# OP Corporate Bank plc Report by the Board of Directors and Financial Statements 2018

OP

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# Report by the Board of Directors for 2018

| Earnings before tax Q1–4/2018 | Net interest income Q1–4/2018 | Net insurance income Q1–4/2018 | CET1 ratio 31 Dec. 2018 |
|---|---|---|---|
| €439 million | +2% | +19% | 15.1% |

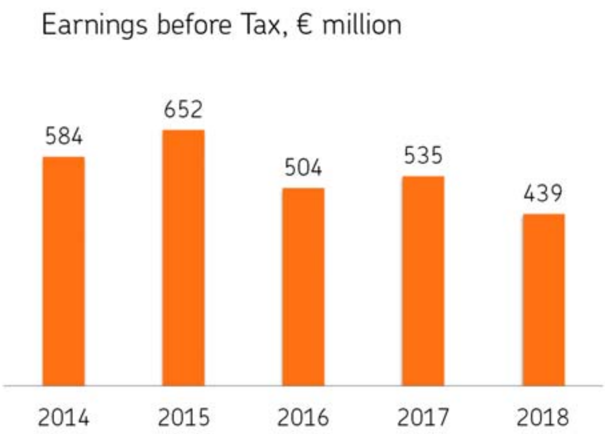
- Consolidated earnings before tax were EUR 439 million (535). Return on equity was 8.5% (10.6). Return on assets was 0.54% (0.67).
- Net interest income rose by 2% to EUR 264 million and net insurance income by 19% to EUR 548 million, comparable change being –2%. Investment income fell by 46% to EUR 210 million.
- Expenses grew by 8% to EUR 611 million. OP Financial Group transferred the management of the majority of the personnel's statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company at the end of 2018. The transfer reduced OP Corporate Bank's pension costs and improved earnings before tax by EUR 34 million while improving its capital adequacy ratio by 0.1 percentage point.
- Impairment losses on receivables remained low, totalling EUR 13 million (12).
- The CET1 ratio was 15.1% (16.0), while the target is 15%.
- Banking earnings before tax increased by 3% to EUR 354 million. The loan portfolio increased by 11% to EUR 22.3 billion. The cost/income ratio was 31.6% (31.4).
- Non-life Insurance earnings before tax decreased by 41% to EUR 114 million due to a 174-million euro reduction in net investment income. The reduction in the discount rate for insurance liability increased claims incurred by EUR 102 million a year ago. The operating combined ratio was 92.0% (96.1).
- Other Operations earnings before tax were EUR –30 million (–2) due to lower net investment income. Liquidity and access to funding remained good.
- In 2019, the quality of the loan portfolio and demand for loans are expected to remain good and Non-life Insurance premium revenue is expected to remain at a healthy level. Estimates for full-year 2019 earnings will only be provided at the OP Financial Group level, in its financial statement bulletin and interim reports.

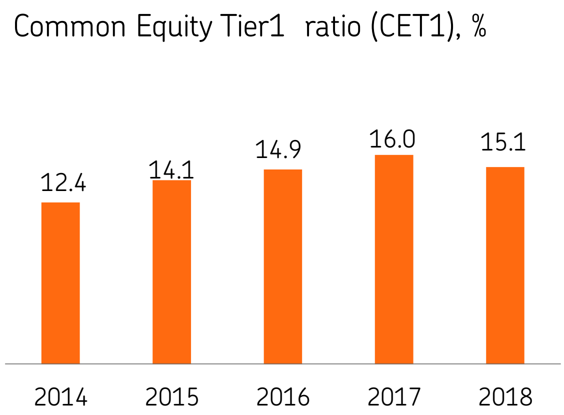
| Earnings before tax, € million | Q1–4/2018 | Q1–4/2017 | Change, % |
|---|---|---|---|
| Banking | 354 | 344 | 3.0 |
| Non-life Insurance | 114 | 193 | -40.7 |
| Other Operations | -30 | -2 | |
| Group total | 439 | 535 | -17.9 |
| Return on equity (ROE), % | 8.5 | 10.6 | -2.0* |
| Return on assets (ROA), % | 0.54 | 0.67 | -0.1* |

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

| Financial targets | 31 Dec. 2018 | 31 Dec. 2017 | Target |
|---|---|---|---|
| Customer experience, NPS (-100–+100) | 71 | 69 | 70 |
| CET1 ratio, % | 15.1 | 16.0 | 15 |
| Return on economic capital, % | 14.4 | 17.8 | 22 |
| Expenses of present-day business (12-month rolling)*, € million | 593 | 534 | Expenses in 2020 lower than in 2015 (475) |
| Dividend payout ratio, % | 49.9 | 49.7 | 50 |

*Excluding expenses of the health and wellbeing business and EUR 34 million recognised in earnings relating to the transfer of the management of statutory earnings-related pension insurance and the related portfolio.



## Operating environment

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

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

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

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

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

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

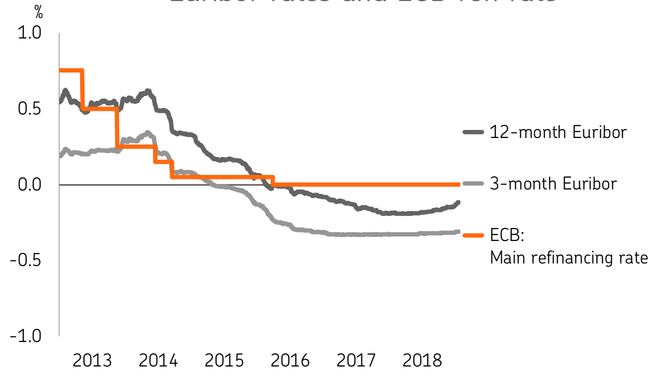
Total household loans grew by 2.2% in 2018. Home loans drawn down increased by 1.7% and a decrease in the borrowing rate for new home loans drawn down came to a halt towards the end of the year. The annual growth rate in corporate and housing company loans sped up, standing at 7.5% in December. The banking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

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

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

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

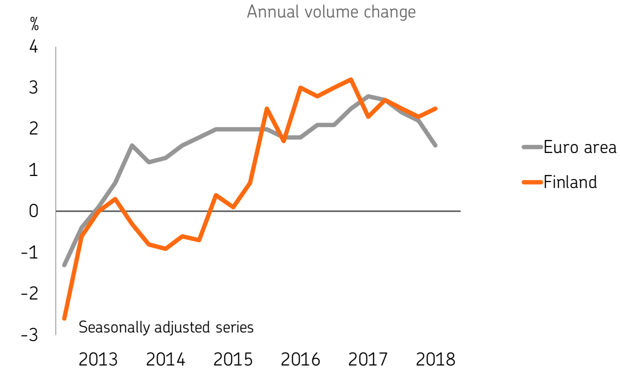
Euribor rates and ECB refi rate




Source: Bank of Finland

GDP

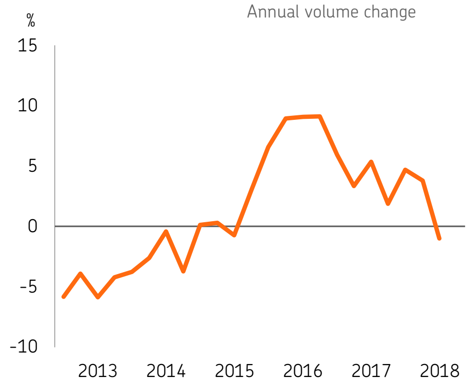
Annual volume change




Sources: Eurostat, Statistics Finland

Fixed investments in Finland

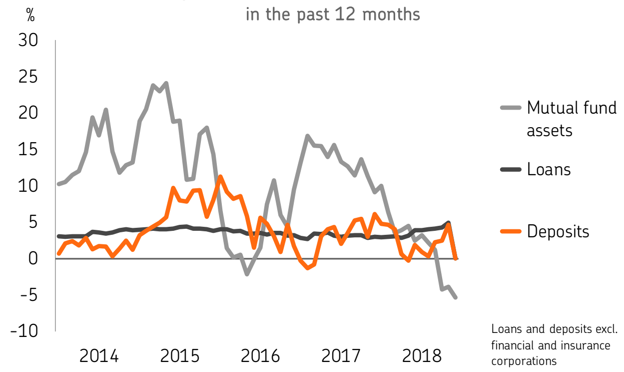
Annual volume change




Source: Statistics Finland

Change in financial sector volumes

in the past 12 months




Sources: Bank of Finland, Investment Research Finland

## Consolidated earnings

| € million | Q1–4/ 2018 | Q1–4/ 2017* | Change, % |
|---|---|---|---|
| Net interest income | 264 | 259 | 1.8 |
| Net insurance income | 548 | 459 | 19.4 |
| Net commissions and fees | -23 | -17 | 34.2 |
| Net investment income | 210 | 390 | -46.1 |
| Other operating income | 47 | 26 | 81.4 |
| Total income | 1,046 | 1 117 | -6.3 |
| Personnel costs (excl. transfer of earnings-related pension liability) | 193 | 164 | 18.0 |
| Transfer of statutory earnings-related pension liability | -34 | | |
| Depreciation/amortisation and impairment loss | 83 | 64 | 29.0 |
| Other operating expenses | 369 | 339 | 8.6 |
| Total expenses | 611 | 568 | 7.6 |
| Impairment loss on receivables | -13 | -12 | 2.9 |
| OP bonuses to owner-customers | -2 | -2 | 3.0 |
| Temporary exemption (overlay approach) | 19 | | |
| Total earnings before tax | 439 | 535 | -17.9 |

* Following the adoption of IFRS 15, comparatives for 2017 have been changed as described in Note 3 Accounting policies.

### January–December

Consolidated earnings before tax were EUR 439 million (535). Total income was reduced by lower net investment income from Non-life Insurance and lower income from derivatives operations. Net interest income and net insurance income increased year on year. Other operating income was increased by a capital gain on the sale of the Baltic non-life insurance business. Total expenses were increased by charges of financial authorities and ICT costs. Transferring the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company improved earnings before tax. Impairment losses were still low.

Net interest income rose to EUR 264 million (259). Derivatives operations increased net interest income in the Other Operations segment but decreased net interest income in Banking. The Banking loan portfolio increased by 11%. Net insurance income rose to EUR 548 million (459). Insurance premium revenue increased by 2.4%. A year ago, the reduction in the discount rate of insurance liability reduced net insurance income by EUR 102 million. Claims incurred, excluding the reduction in the discount rate in 2017, increased by 5.4%. The comparable change in net insurance income was –2%.

Net commissions and fees totalled EUR –23 million (–17). Commission income rose by 1.5%, due to higher income from health and wellbeing services, and income from lending than a year ago. Commission expenses rose by 4.6%. The fees OP Corporate Bank Group pays to member cooperative banks for non-life insurance and derivatives sales increase commission expenses and turn net commissions and fees negative. Fees paid for derivative products to member banks grew year on year. Excluding fees paid to member banks, commission expenses decreased year on year due to lower expenses of the payment transfer services and securities brokerage.

Net investment income totalled EUR 210 million (390). The overlay approach is applied to some equity instruments of Non-life Insurance, which improved earnings for the financial year by EUR 19 million. Changes in the fair value of investments within the scope of the overlay approach are presented under fair value reserve under equity. In total, net investment income fell by EUR 161 million. Return on investments by Non-life Insurance at fair value was 0.1% (3.5).

Net income from financial assets recognised at fair value through profit or loss totalled EUR 167 million (220) and net income from financial assets recognised at fair value through other comprehensive income totalled EUR 65 million (196). Net investment income included EUR 138 million (207) from derivatives operations. Capital gains and changes in the fair value of investments recognised through profit or loss totalled EUR 50 million (150). Dividend income and share of profits amounted to EUR 36 million (50).

Other operating income increased to EUR 47 million (26). In the financial year, a total of EUR 16 million was recognised as capital gain on the sale of the Baltic non-life insurance business.

Total expenses increased by 7.6% to EUR 611 million (568). Personnel costs, excluding the transfer of earnings-related pension insurance, were up by EUR 30 million over the previous year. In the financial year, the management of statutory earnings-related pension insurance and the related portfolio was transferred to Ilmarinen Mutual Pension Insurance Company, which improved earnings before tax by EUR 34 million. Depreciation/amortisation was increased mainly by a 16-million euro increase in impairment losses related to ICT investments. Other operating expenses were increased by a 19-million euro rise in ICT costs and EUR 23 million in charges of financial authorities. On the other hand, administrative expenses fell by EUR 11 million. Development mostly concerned the present-day business. In January–December, development expenditure totalled EUR 97 million (98). It includes licence fees, purchased services, other external costs related to projects and in-house work. The capitalised development expenditure totalled EUR 34 million (46).

Net impairment losses on receivables totalled EUR 13 million (12). Realised and expected credit losses on loans came to EUR 13 million (13). Impairment losses on on-balance-sheet items recognised at fair value through other comprehensive income and on off-balance sheet commitments were not significant. Considering that impairment losses on receivables are calculated in 2018 based on IFRS 9, they are not comparable with those calculated under the previous IAS 39.

## 2018 highlights

### Changes in senior management

Reijo Karhinen, OP Financial Group's President and Executive Chairman and Chair of the Board of Directors of OP Corporate Bank plc, retired on 31 January 2018, based on his executive contract. On 20 September 2017, the Supervisory Board of OP Financial Group's central cooperative appointed Timo Ritakallio, LL.M, MBA and D.Sc. (Tech.), OP Financial Group's new President and Group Executive Chair as of 1 March 2018. Following the appointment, Ritakallio also became Chair of the Board of Directors of OP Corporate Bank plc. Previously he was CEO of Ilmarinen Mutual Pension Insurance Company. From 1 to 28 February 2018, the Board of Directors was chaired by Tony Vepsäläinen, Executive Vice President, Operations, OP Financial Group.

Jouko Pölönen acted as OP Corporate Bank's President and CEO until 30 April 2018. Katja Keitaanniemi, Lic.Sc. (Tech.), was appointed OP Corporate Bank's new President and CEO as of 6 August 2018. She moved to OP Financial Group from Finnvera where she acted as Executive Vice President, SMEs. Senior Vice President Hannu Jaatinen was OP Corporate Bank's acting President and CEO until the arrival of the new President and CEO, and was appointed deputy President and CEO as of 6 August 2018.

Jari Himanen, member of the Board of Directors since 2016, resigned from membership of OP Corporate Bank's Board of Directors on 6 May 2018 in order to take up his duties as Managing Director of OP Suur-Savo.

Tiia Tuovinen, Master of Laws, LL.M.Eur., heading OP Financial Group's Legal Services and Compliance, was appointed member of the Board of Directors as of 2 July 2018.

Harri Luhtala, member of the Board of Directors since 2014, resigned from membership of OP Corporate Bank's Board of Directors on 31 October 2018.

As of 1 November 2018, the Board of Directors of OP Corporate Bank plc consists of the chair and four other members instead of three members as before. Vesa Aho, M.Sc. (Econ. & Bus. Adm.), and Jarmo Viitanen, M.Sc. (Agr. & For.), eMBA, were appointed new members of the Board of Directors as of 1 November 2018. Timo Ritakallio will continue to chair the Board of Directors and Tony Vepsäläinen and Tiia Tuovinen will remain its members.

