	115		115	23	0.2
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	297		297	29.7	10 %
Investment property					
Investment property***	306		306	61.2	20 %

Sensitivity analysis of input parameters involving uncertainty on 31 December 2019

Type of instrument, EUR million	Receivables	Liabilities	Net balance	Sensitivity analysis	Reasonably possible change in fair value
Recognised at fair value through profit or loss:					
Bond investments	510		510	51.0	10 %
Illiquid investments	57		57	8.6	15 %
Private equity funds*	145		145	14.5	10 %
Real estate funds***	123		123	24.6	0.2
Derivatives:					
Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity**	74	-32	42	4.6	11 %
Fair value through profit or loss					
Bond investments	874		874	87.4	10 %
Investment property					
Investment property***	339		339	67.8	20 %

* The value of private equity funds depends mainly on the profit performance of portfolio companies and the PE ratios of similar listed companies. The Total Value to Paid-in (TVPI) multiple, which has changed an average of 10%, is used to monitor the progress of the fair value of private equity funds.

** Following stress scenarios: the combined value change of volatility of shares (30%), dividends of shares (30%), credit risk premiums (30%) and significant correlation changes.

*** In the valuation of real estate funds and investment property, OP mainly uses the income approach whose main components are yield requirement and net rent. A +/– 1 percentage point change in the yield requirement leads on average to around 20% change in the fair value.

Note 38. Loss allowance regarding receivables and notes and bonds

Credit risk exposures and related loss allowance

A description of OP Corporate Bank´s credit risk formation and management can be found in section 4 of Note 10. The measurement principles of expected credit losses are described in section 5 Impairment of Note 1.

Expected credit losses are calculated on receivables measured at amortised cost and notes and bonds recognised at fair value through other comprehensive income (investments in bonds). OP Corporate Bank receivables include loans, standby credit facilities (e.g. credit cards and accounts with credit facility and lease and factoring receivables). In addition, expected credit losses are calculated on off-balance-sheet items, such as loan commitments, credit facilities and bank guarantees. However, notes and bonds are investments in bonds. For expected credit losses, loss allowance is recognised in the balance sheet or in the case of notes and bonds in other comprehensive income.

The following factors, for example, affect the amount of expected credit losses: exposure amount, exposure validity, customer borrower grade and collateral value as well as forward-looking information.

The following table shows the receivables which are exposed to credit risk and on which expected credit loss is calculated. Here the on-balance-sheet and off-balance sheet exposures also describe the maximum exposure amount exposed to credit risk, excluding collateral securities or other arrangements that improve credit quality. The off-balance sheet exposure represents the exposure amount binding on the bank or the guarantee amount.

Exposures within the scope of accounting for expected credit losses by impairment stage 31 December 2020

Exposures	Stage 1	Stage 2			Stage 3	
EUR million		Not more than 30 DPD	More than 30 DPD	Total		Total exposure
Receivables from customers (gross)						
Corporate Banking	23,609	1,190	156	1,346	499	25,454
Total	**23,609**	**1,190**	**156**	**1,346**	**499**	**25,454**
Off-balance-sheet limits						
Corporate Banking	4,048	377	69	446	65	4,558
Total	**4,048**	**377**	**69**	**446**	**65**	**4,558**
Other off-balance-sheet commitments						
Corporate Banking	6,267	262		262	99	6,628
Total	**6,267**	**262**		**262**	**99**	**6,628**
Notes and bonds						
Other Operations	13,141	50		50		13,191
Insurance	2,349	30		30	9	2,388
Total	**15,490**	**80**		**80**	**9**	**15,579**
Total exposures within the scope of accounting for expected credit losses	**49,413**	**1,909**	**225**	**2,135**	**671**	**52,219**

Loss allowance by stage 31 December 2020

On-balance-sheet exposures and related off-balance-sheet limits*	Stage 1	Stage 2			Stage 3	
EUR million		Not more than 30	More than	Total		Total loss allowance
Receivables from customers						
Corporate Banking	-25	-28	-1	-29	-227	-281
Total	**-25**	**-28**	**-1**	**-29**	**-227**	**-281**
Off-balance-sheet commitments**						
Corporate Banking	-12	-1		-1	-14	-27
Total	**-12**	**-1**		**-1**	**-14**	**-27**
Notes and bonds***						
Other Operations	-1	-1		-1		-2
Insurance	-3	-1		-1	-3	-7
Total	**-4**	**-2**		**-2**	**-3**	**-10**
Total	**-41**	**-31**	**-1**	**-32**	**-245**	**-318**

* Loss allowance is recognised as one component to deduct the balance sheet item.

** Loss allowance is recognised in provisions and other liabilities in the balance sheet.

*** Loss allowance is recognised in the fair value reserve in other comprehensive income.

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	More than	Total		Total
Receivables from customers; on-balance-sheet and off-balance-sheet items						
Corporate Banking	33,923	1,829	225	2,054	663	36,640
Loss allowance						
Corporate Banking	-37	-29	-1	-30	-242	-309
Coverage ratio, %						
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	33,923	1,829	225	2,054	663	36,640
Total loss allowance	-37	-29	-1	-30	-242	-309
Total coverage ratio, %	-0.11 %	-1.59 %	-0.55 %	-1.48 %	-36.48 %	-0.84 %
Carrying amount, notes and bonds						
Other Operations	13,141	50		50		13,191
Insurance	2,349	30		30	9	2,388
Loss allowance						
Other Operations	-1	-1		-1		-2
Insurance	-3	-1		-1	-3	-7
Coverage ratio, %						
Other Operations	-0.01 %	-1.34 %		-1.34 %		-0.02 %
Insurance	-0.13 %	-3.90 %		-3.90 %	-36.16 %	-0.31 %
Total notes and bonds	15,490	80		80	9	15,579
Total loss allowance	-4	-2		-2	-3	-10
Total coverage ratio, %	-0.03 %	-2.30 %		-2.30 %	-36.16 %	-0.06 %

Exposures within the scope of accounting for expected credit losses by impairment stage 31 December 2019

Exposures	Stage 1	Stage 2			Stage 3	
EUR million		Not more than 30	More than	Total		Total exposure
Receivables from customers (gross)						
Corporate Banking	25,103	1,388	306	1,693	384	27,180
Total	25,103	1,388	306	1,693	384	27,180
Off-balance-sheet limits						
Corporate Banking	4,674	318	151	470	60	5,204
Total	4,674	318	151	470	60	5,204
Other off-balance-sheet commitments						
Corporate Banking	7,011	1,216		1,216	70	8,297
Total	7,011	1,216		1,216	70	8,297
Notes and bonds						
Other Operations	12,259	93		93		12,352
Insurance	1,990	2		2	5	1,998
Total	14,250	95		95	5	14,350
Total exposures within the scope of accounting for expected credit losses	51,038	3,017	457	3,474	519	55,031

Loss allowance by stage 31 December 2019

On-balance-sheet exposures and related off-balance-sheet limits*	Stage 1	Stage 2			Stage 3	
EUR million		Not more than 30	More than	Total		Total loss allowance
Receivables from customers						
Corporate Banking	-25	-18	-3	-21	-248	-294
Total	-25	-18	-3	-21	-248	-294
Off-balance-sheet commitments**						
Corporate Banking	-2	-4		-4	-10	-16
Total	-2	-4		-4	-10	-16
Notes and bonds***						
Other Operations	-2	-1		-1		-3
Insurance	-2	0		0	-3	-5
Total	-4	-1		-1	-3	-8
Total	-31	-24	-3	-27	-260	-318

* Loss allowance is recognised as one component to deduct the balance sheet item.

** Loss allowance is recognised in provisions and other liabilities in the balance sheet.

*** Loss allowance is recognised in the fair value reserve in other comprehensive income.

The table below shows a summary of loss allowance relative to the exposure amount by impairment stage. The coverage ratio describes the ratio of loss allowance to exposure amount.

Summary and key indicators 31 December 2019	Stage 1	Stage 2			Stage 3	
		Not more than 30	More than	Total		Total
Receivables from customers; on-balance-sheet and off-balance-sheet items						
Corporate Banking	36,788	2,922	457	3,379	514	40,681
Loss allowance						
Corporate Banking	-27	-22	-3	-26	-258	-310
Coverage ratio, %						
Corporate Banking	-0.07 %	-0.77 %	-0.71 %	-0.76 %	-50.12 %	-0.76 %
Receivables from customers; total on-balance-sheet and off-balance-sheet items	36,788	2,922	457	3,379	514	40,681
Total loss allowance	-27	-22	-3	-26	-258	-310
Total coverage ratio, %	-0.07 %	-0.77 %	-0.71 %	-0.76 %	-50.12 %	-0.76 %
Carrying amount, notes and bonds						
Other Operations	12,259	93		93		12,352
Insurance	1,990	2		2	5	1,998
Loss allowance						
Other Operations	-2	-1		-1		-3
Insurance	-2	0		0	-3	-5
Coverage ratio, %						
Other Operations	-0.02 %	-0.81 %		-0.81 %		-0.02 %
Insurance	-0.09 %	-18.51 %		-18.51%	-53.78 %	-0.24 %
Total notes and bonds	14,250	95		95	5	14,350
Total loss allowance	-4	-1		-1	-3	-8
Total coverage ratio, %	-0.03 %	-1.18 %		-1.18 %	-53.78 %	-0.06 %

Changes in loss allowance during financial year

The table below shows the change in loss allowance by impairment stage during 2020 in respect of the effect of the following factors:
Note 1, section 5.4.1 describes impairment stages.

Receivables from customers and off-balance-sheet items, EUR million	Stage 1	Stage 2	Stage 3	
	12 months	Lifetime	Lifetime	Total
Loss allowance 1 January 2020	27	26	257	310
Transfers from Stage 1 to Stage 2	-1	7		6
Transfers from Stage 1 to Stage 3	-1		29	28
Transfers from Stage 2 to Stage 1	0	-3		-3
Transfers from Stage 2 to Stage 3		-4	28	24
Transfers from Stage 3 to Stage 2		0	-3	-2
Transfers from Stage 3 to Stage 1	0		0	0
Increases due to origination and acquisition	16	7	4	27
Decreases due to derecognition	-6	-6	-32	-44
Changes in risk parameters (net)	7	5	-7	5
Changes due to update in the methodology for estimation (net)	-5	-2		-7
Decrease in allowance account due to write-offs			-33	-33
Net change in expected credit losses	10	4	-14	-1
Loss allowance 31 December 2020	37	29	243	309

Effect of the application of the new definition of default

OP Corporate Bank will apply a so-called Two-Step Approach to the definition of default based on the EBA's guidelines. 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 13 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 3 million, which is presented as a change in risk parameters.

In the fourth quarter, OP Corporate Bank also updated its estimates of two LGD model parameters: the non-collateral return and the cure rate. The cure rate for impairment stages 1 and 2 was updated based on data complying with the new definition of default. 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 approximately EUR 3 million; it is presented as a change in risk parameters.

Furthermore, in the fourth quarter, OP Corporate Bank updated its lifetime PD model for corporate exposures based on data complying with the new definition of default, among other things. In addition, OP Corporate Bank further specified model segmentation and revised the explaining macroeconomic factors so as to include GDP and real interest rate (previously GDP and 12-month Euribor for large companies and investments for other companies). ECL decreased by EUR 7 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 Corporate Bank independently provides its customers with the opportunity to get a repayment holiday for corporate loans. Changes in repayment schedules are evaluated on a case-by-case basis. In addition, 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. During the coronavirus 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 17 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. Uncertainty still exists related to the economic development caused by the COVID-19 crisis.

Transfers from Stage 1 to Stage 3 compare the current reporting-date Stage 3 of a financial asset at the beginning of the year. However, around 66% of these transfers to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2020 with a delay of one month.

The majority of the loans have transferred to stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to stage 2 in all ratings in private customers.. The lowest ratings are classified into stage 2 based on an absolute rating limit. In the lowest ratings, in particular, there are several reasons for transfers to stage 2. Default is identified on a real-time basis, immediately causing a transfer to stage 3.

Notes and bonds, EUR million	Stage 1 12 months	Stage 2 Lifetime	Stage 3 Lifetime	Total
Loss allowance 1 January 2020	4	1	3	8
Transfers from Stage 1 to Stage 2	0	1		1
Transfers from Stage 1 to Stage 3	0		0	0
Transfers from Stage 3 to Stage 1	0		0	0
Increases due to origination and acquisition	2	0	1	3
Decreases due to derecognition	-1	-1	0	-2
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	0	2
Loss allowance 31 December 2020	5	2	3	10

Changes in loss allowance during 2019

The table below shows the change in loss allowance by impairment stage during 2019 in respect of the effect of the following factors:

Receivables from customers and off-balance-sheet items, EUR million	Stage 1 12 months	Stage 2 Lifetime	Stage 3 Lifetime	Total
Loss allowance 1 January 2019	27	30	207	263
Transfers from Stage 1 to Stage 2	-1	9		8
Transfers from Stage 1 to Stage 3	-4		7	3
Transfers from Stage 2 to Stage 1	0	-3		-3
Transfers from Stage 2 to Stage 3		-7	9	2
Transfers from Stage 3 to Stage 2		0	-2	-2
Transfers from Stage 3 to Stage 1	0		-1	-1
Increases due to origination and acquisition	8	4	6	19
Decreases due to derecognition	-4	-4	-7	-14
Changes in risk parameters (net)	0	-4	40	37
Decrease in allowance account due to write-offs			-2	-2
Net change in expected credit losses	0	-4	51	47
Loss allowance 31 December 2019	27	26	257	310

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 90% (see the default capture rate below) have been reported in Stage 2 during 2019, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default.

Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2019 with a delay of three months.

The majority of the loans have transferred to stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to stage 2 in all ratings in private customers.. The lowest ratings are classified into stage 2 based on an absolute rating limit. In the lowest ratings, in particular, there are several reasons for transfers to stage 2. Default is identified on a real-time basis, immediately causing a transfer to stage 3.

Notes and bonds, EUR million	Stage 1	Stage 2	Stage 3	
	12 months	Lifetime	Lifetime	Total
Loss allowance 1 January 2019	4	2	2	9
Transfers from Stage 1 to Stage 2	0	1		1
Transfers from Stage 1 to Stage 3	0		1	1
Transfers from Stage 2 to Stage 1	0	-1		-1
Transfers from Stage 3 to Stage 2				
Transfers from Stage 3 to Stage 1	0		0	0
Increases due to origination and acquisition	1	0	0	1
Decreases due to derecognition	-2	-1	0	-3
Changes in risk parameters (net)	-1	0	0	0
Changes due to update in the methodology for estimation (net)	0			0
Net change in expected credit losses	0	-1	1	-1
Loss allowance 31 December 2019	4	1	3	8

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. Internal grades 1–12 are used in the internal rating of corporations and public-sector entities and grades A–F in the internal rating of households. The ratings have been combined into the table in such a way that the corporate customer rating 1 comprises ratings 1 and 1.5 etc. The private customer rating A comprises A+, A and A- etc. Note 2, section 10.3.1 describes OP Financial Group's ratings. Net exposure has been calculated for each contract and it excludes overcollateralisation.

31.12.2020

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	367	23		375	32		632	9		0	0	
2	1,671	7		1,278	5		219	22		0	0	
3	4,529	55		2,372	21		1,597	0		-1	0	
4	3,392	7		1,448	2		3,333	54		-1	0	
5	3,989	31		1,981	62		2,017	7		-2	0	
6	4,153	210		1,448	37		2,269	27		-5	-1	
7	2,612	136		822	53		1,655	40		-9	-2	
8	820	338		476	443		1,111	59		-16	-8	
9		175			35		327	204			-7	
10		79			9			36			-7	
11			376			156		12				-179
12			49			4			204			-48
A	33			52					61	0		
B	426	2		36	1		65			0	0	
C	1,028	4		14	2		150	2		0	0	
D	589	16		12	3		236	3		-1	0	
E		264			3		225	9			-4	
F			75			4		81				-14
Total	23,609	1,346	499	10,315	708	163	13,835	564	265	-37	-30	-242

31.12.2019

EUR million	Balance sheet exposures			Off-balance-sheet exposure, gross			Net exposure after collateral			Loss allowance		
Rating	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3	Stage 1	Stage 2	Stage 3
1	805			570			1,375			0		
2	2,397	8		1,725	7		3,679	15		0	0	
3	4,724	80		2,877	81		5,547	162		1	0	
4	3,694	203		1,560	42		3,118	180		1	0	
5	3,483	59		1,688	32		3,381	63		2	0	
6	4,037	221		1,623	63		2,888			4	1	
7	2,663	254		885	109		2,158	230		7	3	
8	1,378	379		651	1,254		1,541	1,419		9	7	
9	4	135		3	35		7	81		0	6	
10	0	79			55			48		0	4	
11	0		276	2		128	0		245	0		183
12			93			3			93			69
A	26	0		44	0		68	0		0	0	
B	376	2		36	1		401	3		0	0	
C	975	2		12	1		968	3		0	0	
D	522	17		9	2		515	19		1	0	
E	17	253		0	2		16	247		0	5	
F			15			0			15			5
Total	25,103	1,693	384	11,686	1,685	130	25,664	2,469	354	27	26	258

The majority of the loans have transferred to stage 2 in all ratings based on OP's relative SICR model. Payments past due over 30 days causes a transfer to stage 2 in most cases in the middle and lower level ratings. Forbearance measures cause a transfer to stage 2 in corporate customers more often in middle and lower level ratings whereas they affect transfers to stage 2 in all ratings in private customers. The lowest ratings are classified into stage 2 based on an absolute rating limit. In the lowest ratings, in particular, there are several reasons for transfers to stage 2. Default is identified on a real-time basis, immediately causing a transfer to stage 3.

OP Corporate Bank 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 15 million (13) on 31 December 2020.

Significant increase in credit risk (SICR)

A significant increase in credit risk is discovered on a technical basis as presented in the accounting policies (Note 1 section 5.4.1).

The classification of contracts under SICR into similar groups in terms of credit risk is identical with lifetime PD (probability at default) models. Credit ratings are the most significant input data of the PD models. Both the current PDs and threshold PDs include forward-looking information (below).

The effectiveness of SICR is assessed on every reporting date using the following indicators:

The default capture rate measures how many contracts were in Stage 2 before it transferred to Stage 3. The rate was 66% (90) on 31 December 2020. The higher the rate is, the better the SICR model can capture a significant increase in credit risk. Contracts in Stage 2 accounted for 6% (8) of the entire non-default loan portfolio.