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

Statutory earnings-related pension cover for OP Corporate Bank's and OP Financial Group's personnel has previously been arranged through OP Bank Group Pension Fund. On 31 July 2018, the representative assembly of OP Bank Group Pension Fund decided to transfer the management of the pension liability worth EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transferred solvency capital totalled EUR 263 million. The insurance portfolio concerned accounted for some 90.8% of OP Bank Group Pension Fund's total pension liability. The transfer was executed on 31 December 2018. Based on the initial plan, the remaining pension liability would be transferred to Ilmarinen at a later date, but no earlier than at the end of 2020. The remaining portion mainly consists of OP Insurance's pension liabilities transferred on 31 December 2015 from Ilmarinen Mutual Pension Insurance Company to OP Bank Group Pension Fund.

The transfer improved OP Corporate Bank's CET1 ratio by 0.1 percentage point. It also increased OP Corporate Bank Group's earnings before tax by EUR 34 million.

### OP Corporate Bank to reform its operations

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

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

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

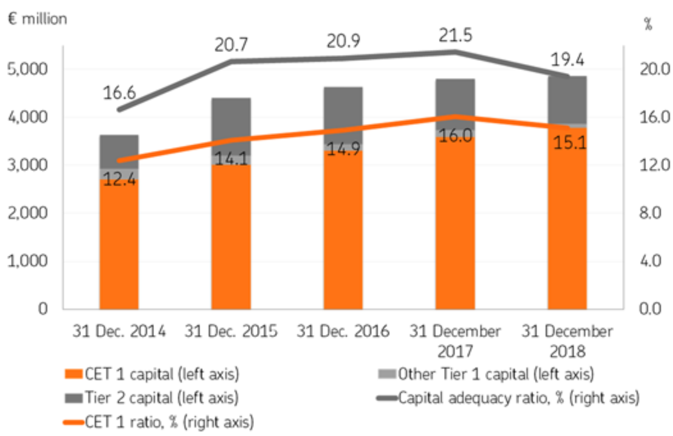
The agile practices will be phased in at OP Financial Group's central cooperative. The implementation of the new operating model began with reorganisation. The related Information and Consultation of Employees process started in the central cooperative consolidated on 1 October 2018 and ended on 13 November 2018. The process also applied to OP Corporate Bank Group. The new organisation took effect on 1 January 2019. Developing the operating model and planning the change will continue in spring 2019. The organisational changes are a part of OP Financial Group's 100-million euro cost savings programme.

### Adopting the Pohjola brand in non-life insurance business

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

## Group's capital adequacy and capital base

Capital base and capital adequacy




### Capital adequacy for credit institutions

The Group's CET1 ratio was 15.1% (16.0) on 31 December 2018. The Group's CET1 target is 15%.

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%.

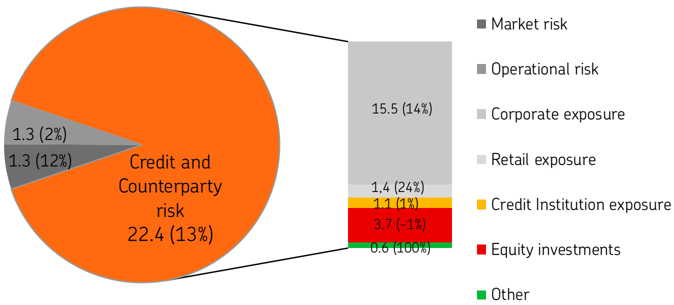
The CET1 capital totalled EUR 3.8 billion (3.6) on 31 December 2018. The increase was due to earnings, non-life insurance companies' dividends and the transfer of the statutory earnings-related pension liability.

On 31 December 2018, the risk exposure amount (REA) totalled EUR 25.0 billion (22.3), or 11.9% higher than on 31 December 2017. The average credit risk weights rose slightly. The central cooperative consolidated treats insurance holdings within the financial and insurance conglomerate as risk-weighted assets, based on permission from the European Central Bank (ECB). Equity investments include EUR 3.7 billion in risk-weighted assets of OP Corporate Bank Group's internal insurance holdings with a risk weight of around 280%.

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

The Financial Supervisory Authority makes a macroprudential policy decision on a quarterly basis. In December 2018, the Financial Supervisory Authority reiterated its decision not to impose a countercyclical capital buffer requirement on banks.

Risk Exposure Amount 31 December 2018
Total 25.0 € billion
(change from year end 12%)




### Liabilities under the Resolution Act

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

### Solvency of non-life insurance companies

Non-life insurance capital base was decreased by non-life insurance companies' interim dividends. The solvency position was improved by a decrease in the solvency requirement.

| € million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Capital base, € million* | 818 | 902 |
| Solvency capital requirement (SCR), € million* | 621 | 666 |
| Solvency ratio, %* | 132 | 135 |
| Solvency ratio, % (excluding transitional provision) | 132 | 135 |

*including transitional provisions.

## Credit ratings

### OP Corporate Bank plc's credit ratings on 31 December 2018

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

### OP Insurance Ltd's financial strength ratings on 31 December 2018

| Rating agency | Rating | Outlook |
|---|---|---|
| Standard & Poor's | A+ | Stable |
| Moody's | A3 | Stable |

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

The ratings of OP Corporate Bank plc and OP Insurance Ltd did not change during the financial year.

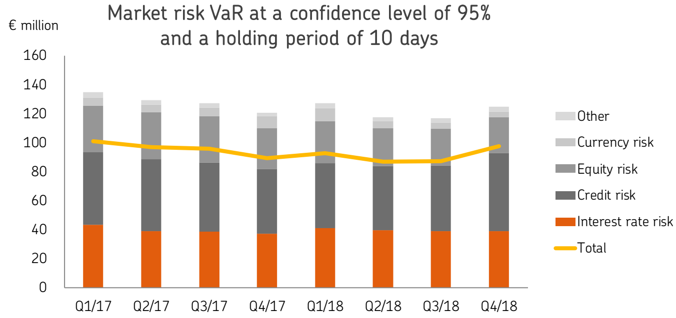
In December 2018, Moody's affirmed OP Corporate Bank plc's credit ratings for short-term and long-term debt and kept the rating outlook stable.

In July 2018, Standard & Poor's affirmed OP Corporate Bank plc's credit ratings for short-term and long-term debt as well as OP Insurance Ltd's financial strength rating, and kept the outlook for both companies stable.

## Group risk exposure

The Group's funding and liquidity position is good. The availability of funding has remained good.

The Group's market risk exposure was stable during the financial year. The Value-at-Risk (VaR) metric, a measure of market risks, was EUR 98 million (89) on 31 December 2018. VaR includes the non-life insurance company's total assets, trading operations, the liquidity buffer of Other Operations and the interest rate exposure of Group Treasury.




Risks associated with defined benefit pension plans relate to interest rate and market risk, future increases in pension benefits and longer life expectancy. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities. The decrease in net liabilities related to defined benefit pension plans recognised in other comprehensive income during the financial year improved comprehensive income before tax by EUR 23 million (4). This change was mainly influenced by an increase in the discount rate and a decrease in the pension increase assumption. Transfer of the personnel's statutory earnings-related pension liability will significantly lower this risk.

In the financial year, key focus areas of the Compliance function related to ensuring regulatory compliance in investment services and customer due diligence (KYC) as well as supporting business operations in managing compliance risks related to new operating models.

The Group expects its operational risks to be moderate as targeted. Reorganisation, changing practices and the speed of service development will, however, set additional challenges for operational risk management in the coming years. Materialised operational risks resulted in approximately EUR 0.3 million in costs during the financial year.

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

### Banking

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

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

Doubtful receivables totalled EUR 145 million (195). Doubtful receivables refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne receivables due to the customer's financial difficulties. Forbearance measures consist of concessions agreed at the customers' initiative to contractual payment terms towards the customer to make it easier for them to manage through temporary payment difficulties. Performing forborne exposures (forborne exposures reclassified as performing ones during their probation period or forbearance measures made into a not non-performing agreement) accounted for 36.6% (25.1) of doubtful receivables. Non-performing receivables remained low, accounting for 0.4% (0.7) of the loan and guarantee portfolio. In Banking, impairment losses amounted to EUR –12 million (–12).

Breakdown of Banking exposures

| | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Total Banking exposure*, EUR billion | 34.1 | 31.6 |
| in the highest borrower grades (IG)**, % | 65.2 | 66.4 |
| in other borrower grades (excluding default), % | 34.4 | 33.0 |
| classified as default, % | 0.4 | 0.6 |
| classified as default, EUR million | 141.0 | 187.0 |
| Corporate and housing company exposures, EUR billion | 30.0 | 27.8 |
| of total Banking exposure, % | 87.8 | 87.9 |
| in the highest borrower grades (IG), % | 63.4 | 65.4 |
| in other borrower grades (excluding default), % | 36.1 | 34.0 |
| classified as default, % | 0.5 | 0.7 |
| classified as default, EUR million | 141.0 | 187.0 |
| Private customer exposures, EUR billion | 1.9 | 1.7 |
| Financial and insurance institutions' exposures, EUR billion | 1.1 | 1.2 |
| Public-sector entities' exposures, EUR billion | 1.1 | 1.0 |

* including derivatives brokerage

** excluding Private Customers

One customer's exposure exceeded 10% of the capital base after allowances and other recognition of credit risk mitigation. The amount of large corporate customer exposures totalled EUR 0.5 billion and OP Corporate Bank's capital base covering customer exposure amounted to EUR 4.9 billion (4.8).

| The most significant sectors in corporate and housing company exposures | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Energy, % | 12.9 | 14.1 |
| Services, % | 11.1 | 9.4 |
| Trade, % | 10.7 | 10.7 |
| Other sectors, % | 65.4 | 64.5 |
| Total | 100 | 100 |

Exposures by the Baltic operations grew to EUR 3.3 billion (2.5), accounting for 9.7% (7.8) of total exposures of the Banking segment.

## Non-life Insurance

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

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

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

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

## Other Operations

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

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

OP Financial Group secures its liquidity through a liquidity buffer 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% from the beginning of 2018. OP Financial Group's LCR was 143% (123) on 31 December 2018.

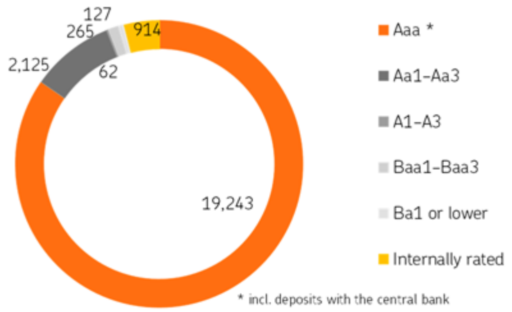
OP Financial Group monitors its long-term funding sufficiency, for example, by means of the Net Stable Funding Ratio, or NSFR. In regulation, no minimum requirement for the NSFR has been set as yet. Based on the present interpretations, OP Financial Group's NSFR was 111% (116) at the end of December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

## Liquidity buffer

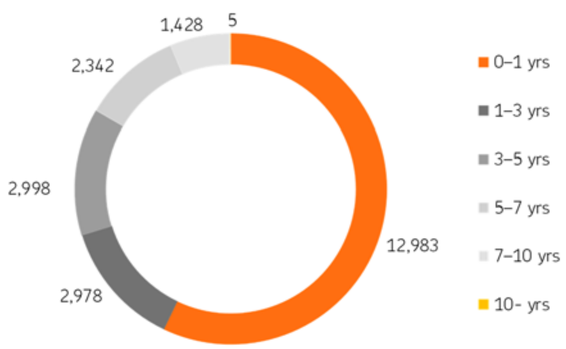
| € billion | 31 Dec. 2018 | 31 Dec. 2017 | Change, % |
|---|---|---|---|
| Deposits with central banks | 12.2 | 12.8 | -4.7 |
| Notes and bonds eligible as collateral | 9.2 | 9.1 | 1.3 |
| Total | 21.4 | 21.9 | -2.2 |
| Receivables ineligible as collateral | 1.3 | 1.5 | -9.3 |
| Liquidity buffer at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

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

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




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




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 Other Operations and Banking, exposures of OP Financial Group (excluding OP Corporate Bank Group) represented 14.2%. These exposures increased during the financial year by EUR 891 million, or 8.1%. All exposures of OP cooperative banks and OP Cooperative are investment-grade exposures.

## Breakdown of Other Operations exposures

| | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Total Other Operations exposures, EUR billion | 50.1 | 37.6 |
| Financial and insurance institutions' exposures, EUR billion | 19.3 | 18.1 |
| Public-sector entities' exposures, EUR billion | 29.2 | 18.1 |
| Corporate and housing company exposures, EUR billion | 1.6 | 1.4 |
| in the highest borrower grades (IG), % | 99.4 | 98.6 |
| in other borrower grades, % | 0.6 | 1.4 |

# Financial performance by segment

At its meeting on 6 June 2018, the Supervisory Board of OP Financial Group's central cooperative decided a new division of responsibilities of the Executive Board, which changed the segment structure as of the beginning of 2019. In its interim reports and financial statements, OP Financial Group will begin financial reporting based on its new segments as of the first interim report of 2019. OP Corporate Bank Group's segment structure will be updated accordingly. During the transition period, OP Corporate Bank Group's business segments are reported according to the previous segment structure, with Banking and Non-life Insurance as the Group's business segments. The health and wellbeing business is included in the Non-life Insurance segment. Non-business segment operations are presented in the Other Operations segment, including functions supporting OP Financial Group and its business, such as Group Treasury and the liquidity buffer. Segment reporting is based on the accounting policies applied in OP Corporate Bank's consolidated financial statements.

## Banking

- Earnings before tax increased by 3% to EUR 354 million (344).
- The loan portfolio grew by 11.0% to EUR 22.3 billion.
- Impairment losses on receivables reduced earnings by EUR 12 million (–12). Non-performing receivables accounted for 0.4% (0.7) of the loan and guarantee portfolio.
- The most significant Banking development investments involved the development of finance and payment systems.

### Banking: key figures and ratios

| € million | Q1–4/2018 | Q1–4/2017 | Change, % |
|---|---|---|---|
| Net interest income | 341 | 348 | -2.0 |
| Net commissions and fees | 54 | 129 | -57.8 |
| Net investment income | 121 | 18 | 556.5 |
| Other operating income | 19 | 24 | -20.9 |
| Total income | 536 | 520 | 3.1 |
| Personnel costs (excl. transfer of earnings-related pension liability) | 59 | 54 | 9.3 |
| Transfer of statutory earnings-related pension liability | -31 | | |
| Depreciation/amortisation and impairment loss | 15 | 11 | 32.4 |
| Other operating expenses | 127 | 98 | 29.3 |
| Total expenses | 169 | 163 | 3.7 |
| Impairment loss on receivables | -12 | -12 | -3.3 |
| Earnings before tax | 354 | 344 | 3.0 |
| Cost/income ratio, % | 31.6 | 31.4 | **0.2 |
| | 31 Dec. 2018 | 31 Dec. 2017 | Change, % |
| Loan portfolio, € billion | 22.3 | 20.1 | 11.0 |
| Guarantee portfolio, € billion | 2.6 | 2.4 | 9.2 |
| Margin on corporate loan portfolio, % | 1.21 | 1.25 | **-0.04 |
| Ratio of non-performing receivables to loan and guarantee portfolio, %* | 0.4 | 0.7 | **-0.3 |
| Personnel | 663 | 628 | 5.6 |

* Non-performing receivables refer to receivables that are more than 90 days past due, other receivables classified as risky and forborne receivables related to such receivables due to the customer's financial difficulties.
** Change in ratio.

The loan portfolio grew by 11.0% to EUR 22.3 billion. The guarantee portfolio totalled EUR 2.6 billion (2.4) and committed standby credit facilities amounted to EUR 4.3 billion (4.5).