Forward-looking information included in the ECL measurement models

The assessment of SICR and the measurement of expected credit loss incorporate forward-looking information; OP Financial Group has analysed what macroeconomic variables have an explanatory significance to the credit risk amount.

The table below shows a summary of the values of the five most important macroeconomic variables for 2020–2050 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 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
(3-month Euribor – consumer price index)	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 table below shows a summary of the values of the five most important macroeconomic variables for 2019–2048 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of expected credit losses. These values were used for all product groups on 31 December 2019.

Economic variable	Scenario	Average (%)	Minimum (%)	Maksimum (%)
GDP growth	Downside	0.5	-1.5	1.4
	Baseline	1.4	0.5	1.5
	Upside	2.0	1.4	2.5
Unemployment rate	Downside	8.7	6.5	9.0
	Baseline	6.9	6.5	7.0
	Upside	5.2	5.0	6.5
Investment growth %	Downside	0.5	-2.3	1.5
	Baseline	1.4	0.4	1.9
	Upside	2.3	1.5	4.8
House price index	Downside	1.0	-2.5	1.5
	Baseline	2.6	0.5	3.0
	Upside	3.8	0.5	4.0
12-month Euribor	Downside	0.6	-0.9	1.3
	Baseline	1.6	-0.3	2.3
	Upside	2.7	-0.3	3.3

On 31 December 2019, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%.

The scenarios are based on the forecasts performed by OP Financial Group economists. The forecast process also takes account of comparable forecasts by external organisations, such as the OECD, International Monetary Fund, Bank of Finland, Ministry of Finance etc., as well as academic research.

The rationality of the used macroeconomic variables is assessed when reviewing the functionality of the models for PD, LGD, EAD and prepayment.

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2020.

Total private customer and corporate customer exposures	Weighted loss allowance	Loss allowance under downside scenario	Loss allowance under baseline scenario	Loss allowance under upside scenario
Stage 1	35	38	35	33
Stage 2	27	30	27	25
Stage 3	231	231	231	231
Total	**293**	**299**	**293**	**289**

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2019.

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	25	27	25	23
Stage 2	26	27	26	24
Stage 3	247	247	247	247
Total	**298**	**301**	**298**	**295**

As a rule, loss allowance is the largest under the downside scenario. Private customer loans are mainly variable rate loans, so an increase in interest rates has a major effect on PD parameters. This is why loss allowance of private customers in Stage 1 is the highest under the upside scenario because the 12-month Euribor rate has the strongest effect on it through the PD change. Loss allowance of private customers in Stage 2 contracts, however, is the highest under the downside scenario, which is due to developments in the lifetime LGD parameter. All corporate customer risk parameters affect in a parallel way in such a way that loss allowance is clearly the largest under the downside scenario. The LGD model for Stage 3 is independent of macroeconomic factors, but a significant proportion of Stage 3 exposures is assessed by means of a cash flow based expert assessment that also takes account of forward-looking information.

Sensitivity analysis

The sensitivity analysis describes the sensitivity of loss allowance to changes in macroeconomic factors. The analysis below only describes somewhat potential economic deterioration and not an economic upswing at all. In addition, all different components of the sensitivity analysis do not necessarily develop together during a recession in the way presented in the sensitivity analysis.

The most significant macroeconomic variables in risk parameters and exposure classes include the 12-month Euribor rate, the real interest rate (2020) / investment growth rate (2019) and GDP development. Changes used in sensitivity analyses include a 1% increase in the 12-month Euribor rate, a 6% decrease in investment growth and a 3.5% decrease in the GDP growth rate. So the figures reflect an economic situation that is poorer than now and all of them increase loss allowance and are based on the following facts. The levels used in the sensitivity analysis are based on the behaviour of variables in the historic period, and the changes roughly correspond to the change in standard deviation.

The sensitivity analysis covers only Stage 1 and 2 contracts. The sensitivity analysis does not take account of the transfers between Stage 1 and 2 as a result of SICR. Changes in the lifetime PD stressed scenarios are included only in PD estimates based on the loss allowance formula and the effects of PD changes are not taking into account through SICR in the sensitivity analysis.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2020, when the economic situation weakens due to changes in the combined effects of interest rates, the real interest rate and GDP:

Group Stage	Loss allowance	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	2	2	5.5 %
Stage 2	5	5	5.6 %
Corporate customers			
Stage 1	34	38	12.9 %
Stage 2	21	29	33.2 %
Total	**61**	**73**	**19.3 %**

* 1 percentage point increase in the 12-month Euribor rate, 1 percentage point increase in the real interest rate and a 3.5 percentage point decrease in the GDP rate under all scenarios.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2019, when the economic situation weakens due to changes in the combined effects of interest rates, investment growth rate and GDP:

Group Stage	Loss allowance	Loss allowance sensitivity analysis*	Proportional change
Households			
Stage 1	2	2	7.1 %
Stage 2	5	6	6.6 %
Corporate customers			
Stage 1	23	36	60.4 %
Stage 2	20	30	45.4 %
Total	**50**	**74**	**47.0 %**

* 1 percentage point increase in the 12-month Euribor rate, 6 percentage point decrease in the investment growth rate and a 3.5 percentage point decrease in the GDP rate under all scenarios

Loss allowances are largely determined based on the first couple of years when the first years of the simulated scenario years are essential in terms of the results.

A 1 percentage point increase in the interest rate increases the amount of loss allowance in both private customers and corporate customers. A deterioration in the investment growth rate / an increase in the real interest rate raises the amount of loss allowance in corporate customers through changes in both PD and LGD. GDP growth has a negative relation to the amount of loss allowance through all model components. Slower GDP growth increases PD values for both private customers and corporate customers. It also affects through the LGD in such a way that a GDP decrease weakens developments in the fair value of residential property collateral, which has an effect on Stage 2 contracts.

The analysis shows that the most significant proportional and absolute changes apply to the corporate customers where the amounts of loss allowance regarding Stage 1 and 2 contracts increase by about 50%. Changes are considerably smaller in private customers than in corporate customers because the estimates of their risk parameters are not so sensitive to economic conditions.

Comparison of exposures in impairment stage 3 in the balance sheet with non-performing receivables

The value of impairment stage 3 exposures are impaired financial assets due to credit risk. The table below shows the differences between this definition and the definition of non-performing exposures based on official regulations:

EUR million 31 December 2020	Balance sheet exposure	Loss allowance
Impairment stage 3	499	227
Difference between the definitions*	1	0
Performing and forborne receivables (stage 2)	247	9
Other differences	29	22
Doubtful receivables	776	258

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 157, 176.

EUR million 31 December 2019	Balance sheet exposure	Loss allowance
Impairment stage 3	384	248
Difference between the definitions*	6	
Performing and forborne receivables (stage 2)	106	1
Other differences	-3	-3
Doubtful receivables	493	245

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 155, 157, 176.

Notes to contingent liabilities and derivatives

Note 39. Off-balance-sheet commitments

EUR million	31 Dec 2020	31 Dec 2019
Guarantees	447	550
Other guarantee liabilities	1,539	1,882
Loan commitments	5,364	5,146
Commitments related to short-term trade transactions	227	315
Other*	676	699
Total off-balance-sheet commitments	8,254	8,593

* Of which Non-life Insurance commitments to private equity funds amount to EUR 174 million (194).

Note 40. 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 41. Derivative contracts

Derivatives held for trading 31 December 2020

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	24,608	44,923	61,735	131,266	3,109	2,144
Cleared by the central counterparty	7,576	26,412	36,841	70,829	14	17
Settled-to-market (STM)	6,324	24,171	34,821	65,315	13	16
Collateralised-to-market (CTM)	1,252	2,241	2,020	5,513	0	1
OTC interest rate options						
Call and caps						
Purchased	4,562	7,998	7,630	20,190	619	234
Written	4,422	4,110	4,920	13,452	82	363
Put and floors						
Purchased	2,772	4,465	4,761	11,997	231	0
Written	3,696	4,380	2,189	10,265	79	191
Total OTC interest rate derivatives	40,059	65,876	81,235	187,170	4,120	2,933
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	42,561	66,439	81,235	190,234	4,120	2,933
Currency derivatives						
Forward exchange agreements	38,183	515	5	38,704	445	441
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	41,781	2,733	1,477	45,990	889	887
Total currency derivatives	41,781	2,733	1,477	45,990	889	887
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	**84,564**	**69,714**	**82,723**	**237,001**	**5,063**	**3,848**

Derivatives held for trading 31 December 2019

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	22,053	43,992	55,245	121,289	2,559	1,942
Cleared by the central counterparty	6,502	23,008	31,391	60,902	41	43
OTC interest rate options						
Call and caps						
Purchased	6,277	9,544	7,779	23,599	242	208
Written	6,876	7,850	5,355	20,081	104	190
Put and floors						
Purchased	3,278	5,050	4,218	12,546	168	68
Written	3,332	6,722	2,403	12,458	70	50
Total OTC interest rate derivatives	41,816	73,158	74,999	189,973	3,143	2,458
Interest rate futures	1,134	938		2,072	0	0
Total exchange traded derivatives	1,134	938		2,072	0	0
Total interest rate derivatives	42,949	74,096	74,999	192,044	3,143	2,458
Currency derivatives						
Forward exchange agreements	33,881	305		34,186	233	220
Interest rate and currency swaps	909	5,149	1,760	7,818	606	603
Currency options						
Call						
Purchased	158	12		170	1	1
Written	161	13		174	1	0
Put						
Purchased	143	13		156	1	0
Written	130	14		144	0	1
Total OTC currency derivatives	35,382	5,506	1,760	42,648	842	825
Total currency derivatives	35,382	5,506	1,760	42,648	842	825
Equity and index derivatives						
Equity index options						
Call						
Purchased	1	2		3	0	
Total OTC equity and index derivatives	1	2		3	0	
Total equity and index derivatives	1	2		3	0	
Credit derivatives						
Credit default swaps	59	892	112	1,063	14	12
Total credit derivatives	59	892	112	1,063	14	12
Other						
Other forward contracts	3	3		5	0	0
Other swaps	231	432	18	681	67	38
Total other OTC derivatives	233	435	18	686	68	38
Total other derivatives	233	435	18	686	68	38
Total derivatives held for trading	**78,624**	**80,931**	**76,889**	**236,444**	**4,067**	**3,333**

Derivative contracts for hedging purposes - fair value hedging 31 December 2020

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	2,419	16,468	12,335	31,223	48	15
Cleared by the central counterparty	2,229	16,388	12,139	30,757	5	4
Settled-to-market (STM)	255	2,923	802	3,980	0	0
Collateralised-to-market (CTM)	1,974	13,465	11,337	26,777	5	4
Total OTC interest rate derivatives	2,419	16,468	12,335	31,223	48	15
Total interest rate derivatives	2,419	16,468	12,335	31,223	48	15
Currency derivatives						
Interest rate and currency swaps	593	1,366	404	2,363	117	115
Total OTC currency derivatives	593	1,366	404	2,363	117	115
Total currency derivatives	593	1,366	404	2,363	117	115
Total derivative contracts, fair value hedge	**3,012**	**17,835**	**12,739**	**33,585**	**165**	**129**

Derivative contracts for hedging purposes – cash flow hedge 31 December 2020

	Nominal values/residual term to maturity			Total	Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
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	**6,535**	**22**		**6,557**	**26**	**65**
Total derivative contracts held for hedging	**9,547**	**17,857**	**12,739**	**40,143**	**191**	**194**

Derivative contracts for hedging purposes – fair value hedging 31 December 2019

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Interest rate derivatives						
Interest rate swaps	4,577	13,388	11,158	29,123	56	48
Cleared by the central counterparty	4,289	13,118	10,817	28,224	11	10
Total OTC interest rate derivatives	4,577	13,388	11,158	29,123	56	48
Total interest rate derivatives	4,577	13,388	11,158	29,123	56	48
Currency derivatives						
Interest rate and currency swaps	2,609	1,448	654	4,711	166	130
Total OTC currency derivatives	2,609	1,448	654	4,711	166	130
Total currency derivatives	2,609	1,448	654	4,711	166	130
Total derivative contracts, fair value hedge	**7,187**	**14,836**	**11,812**	**33,834**	**222**	**178**

Derivative contracts for hedging purposes – cash flow hedge 31 December 2019

	Nominal values/residual maturity				Fair values*	
EUR million	<1 year	1–5 years	>5 years	Total	Assets	Liabilities
Currency derivatives						
Forward exchange agreements	7,374			7,374	241	17
Total OTC currency derivatives	7,374			7,374	241	17
Total currency derivatives	7,374			7,374	241	17
Total derivative contracts, cash flow	**7,374**			**7,374**	**241**	**17**
Total derivative contracts held for hedging	**14,560**	**14,836**	**11,812**	**41,208**	**463**	**195**

Total derivatives 31 December 2020

	Nominal values/residual maturity			Total	Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives	44,980	82,907	93,570	221,457	4,168	2,948
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	48,909	4,121	1,880	54,910	1,032	1,067
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	94,112	87,570	95,462	277,144	5,253	4,042

Total derivatives 31 December 2019

	Nominal values/residual maturity			Total	Fair values*	
EUR million	<1 year	1–5 years	>5 years		Assets	Liabilities
Interest rate derivatives	47,526	87,484	86,157	221,167	3,198	2,506
Cleared by the central counterparty	10,791	36,126	42,208	89,126	52	53
Currency derivatives	45,365	6,954	2,414	54,733	1,250	972
Equity and index-linked derivatives	1	2		3	0	
Credit derivatives	59	892	112	1,063	14	12
Other derivatives	233	435	18	686	68	38
Total derivatives	93,185	95,766	88,701	277,652	4,530	3,529

*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. Note 42 below presents the effects of netting. Other derivative contracts are presented on a gross basis in the balance sheet.

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	1.119	0.426	0.299	0.421
OTC interest rate derivatives	4.373	3.362	3.040	3.654
Total interest rate derivatives	1.330	0.441	0.326	0.457

Average interest rates of interest rate derivative contracts in hedge accounting – fair value 31 December 2019

	<1 year	1–5 years	>5 years	Total
Interest rate derivatives				
Cleared by the central counterparty	0.019	0.672	0.608	0.549
OTC interest rate derivatives	3.419	3.959	2.666	3.239
Total interest rate derivatives	0.062	0.727	0.662	0.602

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 swaps and currency swaps in hedge accounting related to significant currencies 31 December 2019

	<1 year	1–5 years	>5 years	Total
AUD			2.440	2.440
CHF		1.604		1.604
GBP		2.155		2.155
HKD	2.144		2.959	2.670
JPY	0.562		1.300	0.609
NOK			3.800	3.800
USD	1.691	2.219	3.611	2.747

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2020

	<1 year	1–5 years	>5 years	Total
Currency derivatives				
Forward exchange agreements				
Average EUR:AUD	1.6479			1.6479
Average EUR:CAD	1.4752			1.4752
Average EUR:CHF	1.0840			1.0840
Average EUR:GBP	0.8877			0.8877
Average EUR:HKD	8.8959			8.8959
Average EUR:NOK	10.7953			10.7953
Average EUR:SGD	1.5676			1.5676
Average EUR:USD	1.1143			1.1143

Average prices of currency derivatives in hedge accounting concerning significant currencies 31 December 2019

	<1 year	1–5 years	>5 years	Total
Currency derivatives				
Forward exchange agreements				
Average EUR:CHF	1.1010			1.1010
Average EUR:HKD	8.8791			8.8791
Average EUR:SGD	1.5336			1.5336
Average EUR:AUD	1.6246			1.6246
Average EUR:NOK	10.1080			10.1080
Average EUR:CAD	1.4734			1.4734

Effects of hedge accounting on financial position and result

EUR million	Interest rate risk hedge 31 Dec 2020	31 Dec 2019
Fair value hedges		
Carrying amount of hedged receivables*	14,907	14,328
- of which the accrued amount of hedge adjustments	448	364
Carrying amount of hedged liabilities**	18,596	16,719
- of which the accrued amount of hedge adjustments	599	419
Remaining hedge adjustment amount of discontinued hedges	3	

* Presented under Receivables from customers and Investment assets in the balance sheet.

** Presented in the balance sheet under Liabilities to customers, Debt securities issued to the public and Subordinated liabilities.

EUR million	Interest rate risk hedge 31 Dec 2020	31 Dec 2019
Fair value hedges		
Changes in fair value of hedging derivatives	15	14
Change in value of hedged item that is used as basis for recognition of ineffective hedge during period	-18	-13
Hedge ineffectiveness presented in income statement	-4	1

Note 42. 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 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	5,933	-562	5,370	-2,463	-377	2,530

				Financial assets not set off in the balance sheet		
31 December 2019, EUR million	Gross amount of financial assets	Gross amount of financial liabilities deducted from financial assets	Net amount presented in the balance sheet	Master agreements*	Collateral received	Net amount
Derivatives	6,753	-1,879	4,874	-2,303	-707	1,865

Financial liabilities

31 December 2020, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities	Net amount presented in the balance sheet	Financial liabilities not set off in the balance sheet: Master agreements*	Financial liabilities not set off in the balance sheet: Collateral given	Net amount
Derivatives	4,853	-589	4,265	-2,463	-542	1,259

31 December 2019, EUR million	Gross amount of financial liabilities	Gross amount of financial assets deducted from financial liabilities	Net amount presented in the balance sheet	Financial liabilities not set off in the balance sheet: Master agreements*	Financial liabilities not set off in the balance sheet: Collateral given	Net amount
Derivatives	5,937	-2,055	3,882	-2,303	-654	925

* It is OP Corporate Bank plc's 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.

Notes to risk management

Note 2 describes the Risk Appetite Framework. Notes 44–50 present the risk exposure by Corporate Banking and Other Operations and Notes 51–61 present the risk exposure by Insurance. OP Corporate Bank Group's information on capital adequacy and capital base is included in OP Financial Group's separate Capital Adequacy and Risk Management Report.

Note 43. OP Corporate Bank Group's exposure split by geographic region and exposure class

The majority of OP Corporate Bank Group's country exposure is in EU countries. The exposures cover all balance-sheet and off-balance-sheet items and are based on values used in capital adequacy.

Exposure split by geographic region 31 December 2020, EUR million

Geographic region	Exposure to central governments and central banks	Exposures to credit insti- tutions	Exposures to corporates	Retail exposures	Equity investments*	Collate- ralised notes and bonds**	Other	Total
Finland	24,969	15,822	30,203	3,253	436	1,359	373	76,415
Baltic countries	347		3,347	4			7	3,704
Other Nordic countries	100	296	1,642	16	8	1,600		3,662
Germany	2,389	364	113	20		1,652		4,538
France	157	368	182	101		982		1,791
UK	27	600	27	53		244		952
Italy	53	14	26	7				99
Spain		4	13					18
Other EU countries	2,385	391	430	84	10****	824		4,124
Rest of Europe		43	99	1	6			148
USA	154	80	42	159	39	16		490
Russia		26	4					30
Asia		192	151	2		3		347
Other countries	32	102	62	22	642****	1,209	894	2,963
Total	**30,613**	**18,303**	**36,341**	**3,720**	**1,143**	**7,888**	**1,274**	**99,281**

* Also include EUR 18 million in bond funds.
** Consist of RMBS, ABS and Covered Bond investments.
*** Consist mainly of investments in European funds in Other EU countries and Emerging Markets and Global funds in Other countries.

Exposure split by geographic region 31 December 2019, EUR million

Geographic region	Exposure to central governments and central banks	Exposures to credit insti-tutions	Exposures to corporates	Retail exposures	Equity investments*	Collate-ralised notes and bonds**	Other	Total
Finland	15,033	12,192	30,512	3,025	446	520	392	62,122
Baltic countries	438		2,642	1			9	3,091
Other Nordic countries	98	256	1,423	13	9	1,609	0	3,408
Germany	1,816	338	139	23	1	1,679	30	4,027
France	64	498	200	80	15	1,014		1,872
UK		652	39	48	19	378		1,136
Italy		3	37	7				47
Spain		35	13	0				48
Other EU countries	1,840	314	509	104	76****	945		3,787
Rest of Europe		50	101	3	13	5		172
USA		111	41	189	9	11		361
Russia		10	3	0				12
Asia		243	50	5		6		303
Other countries	32	143	93	16	340****	1,181	679	2,483
Total	19,321	14,845	35,803	3,514	928	7,348	1,111	82,870

* Also include EUR 27 million in bond funds.

** Consist of 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 by Corporate Banking and Other Operations

The classification by Statistics Finland is used in these notes, deviating partly from the classification used in the risk exposure section presented in the Report by the Board of Directors.

Note 44. Credit losses and impairments

Credit losses and impairments

EUR million	2014	2015	2016	2017	2018*	2019	2020
Gross credit losses and impairments	-75	-69	-83	-49	-13	-51	-53
Reversals	49	40	46	36	1	1	1
Net credit losses and impairments	-25	-29	-37	-12	-13	-51	-53

* IFRS 9 was adopted on 1 January 2018.

Note 45. Collateral received by type of collateral

EUR million	31 Dec 2020	%	31 Dec 2019	%
Object of financing as collateral	3,333	28.7	2,983	28.1
Property or lease mortgage on office or industrial property	2,759	23.7	2,716	25.6
Public-sector guarantees	2,567	22.1	2,237	21.1
Shares and participations, other	1,273	11.0	1,000	9.4
Property or lease mortgage on residential property	485	4.2	375	3.5
Shares in housing corporations, and housing associations and property companies in residential use	351	3.0	329	3.1
Business mortgage	290	2.5	289	2.7
Other collateral	284	2.4	350	3.3
Factoring	180	1.5	213	2.0
Bank guarantee	103	0.9	126	1.2
Total	**11,626**	**100.0**	**10,618**	**100.0**

Received collateral by type of collateral has been calculated on the basis of the values of collateral held by the bank allocated to liabilities. The collateral's fair value is used as the basis for calculating the collateral value which is derived from the fair value on the basis of valuation percentages, based on conservative estimates, by type of collateral.

Note 46. Funding structure

EUR million	31 Dec 2020	%	31 Dec 2019	%
Liabilities to credit institutions	28,888	41.8	15,334	27.9
Liabilities to customers				
Deposits	13,300	19.2	11,103	20.2
Other	2,594	3.8	4,400	8.0
Debt securities issued to the public				
Certificates of deposit and ECPs (Euro Commercial Paper)	7,620	11.0	9,716	17.7
Bonds	12,594	18.2	11,854	21.5
Subordinated bonds (SNP)	1,689	2.4	1,156	2.1
Subordinated liabilities	2,444	3.5	1,474	2.7
Total	**69,129**	**100.0**	**55,036**	**100.0**

Note 47. Maturity of financial assets and liabilities by residual term to maturity

31 December 2020	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liquid assets	21,764					21,764
Receivables from credit institutions	1,141	4,474	5,211	328	98	11,252
Receivables from customers	4,522	3,429	13,674	1,380	1,480	24,485
Investment assets						
Financial assets held for trading	192	49	59	27	4	332
Financial assets designated as at fair value through profit or loss		1	4	0	0	6
Financial assets at fair value through other comprehensive income	275	669	8,656	6,313	140	16,052
Financial assets at amortised cost			503	311		814
Total assets	**27,894**	**8,621**	**28,107**	**8,360**	**1,722**	**74,704**
Liabilities to credit institutions	8,331	653	12,896	7,007		28,888
Liabilities to customers	14,731	689	421	53		15,894
Debt securities issued to the public	4,052	5,966	8,888	2,749	250	21,903
Subordinated liabilities		283	2,026		135	2,444
Total liabilities	**27,114**	**7,591**	**24,230**	**9,809**	**385**	**69,129**
Guarantees	54	76	276	-11	52	447
Other guarantee liabilities	198	356	502	428	55	1,539
Loan commitments	5,364					5,364
Commitments related to short-term trade transactions	65	78	84	0		227
Other	499	0	2	175	0	676
Total off-balance-sheet commitments	**6,180**	**511**	**864**	**592**	**107**	**8,254**

31 December 2019	Less than 3 months	3–12 months	1–5 years	5–10 years	More than 10 years	Total
Liquid assets	11,910					11,910
Receivables from credit institutions	3,667	2,346	3,043	70		9,126
Receivables from customers	4,723	3,617	12,238	1,585	1,666	23,829
Investment assets						
Financial assets held for trading	357	150	158	75	1	741
Financial assets designated as at fair value through profit or loss		2	10			12
Financial assets at fair value through other comprehensive income	904	989	5,821	5,226		12,940
Total assets	**21,560**	**7,105**	**21,271**	**6,956**	**1,667**	**58,559**
Liabilities to credit institutions	2,496	567	5,937	6,334		15,334
Liabilities to customers	14,644	307	121	431		15,503
Debt securities issued to the public	7,497	5,477	7,363	2,058	330	22,726
Subordinated liabilities	50	374	782	182	85	1,474
Total liabilities	**24,687**	**6,726**	**14,203**	**9,004**	**415**	**55,036**
Guarantees	59	147	191	0	152	550
Other guarantee liabilities	290	608	406	30	548	1,882
Loan commitments	5,146					5,146
Commitments related to short-term trade transactions	102	117	96			315
Other	501	1	2	195		699
Total off-balance-sheet commitments	**6,098**	**874**	**695**	**226**	**700**	**8,593**

Note 48. Liquidity buffer

The liquidity buffer is presented under the Other Operations segment.

Liquidity buffer by maturity and credit rating on 31 December 2020, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa*	21,954	1,515	1,611	852	1,414		27,346	87.5
Aa1–Aa3	1	651	984	474	706	0	2,814	9.0
A1–A3	0	2	4	3	2	3	14	0.0
Baa1–Baa3	32	59	124	51	5	1	273	0.9
Ba1 or lower	20	7	64	35	0		127	0.4
Internally rated**	245	190	167	78			680	2.2
Total	22,253	2,424	2,954	1,494	2,127	4	31,254	100.0

* incl. deposits with the central bank

** PD </= 0.40%

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

Liquidity buffer by maturity and credit rating on 31 December 2019, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa*	12,909	1,950	2,264	2,329	1,400		20,852	83.4
Aa1–Aa3	274	382	509	428	440	0	2,033	8.1
A1–A3	6	5	21	8	0		40	0.2
Baa1–Baa3	4	48	106	94	22	1	275	1.1
Ba1 or lower	0	22	76	22	16		136	0.5
Internally rated**	1,108	282	224	37	11		1,661	6.6
Total	14,300	2,689	3,200	2,918	1,889	1	24,996	100.0

* incl. deposits with the central bank

** PD </= 0.40%

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 4.0 years.

Note 49. Maturities of financial assets and liabilities by maturity or repricing

31 December 2020	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	>5 years	Total
Cash and cash equivalents	21,764						21,764
Receivables from credit institutions	1,659	3,512	3,672	740	1,580	89	11,252
Receivables from customers	6,165	7,690	6,501	459	2,288	1,382	24,485
Investment assets							
Financial assets held for trading	94	100	48	7	52	32	332
Financial assets designated as at fair value through profit or loss			1	2	2	0	6
Financial assets at fair value through other	635	246	567	1,597	6,607	6,399	16,052
Financial assets at amortised cost	814						814
Total assets	**31,131**	**11,548**	**10,790**	**2,805**	**10,529**	**7,902**	**74,704**
Liabilities to credit institutions	9,016	3,964	1,473	2,226	7,740	4,468	28,888
Liabilities recognised at fair value through profit or loss	0				0		0
Liabilities to customers	13,370	1,518	1,006				15,894
Debt securities issued to the public	2,071	4,628	5,865	1,706	4,744	2,889	21,903
Subordinated liabilities	75	498	278	500	1,093		2,444
Total liabilities	**24,533**	**10,608**	**8,622**	**4,431**	**13,577**	**7,358**	**69,129**

Debt repayable on demand totalled EUR 15.6 billion, consisting mainly of public deposits.

31 December 2019	1 month or less	>1–3 months	>3–12 months	>1–2 years	>2–5 years	>5 years	Total
Cash and cash equivalents	11,910						11,910
Receivables from credit institutions	3,214	2,861	2,668	289	76	19	9,126
Receivables from customers	5,563	8,180	6,232	394	2,070	1,390	23,829
Investment assets							
Financial assets held for trading	159	198	150	19	139	76	741
Financial assets designated as at fair value through profit or loss			2	10			12
Financial assets at fair value through other	960	565	906	608	4,675	5,226	12,940
Total assets	**21,807**	**11,805**	**9,957**	**1,320**	**6,959**	**6,711**	**58,559**
Liabilities to credit institutions	4,898	3,376	1,331	180	1,479	4,070	15,334
Liabilities recognised at fair value through profit or loss	0				12	0	12
Liabilities to customers	13,563	1,273	667				15,503
Debt securities issued to the public	4,012	6,362	5,643	1,074	3,501	2,135	22,726
Subordinated liabilities	82	506	51	193	542	100	1,474
Total liabilities	**22,554**	**11,517**	**7,692**	**1,447**	**5,533**	**6,305**	**55,048**

Debt repayable on demand totalled EUR 12.2 billion, consisting mainly of public deposits.

Note 50. Sensitivity analysis of interest rate and market risk

Interest rate risk associated with balance sheet

	2020	
Currency EUR million	-200bp	+200bp
EUR	313	-219

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 monthly as the volatility of the present value of balance sheet cash flows to the parallel 2 percentage point change of the yield curve.

Due to the change in the calculation method, the comparable figures for 2019 are not available.

Sensitivity analysis of market risk

EUR million		2020	2019
Interest rate volatility*	10bp	0	3
Currency volatility*	10 pps	0	0
Credit risk premium**	10bp	-61	-53

* Trading portfolio

** Long-term investment assets

Risk exposure by Insurance

Note 51. 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 2020, EUR million	Change in risk parameter	Effect on share-holders' equity, EUR million	Effect on combined ratio
Insurance portfolio or insurance premium revenue*	1,506	Up by 1%	15	Up by 1.0 pps
Claims incurred*	1,041	Up by 1%	-10	Down by 0.8 pps
Large claim, over EUR 5 million		1 loss	-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 discounted insurance liabilities	2,052	Up 1 year	-48	Down by 3.1 pps
Discount rate for discounted insurance 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 52. Non-life insurance premiums written and sums insured by class

Premiums written by EML* class in corporate property insurance

The degree of risk in property insurance can be evaluated by dividing risks into classes by their EML* amounts. The table below shows premiums written calculated for each risk class.

EUR million	5–20	20–50	50–100	100–500
2020	12	10	7	14
2019	11	9	6	12

* EML = Estimated Maximum Loss per object of insurance

Premiums written by TSI* class in corporate liability insurance

The degree of risk in liability insurance can be evaluated by dividing risks into classes by their TSI* amounts. The table below shows premiums written calculated for each risk class.

EUR million	2–4	4–10	10–30	30–90
2020	3	5	10	3
2019	4	4	7	2

* TSI = Total Sum Insured

Sums insured in decennial insurance

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

	Gross		Net*	
EUR million	2020	2019	2020	2019
Decennial insurance	1,890	1,852	1,890	1,852

* For insurance company's own account after reinsurers' share but before counter guarantee.

Note 53. Trend in non-life insurance large claims

Number of detected large claims by year of detection for 2016–2020

Non-life Insurance monitors carefully claims expenditure arising from large claims. The claims expenditure explains a significant part of the annual fluctuation in the underwriting result. In addition, monitoring the claims expenditure arising from large claims helps to detect any changes in risks or risk selection. In this analysis, large claims are those whose gross amount exceeds EUR 2 million. Most large claims occur in property and business interruption insurance. In statutory policies, the risk of large claim is small relative to the large volume of the line of business.

Gross amount

Number of claims exceeding EUR 2 million	Statutory lines	Other accident and health	Hull and cargo	Property and business interruption	Liability and legal expenses	Long term
2016				5		
2017				7		
2018				17	3	
2019	2			9	3	
2020	1			16	1	
				Total claims, EUR million	218	
Gross amount, total claims, EUR million						
2016–2020	7			190	21	

Net amount

Number of claims exceeding EUR 2 million	Statutory lines	Other accident and health	Hull and cargo	Property and business interruption	Liability and legal expenses	Long term
2016				5		
2017				7		
2018				15	3	
2019	2			9	3	
2020	1			16	1	
				Total claims, EUR million	169	
Net amount, total claims, EUR million						
2016–2020	7			148	14	

Note 54. Non-life insurance business profitability

Trends in insurance premium revenue (gross and net) and combined ratio (net)
Insurance premium revenue describes the volume of an insurance class, enabling the evaluation of the importance of the insurance class in relation to the whole portfolio. Similarly, the combined ratio (CR) is used to evaluate fluctuations in the results of the insurance class and the profitability of the class. The combined ratio is presented separately adjusted for one-off items relating to previous insurance periods.

2020, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	418	416	90%	84%
Other accident and health	302	302	79%	85%
Hull and cargo	322	321	84%	89%
Property and business interruption	410	374	90%	96%
Liability and legal expenses	98	91	68%	73%
Long-term	4	2	55%	62%
Total	**1,555**	**1,506**	**85%**	**88%**

2019, EUR million	Gross IP revenue	Net IP revenue	Net CR*	Net** CR*
Statutory lines	443	442	123%	90%
Other accident and health	286	286	91%	91%
Hull and cargo	308	307	97%	97%
Property and business interruption	390	357	91%	91%
Liability and legal expenses	88	84	91%	91%
Long-term	4	3	75%	75%
Total	**1,520**	**1,478**	**102%**	**92%**

* The combined ratio is calculated by dividing the sum of claims incurred (net) and operating expenses of insurance business by insurance premium revenue (net). Amortisation on intangible rights is excluded from the calculation.

** One-off changes affecting the balance on technical account have been eliminated.

Note 55. Information on the nature of non-life insurance insurance liabilities

Information on the nature of liabilities	2020	2019
Net liabilities due to insurance contracts (EUR million)		
Latent occupational diseases	8	10
Other	3,205	3,118
Total (before transfers)	**3,213**	**3,128**
Duration of debt (years)		
Discounted insurance liabilities	15.4	15.2
Undiscounted insurance liabilities	2.2	2.2
Total	**10.7**	**10.5**
Discounted net debt (EUR million)		
Known provision for claims for annuities	1,662	1,616
Collective liability	351	368
Provision for unearned premiums	39	40
Total	**2,052**	**2,024**

Note 56. Non-life insurance insurance liabilities by estimated maturity

31 December 2020	0–1 yr	1–5 yrs	5–10 yrs	10–15 yrs	over 15 yrs	Total
Provision for unearned premiums*	424	120	24	7	12	586
Provision for unpaid claims						
Undiscounted	298	221	61	12	4	597
Discounted	94	464	366	301	805	2,030
Total insurance liabilities**	817	805	451	319	821	3,213

* Includes EUR 39 million in discounted liability.

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

31 December 2019	0–1 yr	1–5 yrs	5–10 yrs	10–15 yrs	over 15 yrs	Total
Provision for unearned premiums*	417	118	23	7	11	576
Provision for unpaid claims						
Undiscounted	294	219	60	12	4	590
Discounted	95	427	365	297	778	1,962
Total insurance liabilities**	807	763	449	316	794	3,128

* Includes EUR 40 million in discounted liability.

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

Note 57. Non-life Insurance asset allocation

	31 December 2020		31 December 2019	
Investment asset portfolio allocation	Fair value, EUR million*	%	Fair value, EUR million*	%
Money market total	461	11	547	14
Money market instruments and deposits**	456	11	541	14
Derivative instruments***	5	0	6	0
Total bonds and bond funds	2,684	65	2,644	67
Governments	605	15	447	11
Inflation-indexed bonds	10	0		
Investment Grade	1,602	39	1,669	42
Emerging markets and High Yield	280	7	253	6
Structured investments****	188	5	275	7
Total equities	525	13	426	11
Finland	112	3	116	3
Developed markets	237	6	172	4
Emerging markets	110	3	67	2
Fixed assets and unlisted equities	6	0	6	0
Private equity investments	59	1	65	2
Total alternative investments	33	1	35	1
Hedge funds	33	1	35	1
Total property investments	398	10	300	8
Direct property investments	251	6	159	4
Indirect property investments	148	4	141	4
Total	4,102	100	3,952	100

* Includes accrued interest income.

** Includes settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta-weighted equivalents).

**** Include covered bonds, loan funds and illiquid bonds.

Note 58. 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 59. Effects of changes in investments and insurance liabilities offset one another.

	Portfolio at fair value, EUR million			Effect on solvency capital, EUR million	
Non-life Insurance	31 Dec 2020	Risk parameter	Change	31 Dec 2020	31 Dec 2019
Bonds and bond funds*	3,146	Interest rate	1 pp	103	85
Equities**	493	Market value	10%	91	35
Capital investments and unquoted equities	65	Market value	10%	13	7
Real property	398	Market value	10%	40	30
Currency	60	Currency value	10%	36	15
Credit risk premium***	3,146	Credit spread	0.1 pp	37	36
Derivatives	5	Volatility	10 pps	0	1

* Include money-market investments, convertible bonds and interest-rate derivatives.