In November, OP Corporate Bank plc was ranked the best bank in the Corporate Banking 2018 Finland survey conducted by Prospera among the Tier 1 category respondents including the largest corporates or those with net sales of over EUR 1.5 billion.

Expectations of rising interest rates spurred the sales of interest rate protection products to Private and Corporate Customers.

## Earnings

Earnings before tax increased by 3.0% to EUR 354 million (344). Total income rose by 3.1% and total expenses by 3.7%. Despite the increase in expenses, the cost/income ratio remained at the previous year's level at 31.6% (31.4).

Net interest income decreased by 2.0% to EUR 341 million (348), due to derivatives operations. Net commissions and fees decreased by 57.8% to EUR 54 million (129). The decrease in net commissions and fees was due to the inclusion of certain client income items of derivatives operations in Banking's net investment income during the financial year whereas, a year ago, they were included in net commissions and fees.

Net investment income rose year on year by EUR 103 million. Net investment income was increased by an individual capital gain on equities of EUR 16 million. Derivatives operations increased net trading income included in the item. CVA valuation related to derivatives operations improved earnings by EUR 7 million (21).

Other operating income was EUR 5 million lower than the year before. In Banking, impairment losses lowered the financial year's earnings by EUR 12 million (–12). Non-performing receivables accounted for 0.4% (0.7) of the loan and guarantee portfolio.

Total expenses were EUR 169 million (163). Personnel costs, excluding the transfer of earnings-related pension insurance, increased year on year by EUR 5 million to EUR 59 million. Transferring the management of statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company improved earnings before tax by EUR 31 million. Other operating expenses rose by EUR 29 million year on year. This rise was due to stability contributions of EUR 19 million to the Financial Stability Authority. ICT costs totalled EUR 61 million (54).

# Non-life Insurance

- Earnings before tax decreased by 40.7% to EUR 114 million (193).
- Insurance premium revenue increased by 2.4% (3.8% excluding the Baltics).
- The operating combined ratio was 92.0% (96.1) and operating expense ratio 21.0% (20.3). The combined ratio was 93.2% (97.6).
- Net investment income, taking account of the temporary exemption, totalled EUR 22 million (176). Net return on investments at fair value totalled EUR 14 million (135).
- Development investments focused on development of electronic services and the basic system upgrade initiated.

## Non-life Insurance: key figures and ratios

| € million | Q1–4/2018 | Q1–4/2017 | Change, % |
|---|---|---|---|
| Insurance premium revenue | 1,466 | 1,432 | 2.4 |
| Claims incurred | 915 | 970 | -5.7 |
| Other expenses | 3 | 3 | -10.9 |
| Net insurance income | 549 | 459 | 19.5 |
| Net investment income | 2 | 176 | -99.1 |
| Other net income | -35 | -68 | -48.4 |
| Total income | 515 | 568 | -9.3 |
| Personnel costs (excl. transfer of earnings-related pension liability) | 124 | 102 | 21.9 |
| Transfer of statutory earnings-related pension liability | | | |
| Depreciation/amortisation and impairment loss | 62 | 50 | 22.9 |
| Other operating expenses | 234 | 221 | 5.6 |
| Total expenses | 419 | 373 | 12.4 |
| OP bonuses to owner-customers | -2 | -2 | 3.0 |
| Temporary exemption | 21 | | |
| Earnings before tax | 114 | 193 | -40.7 |
| | | | |
| Combined ratio, % | 93.2 | 97.6 | |
| Operating combined ratio, % | 92.0 | 96.1 | |
| Operating loss ratio, % | 70.9 | 75.8 | |
| Operating expense ratio, % | 21.0 | 20.3 | |
| Operating risk ratio, % | 64.5 | 69.3 | |
| Operating cost ratio, % | 27.4 | 26.9 | |
| | | | |
| Solvency ratio (Solvency II), %* | 132 | 135 | |
| Large claims incurred retained for own account | 107 | 78 | |
| Changes in claims for previous years (run off result) | 42 | 35 | |
| Personnel | 1,791 | 1,774 | 1.0 |

*Including the effect of transitional provisions.

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

OP bonuses earned through the use of banking and insurance services were used to pay 2,371,000 insurance bills (2,315,000), with 358,000 (327,000) of them paid in full using bonuses.

Insurance premiums paid using bonuses totalled EUR 118 million (114).

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

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

## Earnings

Earnings before tax amounted to EUR 114 million (193). This earnings decline was particularly explained by net investment income which, including the temporary exemption, was EUR 154 million lower than a year ago. Net capital gains on investments totalled EUR –5 million (133). Net insurance income increased by 19.5% to EUR 549 million. The reduction in the discount rate for insurance liability increased claims incurred by EUR 102 million a year ago. The sale of the Baltic non-life insurance business increased other net income by EUR 16 million.

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

### Insurance premium revenue

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

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

Claims incurred increased by 5.4%, excluding the effect of the reduced discount rate for insurance liability a year ago. Claims under property and business liability insurance incurred arising from new large claims were higher than a year ago. The reported number of new large claims under property and business liability insurance (in excess of EUR 0.3 million) amounted to 98 (85) in January December, with their claims incurred retained for own account totalling EUR 107 million (78). The change in provisions for unpaid claims under statutory pension weakened earnings by EUR 1 million (–8).

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

Expenses grew by 12.4%, being EUR 46 million higher than a year ago, due to higher development-related ICT costs and depreciation/amortisation and the expansion of the health and wellbeing business. Impairment write-downs increased by EUR 12 million year on year. The operating expense ratio was 21.0% (20.3). The operating cost ratio (including indirect loss adjustment expenses) was 27.4% (26.9).

### Operating balance on technical account and combined ratio (CR)

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

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

## Investments

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

### Investment portfolio by asset class

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

Non-life Insurance's investment portfolio totalled EUR 3,730 million (3,903) on 31 December 2018. Investments within the investment-grade category accounted for 94% (95), and 62% (65) of the investments were rated at least A–. On 31 December 2018, the fixed-income portfolio's modified duration was 4.3 (5.1).

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

## Health and wellbeing

The hospital network of Pohjola Health Ltd was completed in May 2018 when a hospital in Turku opened its doors. Hospitals located in Helsinki, Tampere, Oulu, Kuopio and Turku provide basic healthcare and special healthcare services, examinations, surgery and rehabilitation on an extensive basis. Pohjola Health has given up its previous plan to build a network of medical centres and will focus on hospital operations. Customers have been satisfied with services provided by Pohjola Health. Among surgery customers, the NPS figure was 96 (97) in January–December 2018.

# Other Operations

- Earnings before tax were EUR –30 million. A year ago, earnings before tax amounted to EUR –2 million.
- Earnings included EUR 20 million (19) in capital gains on notes and bonds and EUR 8 million (11) in dividend income.
- Liquidity and access to funding remained good.

## Other Operations: key figures and ratios

| € million | Q1–4/2018 | Q1–4/2017 | Change, % |
|---|---|---|---|
| Net interest income | -55 | -68 | -19.8 |
| Net commissions and fees | -34 | -94 | -63.1 |
| Net investment income | 87 | 195 | -55.1 |
| Other operating income | 8 | 8 | 0.8 |
| Total income | 6 | 41 | -84.7 |
| Personnel costs (excl. transfer of earnings-related pension liability) | 10 | 8 | 28.2 |
| Transfer of statutory earnings-related pension liability | -3 | | |
| Other expenses | 28 | 36 | -20.9 |
| Total expenses | 35 | 43 | -18.4 |
| Impairment loss on receivables | -1 | 0 | |
| Earnings before tax | -30 | -2 | |
| Receivables and liabilities from/to the amalgamation's central cooperative and member credit institutions, net position, € billion | -1.2 | -0.1 | 746.6 |
| Personnel | 53 | 50 | 6,0 |

## Earnings

Earnings before tax amounted to EUR -30 million (–2). Lower gains on positions subject to market risk weakened earnings. A year ago, crediting a portion of income from the liquidity buffer to the Group's Banking segment and OP Financial Group's other financial institutions increased other expenses. Earnings before tax at fair value were EUR –134 million. A year ago, earnings before tax at fair value totalled EUR 35 million. The termination of the ECB's quantitative easing at the end of 2018 increased credit spreads late in the year, which weakened the fair value reserve.

Derivatives operations related to positions subject to market risk increased net interest income and decreased net trading income included in net investment income. According to the OP Corporate Bank Group's accounting policy, income from derivative instruments is split between net interest income and net trading income. How this income is broken down between the two income statement items may vary considerably depending on the derivative instruments used in position management at a given time. Net investment income totalled EUR 87 million (195), down by EUR 107 million year on year due to lower income from derivatives operations. In addition, net investment income was weakened by the transfer of the client income items of certain derivatives products directly in Banking's net investment income as of the beginning of the financial year. Net investment income included EUR 20 million (19) in capital gains on notes and bonds and EUR 8 million (11) in dividend income. A year ago, dividend income included EUR 7 million in interest on cooperative capital from Suomen Luotto-osuuskunta.

Net commissions and fees totalled EUR –34 million (–94). Some derivatives sales commissions are recognised in Other Operations and then credited to Banking. Such credited commissions turn Other Operations' net commissions and fees negative. However, net commissions and fees increased year on year since the client income items of certain derivatives products were directly included in Banking's net investment income as of the beginning of the financial year, which lowered commission expenses paid by the Other Operations segment.

OP Corporate Bank's access to funding remained good. In January–December, OP Corporate Bank issued long-term senior bonds worth EUR 2.3 billion. In May, the Bank issued two senior bonds in the international capital market, each worth EUR 500 million, with a maturity of three and seven years. In August, it issued one senior bond worth EUR 500 million with a maturity of five years. In addition, the Bank issued smaller private placement bonds and structured bonds worth a total of EUR 0.8 billion between January and December.

In the last quarter, OP Financial Group published its Green Bond Framework in accordance with ICMA's (International Capital Markets Association) Green Bond Principles, and the associated independent Second Opinion by Sustainalytics. Under the framework, OP Financial Group may issue Green Bonds via OP Corporate Bank plc or any other issuing entity. OP Green Bond proceeds will be allocated in accordance with the approved framework.

Eligible sectors to be funded through Green Bonds include e.g. renewable energy (incl. hydro and wind power), energy efficiency, pollution prevention and control (incl. waste management, waste recycling and sustainable water and wastewater management), and sustainable land use through sustainable forestry. The framework supports the target of fostering sustainable economy, included in OP's Corporate Social Responsibility Programme.

In December 2018, the average margin of senior wholesale funding and TLTRO-II funding was 14 basis points (19).

On 31 December 2018, investments by the amalgamation's central cooperative and the member credit institutions in OP Corporate Bank were EUR 1.1 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.

## Group restructuring

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

OP Corporate Bank plc has subsidiaries and branches offering banking services for corporate customers in Estonia, Latvia and Lithuania. OP Corporate Bank is examining various strategic options in respect of Baltic Banking.

OP Corporate Bank Group is still making plans for restructuring under which the Non-life Insurance segment would be transferred from OP Corporate Bank to direct ownership of OP Cooperative. The specific manner or schedule to implement such restructuring has not yet been decided.

OP Corporate Bank assessed the option of separating central banking operations (Group Treasury) into a subsidiary wholly owned by OP Cooperative. Following the assessment and in line with OP Cooperative's Executive Board decision of 4 February 2019, such separation will not be carried out and, therefore, the central banking operations will continue to remain part of OP Corporate Bank.

## Personnel and remuneration

Personnel increased from the 2018-end level in Banking and Non-life Insurance, mainly as a result of OP Financial Group's internal reorganisation. In addition, headcount grew in health and wellbeing services as Pohjola Health's Turku hospital opened its doors in May 2018. The comparative figure for Non-life Insurance includes the personnel of Seesam Insurance AS or 328.

### Personnel

| | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Banking | 663 | 628 |
| Non-life Insurance | 1,791 | 1,774 |
| Other Operations | 53 | 50 |
| Total | 2,507 | 2,452 |

The scheme for variable remuneration within OP Financial Group and OP Corporate Bank consists of short-term, company-specific remuneration and OP Financial Group-wide long-term remuneration. The long-term scheme for the entire OP Financial Group consists of a management incentive scheme and a personnel fund for other staff. In drawing up the incentive schemes, OP has taken account of the regulation regarding the financial sector's remuneration schemes.

A long-term management remuneration scheme has been confirmed for 2017–2019. As a rule, the remuneration scheme for 2017–2019 follows the principles observed during the previous three-year performance period. OP Financial Group's personnel fund remuneration scheme also continues with one-year performance periods.

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

## 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.

The Annual General Meeting (AGM) of OP Corporate Bank plc elected OP Financial Group's President and Group Executive Chair Timo Ritakallio as Chair of OP Corporate Bank's Board of Directors. As Board members, the AGM re-elected OP Financial Group's Executive Vice President of Operations Tony Vepsäläinen, OP Financial Group's Chief Financial Officer Harri Luhtala and Executive Vice President, OP Financial Group's Group Steering, Jari Himanen.

The AGM re-elected KPMG Oy Ab, a firm of authorised public accountants, to act as OP Corporate Bank's auditor with Raija-Leena Hankonen, APA, acting as the Auditor-in-charge, appointed by KPMG Oy Ab.

Board member Jari Himanen resigned from membership of OP Corporate Bank's Board of Directors on 6 May 2018 and board member Harri Luhtala resigned on 31 October 2018.

As of 1 November 2018, the Board of Directors of OP Corporate Bank plc consists of the chair and four other members instead of three members as before. Vesa Aho, M.Sc. (Econ. & Bus. Adm.), and Jarmo Viitanen, M.Sc. (Agr. & For.), eMBA, were appointed new members of the Board of Directors as of 1 November 2018. Timo Ritakallio will continue to chair the Board of Directors and Tony Vepsäläinen and Tiia Tuovinen, who was appointed as of 2 July 2018, will remain its members.

OP Corporate Bank plc's Corporate Governance Statement is available at www.op.fi.

## Corporate social responsibility

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 pioneer in corporate responsibility within its sector in Finland. OP undertakes to comply 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.

To promote diversity, OP Financial Group's objective is that the proportion of both genders in defined managerial positions is at least 40%. Women accounted for 24% at the end of 2018. At the end of 2017, the share was 21%.

In May 2018, OP became a member of the Climate Leadership Coalition (CLC). The CLC is a high-level association which aims to promote the Finnish businesses' and research organisations' competitiveness and ability to respond to the threats posed by climate change and the scarcity of natural resources, as well as to improve their ability to utilise the business opportunities related to these.

In October 2018, OP Financial Group approved a Green Bond Framework that enables the issuance of green bonds. Eligible sectors to be funded under the framework include, for example, renewable energy, energy efficiency, pollution prevention and control, and sustainable land use through sustainable forestry.

OP Financial Group's corporate social responsibility reporting is based on GRI standards and it is available as part of OP's Annual Review at op-year2018.fi.

## 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 institutions 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 (156 OP cooperative banks, OP Corporate Bank plc, OP Mortgage Bank, OP Card Company Plc and OP Customer Services Ltd) 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 Board operating under the Ministry of Finance.

## Proposal by the Board of Directors for profit distribution

As shown in the financial statements of 31 December 2018, the company's distributable earnings, which include EUR 277,656,395.96 in profit for the financial year, totalled EUR 1,163,283,554.34. The company's distributable funds totalled EUR 1,494,664,391.40.