** Include hedge funds and equity derivatives.

*** Includes bonds and convertible bonds and money-market investments, excluding government bonds issued by developed countries.

Note 59. 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 liabilities have on the interest-rate risk, because only some insurance liabilities have been discounted using an administrative interest rate (Note 29).

Fair value by duration or repricing date, EUR million*	31 Dec 2020	31 Dec 2019
0–1 year	749	730
>1–3 years	579	631
>3–5 years	664	498
>5–7 years	557	440
>7–10 years	245	172
>10 years	143	110
Total	2,937	2,582
Modified duration	3.5	4.0
Effective interest rate, %	1.0	1.6

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

Fixed-income portfolio by maturity and credit rating on 31 December 2020*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa	93	125	95	66	21	58	457	15.6
Aa1-Aa3	455	96	77	41	19	0	689	23.5
A1-A3	64	116	145	145	48	47	565	19.2
Baa1-Baa3	93	199	281	263	138	25	998	34.0
Ba1 or lower	24	40	32	23	16	12	147	5.0
Internally rated	21	4	34	18	3	1	81	2.7
Total	749	579	664	557	245	143	2,937	100.0

Fixed-income portfolio by maturity and credit rating on 31 December 2019*, EUR million

Year(s)	0–1	1–3	3–5	5–7	7–10	10–	Total	Pro-portion, %
Aaa	2	45	57	49	28	79	261	10.1
Aa1-Aa3	520	148	28	24	12	0	732	28.3
A1-A3	76	179	114	145	61	10	584	22.6
Baa1-Baa3	81	216	231	199	53	15	794	30.8
Ba1 or lower	46	41	36	9	6	7	145	5.6
Internally rated	5	1	32	15	13	0	66	2.6
Total	730	631	498	440	172	110	2,582	100.0

* Excludes credit derivatives.

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

The average credit rating of the Non-life Insurance fixed-income portfolio is Moody's A2.

The term to maturity of the Non-life Insurance fixed-income portfolio averages 3.5 years (calculated on the basis of the call date and the maturity date).

Note 60. Currency risk associated with Non-life Insurance investments

Foreign currency exposure, EUR million	31 Dec 2020	31 Dec 2019
USD	35	51
SEK	1	0
JPY	0	0
GBP	0	1
Other	25	23
Total*	60	76

* The currency exposure was 1.5% (1.9%) of the investment portfolio. It is calculated as the sum total of individual currencies' intrinsic values.

Note 61. Counterparty risk associated with Non-life Insurance investments

Credit rating, consistent with Moody's, EUR million	31 December 2020 Invest-ment*	Insurance**	31 December 2019 Invest-ment*	Insurance**
Aaa	457		261	
Aa1–Aa3	689	26	732	16
A1–A3	565	48	584	50
Baa1–Baa3	998	0	794	
Ba1 or lower	147		145	0
Internally rated	81	42	66	43
Total	2,937	117	2,582	109

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

** Includes the reinsurers' share of insurance liabilities, and receivables from reinsurers.

Other notes

Note 62. Ownership interests in subsidiaries, structured entities and joint operations

Changes occurred in subsidiaries and structured entities during the financial year
A-Insurance Ltd merged into Pohjola Insurance Ltd on 31 March 2020 and Kaivokadun PL-Hallinto Ltd merged into OP Corporate Bank plc on 31 October 2020.

Material subsidiaries included in the consolidated financial statements in 2020
Major 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	% of share-holding	% of votes
Pohjola Hospital Ltd	Helsinki	100	100
OP Finance AS	Estonia	100	100
OP Finance SIA	Latvia	100	100
OP Custody Ltd	Helsinki	100	100
Pohjola Insurance Ltd	Helsinki	100	100
UAB OP Finance	Lithuania	100	100

The number of other subsidiaries included in the consolidated financial statements was 0 (1), in addition to major subsidiaries.

Material subsidiaries included in the consolidated financial statements in 2019

Company	Domicile	% of share-holding	% of votes
A-Insurance Ltd	Helsinki	100	100
Pohjola Hospital Ltd	Helsinki	100	100
OP Finance AS	Estonia	100	100
OP Finance SIA	Latvia	100	100
OP Custody Ltd	Helsinki	100	100
Pohjola Insurance Ltd	Helsinki	100	100
UAB OP Finance	Lithuania	100	100

The number of other subsidiaries included in the consolidated financial statements was 1 (1), in addition to major subsidiaries.

Structured entities included in the consolidated financial statements
OP Corporate Bank Group acts as an investor in various mutual funds in order to gain investment income. The consolidated financial statements of group include the accounts of two (2) real estate funds. These funds that have been classified as structured entities because 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.

The table below structured entities with a significant number of non-controlling interests

Name	Place of business	Main line of business	Interest, % 2020	Interest, % 2019	Non-controlling interests, % 2020	Non-controlling interests, % 2019
Real Estate Funds of Funds II Ky	Helsinki	Real estate fund	22.2	22.2	77.8	77.8
Real Estate Fund Finland III Ky	Helsinki	Real estate fund	31.5	24.5	68.5	75.5

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. 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 Corporate Bank 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		Real Estate Fund Finland III Ky	
EUR million	2020	2019	2020	2019
Cash and cash equivalents	0	0	5	2
Investments	5	10	182	297
Other assets	1	1	10	2
Total assets	**6**	**11**	**197**	**301**
Financial liabilities			136	209
Other liabilities	-1		5	5
Total liabilities	**-1**		**141**	**214**
Net assets	**7**	**11**	**56**	**87**
Accrued share of non-controlling interests	5	9	39	66

Statement of comprehensive income in summary	2020	2019	2020	2019
Net sales	-1	1	-12	4
Profit or loss of continuing operations after tax	0	3	-12	3
Comprehensive income	**0**	**3**	**-12**	**3**
Comprehensive income attributable to non-controlling interests	0	2	-8	2
Share of profit paid to non-controlling interests	3	7	3	5

Cash flows in summary				
Net cash flow from operating activities	0	0	10	6
Net cash flow from investing activities	4	14	84	-9
Net cash flow from financing activities	-4	-17	-90	4
Net change in cash flows	**0**	**-4**	**3**	**1**
Cash and cash equivalents at year start	0	4	2	1
Cash and cash equivalents at year end	0	0	5	2

Joint operations

A total of 42 (44) property companies are incorporated into OP Corporate Bank Group's financial statements as joint operations by consolidating the proportionate share of 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 Corporate Bank 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 Corporate Bank Group's own use. These apartments are included in property, plant and equipment in the balance sheet, shown in Note 22. Each shareholder of the mutual property company is responsible for its/his/her share of the company's loans. The rest of the property companies are investment property included in Note 19.

Summary of the effect of consolidation of joint operations on the balance sheet

EUR million	2020	2019
Land	38	43
Buildings	376	380
Total assets	**413**	**423**
Total liabilities	136	136

Most significant joint operations included in the consolidated financial statements in 2020

Name	Domicile	Sector	Holding
Kiinteistö Oy Helsingin Puutarhurinkuja 2 Kiinteistö	Helsinki	Property holding and management	100.0
Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	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 Grand Cargo Terminal 1	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	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 Frantzeninkatu 13 Kiinteistö	Helsinki	Property holding and management	100.0
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

Most significant joint operations included in the consolidated financial statements in 2019

Name	Domicile	Sector	Holding
Kiinteistö Oy Helsingin Puutarhurinkuja 2 Kiinteistö	Helsinki	Property holding and management	100.0
Oy Kanta-Sarvis II	Tampere	Property holding and management	100.0
Kiinteistö Oy STC Viinikkala	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 Grand Cargo Terminal 1	Vantaa	Property holding and management	100.0
Kiinteistö Oy Grand Cargo Terminal 2	Vantaa	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 Frantzeninkatu 13 Kiinteistö	Helsinki	Property holding and management	100.0
Oy Topeliuksenkatu 41b	Helsinki	Property holding and management	50.0
Kiinteistö Oy Asiakkaankatu 3	Helsinki	Property holding and management	100.0
Kiinteistö Oy Tuusulan Jatke	Tuusula	Property holding and management	100.0
Keskinäinen Kiinteistö Oy Marikko	Helsinki	Property holding and management	100.0
Kiinteistö Oy Helsingin Kaarlenkadun Fenno	Helsinki	Property holding and management	100.0
Kiinteistö Oy Koivuhaan Yrityskeskus	Vantaa	Property holding and management	100.0
Kiinteistö Oy Aleksis Kiven katu 21-23	Helsinki	Property holding and management	50.0

The consolidated financial statements include the share of assets and related liabilities under joint control.

Interests in unconsolidated structured entities

OP Fund Management Company Ltd within OP Financial Group manages OP Mutual Funds OP Fund Management Company Ltd uses OP Asset Management Ltd as the portfolio manager for many of the mutual funds it manages In addition, OP Property Management Ltd within the Group manages several real estate funds. In many funds, the fund management company controls significant operations by making investment decisions in accordance with the fund rules. OP Financial Group companies have no interests in the funds managed by the abovementioned companies that would significantly expose the Group to the varying return on the investment and would thereby cause a consolidation obligation.

OP Corporate Bank 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. Group's risk of loss is limited to the investment's balance sheet value. Investments in mutual funds managed by OP Corporate Bank Group totalled 78 million (88) on 31 December 2020.

Note 63. Related-party transactions

The related parties of OP Corporate Bank Group comprise its parent OP Cooperative, consolidated subsidiaries, associated companies, key management personnel and other related party entities. OP Corporate Bank Group's key management personnel comprises OP Corporate Bank plc's President and CEO, Board members and their close family members. Related parties also include companies over which key management personnel or their close family member exercise significant influence. The other related party entities include OP Bank Group Pension Fund, OP Bank Group Pension Foundation and sister companies in OP Cooperative Consolidated.

Standard terms and conditions for credit are applied to loans granted to the related parties. Loans are tied to generally used reference rates.

Transactions between OP Corporate Bank Group and its subsidiaries belonging to its related parties have been eliminated in the consolidation of Group accounts and they are not included in the figures of this Note.

Related-party transactions 2020

EUR 1,000	Parent company	Associates	Key management personnel	Others*
Loans			26	6,110,000
Other receivables	197		26	943,249
Deposits	518,260	290		5,823,153
Other liabilities	2,329			585,679
Interest income	1,582			29,460
Interest expenses	2,814			99,837
Insurance premium revenue	125			3,689
Commission income	89	0		10,370
Commission expenses	0	0	0	15,724
Net investment income	0			179,406
Other operating income	1,783			5,824
Operating expenses	66,821			127,682
Contingent liabilities and derivatives				
Derivative contracts				
Nominal values				6,284,886
Credit equivalents				66,833
Salaries, other short-term benefits and performance-based pay				
Salaries, other short-term benefits and performance-based pay			509	
Related-party holdings				
Number of shares	319,551,415			

Related-party transactions 2019

EUR 1,000	Parent company	Associates	Key management personnel	Others*
Loans			49	5,974,270
Other receivables	112		49	150,501
Deposits	426,254	141		4,375,968
Other liabilities	1,014			464,945
Interest income	815			-1,338
Interest expenses	3,418			104,148
Insurance premium revenue	924			4,167
Commission income	258	0		44,764
Commission expenses		0		12,731
Net investment income	1			158,759
Other operating income	678			6,573
Operating expenses	37,060			157,505
Contingent liabilities and derivatives				
Off-balance-sheet commitments				
Other guarantee liabilities				3,407
Derivative contracts				
Nominal values				7,249,601
Credit equivalents				63,771
Salaries, other short-term benefits and performance-based pay				
Salaries, other short-term benefits and performance-based pay			413	
Related-party holdings				
Number of shares	319,551,415			

* Other related-party entities include OP Bank Group Pension Fund, OP Bank Group Pension Foundation and their sister companies within OP Cooperative Consolidated.

Board member fees 2020

In financial year 2020, the members of the Board of Directors did not receive from OP Corporate Bank Group companies any monthly fees or share-based bonuses. No separate meeting allowances were paid in 2020 to the members of the Board of Directors employed by OP Cooperative or its subsidiaries. The meeting allowance paid to the Board members employed by OP Financial Group's cooperative banks amounted to 600 euros per meeting in 2020.

Salaries, fringe benefits and performance-based bonuses paid to the President and CEO in the financial year ending 31 December 2020 were as follows:

President and CEO Katja Keitaanniemi

Regular pay and fringe benefits	EUR 415,800
Earned performance-based bonus for 2019	EUR 58,047
Earned bonus based on the long-term management remuneration scheme for 2017–2019	EUR 35,046
Total	EUR 508,883

The period of notice applicable under the President and CEO's executive contract is six months. According to this contract, the company must pay the President and CEO severance pay equalling his 6-month total salary, in addition to compensation for loss of office, if the company dismisses him or he has to resign or terminate the contract due to a reason attributable to the company. In case the executive contract terminates due to reasons attributable to the company, the President and CEO will be entitled to bonuses under the short- and long-term remuneration schemes for the year of contract termination, provided that the schemes' performance criteria and the criteria for payment under the schemes' terms and conditions are fulfilled. In addition, the President and CEO belongs to the long-term management remuneration scheme (2017–2019), under which bonuses will be paid from 2020 until 2023.

Pension obligations regarding President and CEO and Board members

The President and CEO is covered by TyEL (the Finnish Employees Pensions Act) which provides pension benefits based on the years of employment and earnings as prescribed in the Act. The retirement age of the President and CEO is the age equivalent to the lowest pensionable age under the Employees Pensions Act (TyEL). The supplementary pension plan for the President and CEO has been arranged through OP Life Assurance Company Ltd. The costs of the supplementary pension plan for the President and CEO totalled EUR 83,160 (82,632). No pension obligations apply to Board members. This also applies to former Board members. More detailed information on OP Corporate Bank Group's pension plan can be found in Note 31. Provisions and other liabilities.

Pension costs of President and CEO, thousands of euros	2020	2019
Pension costs of defined contribution plans under TyEL	120	104
Pension costs of supplementary defined contribution plans	83	83

Note 64. Events after the balance sheet date

No significant events took place after the balance sheet date.

Parent Company Financial Statements, FAS

Financial Statements

Income statement

EUR million	2020	2019
Interest income	450	371
Net lease income	27	25
Interest expenses	-151	-104
Net interest income	325	292
Income from equity investments	6	0
From other companies	6	0
Commissions and fees	128	131
Commission expenses	-110	-129
Net income from securities and foreign exchange trading	141	135
Net income from securities trading	102	103
Net income from foreign exchange trading	39	32
Net income from financial assets recognised at fair value through fair value reserve	6	7
Net income from hedge accounting	-2	1
Net income from investment property	0	0
Other operating income	27	34
Administrative expenses	-174	-173
Personnel costs	-62	-56
Wages and salaries	-53	-48
Social expenses	-9	-7
Pension costs	-7	-5
Other social expenses	-2	-2
Other administrative expenses	-113	-117
Depreciation/amortisation and write-downs on tangible and intangible assets	-13	-14
Other operating expenses	-52	-44
Expected credit losses on financial assets recognised at amortised cost	-53	-50
Operating profit	229	191
Appropriations	-154	-11
Income taxes	-15	-36
Taxes for the financial year	-12	-34
Taxes for previous financial years	0	1
Change in deferred taxes	-3	-3
Profit for the financial year	60	144

Balance sheet

Assets

EUR million	31 Dec. 2020	31 Dec. 2019
Cash and cash equivalents	21,764	11,910
Notes and bonds eligible for refinancing with central banks	13,774	11,726
Other	13,774	11,726
Receivables from credit institutions	11,248	9,126
Repayable on demand	78	987
Other	11,170	8,139
Receivables from the public and public sector entities	22,878	22,249
Other	22,878	22,249
Lease assets	1,583	1,555
Notes and bonds	1,082	2,068
From public sector entities		677
From other	1,082	1,391
Shares and participations	25	20
Shares and participations in subsidiaries	1,024	1,028
Derivative contracts	5,352	4,852
Intangible assets	23	34
Tangible assets	1	4
Investment property and shares and participations in investment property	0	0
Other property and shares and participations in property companies	0	2
Other tangible assets	1	2
Other assets	919	514
Deferred income and advances paid	189	155
Deferred tax assets	1	11
Total assets	**79,865**	**65,252**

Liabilities

EUR million	31 Dec. 2020	31 Dec. 2019
Liabilities		
Liabilities to credit institutions	28,888	15,334
Central banks	8,000	2,000
Credit institutions	20,888	13,334
Repayable on demand	2,813	1,430
Other	18,075	11,903
Liabilities to the public and public sector entities	16,403	16,013
Deposits	13,944	11,750
Repayable on demand	13,424	11,380
Other	370	370
Other liabilities	2,458	4,264
Repayable on demand	1	3
Other	2,457	4,261
Debt securities issued to the public	22,003	22,860
Bonds	14,383	13,144
Other	7,620	9,716
Derivative contracts and other liabilities held for trading	4,274	3,865
Other liabilities	1,475	1,593
Other liabilities	1,475	1,593
Deferred expenses and advances received	179	155
Subordinated liabilities	2,309	1,339
Subordinated loans	86	87
Other	2,223	1,252
Total liabilities	**75,531**	**61,158**
Appropriations	**1,625**	**1,471**
Depreciation difference	303	276
Taxation-based provisions	1,322	1,195
Shareholders' equity		
Share capital or cooperative capital	428	428
Share capital	428	428
Share premium account	524	524
Other restricted reserves	186	160
Reserve fund	164	164
Fair value reserve	22	-4
Cash flow hedging	2	0
Fair value measurement	20	-4
Non-restricted reserves	331	331
Reserve for invested non-restricted equity	308	308
Other reserves	23	23
Retained earnings	1,180	1,036
Profit for the financial year	60	144
Total shareholders' equity	**2,709**	**2,623**
Total liabilities and shareholders' equity	**79,865**	**65,252**

EUR million	31 Dec. 2020	31 Dec. 2019
Off-balance-sheet commitments	**8,417**	**8,767**
Commitments given to a third party on behalf of customers	2,558	3,123
Guarantees and pledges	2,331	2,808
Other	227	315
Irrevocable commitments given on behalf of customers	5,859	5,644
Securities repurchase commitments	4	4
Other	5,856	5,640

Cash flow statement

EUR million	31 Dec. 2020	31 Dec. 2019
Cash flow from operating activities		
Profit for the financial year	60	144
Adjustments to profit for the financial year	9	216
Increase (-) or decrease (+) in operating assets	-5,114	-1,445
Receivables from credit institutions	-3,032	471
Derivative contracts	-31	-216
Receivables from customers	-694	-1,513
Investment property	-914	-620
Other assets	-443	433
Increase (+) or decrease (-) in operating liabilities	13,633	-654
Liabilities to credit institutions	13,456	-414
Derivative contracts	-263	251
Liabilities to customers	390	-518
Provisions and other liabilities	50	26
Income tax paid	-8	-21
Dividends received	6	0
A. Net cash from operating activities	8,585	-1,761
Cash flow from investing activities		
Purchase of tangible and intangible assets	-2	-2
Proceeds from sale of tangible and intangible assets	0	-1
Acquired shares in subsidiaries	4	
Sold shares in subsidiaries		
B. Net cash used in investing activities	2	-2
Cash flow from financing activities		
Subordinated liabilities, change	978	
Debt securities issued to the public, change	-979	1,845
Dividends paid and interest on cooperative capital		-173
Lease liabilities	0	
C. Net cash used in financing activities	-1	1,672
Net change in cash and cash equivalents (A+B+C)	8,586	-94
Cash and cash equivalents at year-start	12,898	13,330
Effect of foreign exchange rate changes	357	-338
Cash and cash equivalents at year-end	21,842	12,898
Interest received	937	1,261
Interest paid	-679	-1,056

Adjustments to profit for the financial year

Non-cash items		
Impairment loss on receivables	54	50
Changes in value of financial instruments	-263	-6
Planned depreciation/amortisation	13	25
Income tax	15	36
Other	191	110
Items presented outside cash flow from operating activities		
Capital gains, share of cash flow from investing activities		0
Total adjustments	9	216

Cash and cash equivalents		
Liquid assets	21,764	11,910
Receivables from credit institutions payable on demand	78	987
Total	21,842	12,898

The effect of foreign exchange rate changes is presented under changes in cash and cash equivalents, whereas previously they were presented under the effect of foreign exchange rate changes on cash and cash equivalents.

Parent Company's (OP Corporate Bank plc) Accounting Policies

General

OP Corporate Bank plc is a Finnish credit institution whose business divisions comprise Corporate Customers and Group Treasury. Other Operations includes administrative functions.

OP Corporate Bank plc is part of OP Financial Group which currently consists of some 137 cooperative banks and their central cooperative, OP Cooperative, and other member credit institutions. OP Financial Group's member credit institutions comprise OP Corporate Bank plc, Helsinki Area Cooperative Bank, OP Card Company Plc and OP Cooperative's member cooperative banks.

OP Corporate Bank plc's parent company is OP Cooperative and OP Corporate Bank's consolidated accounts are included in its consolidated financial statements. Copies of the financial statements of OP Cooperative are available at the following address: Gebhardinaukio 1, FI-00510 Helsinki. OP Financial Group's financial statements are available at www.op.fi or the company's registered office at Gebhardinaukio 1, FI-00510 Helsinki. The accounts of OP Corporate Bank plc are also consolidated into those of OP Corporate Bank Group. A copy of OP Corporate Bank's consolidated financial statements is available at www.op.fi or the Company's registered office Gebhardinaukio 1, FI-00510 Helsinki.

In accordance with the Act on the Amalgamation of Deposit Banks, the member credit institutions, OP Corporate Bank plc included, and OP Cooperative are ultimately jointly and severally liable for each other's debts and commitments. If a member credit institution's own capital is depleted to such a low level owing to losses that the criteria, specified in the Act, for being placed in liquidation are fulfilled, OP Cooperative has the right to collect from its member credit institutions extra contributions on the basis of the combined balance sheets previously adopted.

OP Corporate Bank plc is domiciled in Helsinki and the address of its registered office is Gebhardinaukio 1, FI-00510 Helsinki. The postal address of its registered office is P.O. Box 308, FI-00013 OP.

1. Basis of preparation

OP Corporate Bank plc's financial statements based on national regulation are prepared and presented according to the Act on Credit Institutions, the Ministry of Finance Decree on the Financial Statements and Consolidated Financial Statements of a Credit Institution and Investment Firm, the Accounting Act and the set of the Financial Supervisory Authority's regulations and guidelines governing financial sector accounting, financial statements and the report by the board of directors. In addition, the central cooperative of the amalgamation of cooperative banks, OP Cooperative, issues instructions for compliance with unified accounting policies and the preparation of the financial statements.

OP Corporate Bank plc's financial statements are presented in millions of euros and were prepared at historical cost, with the exception of financial assets at fair value through profit or loss, financial assets recognised at fair value through the fair value reserve, hedged items in fair value hedging (for hedged risk) and derivative instruments measured at fair value.

The preparation of financial statements requires the management to make assessments and estimates and exercise its judgement in the process of applying the accounting policies.

2. Foreign currency translation

OP Corporate Bank plc's financial statements are prepared in euros, which is the presentation currency. 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 income from foreign exchange trading in the income statement.

3. Financial instruments

3.1. Fair value determination

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

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

If the market has a commonly used valuation technique applied to a financial instrument to which the fair value is not directly available, 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 or a shorter period taking account of the product's structure and counterparty. 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 on OP Corporate Bank plc's balance sheet.

3.2. Financial assets and liabilities

3.2.1. 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 Corporate Bank 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 office and origination fees related to loan drawdown and they are amortised over the expected life of the financial instrument or a shorter period if that is appropriate. Fees that are not an integral part of the effective interest rate of a financial instrument and are accounted for in accordance with IFRS 15 include fees charged for servicing a loan, for example.

OP Corporate Bank 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 Corporate Bank 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 Corporate Bank 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).

3.2.2. Initial recognition and measurement

At initial recognition, OP Corporate Bank 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 the fair value reserve. This results in accounting loss recognition for newly originated or newly purchased financial assets in the income statement.

3.3. Classification and subsequent measurement of financial assets

OP Corporate Bank plc classifies financial assets into the following categories:

- Fair value through profit or loss (FVTPL)
- Recognised at fair value through fair value reserve (FVOCI)
- Amortised cost.

3.3.1. Loans and notes and bonds

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

a) OP Corporate Bank plc'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 Corporate Bank plc 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 the fair value reserve 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 income.

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 through fair value reserve. Gains and losses are recognised in net investment income.

Business model

A business model refers to how OP Corporate Bank plc manages its financial assets in order to generate cash flows. OP Corporate Bank plc's business model determines whether cash flows will result solely from collecting contractual cash flows or from collecting contractual cash flows and cash flows and by selling a financial asset, or whether the purpose is held for trading. Financial assets within the trading business model are measured through profit or loss. When assessing the business model, OP Corporate Bank plc 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 Corporate Bank plc holds corporate loans it has granted to collect contractual cash flows. For example, the objective of the business model of OP Corporate Bank plc'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 Corporate Bank plc's operations. OP Cooperative's Board of Directors decides on changes in the business model. The business model changes in case OP Corporate Bank plc 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 Corporate Bank plc's business model is other than trading, OP Corporate Bank plc 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 Corporate Bank plc's financial assets are basic lending arrangements.

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

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

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

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

If OP Corporate Bank 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.

3.3.2. 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.

3.3.3. 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 MB 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 Corporate Bank plc 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 Corporate Bank plc 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 Corporate Bank plc 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.

3.4. Impairment

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

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

3.4.1. Classification of contracts into three impairment stages

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

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

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

Definition of default

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

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

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

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

Significant increase in credit risk

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

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

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

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

In the assessment of a significant increase in credit risk, OP Corporate Bank plc 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 Corporate Bank plc 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.

3.4.2. Measurement methods

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

3.4.2.1. PD/LGD method

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

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

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

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

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

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

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

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

Determining the period of a contract

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

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

Forward-looking information

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

Preparing macroeconomic forecasts and projecting them into the future up to 30 years involves a large amount of uncertainty, which is why actual results may differ significantly from the forecasts. OP Corporate Bank plc 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 Corporate Bank plc's best view of potential scenarios and outcomes.

3.4.2.2. Cash flow based ECL method based on customer-specific expert assessment

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

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

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

3.4.3. Impairment of notes and bonds

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

OP Corporate Bank plc 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 Corporate Bank plc 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/collateral type (seniority, covered bond status) and these are not separately assessed by issuer or investment. Because external credit ratings measure total credit risk (ECL), not PD, the LDG in these cases affect only the division of the ECL between PD and LGD components.

3.4.3.1. 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%, 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.

3.4.4. Impairment of off-balance-sheet items

Several products provided by OP Corporate Bank plc 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 Corporate Bank plc 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 Corporate Bank plc 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 Corporate Bank plc'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 Corporate Bank plc 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 Corporate Bank plc has a contractual ability to demand repayment and cancel the undrawn commitment but it does not limit OP Corporate Bank plc's exposure to credit losses during the contractual notice period.

3.4.5. Recognition of expected credit losses

OP Corporate Bank plc 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 Corporate Bank plc 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.

3.4.6. Write-off

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

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

3.5. Cash and cash equivalents

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

3.6. 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. 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 Corporate Bank plc has not designated financial liabilities as measured at fair value through profit or loss.

OP Corporate Bank plc 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 Corporate Bank plc 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 Corporate Bank plc has not made any exchanges of financial liabilities for the existing financial liabilities.

3.7. Netting

Financial assets and liabilities are offset in the balance sheet if OP Corporate Bank plc 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.

3.8. Derivative contracts

Derivatives are divided into hedging and non-hedging contracts. Both hedging and non-hedging derivatives are recognised at fair value on the balance sheet. Accrued interest on non-hedging interest rate swaps is recognised in interest income and interest carried forward corresponding to them in deferred income and deferred expenses. Changes in the fair value of non-hedging interest-rate, loan, currency, equity and commodity derivatives are recognised under Net income from foreign exchange trading in the income statement. Positive fair value changes and premiums paid for derivative contracts are recognised as assets under Derivative contracts while negative fair value changes and premiums received from derivative contracts are recognised under Derivative contracts and other liabilities held for trading.

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.

Risk Management 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, the Group's Parent Company, OP Corporate Bank plc, can hedge against interest rate risk, currency risk and price risk by applying fair value hedge or cash flow hedge. Cash flow hedging refers to hedging against changes in future cash flows and fair value hedging refers to hedging against changes in the fair value of the hedged asset.

OP Corporate Bank plc enters into derivative contracts which are in fact used to hedge against financial risks but which do not fulfil these criteria.

3.9. 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. The relationship between hedging and hedged instruments is formally documented. The documentation contains information on risk management principles, hedging strategy and the methods used to demonstrate hedge effectiveness. Hedge effectiveness is tested at the inception of the hedge and in subsequent periods by comparing respective changes in the fair value or cash flows of the hedging instrument and the hedged item. The hedge is considered highly 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%.

3.9.1. 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. OP Corporate Bank plc applies the fair value portfolio hedging model to hedging interest ate corridor loans. OP Corporate Bank plc uses interest rate options, forward exchange contracts and interest rate and currency swaps (OTC swaps) as hedging instruments.

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 and hedged instrument are recorded under Net interest income.

In fair value hedge accounting, changes in the fair value of the hedging instrument and the hedged item are recorded in the income statement under net interest income and net income from securities trading. 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.

3.9.2. 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 used as hedging instruments, for example.

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.

4. Lease assets

Leased out assets and lease assets' advance payments are recognised at non-depreciated cost and presented under Lease assets on the balance sheet. As a rule, lease assets are depreciated according to the annuity depreciation method.

Lease income from leased out assets based on lease contracts less planned depreciation on the lease assets are recognised under Net lease income. In addition, the item includes impairment losses on lease assets, capital gains and losses on the disposal of lease assets, commissions charged from customers and other income and expenses directly attributable to lease contracts. Other income and expenses due to leases are included in the income statement item that corresponds to the nature of the income or expense item.

5. Intangible assets

Intangible assets are stated at cost less amortisation and any write-downs. These assets are amortised over their estimated useful lives, which is 2–10 years for computer software and licences and 5 years in general for other intangible assets. The useful lives of assets are reviewed on each balance sheet date.

Development expenditure is capitalised if it is expected to generate income during several financial years. Capitalised development expenditure is amortised as planned over its useful life. If the useful life cannot be assessed reliably, development expenditure will be amortised over a maximum of ten years. Research costs are recognised as expenses for the financial year.

Planned amortisation and write-downs on intangible assets are recognised under Depreciation/amortisation and write-downs on tangible and intangible assets in the income statement.

6. Tangible assets

6.1. Investment property

Investment property is land and/or building or part thereof held to earn rental income and/or for capital appreciation. Property, a minor part of which (less than five per cent of the area) is used by the owner company or its personnel, is also accounted for as investment property.

Investment property is stated at cost less planned depreciation and write-downs. Land and shares and holdings in property companies can be subject to revaluation if their probable selling price on the balance sheet date is permanently higher than the original acquisition cost. Expenses incurred after the original acquisition will be capitalised only if it is probable that the resulting economic benefit from the property will be higher than initially estimated.

If the probable selling price of investment property is permanently lower than the carrying amount, the difference between the carrying amount and probable selling price is depreciated during the financial year when the write-down is detected.

The fair value of business, office and industrial premises classified as investment property holdings and presented in the related note to the financial statements is primarily determined using the income approach based on direct capitalisation. The fair value of investment property under construction can be presented only if its fair value can be determined reliably. The fair value of land, water and forest areas and residential buildings is primarily determined using the market approach. Recognition of write-downs is based on their consistency and materiality.

Income, expenses, capital gains and losses, planned depreciation and write-downs related to investment property are recognised under Net income from investment property in the income statement.

6.2. Other property holdings

Other property holdings refer to property in own use as an office, storage or other such facility, or for the personnel's accommodation, recreation or other such purpose, as well as shares in housing companies that entitle holding in these facilities. Also, property in own use comprises partly-leased properties in direct ownership of which the leased share cannot be sold separately and in which the company occupies more than five per cent of the floor space. The shares in an ordinary property company are considered to be in one's own use if over five per cent of the premises owned by the company is in its use.

When determining the balance sheet value of property in the company's own use, the starting point is the value of the asset in terms of expected income of ordinary operations. Buildings are recognised on the balance sheet at cost less depreciation according to plan. Holdings in property companies and land, water and forest areas are stated at cost. Property modernisation costs are capitalised and charged to expenses according to planned depreciation.

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

Appreciation may be involved in real property and its counterpart is recognised in the revaluation reserve. Appreciation is not subject to depreciation. Property modernisation costs are capitalised and charged to expenses according to planned depreciation.

Income from and capital gains on property in the company's own use are recognised under Other operating income and expenses and capital losses under Other operating expenses in the income statement. Planned depreciation and write-downs are recognised under Depreciation/amortisation and write-downs on tangible and intangible assets in the income statement.

6.3. Other tangible assets

Tangible assets are stated at cost less accumulated depreciation and any write-downs. These assets are depreciated on a straight-line basis over their estimated useful lives. Planned depreciation is not applicable to land and shares in property companies.

Subsequent expenditures are capitalised at the asset's carrying amount only if it is probable that the asset will generate greater economic benefits than initially estimated.

The estimated useful lives are mainly as follows:

Buildings	30–50 years
Machinery and equipment	4–10 years
IT equipment	3–5 years
Cars	6 years
Other tangible assets	5–10 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.

Assets' planned depreciation and write-downs are recognised under Depreciation/amortisation and write-downs on tangible and intangible assets in the income statement. Income from and capital gains on property in the company's own use are recognised under Other operating income and expenses and capital losses under Other operating expenses in the income statement.

7. Employee benefits

7.1. Pension benefits

The statutory pension cover for OP Corporate Bank plc's employees has been managed through contributions to Ilmarinen Mutual Pension Insurance Company and supplementary pension cover through OP Bank Group Pension Foundation. The Pension Foundation has been closed to new employees since 1 July 1991. Expenses arising from pension plans are recognised under Personnel costs in the income statement. Pension liabilities are fully covered.

7.2. Remuneration scheme

OP Corporate Bank plc has a short-term and long-term remuneration scheme in place. Those included in the scheme may receive bonuses either in cash only or as a combination of cash and a reference instrument decided by OP Cooperative's Board of Directors. Bonuses will be paid for work performed during the performance year. The maximum amount of the remuneration scheme is calculated on the grant date and the amount charged to expenses is recognised in personnel costs and deferred expenses over the vesting period.

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

7.3. Personnel fund

OP Corporate Bank plc belongs to OP Financial Group's OP Personnel Fund into which bonuses are paid on the basis of pre-agreed principles, depending on the achievement of targets. Bonuses transferred to the Fund are recognised under Wages and salaries in the income statement and the counterpart as Deferred expenses in the balance sheet.

8. Statutory provisions

A statutory provision is recognised for an obligation in the income statement and balance sheet 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.

9. Charges of financial authorities

OP Corporate Bank plc 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 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.

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.

Deposit guarantee contribution

Amounts contributed to the former Deposit Guarantee Fund currently exceed the EU requirements governing the deposit guarantee level. By virtue of its rules, the former Deposit Guarantee Fund takes charge of the deposit guarantee contributions payable by its member banks to the new Deposit Guarantee Fund in proportion to which each member bank has made contributions to the former Deposit Guarantee Fund over the years. The Financial Stability Fund will determine the contribution for OP Financial Group but will charge the amount directly from the former Deposit Guarantee Fund.

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.

Financial Supervisory Authority' 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.

European Central Bank's supervisory fee

OP Financial Group, OP Corporate Bank plc included, is supervised by the European Central Bank (ECB). The ECB supervisory fee is determined based on the bank's importance and risk profile. The ECB imposes the supervisory fee on OP Financial Group's central cooperative which shares the fee among OP Financial Group's member banks.

10. Subordinated loans

Hybrid capital instruments are recorded as a separate balance-sheet item under Subordinated liabilities. In capital adequacy measurement, these instruments are included in Tier 1 capital. Interest on these instruments may be paid only within the limits of distributable funds.

11. Appropriations

The depreciation difference under appropriations on the balance sheet includes the accumulated difference between depreciation made and planned depreciation. Tax-based provisions contain voluntary appropriations made which are appropriations permitted by tax law. Such a provision is, for example, the loan loss provision permitted for deposit banks by the Business Income Tax Act. According to this Act, a deposit bank may deduct a loan loss provision made during the tax year, the amount of which accounts for a maximum of 0.6% of the total amount of receivables at the end of the tax year.