The Board of Directors proposes that a dividend of EUR 0.54 be distributed per share, totalling EUR 172,557,764.10, and that following dividend distribution, the remaining amount of EUR 105,098,631.86 be recognised in retained earnings. Following dividend distribution, the company's distributable earnings total EUR 990,725,790.24 and its distributable funds total EUR 1,322,106,627.30.

The company's financial position has not undergone any material changes since the end of the financial year 2018. The company's liquidity is good and will not be jeopardised by the proposed distribution of funds, in the Board of Directors' view.

## Events after the balance sheet date

In January 2019, Moody's upgraded OP Insurance Ltd's financial strength rating by one notch from A3 to A2. Moody's kept the rating outlook stable. The underlying reasons for the upgrade were insurance operations' close integration with OP's business and capital management, strong non-life insurance market share and good financial fundamentals.

## Outlook for 2019

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

In 2019, the quality of the loan portfolio and demand for loans are expected to remain good and Non-life Insurance premium revenue is expected to remain at a healthy level. The most significant uncertainties affecting earnings relate to changes in the interest rate and investment environment, market growth rate, changes in the competitive situation, impairment loss on receivables and the effect of large claims on claims expenditure.

In 2019, full-year earnings estimates will only be provided at the OP Financial Group level, in its financial statement bulletin and interim reports.

All forward-looking statements in this Financial Statements Bulletin expressing the management's expectations, beliefs, estimates, forecasts, projections and assumptions are based on the current view of the future development in the operating 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, EUR million | 2016 | 2017 | 2018 |
|---|---|---|---|
| Net interest income | 228 | 259 | 264 |
| Net insurance income | 534 | 459 | 548 |
| Net commissions and fees | -4 | -17 | -23 |
| Net investment income | 247 | 390 | 210 |
| Other income | 31 | 26 | 47 |
| Personnel costs | 162 | 164 | 159 |
| Other expenses | 332 | 404 | 452 |
| Impairment loss on receivables | 37 | 12 | 13 |
| OP bonuses to owner-customers | 2 | 2 | 2 |
| Temporary exemption (overlay approach) | | | -19 |
| Earnings before tax | 504 | 535 | 439 |
| **Key balance sheet items – assets, EUR million** | | | |
| Cash and cash equivalents | 9,336 | 12,825 | 12,239 |
| Receivables from credit institutions | 9,458 | 9,294 | 9,726 |
| Derivative contracts | 4,678 | 3,426 | 3,492 |
| Receivables from customers | 18,702 | 20,120 | 22,351 |
| Investment assets | 16,698 | 15,506 | 16,351 |
| Property, plant and equipment, and intangible assets | 883 | 892 | 838 |
| Other items | 3,218 | 2,382 | 1,713 |
| Total assets | 62,974 | 64,445 | 66,710 |
| **Key balance sheet items – liabilities and equity, EUR million** | | | |
| Liabilities to credit institutions | 10,332 | 14,035 | 15,575 |
| Derivative contracts | 4,398 | 3,216 | 3,043 |
| Liabilities to customers | 16,178 | 18,837 | 16,422 |
| Insurance liabilities | 3,008 | 3,143 | 3,157 |
| Debt securities issued to the public | 19,826 | 16,791 | 20,336 |
| Other liabilities | 5,228 | 4,273 | 4,030 |
| Equity capital | 4,005 | 4,149 | 4,147 |
| Total liabilities and equity capital | 62,974 | 64,445 | 66,710 |

## Consolidated earnings by quarter

| EUR million | 1–3/ 2018 | 4–6/ 2018 | 7–9/ 2018 | 10–12/ 2018 | 1–12/ 2018 | 1–12/ 2017 |
|---|---|---|---|---|---|---|
| Net interest income | 61 | 66 | 66 | 71 | 264 | 259 |
| Net insurance income | 129 | 144 | 148 | 127 | 548 | 459 |
| Net commissions and fees | -3 | -2 | -6 | -11 | -23 | -17 |
| Net investment income | 77 | 67 | 66 | 0 | 210 | 390 |
| Other operating income | 11 | 4 | 20 | 11 | 47 | 26 |
| **Total income** | **276** | **279** | **294** | **198** | **1,046** | **1,117** |
| Personnel costs | 46 | 50 | 42 | 21 | 159 | 164 |
| Depreciation/amortisation and impairment loss | 15 | 21 | 17 | 31 | 83 | 64 |
| Other operating expenses | 84 | 96 | 87 | 102 | 369 | 339 |
| **Total expenses** | **145** | **167** | **146** | **154** | **611** | **568** |
| Impairment loss on receivables | 10 | -5 | -11 | -7 | -13 | -12 |
| OP bonuses to owner-customers | 0 | 0 | -1 | -1 | -2 | -2 |
| Temporary exemption (overlay approach) | 9 | -13 | -9 | 32 | 19 | |
| **Earnings before tax** | **150** | **94** | **127** | **69** | **439** | **535** |
| Income tax | 30 | 17 | 20 | 19 | 87 | 105 |
| **Profit for the period** | **120** | **77** | **107** | **49** | **352** | **430** |

## Financial indicators

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Return on equity (ROE), % | 10.4 | 10.6 | 8.5 |
| Return on equity at fair value (ROE), % | 12.2 | 9.5 | 5.3 |
| Return on assets (ROA), % | 0.7 | 0.7 | 0.5 |
| Equity ratio, % | 6.4 | 6.4 | 6.2 |
| Cost/income ratio, % | 47.6 | 51.1 | 58.4 |
| Average personnel | 2,401 | 2,458 | 2,638 |
| **Share-related figures and ratios** | | | |
| Equity per share, EUR | 12.19 | 12.8 | 12.7 |
| Dividend per share, EUR* | 0.63 | 0.67 | 0.54 |
| Dividend payout ratio, %* | 50.4 | 49.7 | 49.9 |
| Number of shares, year end | 319,551,415 | 319,551,415 | 319,551,415 |

* Board proposal 2018

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

## Formulas for key ratios

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

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

### Alternative performance measures

| | | |
|---|---|---|
| Return on equity (ROE), % | Profit for the financial year / Equity capital (average of the beginning and end of financial year) | x 100 |
| Return on equity (ROE) at fair value, % | Total comprehensive income for the financial year / Equity capital (average of the beginning and end of financial year) | x 100 |
| Return on assets (ROA), % | Profit for the period / Balance sheet total (average of the beginning and end of financial year) | x 100 |
| Equity ratio, % | Equity capital / Balance sheet total | x 100 |
| Cost/income ratio, % | Total expenses / Total income | x 100 |
| Equity per share | Equity capital / 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 |
| Ratio of non-performing receivables to loan and guarantee portfolio, % | Non-performing receivables (net) / Loan and guarantee portfolio at end of financial year | x 100 |
| Coverage ratio, % | Receivables from customers, and on-balance-sheet and off-balance-sheet items / Loss allowance | x 100 |
| Default capture rate, % | New defaulted contracts in stage 2 a year ago / New defaulted contracts in financial year | x 100 |

## Non-life Insurance key ratios:

| | |
|---|---|
| Loss ratio (excl. unwinding of discount), % | Claims and loss adjustment expenses / Net insurance premium revenue x 100 |
| Expense ratio, % | Operating expenses + Amortisation/adjustment of intangible assets related to company acquisition / Net insurance premium revenue x 100 |
| Risk ratio (excl. unwinding of discount), % | Claims excl. loss adjustment expenses / Net insurance premium revenue x 100 |
| Combined ratio (excl. unwinding of discount), % | Loss ratio + expense ratio<br>Risk ratio + cost ratio |
| Cost ratio, % | Operating expenses and loss adjustment expenses / Net insurance premium revenue x 100 |
| Operating loss ratio, % | Claims incurred excl. changes in reserving bases / Insurance premium revenue, excl. net changes in reserving bases x 100 |
| Operating expense ratio, % | Operating expenses / Insurance premium revenue, excl. net changes in reserving bases x 100 |
| Operating combined ratio, % | Operating loss ratio + operating expense ratio<br>Operating risk ratio + operating cost ratio |
| Operational risk ratio (excl. unwinding of discount), % | Claims excl. loss adjustment expenses and changes in reserving bases / Net insurance premium revenue, excl. net changes in reserving bases x 100 |
| Operating cost ratio, % | Operating expenses and loss adjustment expenses / Net insurance premium revenue, excl. net changes in reserving bases x 100 |

## Key indicators based on a separate calculation

| | | |
|---|---|---|
| Capital adequacy ratio, % | Total capital / Total risk exposure amount | x 100 |
| Tier 1 capital ratio, % | Tier 1 capital (Tier 1) / Total risk exposure amount | x 100 |
| Common Equity Tier 1 (CET1) capital ratio, % | Common Equity Tier 1 (CET1) / Total risk exposure amount | x 100 |
| Solvency ratio, % | Capital base / Solvency capital requirement (SCR) | x 100 |
| Leverage ratio, % | Tier 1 capital (T1) / Exposure amount | x 100 |
| Liquidity coverage ratio (LCR), % | Liquid assets / Liquidity outflows - liquidity inflows in shocks | x 100 |
| Return on economic capital, % | Earnings + customer bonuses after tax (12-month rolling) / Average economic capital | x 100 |
| Net Stable Funding Ratio (NSFR), % | Available stable funding / Required stable funding | x 100 |

## Non-Life Insurance Operating results

| EUR million | 1–12/ 2018 | 1–12/ 2017 | Change % |
|---|---|---|---|
| Insurance premium revenue | 1,465 | 1,431 | 2,4 |
| Claims incurred | -1,039 | -1,085 | -4,2 |
| **Operating expenses** | **-308** | **-291** | **6,0** |
| Amortisation adjustment of intangible assets | -18 | -21 | -16,7 |
| Balance on technical account | 100 | 34 | 195,9 |
| **Net investment income** | **2** | **176** | **-99,1** |
| Other income and expenses | -8 | -17 | -55,5 |
| Temporary exemption (overlay approach) | 21 | | |
| **Earnings before tax** | **114** | **193** | **-41** |

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

# Consolidated financial statements, IFRS

## Financial statements

### Consolidated income statement

| EUR million | Note | 2018 | 2017 |
|---|---|---|---|
| Net interest income | 3 | 264 | 259 |
| Net insurance income | 4 | 548 | 459 |
| Net commissions and fees | 5 | -23 | -17 |
| Net investment income | 6 | 210 | 390 |
| Other operating income | 7 | 47 | 26 |
| Total income | | 1,046 | 1,117 |
| Personnel costs* | 8 | 159 | 164 |
| Depreciation/amortisation | 9 | 83 | 64 |
| Other expenses | 10 | 369 | 339 |
| Total expenses | | 611 | 568 |
| Impairment of receivables | 11 | -13 | -12 |
| OP bonuses to owner-customers | | -2 | -2 |
| Temporary exempion (overlay approach) | | 19 | |
| Earnings before tax | | 439 | 535 |
| Income tax expense | 13 | 87 | 105 |
| Profit for the period | | 352 | 430 |
| | | | |
| Attributable to: | | | |
| Attributable to owners of the Parent | | 346 | 424 |
| Attributable to non-controlling interest | | 7 | 6 |
| Profit for the period | | 352 | 430 |

* OP Financial Group transferred the management of and the majority of the personnel's statutory earnings-related pension insurance and the related portfolio to Ilmarinen Mutual Pension Insurance Company at the end of 2018. The transfer reduced OP Corporate Bank Group's pension costs and improved earnings before tax by EUR 34 million.

## Consolidated statement of comprehensive income

| EUR million | Note | 2018 | 2017 |
|---|---|---|---|
| **Profit for the period** | | **352** | **430** |
| Items that will not be reclassified to profit or loss | | | |
| Gains/(losses) arising from remeasurement of defined benefit plans | 29 | 23 | 4 |
| Items that may be reclassified to profit or loss | | | |
| Change in fair value reserve | | | |
| Measurement at fair value | 31 | -141 | -37 |
| Cash flow hedge | 31 | -2 | -4 |
| Temporary exemption (overlay approach) | 31 | -19 | |
| Translation differences | | 0 | 0 |
| Income tax on other comprehensive income | | | |
| Items that will not be reclassified to profit or loss | | | |
| Gains/(losses) arising from remeasurement of defined benefit plans | 23 | -5 | -1 |
| Items that may be reclassified to profit or loss | | | |
| Measurement at fair value | 31 | 28 | 7 |
| Cash flow hedge | 31 | 0 | 1 |
| Temporary exemption (overlay approach) | 31 | 4 | |
| **Total comprehensive income for the period** | | **241** | **400** |
| | | | |
| **Attributable to:** | | | |
| Total comprehensive income attributable to owners of the Parent | | 234 | 394 |
| Total comprehensive income attributable to non-controlling interest | | 7 | 6 |
| **Total comprehensive income for the period** | | **241** | **400** |

## Consolidated balance sheet

| EUR million | Note | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|---|
| Cash and cash equivalents | 14 | 12,239 | 12,825 |
| Receivables from credit institutions | 15 | 9,726 | 9,294 |
| Derivative contracts | 16 | 3,492 | 3,426 |
| Receivables from customers | 17 | 22,351 | 20,120 |
| Investment assets | 18 | 16,351 | 16,144 |
| Intangible assets | 20 | 722 | 777 |
| Property, plant and equipment (PPE) | 21 | 117 | 115 |
| Other assets | 22 | 1,647 | 1,708 |
| Tax assets | 23 | 65 | 35 |
| Total assets | | 66,710 | 64,445 |
| | | | |
| Liabilities to credit institutions | 24 | 15,575 | 14,035 |
| Derivative contracts | 25 | 3,043 | 3,216 |
| Liabilities to customers | 26 | 16,422 | 18,837 |
| Insurance liabilities | 27 | 3,157 | 3,143 |
| Debt securities issued to the public | 28 | 20,336 | 16,791 |
| Provisions and other liabilities | 29 | 2,128 | 2,307 |
| Tax liabilities | 23 | 421 | 419 |
| Subordinated liabilities | 30 | 1,482 | 1,547 |
| Total liabilities | | 62,562 | 60,295 |
| | | | |
| Equity capital | 31 | | |
| Capital and reserves attributable to owners of the parent | | | |
| Share capital | | 428 | 428 |
| Fair value reserve | | -12 | 164 |
| Other reserves | | 1,093 | 1,093 |
| Retained earnings | | 2,559 | 2,404 |
| Non-controlling interest | 42 | 80 | 60 |
| Total equity capital | | 4,147 | 4,149 |
| Total liabilities and equity capital | | 66,710 | 64,445 |

## Consolidated statement of changes in equity

| EUR million | Share capital | Fair value reserve* | Other reserves | Retained earnings | Total | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| | Attributable to owners | | | | | | |
| Balance at 1 January 2017 | 428 | 197 | 1,093 | 2,179 | 3,896 | 109 | 4,005 |
| Total comprehensive income for the period | | -33 | | 427 | 394 | 6 | 400 |
| Profit for the period | | | | 424 | 424 | 6 | 430 |
| Other comprehensive income | | -33 | | 3 | -29 | 0 | -30 |
| Profit distribution | | | | -201 | -201 | | -201 |
| Other | | | 0 | 0 | 0 | -55 | -55 |
| Balance at 31 December 2017 | 428 | 164 | 1,093 | 2,404 | 4,089 | 60 | 4,149 |

| EUR million | Share capital | Fair value reserve* | Other reserves | Retained earnings | Total | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| | Attributable to owners | | | | | | |
| Balance at 31 December 2017 | 428 | 164 | 1,093 | 2,404 | 4,089 | 60 | 4,149 |
| Effect of IFRS 9 transition at 1 January 2018 | | -46 | | 2 | -45 | | -45 |
| Equity at 1 January 2018 | 428 | 118 | 1,093 | 2,406 | 4,044 | 60 | 4,104 |
| Total comprehensive income for the period | | -129 | | 364 | 234 | 7 | 241 |
| Profit for the period | | | | 346 | 346 | 7 | 352 |
| Other comprehensive income | | -129 | | 18 | -111 | | -111 |
| Profit distribution | | | | -211 | -211 | -13 | -224 |
| Other | | | 0 | 0 | 0 | 26 | 26 |
| Balance at 31 December 2018 | 428 | -12 | 1,093 | 2,559 | 4,067 | 80 | 4,147 |