The total amount of non-reversed loan loss provisions made during the tax year and earlier may account for a maximum of 5% of the total amount of receivables at the end of the tax year.

An increase and decrease in depreciation made and planned depreciation as well as tax-based provisions are recognised under appropriations in the income statement. Appropriations in the income statement and balance sheet also include deferred tax liabilities.

12. Income tax

Income taxes shown in the income statement include current tax, based on the taxable income of OP Corporate Bank plc, income tax for prior financial years and deferred tax expense or income.

Deferred tax liabilities are recognised for all temporary differences between the book value and taxable value of assets and liabilities. Deferred tax assets are calculated on tax-deductible temporary differences between the book value 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.

OP Corporate Bank plc offsets deferred tax assets and liabilities. 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. If deferred tax originates from balance sheet items not recognised in the income statement, any change in deferred tax is recognised in shareholders' equity, not in the income statement.

13. Revenue recognition

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

Commission income and expenses for services are recognised when the service is rendered. For one-off commissions covering several years that may have to be refunded at a later date, only the portion of their revenue related to the financial year is recognised.

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

14. Off-balance-sheet items

Off-balance-sheet items include commitments made for a third party on behalf of customers, such as guarantees and various guarantee engagements, and irrevocable commitments made for customers, such as binding supplementary loan arrangements, loan commitments, standby credit facilities and underwritings.

Commitments made for a third party on behalf of customers are recognised as off-balance-sheet commitments to the amount to which guarantee corresponds at most from time to time. Irrevocable commitments made for customers are recognised to the maximum amount which may have to be paid on the basis of them.

15. Change in accounting policies in 2020

In the first quarter of 2020, OP Corporate Bank plc adopted the European Banking Authority's (EBA) guidelines on the application of the definition of default (Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013: EBA/GL/2016/07 and EBA/RTS/2016/06). The Guidelines harmonise the definition of default applied by European banks to their customers. The process in accordance with the Guidelines recognises default earlier, for example, based on the unlikeliness to pay criteria that include, for example, payment defaults registered in external credit registers or granted forbearance where the present value of the loan decreases by more than 1 per cent. The Guidelines also extend default among private customers to all credit obligations of an obligor when a significant proportion (20%) of private customer exposures are defaulted. In addition, the materiality threshold for exposures of over 90 days past due has been lowered to EUR 100 and 1 per cent of the contract's or the customer's balance sheet exposures in retail exposures and to EUR 500 and 1 per cent of the contract's or the customer's balance sheet exposures in exposures other than retail exposures. The customer's default ends when it no longer meets the criteria for the definition of default and the subsequent probation period of 6–12 months has ended. OP Corporate Bank plc applies a so-called two-step approach of the EBA Guidelines. The first step involved the change of the definition of default during the first quarter of 2020. The second step to be taken later involves the calibration of credit risk parameters. The adoption of the first step increased the number of defaulted exposures and, thereby, the number of transfers to impairment stage 3.

16. COVID-19 pandemic

To prevent the significant economic effects caused by the coronavirus pandemic (COVID-19), the EU member states have implemented a variety of financial support measures. On 2 April 2020, the European Banking Authority (EBA) published guidelines on relief in 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 repayments 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 related to lending concern raising Finnvera's financing authorisation to EUR 12 billion. Consequently, businesses 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 Corporate Bank plc has independently provided its customers with the opportunity to get a loan repayment holiday if the pandemic has caused disruptions in their business or repayment capacity. With respect to corporate customers, changes in repayment schedules will always be evaluated on a case-by-case basis. In addition, 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. During the Covid-19 crisis, most of the repayment holidays have been granted to SME customers.

In 2020, the Covid-19 crisis was taken into account in the ECL measurement by updating macroeconomic factors on a quarterly basis. When the crisis began in spring 2020, a larger weight was given to the downside scenario; downside 40%, baseline 50% and upside 10%. The situation stabilised in summer, after which the scenario weights have been normal; downside 20%, baseline 60% and upside 20%. GDP growth for 2021 is predicted to be from 0.5% to 5.4% 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 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. Uncertainty still exists related to the economic development caused by the Covid-19 crisis.

Notes to Parent Company Financial Statements

Contents

Notes to the Income Statement

Notes concerning an entity under the Group's control

Note 1. Interest income and expenses

EUR million	2020	2019
Interest income		
Receivables from credit institutions	84	27
Receivables from the public and public sector entities	390	361
Notes and bonds	62	81
Derivative contracts	-94	-103
Trading items	4	6
Hedge accounting	-99	-109
of which cash flow hedge		0
Other	7	5
Total	**450**	**371**
Of which interest income from impaired receivables	0	0
Of which interest income of financial assets recognised in stage 3	0	0
Interest expenses		
Liabilities to credit institutions	181	157
Liabilities to the public and public sector entities	4	4
Debt securities issued to the public	151	171
Derivative contracts and other liabilities held for trading	-249	-279
Subordinated liabilities	59	46
Other	5	5
Total	**151**	**104**

Interest income received from Group and associated companies and interest expenses paid to them

	2020		2019	
EUR million	Subsidiaries	Associates	Subsidiaries	Associates
Interest income	6		8	
Interest expenses	4		6	

Note 2. Net lease income

EUR million	2020	2019
Lease income	357	343
Planned depreciation	-329	-316
Capital gains and losses (net) on the disposal of lease assets	0	0
Commissions and fees	2	2
Other direct income	0	0
Other direct expenses	-4	-4
Total	**27**	**25**

Note 3. Income from equity investments

EUR million	2020	2019
Financial assets at fair value through profit or loss	6	0
Subsidiaries		0
Total	**6**	**0**

Note 4. Commissions and fees

EUR million	2020	2019
Commissions and fees		
Lending	41	40
Deposits	3	2
Payment transfers	25	24
Asset management	2	12
Legal services	0	0
Securities brokerage	27	21
Securities issuance	10	6
Guarantees	12	12
Other	7	14
Total	128	131
Commission expenses		
Service fees paid	2	2
Securities brokerage and issuance	4	6
Refunds of fees for shares	0	4
Derivatives commissions to member cooperative banks	91	106
Other	13	11
Total	110	129

Note 5. Net income from securities and foreign exchange trading

Net income from securities and foreign exchange trading 2020

EUR million	Interest income and expenses	Capital gains and losses	Due to fair value changes	Other income	Total
Notes and bonds	0	-1	3		3
Shares and participations		1			1
Other		1	3		4
Derivative contracts	6		247	-158	95
Liabilities held for trading	0	0	0		0
Total net income from securities trading	6	0	253	-158	102
Net income from foreign exchange trading					39
Total net income from securities and foreign exchange trading					141

Net income from securities and foreign exchange trading 2019

EUR million	Interest income and expenses	Capital gains and losses	Due to fair value changes	Other income	Total
Notes and bonds	-23	1	1		-20
Shares and participations		2			2
Other		1	-4		-4
Derivative contracts	17		174	-67	125
Liabilities held for trading	0	0	0		0
Total net income from securities trading	-5	4	171	-67	103
Net income from foreign exchange trading					32
Total net income from securities and foreign exchange trading					135

Note 6. Net income from financial assets recognised at fair value through fair value reserve

EUR million	2020	2019
Notes and bonds		
Capital gains and losses	4	3
Transferred from fair value reserve during the financial year	2	4
Total	6	7
Total net income from financial assets recognised at fair value through fair value reserve	6	7

Note 7. Net income from hedge accounting

EUR million	2020	2019
Net income from hedging instruments	48	12
Net income from hedged items	-50	-11
Total	-2	1

Note 8. Other operating income

EUR million	2020	2019
Income from central banking services	8	5
Administrative services	4	1
Other	14	28
Total	27	34

Note 9. Depreciation/amortisation and write-downs on tangible and intangible assets

EUR million	2020	2019
Planned depreciation	13	13
Write-down		0
Total	13	14

Note 10. Other operating expenses

EUR million	2020	2019
Rental expenses	1	1
Expenses for property in own use	0	0
Charges of financial authorities	39	21
Other	11	22
Total	52	44

OP Financial Group's internal service charges have been transferred to other expenses.

Note 11. Expected credit losses on financial assets recognised at amortised cost, on off-balance-sheet commitments, and expected credit losses on other financial assets as well as impairment losses

31 Dec. 2020, EUR million	Gross	Reversals	Entered in income statement
Expected credit losses on financial assets recognised at amortised cost and on off-balance-sheet items			
Receivables from the public and public sector entities	-2	0	-2
Final loan losses	55		55
Recoveries of eliminated receivables	-1		-1
Total	53	0	53
Total expected credit losses and impairment losses	53	0	53

31 Dec. 2019, EUR million	Gross	Reversals	Entered in income statement
Expected credit losses on financial assets recognised at amortised cost and on off-balance-sheet items			
Receivables from the public and public sector entities	1	46	47
Final loan losses	4		4
Recoveries of eliminated receivables	-1		-1
Total	4	46	50
Total expected credit losses and impairment losses	4	46	50

Note 12. Income, operating profit or loss and assets and liabilities by Division

31 Dec. 2020, EUR million	Corporate customers	Other	Total
Income*	668	-37	631
Operating profit	286	-57	229
Assets	31,019	48,846	79,865
Liabilities	18,791	56,740	75,531
Personnel	676	39	715

31 Dec. 2019, EUR million	Corporate customers	Other	Total
Income*	645	-45	600
Operating profit	276	-66	210
Assets	30,549	34,703	65,252
Liabilities	17,252	43,922	61,158
Personnel	654	55	709

* Income consists of the following items in the income statement: interest income, income from equity investments, commissions and fees, net income from securities and foreign exchange trading, net income from available-for-sale assets, net income from hedge accounting, net income from investment property and other operating income.

Notes to the Balance Sheet

Note 13. Receivables from credit institutions

EUR million	31 Dec. 2020	31 Dec. 2019
Repayable on demand		
Deposits	11	887
Other	67	101
Total	78	987
Other than those repayable on demand		
From OP Financial Group institutions	9,594	5,556
Other	1,576	2,582
Total	11,170	8,139
Total receivables from credit institutions	11,248	9,126
of which subordinated receivables		

OP Corporate Bank plc has only receivables repayable on demand from central banks.

Note 14. Receivables from the public and public sector entities

EUR million	31 Dec. 2020	Loss allowance on 31 Dec. 2020	31 Dec. 2019	Loss allowance on 31 Dec. 2019
Receivables from the public and public sector entities by sector				
Non-banking corporate sector and housing corporations	15,020	-243	14,946	-262
Financial institutions and insurance companies	1,388	-1	814	0
Public sector entities	417	0	429	0
Non-profit organisations serving households	221	-1	325	-3
Households	2,365	-20	2,183	-12
Foreign	3,467	-7	3,552	-11
Total	22,878	-272	22,249	-288
of which subordinated receivables	11		11	

The balance-sheet item includes EUR 0.00 million in loans for which interest income is not recognised (0.00).

Doubtful receivables are presented in the Group's note “Receivables from credit institutions and customers, and doubtful receivables”.

Note 15. Asset leased out under finance leases

EUR million	31 Dec. 2020	31 Dec. 2019
Advance payments	6	37
Machinery and equipment	1,123	1,080
Real property and buildings	412	396
Other assets	43	41
Total	1,583	1,555

Note 16. Notes and bonds

Notes and bonds eligible for refinancing with central banks and other notes and bonds 31 December 2020

EUR million	Eligible for refinancing with central banks	Other notes and bonds	Total	Of which subordinated
Financial assets at fair value through profit or loss	57	346	403	13
Of which financial assets held for trading	57	346	403	13
Financial assets measured at fair value through other comprehensive income	12,903	735	13,639	
Carried at amortised cost	814		814	
Total	13,774	1,082	14,856	13

Notes and bonds eligible for refinancing with central banks and other notes and bonds 31 December 2019

EUR million	Eligible for refinancing with central banks	Other notes and bonds	Total	Of which subordinated
Financial assets at fair value through profit or loss	140	713	854	42
Of which financial assets held for trading	140	701	842	30
Financial assets measured at fair value through other comprehensive income	11,585	1,355	12,940	
Total	11,726	2,068	13,794	42

Publicly-quoted and other notes and bonds 31 December 2020

EUR million	Publicly quoted	Other	Total
Financial assets at fair value through profit or loss	139	264	403
Of which financial assets held for trading	139	264	403
Financial assets measured at fair value through other comprehensive income	13,541	98	13,639
Carried at amortised cost	814	0	814
Total	14,494	362	14,856

Publicly-quoted and other notes and bonds 31 December 2019

EUR million	Publicly quoted	Other	Total
Financial assets at fair value through profit or loss	335	519	854
Of which financial assets held for trading	323	519	842
Financial assets measured at fair value through other comprehensive income	12,181	759	12,940
Total	12,516	1,278	13,794

Notes and bonds by type, EUR million	31 Dec. 2020	Loss allowance on 31 Dec. 2020	31 Dec. 2019	Loss allowance on 31 Dec. 2019
Financial assets at fair value through profit or loss				
Local authority papers			57	
Commercial papers	231		412	
Certificates of deposit			10	
Other bonds	172		374	
Total	403		854	
Financial assets at fair value through other comprehensive income				
Local authority papers	5		588	
Certificates of deposit			0	
Other bonds	13,634	2	12,352	3
Total	13,639	2	12,940	3
Carried at amortised cost				
Other bonds	814			
Total	814			

By 31 December 2020, all OP Corporate Bank plc's notes and bonds accrued interest recognised in accounting.

Note 17. Loss allowance

	Receivables from customers and off-balance-sheet commitments			
EUR million	Stage 1 12 months	Stage 2 lifetime	Stage 3 lifetime	Total
Loss allowance on 1 January 2020	2	1		3
Transfers from Stage 1 to Stage 2	0	1		1
Increases due to origination and acquisit	0			0
Decreases due to derecognition	0	-1		-1
Changes in risk parameters	0			0
Changes due to update in the methodology for estimation	-1			-1
Total net result effect	-1	0		-1
Loss allowance on 31 Dec. 2020	2	1		2

	Receivables from customers and off-balance-sheet commitments			
EUR million	Stage 1 12 months	Stage 2 lifetime	Stage 3 lifetime	Total
Loss allowance on 1 January 2019	3	0		3
Transfers from Stage 1 to Stage 2	0	1		1
Transfers from Stage 2 to Stage 1	0	0		0
Increases due to origination and acquisition	0			0
Decreases due to derecognition	-1			-1
Changes in risk parameters	0			0
Changes due to update in the methodology for estimation	0			0
Total net result effect	0	1		0
Loss allowance on 31 Dec. 2019	2	1		3

Note 18. Shares and participations

31 Dec. 2020, EUR million	Publicly quoted	Other	Total
Shares and participations			
Financial assets at fair value through profit or loss	5	20	25
Of which financial assets held for trading	5	20	25
Financial assets measured at fair value through other comprehensive income		0	0
Shares and participations in Group companies		1,024	1,024
Total	5	1,044	1,050

31 Dec. 2019, EUR million	Publicly quoted	Other	Total
Shares and participations			
Financial assets at fair value through profit or loss		20	20
Of which financial assets held for trading		20	20
Financial assets measured at fair value through other comprehensive income		0	0
Shares and participations in Group companies		1,028	1,028
Total		1,048	1,048

EUR million	31 Dec. 2020	31 Dec. 2019
Shares and participations by sector		
Non-banking corporate sector and housing corporations	4	7
Financial institutions and insurance companies	1,023	1,021
Foreign entities	23	21
Total	1,050	1,048

Note 19. Derivative contracts

Derivative contracts for hedging purposes – fair value hedge in 2020

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Interest rate derivatives	**2,419**	**16,468**	**12,335**	**31,223**	**48**	**15**
Interest rate swaps	2,419	16,468	12,335	31,223	48	15
Currency derivatives	**593**	**1,366**	**404**	**2,363**	**117**	**115**
Interest rate and currency swaps	593	1,366	404	2,363	117	115

Derivative contracts for hedging purposes – cash flow hedge in 2019

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Currency derivatives	**6,535**	**22**		**6,557**	**45**	**65**
Forward exchange agreements	6,535	22		6,557	45	65

Derivative contracts held for trading in 2020

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Interest rate derivatives	**42,860**	**66,619**	**80,496**	**189,975**	**4,206**	**3,144**
Futures and forwards	2,502	563		3,065	0	0
Options	**15,750**	**21,133**	**19,516**	**56,399**	**1,015**	**798**
Called	7,448	12,583	12,391	32,421	851	236
Put	8,302	8,550	7,125	23,978	164	562
Interest rate swaps	24,608	44,923	60,980	130,511	3,191	2,346
Currency derivatives	**41,756**	**2,733**	**1,477**	**45,965**	**883**	**893**
Futures and forwards	38,158	515	5	38,679	439	446
Options	**525**	**6**		**531**	**5**	**4**
Called	261	3		264	4	1
Put	265	3		268	0	4
Interest rate and currency swaps	3,072	2,211	1,472	6,755	440	442
Equity derivatives	**62**	**433**	**11**	**506**	**48**	**20**
Options		**2**		**2**	**0**	
Called		2		2	0	
Other swap contracts	62	431	11	504	47	20
Other derivatives	**161**	**110**		**270**	**6**	**23**
Futures and forwards	12	3		15	0	4
Other swap contracts	59	25		83	4	4
Credit derivatives	90	82		172	1	15

The underlying value for interest rate derivative contracts is the nominal value, for currency derivative contracts the euro-denominated stated value of the purchased currency on the balance sheet date, and for equity derivative contracts the probable value of equities on the balance sheet date. The values are expressed in gross amounts. Accrued interest is presented in deferred income and deferred expenses.

Derivative contracts for hedging purposes – fair value hedge in 2019

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Interest rate derivatives	**4,577**	**13,388**	**11,158**	**29,123**	**56**	**48**
Interest rate swaps	4,577	13,388	11,158	29,123	56	48
Currency derivatives	**2,609**	**1,448**	**654**	**4,711**	**166**	**130**
Interest rate and currency swaps	2,609	1,448	654	4,711	166	130

Derivative contracts for hedging purposes – cash flow hedge in 2019

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Currency derivatives	**7,374**			**7,374**	**241**	**17**
Forward exchange agreements	7,374			7,374	241	17

Derivative contracts held for trading in 2019

	Nominal values/residual term to maturity				Fair values	
EUR million	<1 year	1–5 years	>5 years	Total	Positive	Negative
Interest rate derivatives	**43,982**	**73,862**	**74,087**	**191,930**	**3,515**	**2,836**
Futures and forward contracts	1,134	938		2,072	0	0
Options	**20,795**	**29,267**	**19,754**	**69,817**	**586**	**519**
Called	10,142	14,623	11,996	36,761	410	278
Put	10,653	14,644	7,758	33,056	176	240
Interest rate swaps	22,053	43,657	54,333	120,042	2,929	2,317
Currency derivatives	**35,349**	**5,506**	**1,760**	**42,615**	**801**	**779**
Futures and forwards	33,848	305	0	34,154	230	221
Options	**591**	**53**		**644**	**2**	**2**
Called	301	26		326	1	1
Put	291	27		318	1	1
Interest rate and currency swaps	909	5,149	1,760	7,818	606	603
Equity derivatives	**191**	**307**	**18**	**515**	**54**	**24**
Options	**1**	**2**		**2**	**0**	
Called	1	2		2	0	
Other swap contracts	190	306	18	514	54	24
Other derivatives	**214**	**191**	**0**	**405**	**18**	**18**
Futures and forwards	3	3		5	0	0
Other swap contracts	153	14		167	14	13
Credit derivatives	59	174	0	233	4	4

The underlying value for interest rate derivative contracts is the nominal value, for currency derivative contracts the euro-denominated stated value of the purchased currency on the balance sheet date, and for equity derivative contracts the probable value of equities on the balance sheet date. The values are expressed in gross amounts. Accrued intrest is presented in deferred income and deferred expenses.

Derivative contracts are presented in gross amounts in this note. Netting would reduce the credit equivalent of OP Corporate Bank plc's derivative contracts by EUR 6,094 million (6,934).

Note 20. Intangible assets and tangible assets and changes during the financial year

Intangible assets

EUR million	31 Dec. 2020	31 Dec. 2019
IT costs	22	27
Other intangible assets	2	7
Total	23	34

Tangible assets

		Investment property	
31 Dec. 2020, EUR million	In own use	Book value	Fair value
Property holdings			
Land and water	0	0	0
Shares and holdings in property companies	0	0	0
Total	0	0	0
Tangible assets		1	

		Investment property	
31 Dec. 2019, EUR million	In own use	Book value	Fair value
Property holdings			
Land and water	0	0	0
Shares and holdings in property companies	2	2	3
Total	2	2	3
Other tangible assets		2	

Changes in intangible and tangible assets during the financial year

EUR million	Goodwill	Other intangible assets	Investment property	Property in own use	Other tangible assets
Acquisition cost 1 January 2020	12	97	1	3	2
+ increases during the year		1			0
- decreases during the year			-1	-2	-1
- planned depreciation/amortisation		-12			0
-/+ impairment losses and their reversals			1		
- accumulated depreciation/amortisation 1 January	-12	-59		0	0
- accumulated impairment 1 January		-4	-1		
Book value 31 December 2020	0	23	0	0	1

EUR million	Goodwill	Other intangible assets	Investment property	Property in own use	Other tangible assets
Acquisition cost 1 January 2019	12	166	1	3	49
+ increases during the year		1		0	0
- decreases during the year		-70		0	-47
- planned depreciation/amortisation		-13		0	0
-/+ impairment losses and their reversals		0		0	
+ accumulated depreciation/amortisation and write-downs on adjustments and transfers 1 January		71			47
- accumulated depreciation/amortisation 1 January	-12	-117		-1	-48
- accumulated impairment 1 January		-4	-1	0	
Book value 31 December 2019	0	34	0	2	2

Note 21. Other assets

EUR million	31 Dec. 2020	31 Dec. 2019
Accounts receivable from securities	8	6
Payment transfer receivables	296	16
Derivative contracts	34	6
Margin receivables related to derivative contracts	15	1
Accounts receivable	6	7
Emissions allowances	18	3
Other	542	474
Total	919	514

"Other" under Other assets includes EUR 432 million (458) in CSA collateral receivables.

Note 22. Deferred income and advances paid

EUR million	31 Dec. 2020	31 Dec. 2019
Interest		
Interest receivables	165	125
Interest advances paid	0	0
Total	165	125
Other		
Other advances paid	1	1
Other deferred income	23	29
Total	24	30
Total deferred income and advances paid	189	155

Note 23. Deferred tax assets and liabilities

31 Dec. 2020, EUR million	Deferred tax assets	Deferred tax liabilities	Net
From timing differences	8	0	8
From other temporary differences		7	-7
Total	8	7	1

31 Dec. 2019, EUR million	Deferred tax assets	Deferred tax liabilities	Net
From timing differences	11	0	11
From other temporary differences	2	2	0
Total	13	2	11

Deferred tax assets and liabilities arising from other temporary differences comprise deferred tax assets and liabilities based on revaluations of available-for-sale financial assets recognised in the fair value reserve under equity and of derivatives designated as cash flow hedges.

Revaluations 31 December 2020

The balance sheet does not include any revaluation (-).

Appropriations

31 Dec. 2020, EUR million	Balance sheet value	Deferred tax liability	Net
Depreciation difference	303	61	243
Taxation-based provisions	1,322	264	1,058
Total	1,625	325	1,300

31 Dec. 2018, EUR million	Balance sheet value	Deferred tax liability	Net
Depreciation difference	276	55	220
Taxation-based provisions	1,195	239	956
Total	1,471	294	1,177

Depreciation difference and voluntary provisions have been entered in the balance sheet to the amount of non-deducted deferred tax.

Note 24. Debt securities issued to the public

EUR million	Book value 31 Dec. 2020	Nominal value 31 Dec. 2020	Book value 31 Dec. 2019	Nominal value 31 Dec. 2019
Certificates of deposit	273	273		
Bonds	14,383	14,130	13,144	13,150
Other	7,347	7,351	9,716	9,733
Total	22,003	21,754	22,860	22,883

Note 25. Other liabilities

EUR million	31 Dec. 2020	31 Dec. 2019
Payment transfer liabilities	809	805
Accounts payable on securities	8	12
Margin liabilities related to derivative contracts (CSA collateral liability)	420	707
Other	239	69
Total	1,475	1,593

Note 26. Statutory provisions

EUR million	Reorganisation	ECL	Total
1 Jan. 2020	1	16	17
Increase in provisions	-1	11	10
31 Dec. 2020	0	27	27

EUR million	Reorganisation	ECL	Total
1 Jan. 2019	2	4	6
Increase in provisions	-1	12	11
31 Dec. 2019	1	16	17

The reorganisation provision derives from expenses arising from personnel reduction.

Note 27. Deferred expenses and advances received

EUR million	31 Dec. 2020	31 Dec. 2019
Interest		
Interest liabilities	133	120
Interest advances received	15	4
Total	148	124
Other		
Other advance payments received	0	0
Vacation pay liabilities	8	8
Other deferred expenses	23	23
Total	31	31
Total deferred expenses and advances received	179	155

Note 28. Subordinated liabilities

EUR million	Book value 31 Dec. 2019	Nominal value 31 Dec. 2019	Book value 31 Dec. 2018	Nominal value 31 Dec. 2018
Subordinated loans	86	90	87	90
Debenture loans	2,223	2,196	1,252	1,209
Total	**2,309**	**2,286**	**1,339**	**1,299**

Perpetual loans and debentures

1. A debenture loan of CHF 100 million (euro equivalent 93 million), which is a ten-year bullet loan, will mature on 14 July 2021. The loan carries a fixed interest rate of 3.375% p.a.

2. A debenture loan of EUR 100 million, which is a ten-year bullet loan, will mature on 14 September 2021. The loan carries a fixed interest rate of 5.25% p.a.

3. A debenture loan of EUR 500 million, which is a 10-year bullet loan, will mature on 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.

4. Debenture loan of JPY 10 billion (euro equivalent 79 million), which is a ten-year bullet loan, will mature on 3 July 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to the JPY Libor + 0.735%.

5. Debenture loan of 100 million euros, which is a 10-year bullet loan, will mature on 25 September 2025. The loan carries a fixed interest rate of 2.405% p.a.

6. Debenture loan of SEK 3,250 million (euro equivalent 324 million), which is a ten-year non-call 5 loan. The loan may be called in on 3 June 2025, or on the interest payment date after this, will mature on 3 June 2030. Under the terms and conditions of the loan, the issuer will have the opportunity for early payment in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to Stibor + 2.30%.

7. Debenture loan of EUR 1 billion, which is a ten-year non-call 5 loan. The loan may be called in on 9 June 2025, 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. until 9 June 2025, after which a floating mid-swap rate + 2.00%.

Loans were issued in international capital markets.

In addition, OP Corporate Bank plc has issued a fixed debenture loan of EUR 0.8 million related to OP Financial Group management remuneration.

Subordinated loans

Subordinated loans included in Tier 1 capital

1) Subordinated loan 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 the interest due date as of 11 April 2010 at the earliest, subject to authorisation by the Financial Supervisory Authority. The loan's entire principal must be repaid in one instalment.

2) Subordinated loan of EUR 40 million
This perpetual loan carries a variable interest rate based on 3-month Euribor + 1.25% payable quarterly on 28 February, 30 May, 30 August and 30 November. If interest cannot be paid for a given interest period, the obligation to pay interest for the period in question will lapse. Subject to authorisation by the Financial Supervisory Authority, the loan may be called in on the due date of interest payment of 30 November 2010. The entire loan principal must be repaid in one instalment.

Loan 1 is included in hybrid instruments.

OP Corporate Bank plc has no violations 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 29. Shareholders' equity

EUR million	Shareholder´s equity 1 Jan. 2020	Increases	Decreases	Shareholder´s equity 31 Dec. 2020
Total shareholders' equity	2,623			2,853
Share capital	428			428
Share premium account	524			524
Other restricted reserves	160	26		186
Reserve fund	164			164
Fair value reserve	-4	26		22
Fair value measurement	-4	25		20
Cash flow hedge	0	2		2
Non-restricted funds	331			331
Reserve for invested non-restricted equity	308			308
Other funds	23			23
Retained earnings or losses after adjustments	1,180	144		1,324
Profit or loss for the financial year		60		60

Changes in fair value reserve

EUR million	At year-start 1 Jan. 2020	Increases	Decreases	At year-end 31 Dec. 2020
Notes and bonds	-4	32	7	20
Deferred tax	1	0	6	-5
Shares and participations	0	0	0	0
Deferred tax	0		0	
Other	0	2	0	2
Cash flow hedge	0	2		2
Deferred tax	0		0	0
Total	-4	34	8	22

EUR million	Shareholder´s equity 1 Jan 2019	Increases	Decreases	Shareholder´s equity 31 Dec. 2019
Total shareholders' equity	2,649			2,623
Share capital	428			428
Share premium account	524			524
Other restricted reserves	157		3	160
Reserve fund	164			164
Fair value reserve	-7		3	-4
Fair value measurement	-7		3	-4
Cash flow hedge	0		0	0
Non-restricted funds	331			331
Reserve for invested non-restricted equity	308			308
Other funds	23			23
Retained earnings or losses after adjustments	931	105		1,036
Profit or loss for the financial year		144		144

Changes in fair value reserve

EUR million	At year-start 1 Jan. 2019	Increases	Decreases	At year-end 31 Dec. 2019
Notes and bonds	-7	9	6	-4
Deferred tax	2		1	1
Shares and participations	0	0		0
Deferred tax				
Other	0	0	0	0
Cash flow hedge	0	0	0	0
Deferred tax	0	0		0
Total	-7	9	6	-4

Note 30. Restricted and non-restricted equity and distributable funds

EUR million	31 Dec. 2020	31 Dec. 2019
Shareholders' equity		
Restricted equity	1,138	1,111
Non-restricted equity	1,571	1,512
Total shareholders' equity	2,709	2,623

EUR million	31 Dec. 2020	31 Dec. 2019
Distributable funds		
Non-restricted equity	1,571	1,512
Capitalised development expenditure	-23	-34
Total distributable funds	1,548	1,477

Note 31. Financial assets and liabilities by residual term to maturity

31 Dec. 2020, EUR million	Less than 3 months	3–12 months	1–5 years	5–10 years	over 10 years
Notes and bonds eligible for refinancing with central banks	206	408	7,489	5,670	
Receivables from credit institutions	1,235	4,474	5,211	328	
Receivables from the public and public sector entities	5,113	3,051	12,502	1,373	840
Notes and bonds	204	90	576	212	
Total assets	6,758	8,023	25,778	7,583	840
Liabilities to credit institutions and central banks	8,332	653	12,896	7,007	
Liabilities to the public and public sector entities	15,376	553	421	53	
Debt securities issued to the public	4,060	5,981	8,946	2,767	250
Subordinated liabilities		283	2,026		
Total liabilities	27,767	7,470	24,289	9,827	250

31 Dec. 2019, EUR million	Less than 3 months	3–12 months	1–5 years	5–10 years	over 10 years
Notes and bonds eligible for refinancing with central banks	341	860	5,269	5,255	1
Receivables from credit institutions	3,666	2,346	3,043	70	
Receivables from the public and public sector entities	5,390	3,269	11,077	1,023	1,490
Notes and bonds	923	302	778	65	0
Total assets	10,320	6,777	20,167	6,413	1,491
Liabilities to credit institutions and central banks	2,496	567	5,937	6,334	
Liabilities to the public and public sector entities	15,290	171	121	431	
Debt securities issued to the public	7,502	5,511	7,440	2,076	330
Subordinated liabilities		375	781	182	
Total liabilities	25,289	6,625	14,280	9,023	330

Deposits other than fixed-term deposits are included in the maturity class 'less than 3 months'.

Note 32. Classification of assets and liabilities

31 Dec. 2020, EUR million	Amortised cost	At fair value through profit or loss*	Recognised at fair value through fair value reserve	Hedging derivatives	Carrying amount total
Cash and balances with central banks	21,764				21,764
Receivables from credit institutions and central banks	11,248				11,248
Derivative contracts		5,143		209	5,352
Receivables from customers	24,462				24,462
Notes and bonds	814	403	13,639		14,856
Shares and participations		25	1,024		1,050
Other receivables	1,134	0			1,134
Total assets	59,422	5,571	14,663	209	79,865

31 Dec. 2020, EUR million	At fair value through profit or loss*	Amortised cost	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		28,888		28,888
Financial liabilities held for trading (excl. derivatives)	0			0
Derivative contracts	4,079		195	4,274
Liabilities to customers		16,403		16,403
Debt instruments issued to the public		22,003		22,003
Subordinated liabilities		2,309		2,309
Other liabilities		3,280		3,280
Total liabilities	4,080	72,882	195	77,156

31 Dec. 2019, EUR million	Amortised cost	At fair value through profit or loss*	Available for sale	Hedging derivatives	Carrying amount total
Cash and balances with central banks	11,910				11,910
Receivables from credit institutions and central banks	9,126				9,126
Derivative contracts		4,384		468	4,852
Receivables from customers	23,804				23,804
Notes and bonds		854	12,940		13,794
Shares and participations		20	1,028		1,048
Other receivables	718	0			718
Total assets	45,558	5,258	13,968	468	65,252

31 Dec. 2019, EUR million	At fair value through profit or loss*	Amortised cost	Hedging derivatives	Carrying amount total
Liabilities to credit institutions		15,334		15,334
Financial liabilities held for trading (excl. derivatives)	12			12
Derivative conctracts	3,653		199	3,852
Liabilities to customers		16,013		16,013
Debt instruments issued to the public		22,860		22,860
Subordinated liabilities		1,339		1,339
Other liabilities		3,219		3,219
Total liabilities	3,665	58,764	199	62,629

* Items recognised at fair value through profit or loss include financial assets held for trading, which must be measured at fair value through profit or loss and investment property.

Debt securities issued to the public are carried at amortised cost. On 31 December 2020, the fair value of these debt instruments was EUR 303 million (232) 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 the amortised cost, but determining reliable fair values involves uncertainty.

Note 33. Financial instruments measured at fair value, grouped by valuation technique

Financial instruments measured at fair value in the balance sheet, 31 Dec. 2020, EUR million	Level 1	Level 2	Level 3	Total
Assets				
Recognised at fair value through profit or loss	61	132	235	428
Derivative contracts	0	5,291	61	5,352
Recognised at fair value through fair value reserve	12,075	2,305	283	14,663
Total assets	12,137	7,728	579	20,444
Liabilities				
Derivative contracts	0	4,232	42	4,274
Total liabilities	0	4,232	42	4,274

Financial instruments measured at fair value in the balance sheet, 31 Dec. 2019, EUR million	Level 1	Level 2	Level 3	Total
Assets				
Recognised at fair value through profit or loss	179	187	496	861
Derivative contracts	1	4,777	74	4,852
Financial assets measured at fair value through other comprehensive income	10,781	2,329	859	13,968
Total assets	10,960	7,293	1,428	19,681
Liabilities				
Derivative contracts	1	3,819	32	3,852
Total liabilities	1	3,819	32	3,852

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 exchange-traded derivatives. The fair value of these instruments is determined on the basis of 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. The fair value hierarchy level at OP Corporate Bank plc includes OTC derivatives, quoted debt instruments issued by issued by companies, governments and financial institutions which have not been included in Level 1, repo agreements, and securities lent or borrowed.

Level 3: Valuation techniques using unobservable inputs

Valuation techniques whose input parameters involve special 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. The Level 3 fair value is based on pricing information from a third party.

EUR million	31 Dec. 2020	31 Dec. 2019
Net income for the financial year from Level 3		
Realised net income	-575	696
Unrealised net income	-11	29
Total net income	-586	724

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 plc, 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 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 2020.