* Note 32

## Consolidated cash flow statement

| EUR million | Note | 2018 | 2017 |
|---|---|---|---|
| **Cash flow from operating activities** | | | |
| Profit for the period | | 352 | 430 |
| Adjustments to profit for the period | | -124 | 92 |
| **Increase (-) or decrease (+) in operating assets** | | **-2,656** | **623** |
| Receivables from credit institutions | 16 | -66 | 617 |
| Derivative contracts | 17 | -89 | -35 |
| Receivables from customers | 18 | -2,264 | -1,443 |
| Investment assets | 19 | -381 | 763 |
| Other assets | 23 | 144 | 721 |
| **Increase (+) or decrease (-) in operating liabilities** | | **-1,027** | **5,499** |
| Liabilities to credit institutions | 25 | 1,470 | 3,730 |
| Derivative contracts | 26 | -7 | -6 |
| Liabilities to customers | 27 | -2,415 | 2,659 |
| Insurance liabilities | 28 | 58 | 36 |
| Provisions and other liabilities | 30 | -133 | -921 |
| | | | |
| Income tax paid | | -85 | -77 |
| Dividends received | | 39 | 50 |
| **A. Net cash from operating activities** | | **-3,500** | **6,617** |
| **Cash flow from investing activities** | | | |
| Disposal of subsidiaries, net of cash disposed | | 67 | |
| Purchase of PPE and intangible assets | 21.22 | -45 | -79 |
| Proceeds from sale of PPE and intangible assets | 21.22 | 1 | 12 |
| **B. Net cash used in investing activities** | | **23** | **-67** |
| **Cash flow from financing activities** | | | |
| Decreases in subordinated liabilities | 31 | -50 | |
| Increases in debt securities issued to the public | 29 | 27,007 | 21,060 |
| Decreases in debt securities issued to the public | 29 | -23,489 | -23,468 |
| Dividends paid | | -211 | -201 |
| **C. Net cash provided by (used in) financing activities** | | **3,258** | **-2,609** |
| **Net increase/decrease in cash and cash equivalents (A+B+C)** | | **-219** | **3,941** |
| | | | |
| **Cash and cash equivalents at year-start** | | **13,575** | **9,633** |
| **Cash and cash equivalents at year-end** | | **13,355** | **13,575** |
| | | | |
| **Interest received** | | **1,189** | **1,302** |
| **Interest paid** | | **-914** | **-1,060** |

| EUR million | | 2018 | 2017 |
|---|---|---|---|
| Adjustments to profit for the financial year | | | |
| | | | |
| Non-cash items and other adjustments | | | |
| Impairment losses on receivables | | 13 | 13 |
| Unrealised net earnings in insurance operations | | 28 | 81 |
| Change in fair value for trading | | -139 | -225 |
| Unrealised net gains on foreign exchange operations | | -34 | -36 |
| Change in fair value of other investments | | -84 | 141 |
| Defined benefit pension plans | | -34 | |
| Depreciation/amortisation | | 83 | 64 |
| Share of associates' profits | | -1 | -1 |
| Income tax paid | | 85 | 77 |
| Dividends received | | -39 | -50 |
| Other | | 13 | 28 |
| | | | |
| Items presented outside cash flow from operating activities | | | |
| Capital gains, share of cash flow from investing activities | | -17 | 0 |
| Total adjustments | | -124 | 92 |
| | | | |
| Cash and cash equivalents | | | |
| Liquid assets | 15 | 12,239 | 12,825 |
| Receivables from financial institutions payable on demand | | 1,116 | 749 |
| Total | | 13,355 | 13,575 |

## Segment reporting

OP Corporate Bank Group's business segments are Banking and Non-life Insurance. These business segments and Other Operations constitute the Group's operating segments. Defining segments and presentation are based on OP Corporate Bank plc's Board of Directors reporting. The segments' earnings and profitability are assessed in terms of EBT.

### Segment accounting policies

Segment reporting conforms to the accounting policies applied to the consolidated financial statements. Income, expenses, assets and liabilities which are 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 the business segments are reported under the Other Operations segment. Inter-segment Group eliminations are reported under the "Group eliminations" column.

Banking and Other Operations capitalisation is based on OP Financial Group's capital adequacy measurement in accordance with the Act on Credit Institutions. Capital requirements according to this measurement are allocated among the operating segments. The Group has allocated capital to its operating segments in such a way that the Common Equity Tier 1 (CET1) ratio stands at 21% (20). Capital has been allocated to insurance operations in such a way that the solvency ratio (SII) is 120%. Capital allocation has an effect on the Group's internal interest amounts paid by the segment concerned. The allocation of equity capital to the business segments is carried out through an internal bank under Other Operations, which means that any earnings effect of equity capital differing from the target level is shown under Other Operations.

### Banking

Banking consists of one business division, Corporate Customers, which covers corporate customer relationship management from small and mid-sized customers in the Helsinki Metropolitan Area to national large corporate and institutional customer management as well as corporate customers in the Baltic countries.

Banking 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 services, custody, equity, foreign exchange, money market and derivative products to investment research.  OP Corporate Bank's branches and subsidiaries in Estonia, Latvia and Lithuania provide finance company products.

Net income derives mainly from net interest income, net commissions and fees, and net investment income. The most significant risk category pertains to credit risk but business also involves market risks and operational risks.

### Non-life insurance operations

The following three Group companies conduct Non-life Insurance business in Finland: OP Insurance Ltd is a general non-life insurance company, A-Insurance Ltd focuses on non-life insurance for commercial transport and Eurooppalainen Insurance Company Ltd specialises in travel insurance. The sale of all share capital of the Baltic subsidiary Seesam Insurance AS to Vienna Insurance Group (VIG) was completed on 31 August 2018. The Baltic business is included in the segment's earnings until the completion of the sale.

The Non-life Insurance segment also includes Pohjola Health Ltd which has five Pohjola Hospitals in Helsinki, Tampere, Kuopio, Oulu and Turku. The hospitals provide basic healthcare and special healthcare services, examinations, surgery and rehabilitation on an extensive basis.

Non-life insurance 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 insurance risks and investment risks. Pohjola Hospital's earnings come from doctor's fees and billing for treatment, diagnostics and occupational healthcare services. The most significant risks in the health and wellbeing services are operational risks.

### Other Operations

Functions supporting OP Financial Group and its business, such as Group Treasury and the liquidity buffer, have been centralised within Other Operations. OP Corporate Bank is an active player in international derivatives markets, the euro-area government bond market and covered bond market as well as corporate bond markets. 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 the Group's wholesale funding together with OP Mortgage Bank. Net income derives mainly from net interest income, net commissions and fees, 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.

### Change in the segment structure in 2019

At its meeting on 6 June 2018, the Supervisory Board of OP Financial Group's central cooperative decided a new division of responsibilities of the Executive Board, which changed the segment structure as of the beginning of 2019. In its interim reports and financial statements, OP Financial Group will begin financial reporting based on its new segments as of the first interim report of 2019. OP Corporate Bank Group's segment structure will be updated accordingly.

## Segment information

Segment capitalisation is based on OP Financial Group's capital adequancy measurement in accordance with the Act on Credit Institutions. Capital requirements according to this measurement are allocated among the operating segments. Capital has been allocated to Banking in such a way that the CET 1 ratio is 21% (20%). Capital has been allocated to Non-life Insurance operations in such a way that Solvency ratio (SII) is 120%. Capital allocation has an effect on the Group's internal interest amounts paid by the segment concerned.

| Earnings 2018, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Net interest income | 341 | -15 | -55 | -8 | 264 |
| - of which internal net income before tax | -6 | -12 | 17 | | |
| Net insurance income | | 549 | | -1 | 548 |
| Net commissions and fees | 54 | -41 | -34 | -1 | -23 |
| Net investment income | 121 | 2 | 87 | 0 | 210 |
| Other operating income | 19 | 21 | 8 | -2 | 47 |
| Total income | 536 | 515 | 6 | -11 | 1,046 |
| Personnel costs | 28 | 124 | 7 | 0 | 159 |
| Depreciation/amortisation and impairment losses | 15 | 62 | 7 | 0 | 83 |
| Other operating expenses | 127 | 234 | 21 | -13 | 369 |
| Total expenses | 169 | 419 | 35 | -13 | 611 |
| Impairments loss on receivables | -12 | 0 | -1 | | -13 |
| OP bonuses to owner-customers | | -2 | | | -2 |
| Temporary exemption (overlay approach) | | 21 | | -2 | 19 |
| Earnings before tax | 354 | 114 | -30 | | 439 |

Net income from the Baltic countries came to EUR 10 million

| Earnings 2017, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Net interest income | 348 | -15 | -68 | -6 | 259 |
| - of which internal net income before tax | -18 | -12 | 30 | | |
| Net insurance income | | 459 | | 0 | 459 |
| Net commissions and fees | 129 | -51 | -94 | -1 | -17 |
| Net investment income | 18 | 176 | 195 | 0 | 390 |
| Other operating income | 24 | -2 | 8 | -5 | 26 |
| Total income | 520 | 568 | 41 | -12 | 1,117 |
| Personnel costs | 54 | 102 | 8 | 0 | 164 |
| Depreciation/amortisation and impairment losses | 11 | 50 | 3 | | 64 |
| Other operating expenses | 98 | 221 | 32 | -12 | 339 |
| Total expenses | 163 | 373 | 43 | -12 | 568 |
| Impairments loss on receivables | -12 | 0 | 0 | | -12 |
| OP bonuses to owner-customers | | -2 | | | -2 |
| Earnings before tax | 344 | 193 | -2 | | 535 |

Net income from the Baltic countries came to EUR 10 million.

| Balance sheet 31 December 2018, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Cash and cash equivalents | 8 | 249 | 12,209 | -227 | 12,239 |
| Receivables from credit institutions | 118 | 10 | 9,616 | -18 | 9,726 |
| Derivative contracts | 406 | 32 | 3,057 | -3 | 3,492 |
| Receivables from customers | 23,002 | 0 | 29 | -679 | 22,351 |
| Investment assets | 525 | 3,497 | 12,462 | -134 | 16,351 |
| Intangible assets | 50 | 646 | 25 | | 722 |
| Property, plant and equipment (PPE) | 0 | 41 | 76 | | 117 |
| Other assets | 134 | 744 | 966 | -197 | 1,647 |
| Tax assets | 0 | 12 | 53 | | 65 |
| Total assets | 24,243 | 5,232 | 38,493 | -1,258 | 66,710 |
| Liabilities to credit institutions | 646 | | 15,608 | -679 | 15,575 |
| Derivative contracts | 165 | 11 | 2,876 | -9 | 3,043 |
| Liabilities to customers | 11,513 | | 5,228 | -319 | 16,422 |
| Insurance liabilities | | 3,157 | | | 3,157 |
| Debt securities issued to the public | 1,110 | | 19,260 | -34 | 20,336 |
| Provisions and other liabilities | 984 | 561 | 774 | -191 | 2,128 |
| Tax liabilities | 1 | 64 | 356 | 0 | 421 |
| Subordinated liabilities | | 135 | 1,347 | | 1,482 |
| Total liabilities | 14,419 | 3,927 | 45,447 | -1,232 | 62,562 |
| Equity | | | | | 4,147 |

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

| Balance sheet 31 December 2017, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Cash and cash equivalents | 10 | 318 | 12,807 | -309 | 12,825 |
| Receivables from credit institutions | 208 | 6 | 9,113 | -33 | 9,294 |
| Derivative contracts | 105 | 10 | 3,320 | -10 | 3,426 |
| Receivables from customers | 20,591 | 0 | 29 | -501 | 20,120 |
| Investment assets | 527 | 3,543 | 12,205 | -131 | 16,144 |
| Intangible assets | 63 | 688 | 26 | 0 | 777 |
| Property, plant and equipment (PPE) | 0 | 42 | 73 | | 115 |
| Other assets | 92 | 727 | 1,095 | -205 | 1,708 |
| Tax assets | 0 | 17 | 19 | 0 | 35 |
| Total assets | 21,595 | 5,351 | 38,687 | -1,189 | 64,445 |
| Liabilities to credit institutions | 506 | | 14,030 | -501 | 14,035 |
| Derivative contracts | 118 | 15 | 3,097 | -14 | 3,216 |
| Liabilities to customers | 11,410 | | 7,839 | -412 | 18,837 |
| Insurance liabilities | | 3,143 | | 0 | 3,143 |
| Debt securities issued to the public | 1,178 | | 15,649 | -37 | 16,791 |
| Provisions and other liabilities | 976 | 540 | 992 | -202 | 2,307 |
| Tax liabilities | 1 | 75 | 343 | 0 | 419 |
| Subordinated liabilities | | 135 | 1,412 | | 1,547 |
| Total liabilities | 14,189 | 3,908 | 43,362 | -1,164 | 60,295 |
| Equity | | | | | 4,149 |

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

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## Note 1. OP Corporate Bank Group's Accounting Policies

### General information

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 has three segments during the financial year: Banking, Non-life Insurance and Other Operations. Banking provides corporate and institutional customers with financing, investment and payment transaction solutions on an international scale. Non-life Insurance provides corporate and private customers with non-life insurance products covering both statutory and voluntary policies. In addition to these two business segments, the financial results of Central Banking and Treasury and administrative functions are presented under the Other Operations segment.

OP Corporate Bank plc belongs to OP Financial Group, which consists of 156 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, OP Mortgage Bank 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 approved the consolidated financial statements for issue on 5 February 2018.

### 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 2018. The International Financial Reporting Standards refer to standards and their interpretations adopted in accordance with Regulation (EU) No. 1606/2002 of the European Parliament and of the Council. OP Corporate Bank's notes also conform to the requirements of Finnish accounting and company legislation that complement IFRS regulations.

In 2018, OP Corporate Bank adopted the following standards and interpretations:

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

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

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

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

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, available-for-sale financial assets, hedged items in fair value hedging (for hedged risk), derivative contracts and investment property.

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

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

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 Amalgamation Capital Adequacy Report for 2017. In its financial statements, OP Corporate Bank Group presents its capital base, the minimum capital requirement, capital ratios, corporate exposures by sector, corporate exposures and credit institution exposures by borrower grade and derivative contracts and counterparty risk.

## 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 an entity if it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity (including structured entities). Most of the subsidiaries are wholly owned by 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, the Group takes into account the investor’s power to direct relevant activities over an investee and the investor's exposure to varying returns.

When the Group ceases to have control any retained interest in the entity is remeasured to its fair value at the date when control is lost, with the change in carrying amount recognised in the income statement. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial assets. In addition, any amounts previously recognised in other comprehensive income in respect of that 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

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

### 5.1 Fair value determination

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

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

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

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

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

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

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

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

It is typical of illiquid instruments that their price calculated using a pricing model differs from the actual transaction price. However, the actual transaction price is the best evidence of the instrument's fair value. The Day 1 profit/loss, based on the difference between the actual transaction price and the price deriving from the pricing model that uses market prices, is recognised in the income statement over the term of the agreement 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 shall estimate the expected cash flows by considering all the contractual terms of the financial instrument excluding the expected credit losses (ECL). The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs, and all other premiums or discounts.

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

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

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

#### 5.3.1 Loans and notes and bonds

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

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

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

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

*Business model*

A business model refers to how OP 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 Executive Board 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 measure-ment category | New measure-ment 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 uses Bloomberg's SPPI Test solution to test the cash flow characteristics of notes and bonds. On the basis of its test result (pass/fail), the SPPI test is either passed or failed with no further reviews or OP Corporate Bank 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 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 equity 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. In such a case, a concession resulting from weaker repayment capacity has to be given to the loan terms – such as a repayment holiday – for a limited period. Generally in these cases, the contractual cash flows of a loan are renegotiated or otherwise modified and the renegotiation or modification does not result in the derecognition of that loan. Modifications in payment terms are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

If modifications to the loan terms are significant or the loan is renegotiated, OP 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.

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 a temporary overlay approach to some of these instruments, which will restore the profit/loss impact of these instruments to be aligned with the IAS 39. OP Corporate Bank will stop applying the overlay approach at the latest when IFRS 17 Insurance Contracts becomes effective. The overlay approach is aimed at reconciling temporary earnings volatility resulting from the different dates of entry into force of IFRS 9 and IFRS 17 when investments are measured at fair value through profit or loss in accordance with IFRS 9 but the related insurance liability can not yet be measured at fair value through profit or loss in accordance with IFRS 17.

### 5.4 Impairment

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

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

#### 5.4.1 Classification of contracts into three impairment stages

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

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

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

*Definition of default*

In the IFRS 9 based calculation, OP 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. Default as definition for private customers is applied on a contract-by-contract basis whereas corporate customers are reviewed in terms of a group of connected clients. A customer is classified as a default customer when it is probable that the customer will not pay his loan obligations in full without OP 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.

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

*Significant increase in credit risk*

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

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

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

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

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

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

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

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

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

*Determining the period of a contract*

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

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

*Forward-looking information*

The calculation model includes forward-looking information and macroeconomic scenarios. OP 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 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 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" counterparty, it is excluded from this method and returns to be included in the ECL measurement based on the normal PD/LGD model after a three-month trial period.

### 5.4.3 Impairment of notes and bonds

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

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

#### 5.4.3.1 Bloomberg tool

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

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

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

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

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

#### 5.4.3.2 Model based on credit rating information

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

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

#### 5.4.3.3 Classification of notes and bonds into impairment stages

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

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

### 5.4.4 Impairment of off-balance-sheet items

Several products provided by OP 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 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 securities the counterparty 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. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

### 5.8 Accounting policies regarding financial instruments in 2017

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

#### 5.8.1 Impairment of financial assets in 2017

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

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

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

- a significant decline in the issuer's financial results, credit rating, balance sheet, payment status or business plans, and unfavourable changes in the issuer's economic and operating environment;
- a *bona fide* bid for the same or similar investment from the market below acquisition value;
- events or circumstances that significantly weaken the issuer's ability to operate on a going concern basis,

such as negative cash flows resulting from operations, insufficient capital and shortage of working capital;
- a debtor's bankruptcy or other reorganisation becoming probable;
- a borrower's breach of contract;
- a concession granted to the borrower;
- impairment recognised earlier; and
- the disappearance of an active market for a financial asset.

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

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

### 5.8.2 Securities sale and repurchase agreements in 2017

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

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

### 5.8.3 Classification and recognition of financial instruments

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

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

Financial assets and liabilities are offset in the balance sheet if OP 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. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

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

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

Financial instruments at fair value through profit or loss include financial assets and liabilities held for trading, derivative contracts held for trading and financial assets at fair value through profit or loss at inception. Financial assets at fair value through profit or loss are initially recognised at fair value and transaction costs are charged to expenses. A subsequent change in fair value as well as capital gains and losses, interest income and expenses, and dividend income are recognised in the item by their nature in the income statement.

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

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

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

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

Bonds, which OP Corporate Bank, in accordance with the Group's risk management principles, manages and assesses their performance at fair value in order to receive a true and real-time picture of investment operations, are defined as those recognised at fair value through profit or loss at inception. Reporting to the Group's management is based on fair values.

Since the business involves investment on a long-term basis, financial assets are presented separately from those held for trading.

Financial assets at fair value through profit or loss also include hybrid instruments in which the fair value of an embedded derivative cannot be determined separately.

### 5.8.3.2 Loans and receivables in 2017

Financial assets classified as loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.

Receivables related to insurance contracts, claims administration contracts and disposal of investments are presented within this asset class. These financial assets are shown as receivables from customers, from credit and financial institutions or as other assets in the consolidated balance sheet.

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

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

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

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

If the contractual payment terms of a loan are modified, the reason for such modification and the severity class are documented using an internally defined scale. Loans may also be modified for reasons related to the management of customer relationships, not to the financial difficulties of the customer. Such modifications do not affect loan impairment recognition. In some cases, the company may, due to the customer's financial difficulties, modify the loan terms and conditions, such as in terms of repayment holiday for a limited period or another loan modification, which are aimed at securing the customer's repayment capacity and limiting credit risk associated with liabilities. Such renegotiated loans are reported as doubtful receivables. Modifications in the contractual payment terms that are due to the customer's financial difficulties are forbearance measures and together with other criteria reduce the customer's credit rating and thereby increase collective impairment allowance. In addition, they will also have an effect on the loan being assessed on an individual basis for impairment. If the customer has adhered to the new payment terms and no impairment allowance has been recognised for the customer's exposure, it will be removed from doubtful debt classification after two years. Modifications in payment terms are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

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

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

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

### 5.8.3.3 Held-to-maturity investments in 2017

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

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

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

### 5.8.3.4 Available-for-sale financial assets in 2017

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

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

In the case of available-for-sale financial assets, for example, a significant downgrade of the credit rating of the issuer of bonds and notes, or a significant or prolonged decline in the equity instrument's fair value below its cost, constitutes objective evidence. If an equity instrument's market value continues to fall following impairment recognition, the impairment loss will be recognised in the income statement.

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

Interest income related to available-for-sale financial assets are recognised under Net interest income in the income statement and dividends under Net investment income.

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

### 5.8.4 Cash and cash equivalents in 2017

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

### 5.8.5 Other financial liabilities in 2017

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

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

## 5.9 Derivative contracts

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

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

The Group's 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 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.

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. The Group's parent company, OP Corporate Bank plc, also concludes derivative contracts which are in fact used to hedge against financial risks but which do not fulfil these criteria.

#### 5.9.1 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 concludes derivative contracts which are in fact used to hedge against financial risks but which do not fulfil these criteria.

#### 5.9.2 Derivatives held for trading

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

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

### 5.10 Hedge accounting

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

The relationship between hedging and hedged instruments is formally documented, containing information on risk management principles, hedging strategy and the methods used to demonstrate hedge effectiveness. Hedge effectiveness is tested at the inception of the hedge and in subsequent periods by comparing respective changes in the fair value or cash flows of the hedging instrument and the hedged item. The hedge is considered 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%.

#### 5.10.1 Fair value hedges

Fair value hedging against interest rate risk involves long-term fixed-rate debt instruments (OP Corporate Bank's own issues), individual bond and loan portfolios, as well as individual loans. OP Corporate Bank uses forward exchange contracts and interest-rate and currency swaps as hedging instruments. Hedging against equity and foreign currency risks applies to Non-life Insurance's equity fund investments.

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

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

#### 5.10.2 Cash flow hedges

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

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

## 6 Investment property

Investment property is land and/or buildings or part thereof held to earn rental income or for capital appreciation. Property, a minor part of which is used by the owner company or its personnel, is also accounted for as investment property. However, a part of property used by the owner company or its personnel is not accounted for as investment property if the part can be sold separately. Investment property is shown as investment assets in 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, the Group uses the income approach and internal methods based on property-specific net income to determine the fair value of commercial, office and industrial premises. OP Corporate Bank Group uses both its internal and external information in the income approach. A property's net income comprises the difference between rental income and maintenance charges and 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, the Group obtains information on market rental and cost levels from sources outside the Group, in addition to its own expertise. The return requirements for investment property holdings are determined on the basis of the property's purpose of use, location and condition/modernness and are based on market data provided by an external expert.

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

## 7 Intangible assets

### 7.1 Goodwill

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

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

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

### 7.2 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 10–13 years.

### 7.3 Brands

Identifiable brands acquired through business combinations are measured at fair value upon acquisition. The estimated useful lives of brands acquired through business combinations are indefinite, since they will generate cash flows for an indefinable period. The value of brands is tested annually for impairment.

### 7.4 Other intangible assets

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

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

## 8 Property, plant and equipment

Property, plant and equipment (PPE) assets are measured 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 tangible assets | 3–10 years |

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

### 8.1 Impairment of PPE and intangible assets

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

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

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

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

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

## 9 Leases

Whether a lease is classified as a finance lease or an operating lease depends on the substance of the transaction. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incident to ownership to the lessee. All other leases are classified as operating leases. Lease classification is performed at the inception of the lease.

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

Assets leased under finance lease are recognised as property, plant and equipment and the corresponding finance lease liability is included in other liabilities. At the inception of the lease term, these leased assets are recorded as assets and liabilities at the lower of the fair value of the asset and the present value of the minimum lease payments. PPA assets are depreciated over the shorter of the lease term or the life of the asset. Finance charges are recognised in interest expenses so as to produce a constant periodic rate of interest on the remaining balance of the liability.

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

## 10 Employee benefits

### 10.1 Pension benefits

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

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

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

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

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

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

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

### 10.2. Long-term management remuneration scheme

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

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

## 11 Insurance assets and liabilities

### 11.1 Classification of 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 into categories takes account of the insured object and differences in the duration of contracts or the average length of the period between the occurrence of a loss event and the date of the fully-paid claim (claim settlement period).

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

Short-term policies 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 decennial insurance policies under the Housing Transactions Act.

Descriptions of insurance contracts can be found in the section "Risk Management Principles", 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 IAS 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 provisions for unearned premiums and provision for unpaid 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 unpaid claims arises from reported and non-reported claims incurred and from their claims and settlement expenses paid in the future.

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

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

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

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

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

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

## 11.4 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

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

## 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 unpaid 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 the Group's 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. 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.

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

## 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 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 Banking, fees are also charged outside OP Corporate Bank, such as for securities brokerage, asset 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, asset 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.

Non-life insurance contracts with which no underwriting risk is associated are recognised as revenue under IFRS 15 and presented in net commissions and fees. Commissions and fees mainly consist of income from health and wellbeing services as well as from insurance brokerage fees. Income from health and wellbeing services is recognised for each treatment visit after the service has been rendered. The fee is charged from the customer after the service based on the list of charges and fees. In occupational healthcare agreements, income is recognised over time during the contract period and the fee is charged from the customer on a monthly basis as agreed. In healthcare and wellbeing services, OP Corporate Bank Group 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.

Some derivatives sales commissions are recognised in the Other Operations segment and then credited to Banking in terms of net commissions and fees. Such credited commissions turn Other Operations' net commissions and fees negative.

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

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

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.<br><br>Fees that are regarded as compensation for the risk taken by the bank associated with the financial instrument and as being an integral part of the financial instrument's effective interest rate. |
| Net insurance income | Non-life Insurance premiums written and paid claims, including the reinsures' share. |
| 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.<br><br>Commission expenses for payment transactions, securities brokerage, securities issuance, investment management, insurance operations as well as for healthcare and wellbeing services. |
| Net investment income | Fair value changes in financial instruments at fair value through profit or loss, excluding accrued interest, and capital gains and losses, as well as dividends.<br><br>Realised capital gains and losses on financial assets recognised through other comprehensive income (Available-for-sale), impairment losses and dividends.<br><br>Income from loans and receivables recognised at amortised cost, and impairment loss.<br><br>Fair value changes in investment property, capital gains and losses, rents and other property-related expenses.<br><br>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 | Services purchased from others, ICT production and development costs, administrative expenses, charges of |

| | |
|---|---|
| | financial authorities, rents and other expenses. |
| Impairment loss on receivables | Expected credit losses from customers, off-balance-sheet items and notes and bonds as well as final credit losses and their reversals. |

## 16 Charges of financial authorities

OP Corporate Bank Group 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 contributions and fees are recognised under other operating expenses on an accrual basis.

### 16.1 Stability contribution

Stability contributions will be paid to the euro-area Single Resolution Fund (SRF) until 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 2018 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 Banking, Non-life 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 operating environment and on the actuarial analyses of the Group's own claims statistics. An especially high degree of management judgement is required for determining the discount rate and estimating claims expenditure arising from the already occurred loss events. Information on uncertainties included in assumptions related to insurance contracts and their effects can be found in Note 60 Sensitivity analysis of Non-life Insurance.

When estimating the control over structured entities, the central cooperative consolidated takes into account the investor's power to direct the investee's relevant activities and the exposure or right to variable returns from its involvement with the investee. Discretion is exercised when estimating power to direct relevant activities and variable returns. The emergence of control is evaluated in more detail when the investment accounts for 10–20% of the investee's net assets and returns. The investee is consolidated as a subsidiary at the latest when 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 judgements made in the models
- Selection of the estimation methods of the parameters for the ECL models
- Determination of the contract's maturity for non-maturing loans (revolving credit facilities)
- Determination of model risk associated with the quality of the available modelling data and other data
- Proper grouping of contracts into different segments so that their ECL can be calculated using the appropriate model
- Selection of macroeconomic factors in such a way that their changes correlate with the contracts' probability of default
- Forecasting future macroeconomic scenarios and their probabilities.

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

- The expert judgement used in the assessment of change in relative credit risk associated with private customers to ensure a true number of contracts that move to stage 2 before moving to stage 3 (so-called default capture rate)
- The selection of the absolute threshold that is based on historical default behaviour and OP 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 markets for financial instruments are not active. The management must also assess whether an individual financial instrument is actively traded and whether the price obtained from the market is a reliable indication of the instrument's fair value. When the fair value of financial instruments is determined using a valuation technique, management judgement is required to select the applicable valuation technique. Whenever market observable input data is not available for outputs produced by valuation techniques, the management must evaluate how much other information will be used.

The present value of pension obligations depends on several factors determined by using several assumptions. The discount rate, future increases in salaries and pension payments and the inflation rate are the assumptions used to determine net costs (or income) arising from pensions. Changes in actuarial assumptions affect the carrying amount of pension obligations. This is presented in more detail in Note 30 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 36 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 New standards and interpretations

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

### 19.1. IFRS 18.3 Leases

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

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

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

For leased contracts, OP Corporate Bank defines the lease term as follows:

- A fixed term that cannot be extended or terminated without any good reason or sanction or,
- based on management judgement, for a maximum of three years covering the earnings path when it is the

question of a property lease until further notice to which a mutual notice period applies. If the lease is fixed at first and is renewed to be valid until further notice as described above, the lease term is a combination of these. When such a lease has been terminated, the notice period is defined as the lease term. When determining the lease term, OP assesses that it is reasonably certain that the lessee stays on the premises longer because the property based on the lease has a central location and no substitutive property is necessarily available.

- the lessor's notice period if it is the question of a property lease until further notice to which a mutual notice period applies. The lease term will always be renewed with a new notice period after the notice period unless the lease has been terminated. When determining the lease term, OP assesses that it is reasonably certain that leases have been concluded for a longer time because terminating and renewing such leases would not be profitable.
- Or the useful life of the leased property if it is shorter than the lease terms mentioned above.