Note 34. Assets and liabilities denominated in euros and foreign currencies

			Of which	
31 Dec. 2020, EUR million	Euros	Foreign currencies	Subsidiaries	Associates
Receivables from credit institutions	11,175	73		
Receivables from the public and public sector entities	22,193	686	690	
Notes and bonds	14,511	345		
Derivative contracts	5,106	246	2	
Other assets	25,490	41	1,049	
Total assets	**78,475**	**1,391**	**1,741**	
Liabilities to credit institutions and central banks	28,672	216		
Liabilities to the public and public sector entities	15,250	1,153	653	0
Debt securities issued to the public	14,111	7,892	28	
Derivative contracts and liabilities held for trading	4,138	137	10	
Subordinated liabilities	1,814	495		
Other liabilities	1,625	29	1	
Total liabilities	**65,609**	**9,922**	**691**	**0**

			Of which	
31 Dec. 2019, EUR million	Euros	Foreign currencies	Subsidiaries	Associates
Receivables from credit institutions	8,992	134		
Receivables from the public and public sector entities	21,508	741	784	
Notes and bonds	13,458	336		
Derivative contracts	4,620	232	2	
Other assets	15,198	33	1,037	
Total assets	**63,777**	**1,475**	**1,824**	
Liabilities to credit institutions and central banks	14,899	434		
Liabilities to the public and public sector entities	15,430	584	646	0
Debt securities issued to the public	11,747	11,113	34	
Derivative contracts and liabilities held for trading	3,709	156	6	
Subordinated liabilities	830	509		
Other liabilities	1,745	3	0	
Total liabilities	**48,359**	**12,798**	**686**	**0**

Note 35. Variable remuneration

Personnel fund

OP Corporate Bank belongs to OP Financial Group's personnel fund. Payment of pfofit-based bonuses to OP Financial Group´s Personnel Fund in 2020 was based on the achievement of the following targets: Growth differential between OP Financial Group's income and expenses with a weight of 50% and the number of active mobile customers with a weight of 50%. Profit-based bonuses for 2020 transferred to the Fund account for some 2.0 % (2.3 %) of the combined salaries and wages earned by the Fund´s members. The bonuses recognised in 2020 totalled EUR 0.9 million (0.9).

Long-term remuneration schemes

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

Expenses for the long-term management remuneration schemes for 2014–2016 and 2017–2019 are recognised from the beginning of the performance period up to the date of payout (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses. No debt has been recognised under the schemes on 31 December 2020.

Performance-based bonus scheme in 2020

The performance-based bonus scheme's performance period is one calendar year, and the bonus is paid in cash. Performance-based bonuses are based on targets set by each company and entity, covering all personnel of OP Financial Group. The bonus is determined by the job grade and the maximum bonuses correspond to a 1–12-month annual salary.

Performance metrics of the performance-based bonus scheme in 2020:

A factor applies to the bonus created through the achievement of the targets achieved in the entity 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.

Determination and payout of performance-based bonuses in 2020:

Bonuses will be paid to their beneficiaries provided that OP Financial Group's CET1 ratio exceeds 14.5% and the LCR exceeds 110% in the financial statements preceding the year of the bonus payout date, and that the person within the scheme is employed by OP Financial Group up to the payout date.

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

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

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

Deferred payment of variable remuneration

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

The deferment of variable remuneration payment and variable bonuses paid in cash other than on a fifty-fifty basis apply to the identified staff of OP Financial Group or its company if their variable remuneration for a 12-month performance period exceeds EUR 50,000 – the maximum recommended by the Financial Supervisory Authority. The remuneration of the identified staff is reviewed up to the EUR 50,000 deferment limit as a whole, considering both long- and short-term remuneration. If the euro maximum for deferment is exceeded, some bonus will be paid immediately, while the rest is deferred. and the deferred bonus will be paid in equal instalments within the next three or five years. In such a deferment situation, half of the variable remuneration is paid in cash and half is tied to the value of the reference instrument decided by OP Cooperative's Supervisory Board or the Remuneration Committee appointed by the Supervisory Board. The bonus tied to the reference instrument will be paid to its beneficiary after a one-year retention period.

Expenses charged for variable remuneration *

EUR million	2020	2019
Personnel fund	1	1
Short-term schemes	7	5
Long-term schemes		
Scheme for 2014–2016	0	0
Scheme for 2017–2019	0	-1
Total	8	5

* Excluding social expenses

Note 36. Collateral given

EUR million	31 Dec. 2020	31 Dec. 2019
Given on behalf of own debts and commitments		
Other	9,658	3,493
Total assets pledged as collateral	9,658	3,493
Secured derivative liabilities	1,040	1,034
Other secured liabilities	8,008	2,029
Total secured liabilities*	9,048	3,063

* In addition, bonds with a book value of EUR 5.3 billion have been pledged in the central bank, of which EUR 1.5 billion in intraday settlement collateral. Given that the bonds are available for withdrawal without the central bank's advance premission, they are not presented in the table above.

Other collateral given on own behalf consists of collateral required for the maintenance of liquidity.

Note 37. Pension liabilities

EUR million	31 Dec. 2020	31 Dec. 2019
Direct liabilities from pension commitments	3	3

The employees' statutory pension cover has been managed through contributions to Ilmarinen Mutual Pension Insurance Company and supplementary pension cover through OP Bank Group Pension Foundation or insurance companies. Expenses arising from pension plans are recognised under Personnel costs in the income statement. Pension liabilities are fully covered.

Note 38. Finance lease and other lease liabilities

Material contract terms and conditions regarding termination and redemption

OP Corporate Bank plc has no significant lease or other rental liabilities. The contracts primarily cover personnel car leases with a maturity of three years.

Note 39. Off-balance-sheet commitments

EUR million	On behalf of subsidiaries	On behalf of affiliates	On behalf of others	Total
Off-balance-sheet commitments 31 December 2020			8,417	8,417
Commitments given to a third party on behalf of customers			2,558	2,558
Guarantees and pledges			2,331	
Other			227	
Irrevocable commitments given on behalf of customers			5,859	5,859
Loan commitments			5,364	
Other			496	

EUR million	On behalf of subsidiaries	On behalf of affiliates	On behalf of others	Total
Off-balance-sheet commitments 31 December 2019			8,767	8,767
Commitments given to a third party on behalf of customers			3,123	3,123
Guarantees and pledges			2,808	
Other			315	
Irrevocable commitments given on behalf of customers			5,644	5,644
Loan commitments			5,146	
Other			498	

Note 40. Other contingent liabilities and commitments at the year-end

On 31 December 2020, OP Corporate Bank plc's commitments to private equity funds amounted to EUR 3.6 (4.3) million and relate to those presented in Note 39.

Client assets related to brokerage amounted to EUR 0.00 (-0.4) million included in 'Liabilities to the public and public sector entities'.

Accounts payable related to brokerage totalled EUR 54.9 (91.2) million and accounts receivable EUR 54.9 (90.9) million.

Note 41. Personnel and members of administrative bodies, and related parties

Average personnel in 2020	Average no.	Change during the year
Permanent full-time personnel	659	11
Permanent part-time personnel	18	-1
Fixed-term personnel	57	-4
Total	**734**	**6**

Remuneration paid to members of administrative bodies in 2020	Wages and salaries, EUR million
Members of the Board of Directors, President and CEO, and Deputy CEO	
Katja Keitaanniemi	1
	1

In 2020, the members of the Board of Directors did not receive from OP Corporate Bank Group subsidiaries any monthly fees or attendance allowances or share-based bonuses.

Salaries and bonuses paid to President and CEO Katja Keitaanniemi in the financial year 2020 EUR 508,883.

The period of notice applicable under the President and CEO's executive contract is six months. According to this contract, the company must pay the President and CEO severance pay equalling his/her 6-month total salary, in addition to compensation for loss of office, if the company dismisses him/her or he/she has to resign or terminate the contract due to a reason attributable to the company. In case the executive contract terminates due to reasons attributable to the company, the President and CEO will be entitled to bonuses under the short- and long-term remuneration schemes for the year of contract termination, provided that the schemes' performance criteria and the criteria for payment under the schemes' terms and conditions are fulfilled. Based on the decision by the company's Board of Directors, OP Corporate Bank adheres to OP Financial Group's long-term management remuneration scheme. OP Financial Group's shared management incentive scheme consists of consecutive three-year performance periods. The President and CEO and other persons confirmed by the Board of Directors are included in the scheme. Bonuses under the scheme for 2017–2019 will be paid between 2020 and 2023.

The President and CEO is covered by TyEL (the Finnish Employees Pensions Act) which provides pension benefits based on the years of employment and earnings as prescribed in the Act. The retirement age is 63–68 years, depending on his choice. A retirement age of 63 years applies to the President and CEO under the executive contract. The supplementary pension plan for the President and CEO has been arranged through OP Life Assurance Company Ltd. No pension obligations apply to Board members. This also applies to former Board members.

Loans, guarantees and collateral granted to members of the administrative bodies on 31 December 2020

As at 31 December 2020 and 31 December 2019, OP Corporate Bank plc had not granted loans or guarantees to members of the Board of Directors.

Pension commitments

Members of the administrative and supervisory bodies are not covered by any pension commitments. Furthermore, no pension commitments have been made for previous members of these bodies.

Auditors' remuneration, EUR	2020	2019
Audit	274,039	178,060
Other audit opinions	982	1,240
Tax counsultation	70,099	152,270
Other services	242,319	177,410
Total	**587,439**	**508,980**

Related parties

The company's related parties comprise subsidiaries consolidated into OP Cooperative Consolidated, associates, key management personnel and their close family members, and other related-party entities. The company's key management personnel comprises the President and CEO, Deputy President and CEO and other members of senior management as well as members of the Board of Directors. Related parties also include companies over which key management persons or their close family member, either alone or together with another person, exercises significant influence. Other entities regarded as related parties include OP Bank Group Pension Fund and OP Bank Group Pension Foundation. Related parties have been defined in accordance with IAS 24. Related party transactions consist of paid salaries and fees as well as ordinary business transactions.

Transactions based on ownership, EUR million	2020	2019
Loans and other receivables	0	0
Deposits and other debts	-519	-427
Net interest income	2	-1
Dividend income	0	0
Net commissions and fees	0	0
Net other operating income	-30	16

No significant expected credit losses have been recognised on the items.

Note 42. Holdings in other companies

Subsidiaries, 31 December 2020	Holding, %	Equity capital	Profit or loss for the financial year
Pohjola Insurance Ltd Helsinki	100	802	201
Pohjola Hospital Ltd. Helsinki	100	-11	-10
OP Custody Ltd. Helsinki	100	6	3
OP Finance AS Estonia	100	13	2
OP Finance SIA Latvia	100	17	3
UAB OP Finance Lithuania	100	25	6

Participating interests, 31 December 2020	Holding, %	Equity capital	Profit or loss for the financial year
Finnmezzanine Rahasto III B Ky Helsinki	49.49	0	-1

Associate's data as per 31 December 2020. OP Corporate Bank plc has no shareholdings in companies in which it would have unlimited liability.

Note 43. Information by country

OP Corporate Bank plc operates mainly in Finland. OP Corporate Bank plc has branches engaged in banking in Estonia, Latvia and Lithuania. In addition, it has subsidiaries in Estonia, Latvia and Lithuania engaged in finance-company operations. In Estonia OP Insurance Ltd has a non-life insurance subsidiary with a branch in both Latvia and Lithuania.

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

				31 Dec. 2020
Financial information, 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**

				31 Dec. 2019
Financial information, EUR million	Estonia	Latvia	Lithuania	Total
Total operating income	13	14	21	**47**
Total EBIT	3	4	13	**20**
Total current tax	0	0	2	**2**
Total personnel in man-years	35	27	38	**100**

Note 44. Trustee Services

OP Corporate Bank plc provides the general public with investment services. OP Corporate Bank plc provides the general public with investment services. On November 2019, the securities custody business transferred from OP Corporate Bank to OP Custody when OP Corporate Bank custody clients and their custodies transferred to OP Custody. OP Custody Ltd is a company owned by OP Corporate Bank plc, and the company has an investment firm and custodian licence. OP Corporate Bank plc holds no assets based on discretionary investment management or on another agreement.

Notes concerning an entity under the Group's control

OP Corporate Bank plc's parent company is OP Cooperative and OP Corporate Bank Group's consolidated accounts are included in its consolidated financial statements. Copies of the financial statements of OP Cooperative are available at the following address: Gebhardinaukio 1, FI-00510 Helsinki, Finland.

The accounts of OP Corporate Bank plc are consolidated into those of OP Corporate Bank Group. Copies of OP Corporate Bank Group's consolidated financial statements are available at www.op.com or the company's registered office, Gebhardinaukio 1, FI-00510 Helsinki, Finland.

Signatures for the Financial Statements and Report by the Board of Directors

Helsinki, 10 February 2021

Timo Ritakallio
Chair of the Board of Directors

Vesa Aho

Olli-Pekka Saario

Pasi Sorri

Jarmo Viitanen

Katja Keitaanniemi
CEO

Auditors' note

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

Helsinki, 18 February 2021

KPMG Oy Ab
Audit firm

Juha-Pekka Mylén
Authorised Public Accountant

This document is an English translation of the Finnish auditor's report. Only the Finnish version of the report is legally binding.

Auditor's Report

To the Annual General Meeting of OP Corporate Bank plc

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of OP Corporate Bank Plc (business identity code 0199920-7) for the year ended on 31 December 2020. The financial statements comprise the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, cash flow statement and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, cash flow statement and notes.

In our opinion

— the consolidated financial statements give a true and fair view of the group's financial position, financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU

— the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Board of Directors.

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 the parent company and of the group companies 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 the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 11 to the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. The significant risks of material misstatement referred to in the EU Regulation No 537/2014 point (c) of Article 10(2) are included in the description of key audit matters below.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

THE KEY AUDIT MATTER	HOW THE MATTER WAS ADDRESSED IN THE AUDIT
Measurement of receivables from customers (notes 1, 3, 12, 18 and 38 to the consolidated financial statements)	
— Receivables from customers, totalling EUR 24.5 billion, are the most significant item on OP Corporate Bank's consolidated balance sheet representing 29 percent of the total assets. — Calculation of expected credit losses in accordance with IFRS 9 Financial Instruments involves assumptions, estimates and management judgement, for example, in respect of determining the probability and amount of expected credit losses as well as the significant increases in credit risk. — The coronavirus pandemic (COVID-19) has affected OP Corporate Bank's business environment, level of credit risks and elements of accounting for expected credit losses in 2020. — The elements of accounting for expected credit losses are updated and defined, based on materialised credit risk developments, validation and improvement of the accounting process as well as on regulations and changes therein. In 2020 OP Corporate Bank adopted the new definition of default.	— We evaluated compliance with the lending instructions and assessed principles and controls over recognition and monitoring of loan receivables. We utilised data analysis in our audit focusing on the lending process and loan portfolios. — We assessed the methods and the key assumptions for calculating expected credit losses as well as tested the controls related to the calculation process and credit risk models for the expected credit losses. — We assessed impacts of the COVID-19 pandemic on the credit risk position and accounting for expected credit losses, the key focus areas being changes in macroeconomic parameters as well as in loan modifications and repayment holidays granted. In respect of the new definition of default we considered the appropriateness of the adoption. — Our IFRS and financial instruments specialists were involved in the audit. — Furthermore, we considered the appropriateness of the notes provided by OP Corporate Bank in respect of receivables and expected credit losses.

— 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.

Measurement of investment assets and derivative contracts (notes 1, 3, 7, 17, 19, 27 and 38 to the financial statements)

— The carrying value of investment assets totals EUR 18.4 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are EUR 5.4 billion and derivative liabilities EUR 4.3 billion comprising contracts held for trading and hedging purposes. Derivatives are measured at fair value in preparing financial statements.

— The fair value of financial instruments is determined using either prices quoted in an active market or OP Corporate Bank's own valuation techniques where no active market exists. Determining fair values for investments and derivatives involves management judgements, especially in respect of those instruments for which market-based data is not available. Fair values of private equity funds and properties may also involve time delay.

— In 2020, the COVID-19 pandemic has increased uncertainty in the capital market, affected market valuations of investments and amount of investment income. The prevailing market situation may increase risk and uncertainty related to fair value measurement of various unlisted investments.

— Due to the significant balances associated with investment assets and derivative positions involved, and management judgement related to the measurement of illiquid investments, valuation of these assets is addressed as a key audit matter.

— We evaluated the appropriateness of the accounting principles applied and the valuation techniques used by OP Corporate Bank, and tested accounting for and valuation of investment assets and derivative contracts by using data analyses, among other things.

— In respect of derivative contracts, we considered the appropriateness of the accounting treatment 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 assessed the impairment principles applied and techniques used by OP Corporate Bank in respect of investments.

— Due to the COVID-19 pandemic in audit of investment assets procedures focused particularly on measurement of properties and unlisted investments.

— Finally, we considered the appropriateness of the notes on investment assets and derivative contracts.

Insurance liabilities (notes 1, 5 and 29 to the financial statements)

- Measurement of insurance liabilities, amounting to EUR 3.3 billion on OP Corporate Bank's consolidated balance sheet, is based on various actuarial assumptions and calculation methods.
- The COVID-19 pandemic has affected the amount of claims incurred for non-life insurance and elements of accounting for the insurance liabilities in 2020.
- Calculation of insurance liabilities relies on data processed in many IT systems and combination of that data. The databases are extensive and data volumes processed by the IT systems are substantial.
- Interest rate risk associated with insurance liabilities is hedged with derivatives and interest rate instruments, which are measured at fair value in the financial statements.
- Due to the significant carrying value of insurance liabilities involved, and the complexity associated with actuarial models used, insurance liabilities are addressed as a key audit matter.

- Our audit procedures included assessment of the principles related to calculation and recognition of insurance liabilities. Our actuary specialist evaluated the appropriateness of the assumptions and methods used in determining insurance liabilities, and considered impacts of the COVID-19 pandemic on the accounting for insurance liabilities.
- We assessed internal control processes for insurance liability and the accuracy of underlying source data, as well as interconnections between the insurance liability accounting and financial reporting.
- We analysed the hedging principles of interest rate risk for insurance liabilities and the appropriateness of the accounting treatment of hedging derivative instruments. Moreover, we assessed the accounting treatment of both the decrease made in the discount rate in the nonlife insurance company during the financial year and changes in value of the related hedging derivatives.
- Furthermore, we considered the appropriateness of the notes on insurance liabilities.

Control environment relating to financial reporting process and IT systems

- OP Corporate Bank has outsourced a significant part of its financial reporting process and information systems to the parent company OP Cooperative and its subsidiaries.
- In respect of the accuracy of the consolidated financial statements of OP Corporate Bank, the key reporting processes are dependent on information

- 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,

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 financial statements of OP Corporate Bank are based on a large number of data flows from numerous systems, the financial reporting IT environment is addressed as a key audit matter.

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, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland 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 the parent company's and the 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 the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the 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 the parent company's or the 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 the parent company or the 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 the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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 Annual General Meeting in 2002, and our appointment represents a total period of uninterrupted engagement of 19 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. Our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement of the report of the Board of Directors, we are required to report that fact. We have nothing to report in this regard.

Helsinki, 18 February 2021

KPMG OY AB

JUHA-PEKKA MYLÉN
Authorised Public Accountant, KHT