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

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

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

OP 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 and company cars. Base on a preliminary estimate regarding the adoption of 1 January 2019, OP Corporate Bank will recognise around EUR 7.2 million in fixed assets and lease liability in its balance sheet. Undiscounted lease liabilities amounted to EUR 3.2 million on 31 December 2018 (Note 39. Operating leases).

| Reconciliation statement | € million |
|---|---|
| Operating lease commitments on 31 December 2018 as disclosed in the notes | 3 |
| Operating lease obligations discounted at borrowing rate on 31 December 2018 | 3 |
| Adjustments relating to different treatment of renewal options | 4 |
| Lease liability on 1 January 2019 | 7 |
| Lease liability was discounted at borrowing rates on 31 December 2018. The weighted average rate applied was 0.2% | |
| **Right-of-use assets on 1 January 2019** | **€ million** |
| Buildings | 6 |
| Vehicles | 0 |
| ICT equipment | 1 |
| Machinery and equipment | - |
| Total right-of-use assets | 7 |

### 19.2 IFRS 17 Insurance Contracts

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

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

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

- Estimates of future cash flows adjusted to reflect time value of money
- A risk adjustment for OP 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 its is recognised as revenue during the policy period based on how the insurance service is produced.

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

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

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

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

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

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

IFRS 17 affects the valuation and recognition of OP 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 its preparedness related to the adoption of the standard by assessing the needs for changes and by assessing its impact 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 Nevertheless, the IASB decided in November 2018 that it would propose the adoption date of IFRS 17 to be postponed until 1 January 2022. This proposal will be discussed after hearing the draft standard. The European Union has not yet adopted IFRS 17.

### 19.3 Other upcoming amendments to standards

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

## Note 2. OP Corporate Bank Group's risk and capital adequacy management principles

OP Corporate Bank's core values, strategic goals and financial targets form the basis for risk management and capital adequacy management. The purpose of risk management is to identify threats and opportunities affecting strategy implementation. Risk management aims to achieve the targets set in the strategy by controlling that risks are proportional to risk capacity.

OP Corporate Bank adopts a policy of moderate risk-taking and its business operations are based on a reasoned risk/return approach. OP Corporate Bank applies integrated risk management aimed at identifying, assessing and mitigating all significant business-related risks to an acceptable level.

OP Financial Group's risk policy controls OP Corporate Bank's risk-taking. In the risk policy, the central cooperative's Executive Board confirms annually risk-management principles, actions, objectives and limits, to be applied by Group entities, that are used to guide business to implement the policies confirmed in the Group's strategy and the principles of the Risk Appetite Framework (RAF). In addition, Non-life Insurance is guided by non-life insurance guidelines, reinsurance principles, investment plans and the policy governing hedging against interest rate risk associated with insurance liabilities.

### 1. General principles of risk and capital adequacy management

Risk and capital adequacy management falls under internal control. Its purpose is to ensure OP Corporate Bank Group's risk capacity and liquidity and, thereby, ensure business continuity.

Risk capacity is made up of effective risk management that is proportionate to the extent and complexity of operations and of adequate capital resources and liquidity based on profitable business operations. Capital adequacy management is based on a proactive approach based on the Group's business strategy and plans. Well-balanced risk-taking, capital structure, strong earnings power and proactive risk management secure OP Corporate Bank Group's risk capacity. Risk and capital adequacy management has been integrated as an integral part of the company's business and management.

OP Corporate Bank Group follows the principles of OP Financial Group's risk-taking and Risk Appetite Framework adopted by OP Cooperative's Supervisory Board. The principles specify how the Group's risk-taking is controlled, limited and supervised and how the risk management and internal capital adequacy assessment process (ICAAP) is organised.

### 1.1 Risk identification, assessment, measurement and mitigation

The risk management and ICAAP process consists of the continuous identification and assessment of risks associated with business and the operating environment. Before the company launches any products or services or adopts new operating models or systems, it assesses their risks using procedures as laid down by the central cooperative's Risk Management.

Quantifiable risks are mitigated by means of limits set by the central cooperative's Executive Board for capital adequacy and significant risks. The limits ensure that OP Corporate Bank Group does not take excessive risks to endanger its own or OP Financial Group's capital adequacy, profitability, liquidity and business continuity.

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

The central cooperative's independent Risk Management monitors the development of OP Corporate Bank Group's and its subsidiaries' risk exposure and risk capacity. It provides regular reports on its observations and assessments to OP Corporate Bank plc's Board of Directors, OP Cooperative's Executive Board and the Supervisory Board's Risk Management Committee.

### 1.2 Economic capital requirement

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

Economic capital is divided into quantitative and qualitative, or assessable, risks. Quantitative risks include credit risk, Banking interest rate, equity and property as well as market risk associated with long-term investment and insurance operations, and market associated with trading and underwriting risks. The assessable risks are divided into operational risks and other risks. 'Other assessable risks' include any significant risks that have not been taken into consideration in any other risk-specific models related to economic capital. These risks are typically caused by external factors, such as changes in competition or the market situation or regulatory measures. Well over a third of OP Corporate Bank Group's economic capital requirement consists of credit risks and about a fourth of market risks associated with long-term investment and insurance operations.

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

Indicators based on the economic capital requirement are used, for example, in target and limit indicators, loan pricing and insurance rating and in capital planning when determining the capital conservation buffer.

### 1.3 Capital management

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

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

Capital adequacy management places emphasis on profitability and effective capital management. OP Corporate Bank plc's parent company, OP Cooperative, is responsible for capital management on a coordinated basis.

### 2. Organisation of risk management

OP Corporate Banks operations are being managed in accordance with OP Financial Group central cooperative consolidated's management system through Banking and Non-life Insurance business segments.

OP Corporate Bank's Board of Directors decides on the company's business strategy based, among other things, on the principles issued by the central cooperative's Executive Board and approves a business plan and supervises their implementation. It also confirms risk policy, funding plan, capital plan and proactive contingency plan for the capital base, investment plan, business continuity plan and significant risk management principles.

The Board of Directors supervises and monitors the implementation of risk and capital adequacy management and the fact that the company's risk management is in conformity with laws, official regulations and instructions issued by the central cooperative. The Board of Directors is responsible for the sufficiency of risk management systems and supervises their extent and performance. It also supervises the quantity and quality of capital, financial performance, risk exposure and compliance with the risk policy, limits and other instructions. The Board of Directors assesses the appropriateness, extent and reliability of OP Corporate Bank Group's capital adequacy management on a holistic basis at least once a year.

The Insurance Committee makes underwriting decisions within the framework of confirmed powers. It reports its decisions to the Insurance Customers management team.

OP Corporate Bank's President and CEO takes charge of the overall control of the company in such a way that the company as a whole achieves its profit, risk capacity and other targets and goals by following shared strategies and policies.

OP Corporate Bank Group's business lines must bear primary responsibility for their risk-taking, financial performance and compliance with the principles of internal control and risk management and capital adequacy management. The business lines have the right to make decisions on risk-taking within the approved decision-making powers, exposure limits and credit limits.

The central cooperative is in charge of the OP Financial Group level risk and capital adequacy management.

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

OP Corporate Bank Group's risk and capital adequacy management duties have been centralised within the parent company, OP Cooperative.

OP Financial Group's Internal Audit function is tasked with assisting OP Corporate Bank's Board of Directors and the company's senior management in controlling, supervising and assuring operations by carrying out operational audits. Internal audit is based on an independent and objective assessment, assurance and consulting activities. It supports the management in their efforts to achieve objectives by providing a systematic, disciplined approach to assessing and upgrading the efficiency of the organisation's risk management, control and management and governance processes, with the focus on the identification of risk factors and the assessment of the performance of internal control.

### 3. OP Corporate Bank Group's risks

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

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

### 4. Strategic risks

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

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

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

### 5 Management of operational risks

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

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

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

In its operational risk management, OP Corporate Bank adheres to a uniform OP Financial Group level, system-supported operating model. Business units assess operational risks, involving identifying and assessing their risks and defining and monitoring measures designed to reduce them. Each month, the business units report all events above a certain threshold through the operational risk reporting and management system. The report describes reasons for the loss event and measures taken to prevent similar losses.

The Group and its companies assess the level of operational risks and risk-mitigating management tools on a regular basis or immediately whenever necessary, using standardised methods. Reports issued by Internal Audit and ensuring the flow of sufficient information also form an important part of operational risk management.

The coordination, monitoring and reporting related to the identification and assessment of OP Corporate Bank Group's operational risks are carried out by the central cooperative's Risk Management.

### 5.1 Monitoring and reporting operational risks

For reporting purposes, operational risks are divided into different categories. Identified and materialised risks are reported to the executive management.

### 6. Model risks

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

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

### 7. Compliance risks

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

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

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

Guidelines, advice and support concerning compliance within OP Financial Group are the responsibility of the compliance organisation that is independent of the central cooperative. Central cooperative consolidated entities and OP Corporate

Bank Group have concentrated compliance functions in the centralised compliance organisation, in addition to which the most significant central cooperative consolidated companies have their own compliance officers.

### 7.1 Compliance risk management tools

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

### 7.2 Compliance risk monitoring and reporting

Compliance risks are identified, assessed and reported regularly according to the operational risk management model as part of the assessment of operational risks. The Compliance function reports regularly on its observations to the business lines as well as to the senior and executive management.

## 8. Reputational risk

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

Reputational risks are reported regularly to the management of the Group's parent company and subsidiaries. Any threat to imminent reputational risk will be reported immediately.

## 9. Risk management of Banking

### 9.1 Credit risks

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

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

### 9.2 Credit risk management

Credit risk management is based on active customer relationship management, good knowledge of customers, strong professional skills and comprehensive documentation. The day-to-day credit process and its effectiveness play a key role in the management of credit risks. A customer's sufficient debt-servicing capacity is the prerequisite for all lending. Careful and deliberate lending decisions are based on decision-making guidelines and updated credit rating. Credit rating controls customer selection, consequences of insufficient collateral and exposure pricing.

The assessment of customers' debt-servicing capacity and credit risk uses not only credit ratings but also payment behaviour data, financial statements analyses and forecasts, corporate analyses, statements and sector reviews, and customer needs analyses, credit rating assessments or other documents produced by account managers.

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

In order to ensure repayment, the Group takes collateral for exposures. With respect to larger corporate customers in particular, the Group also uses financial covenants to ensure the availability of information and an option to re-evaluate loan terms and conditions, collateral requirements or pricing should the risk status changes.

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

### 9.3 Credit risk monitoring

OP Corporate Bank Group monitors developments in credit risks regularly relative to the set limits. In addition, it monitors the quality and structure of the loan portfolio and doubtful receivables.

Customer monitoring consists of an annual analysis of financial statements and interim reports, and continuous monitoring of the customer's payment behaviour and business.

OP Corporate Bank Group monitors continuously customer credit record and doubtful receivables on the basis of information obtained from OP Financial Group's internal systems and from an external monitoring services. Customers whose financial status performance, credit risk and payment behaviour justify a more detailed review are subject to special control. In this context, the Group also analyses the need to revise the customer's credit rating, the probability of a credit loss and the need to recognise an impairment loss. This often also means that the credit decision is made by a higher-level decision-making body.

### 9.4 Decision-making

The central cooperative consolidated decision-making guidelines governing Banking exposures describe the decision-making system for the central cooperative consolidated Banking exposures. Decision-making bodies and decision-makers make decisions on exposures within the framework of OP Financial Group's Risk Policy, limits and exposure limits confirmed by OP Financial Group's Credit Risk Committee as well as instructions and adopted decision-making powers. Depending on the borrower grade, the exposure amount and the amount of insufficient collateral concerning a group of connected clients, decisions on exposures are made by the central cooperative consolidated's Banking Senior Credit Committee, Credit Committee and two authorised persons together. In addition, OP Corporate Bank Group also utilises an automated credit decision system, for example, in consumer lending.

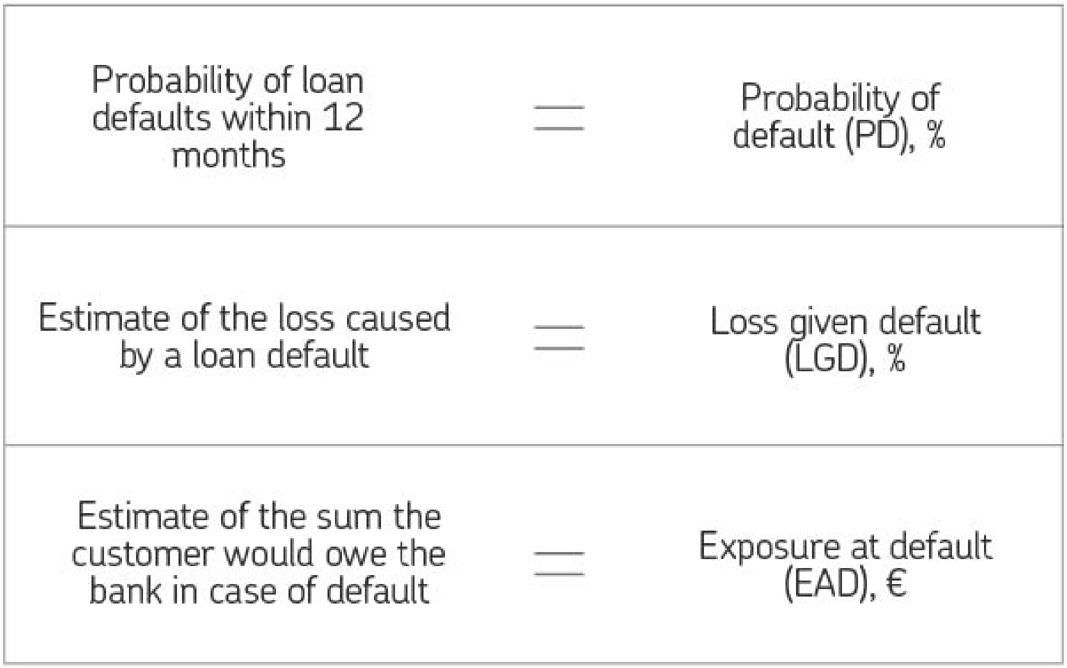
### 9.5 Credit risk models

OP Financial Group uses credit risk models for Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD).

The Group makes extensive use of credit risk models in measuring and managing credit risk, such as in

- lending and pricing;
- specifying financing decision-making powers;
- setting and monitoring the loan portfolio's qualitative targets;
- credit risk reporting;
- capital adequacy measurement using the Internal Ratings Based Approach (IRBA);
- measuring economic capital requirement and expected loss; and
- measuring expected credit loss.

## Credit risk models



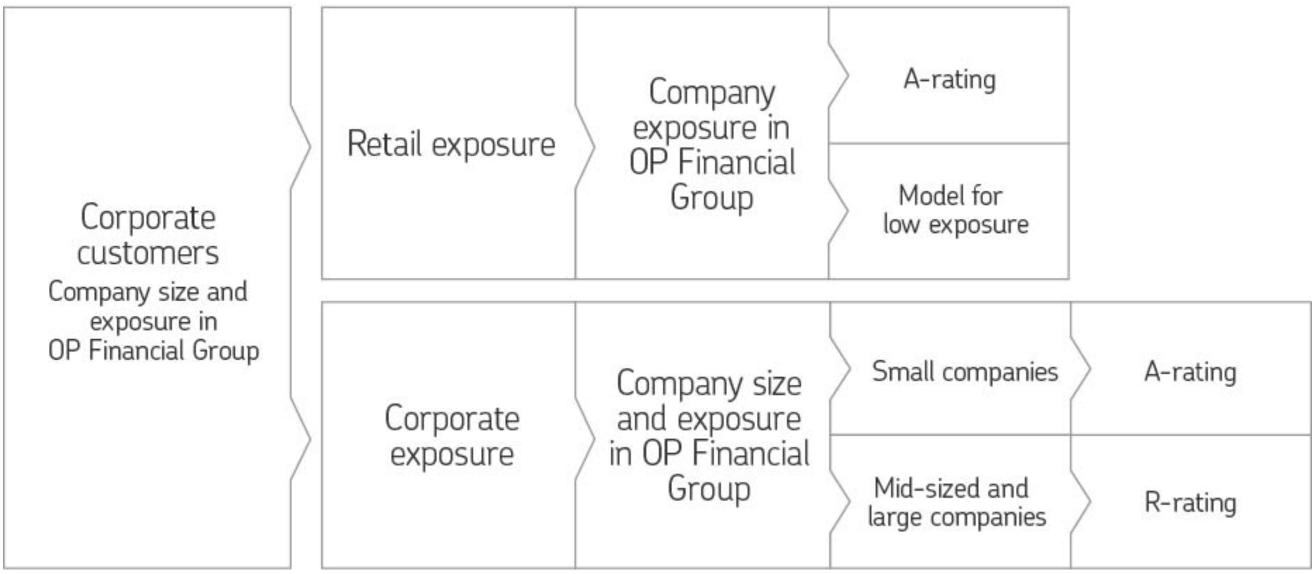

### 9.5.1 Credit rating and probability of default

The purpose of credit rating is to group customers (agreements in the case of private customers) by borrower grade based on probability of default. Default means that some of the customer's exposures becomes a receivable to OP Financial Group that is over 90 days past due or some other more severe payment default. A default customer also means a customer who does not fully meet his/her payment obligations without the bank's measures (e.g. realisation of collateral). Probability of default, or PD, is the average proportion of default events estimated for each borrower grade during one year over the economic cycle. When the economy is thriving, the actual proportion of default customers in a given borrower grade is lower than the estimated PD.Probability of default increases by many times when moving to lower borrower grades compared with high borrower grades.

### 9.5.2 Assessing corporate customers' probability of default

OP Corporate Bank Group assesses the probability of default of its corporate customers using OP Financial Group's internal 20-level credit rating system on a scale of 1.0–12.0, with 11–12 borrower grades representing defaulting customers.

## Rating of corporate customers in OP Financial Group



The R rating for mid-size and large corporate customers is based on the company's financial indicators and qualitative background data on the basis of which a statistical model generates a proposal for rating. An expert familiar with the customer will make a rating proposal on the basis of what is suggested by the model and 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 potential default customers, on a half yearly basis.

Suomen Asiakatieto's automated rating model, Rating Alfa, forms the basis of small corporate customers' A rating. The rating Alfa variables include information on payment default and payment practices of the company or its persons in charge, key indicators based on financial statements and the customer's basic data. Risk scores provided by the rating Alfa and OP Financial Group's internal payment behaviour data are used to generate OP Financial Group's borrower grades that will be changed based on expert assessments, if need be.

The validity of the borrower grade of almost all A-rated customers within the Corporate Exposures group is assessed at least once a year.

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

Borrower grades generated by the corporate rating models are comparable because, irrespective of the model, each borrower grade is subject to the same probability of default. In deriving probability of default, the central cooperative consolidated has used recent years' actual payment default data, long-term loan loss data and bankruptcy statistics and the cyclical nature of the model. The need for updating probabilities of default for each grade is assessed annually.

OP Financial Group's credit ratings for corporate customers and Standard & Poor's (S&P) equivalent

| S&P Rating | AAA...AA- | A+...A- | BBB+...BBB- | BB+...BB- | B+...B- | CCC+...C |
|---|---|---|---|---|---|---|
| OP Financial Group | 1.0–2.5 | 3.0–4.0 | 4.5–5.5 | 6.0–7.0 | 7.5–8.5 | 9.0–10.0 |

### 9.5.3 Assessing credit institutions' probability of default

Credit institution exposure is divided into 20 grades ranging from 1.0 to 12.0, with defaulted customers falling into categories 11–12.

A specific L rating model is used to assess the probability of default of credit institutions as counterparties, the structure of which corresponds to the R rating model.

The statistical model as the basis of the credit rating is based on financial indicators in financial statements and on qualitative background data. Such rating can be revised by an expert with warning signs and, in many cases, rating is also affected by the parent company's support to the banking group and by the Sovereign Ceiling rule whereby the counterparty cannot be better than the country concerned in terms of creditworthiness. The independent Risk Management within the central cooperative decides ratings for credit institutions at least once a year.

OP Financial Group's credit ratings for credit institutions and Standard & Poor's (S&P) equivalent

| S&P Rating | AAA...AA+ | AA...BBB+ | BBB...BBB- | BB+...BB- | B+...B | B-...CCC |
|---|---|---|---|---|---|---|
| OP Financial Group | 1.0–2.0 | 2.5–4.5 | 5.0 | 5.5–7.0 | 7.5–8.0 | 8.5–10.0 |

### 9.5.4 Assessing probability of default of private customer agreements

OP Financial Group uses a 16-level scale of A F to assess the probability of default for its private customer agreements, with F representing defaulting borrowers.

The Group assesses monthly all private customer agreements' PD using a loan portfolio rating model. The loan portfolio rating is based on a customer's basic data, payment behaviour and other transaction history data. The scores calculated on the basis of this data determine the borrower grade. Average PDs have been calculated for each borrower grade for a period of 12 months. The loan portfolio rating model is used for credit risk assessment and capital requirement calculation.

OP Corporate Banks's private customer exposures are categorised, before any loan portfolio rating model, mainly using the application-stage rating model for finance company products. The rating based on the application stage supports the loan approval process, credit risk assessment and the pricing of new loans.

### 9.5.5 Country rating

OP Corporate Bank Group examines country risks on the basis of external credit ratings.

### 9.5.6 Loss given default (LGD) and exposure at default (EAD)

In addition to the models used for assessing probability of default, OP Corporate Bank Group uses models for predicting loss given default (LGD) and exposure at default (EAD) to measure credit risk. EAD refers to the estimated amount of the bank's receivable from the customer at default. Off-balance-sheet exposures at default are determined on the basis of the conversion factor (CF). Loss Given Default, or LGD, is an estimate of a financial loss incurred by the bank, as a share of EAD, if the customer defaulted.

## 9.6 Use of credit risk models in capital adequacy measurement

For the measurement of credit risk for capital adequacy, OP Financial Group has permission from the supervisory authority to use the Internal Ratings-based Approach for corporate and credit institution exposures, retail exposures and equity investments.

OP Corporate Group applies the Foundations Internal Ratings Based Approach (FIRBA) to measure capital adequacy requirement for credit risk on corporate and credit institution exposures. In FIRBA, an estimate of probability of default (PD) generated by OP Financial Group's credit risk models affects the capital adequacy requirement for credit risk associated with the customer. Regulatory standard estimates are used for LGD and CF.

The Group uses FIRBA to calculate the capital requirement for credit risk on retail exposures, in which the capital requirement is affected by the PD, LGD and EAD values of OP Financial Group's internal credit risk models. The Group uses the Standardised Approach (SA) for government and central bank exposures and for some other exposure categories (like those of the Baltic countries). As a rule, a simple model applies to equity investments. The PD/LGD method applies to OP Financial Group's strategic investments, where the PD values are based on internal models and LGD values on standard estimates.

## 9.7 Decision-making and assessment related to credit risk models

The models are developed and maintained by Risk Management, independent of business lines/divisions. In the development of new models and changes in models in production, the approval of the content by Risk Management is segregated from the implementation decision made by the executive management. If such adoption requires permission from or notification to the relevant authority, Finance and

Treasury will apply for the required permit before any decision on the adoption.

The effectiveness of the credit rating process and credit risk models is subject to regular monitoring and supervision. The monitoring is aimed at giving real-time picture of the functionality and quality of the credit risk models by assessing the performance of the model by means of quantitative and qualitative reviews. OP Financial Group's Risk Management collects continuous feedback from the business lines/divisions on the effectiveness of the credit rating process and credit risk models.

In addition, the Group assures the quality of the models at least once a year in accordance with the validation instructions approved by OP Financial Group's Risk Management Committee. The set of the validation instructions contains requirements for quality assurance carried out when adopting a model. Validation uses statistical methods to test, for example, the model's sensitivity and the validity of risk parameter estimates (PD, LGD and EAD). Validation also involves qualitative assessment, such as feedback received from monitoring, and a peer group analysis. The results of validation and any proposals for development measures are reported to the Risk Management Committee, which decides on any improvements on the basis of the validation.

OP Financial Group's Internal Audit performs audits to ensure the independence of validation. It also controls the risk model development process and the appropriate and extensive use of the models on the basis of its risk-based assessment.

### 9.8 Securitisations

OP Corporate Bank has not acted as an originator or manager of securitisation transactions but has invested in securitised assets. The underlying assets that have been securitised are subject to regular monitoring. In calculating the total amount of the risk-weighted assets of securitisation exposures, the Group has applied IRBA to credit risk when the securitisation exposure belongs to the exposure category to which the assessment model based on credit rating is applied.

### 9.9 Counterparty risk

Counterparty risk associated with derivative contracts arises from receivables which OP Financial Group may have from its counterparties in case they default.

Capital adequacy requirement due to counterparty risk may arise from items related to financing operations and the trading book. Capital adequacy requirement due to counterparty risk is calculated, for example, on OTC derivatives and sale and repurchase agreements.

The Group measures counterparty risk using a fair value model, whereby the value of liability comprises the contract market value and the expected potential future exposure. The market value of counterparty credit risk adjusted using a Credit Value Adjustment (CVA) is determined at counterparty level.

OP Financial Group's portfolio of derivatives consists mainly of interest rate derivatives in which no parallel correlation exists between the creditworthiness of the counterparty to the derivative contract and interest rates (so-called Wrong Way Risk).

OP Financial Group manages counterparty risks associated with derivative contracts through master agreements enabling netting related to bankruptcies, through collateral and optional early termination. The Group confirms counterparty exposure limits once a year when it also checks the amount and the status of collateral applying to limits for derivatives. OP Financial Group uses netting for counterparty exposure arising from derivative contracts in both capital adequacy measurement and the monitoring of credit risk limits. Derivative contracts are also novated to a central counterparty.

## 10 Concentration risks

Concentration risks associated with OP Financial Group arise, for example, from Finland being as the main market, customer, industry and country concentrations, insurance entities' investment as well as from funding.

The management of concentration risks is closely integrated with other risk management, and these are monitored on a regular basis. Concentration risk management is based on Group-level guidelines and principles as well as risk tolerances and limits that are used to ensure sufficient diversification in terms of time and quantity and to avoid excessive risk concentrations by customer group, financial instrument, industry, borrower grade, maturity period and country. Funding sources are also diversified by geographic region, market and investor.

## 11. Liquidity risk management

Liquidity risk comprises funding liquidity risk, structural funding risk, funding concentration risk and asset encumbrance. Funding liquidity risk refers to the risk that OP Financial Group will not be able to meet its current and future cash flows and collateral needs, both expected and unexpected, without affecting its daily operations or overall financial position. Structural funding risk refers to uncertainty related to long-term lending, arising from the refinancing risk due to the structure of funding. Funding concentration risk refers to the risk that funding becomes more difficult due, for example, to a transaction related to an individual counterparty, currency, instrument or maturity band. Encumbrance of assets means risk of securing liquidity and reducing free collateral used as funding collateral.

Liquidity risk management is based on the principles of OP Financial Group's Risk-taking System and Risk Appetite Framework, Risk Policy lines as well as on the set tolerances, target levels and the limits and control limits derived from the Group limits to Group entities. The ALM and Risk Management

Committee of the central cooperative's Executive Board approves the qualitative targets set for the liquidity buffer, a funding plan, and a business continuity and contingency funding plan in the case of threat scenarios. The contingency plan contains a control model for liquidity for various threshold levels, funding sources and a contingency funding plan for liquidity management at operational level.

OP Financial Group manages its liquidity position through the proactive planning of the funding structure, the monitoring of the liquidity status and a well-balanced liquidity buffer, planning and management of daily liquidity, the contingency plan based on emergency preparedness, as well as the effective and ongoing control of the Group's liquidity status.

Funding liquidity management is governed by the regulations governing the minimum reserve and marginal lending facility systems by the European Central Bank.

OP Financial Group safeguards its liquidity with a liquidity buffer and other sources of funding referred to in the contingency plan. The liquidity buffer and contingency plan items have been scaled in such a way that OP Financial Group will maintain its liquidity in a long-term liquidity shock too. Liquid funding may be made available for use by OP Financial Group by selling notes and bonds in the liquidity buffer or using them as collateral. The liquidity buffer consists mainly of deposits with the central bank and receivables eligible as collateral for central bank refinancing.

As OP Financial Group's central bank, OP Corporate Bank is tasked with securing the liquidity of the entire OP Financial Group and each Group member cooperative bank or Group entity. OP Financial Group's daily liquidity management refers to managing liquidity of the companies engaged in banking. The liquidity of OP Financial Group's insurance and pension institutions transfers through bank accounts to the Group's overall liquidity. Any changes in their liquidity position will change OP Corporate Bank's liquidity position. The liquidity buffer of Banking within the entire OP Financial Group is managed by the Group's Treasury.

OP Financial Group's funding planning is based on the proactive planning of the funding structure and on the tolerances and limits set for the liquidity risk. Deposits from the general public and wholesale funding form the basis of OP Financial Group's funding. Wholesale funding is aimed at actively and proactively covering funding needs arising from the growth differentials between the receivables and the deposit portfolio in the balance sheet, funding maturity and other internal objectives and credit rating objectives. A solid funding structure requires that the loan portfolio and OP Financial Group's liquidity buffer be funded not only through deposit funding and short-term funding but also through long-term wholesale funding. Diversifying funding sources will reduce OP Financial Group's dependence on an individual source and decrease price risk associated with funding. The Group diversifies its funding by time, maturity, instrument and customer segment.

Any surplus deposits with member banks are mainly channelled to the central cooperative consolidated accounts or instruments it has issued in order not to increase the Group's wholesale funding unnecessarily. OP Corporate Bank manages on a centralised basis OP Financial Group's wholesale funding in the form of senior bonds and equity capital, while OP Mortgage Bank manages wholesale funding based on covered bonds.

The central cooperative's Executive Board is responsible for OP Financial Group's liquidity risk management and controls funding liquidity management using various threshold levels. In cases of market disruption, liquidity management relies on the liquidity contingency plan. Each entity within OP Financial Group controls its liquidity management within the framework of tolerances, limits and control limits issued by the central cooperative and guidelines and of account, deposit and loan terms and conditions.

Other Operations is responsible, on a centralised basis, for OP Corporate Bank's liquidity risk and funding liquidity risk management, long-term funding as well as the maintenance of the liquidity buffer portfolios.

As the central institution of the amalgamation of cooperative banks, OP Cooperative has given its member credit institution special permission, under the Act on the Amalgamation of Deposit Banks, whereby 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.

### 11.1 Monitoring and reporting liquidity risks

OP Corporate Bank's liquidity risk is limited as part of the central cooperative consolidated for which limits have been set for net cash flows by maturity which guide the structural funding risk. The risk indicator for the structural funding risk describes the maximum portion of the net cash flows in the balance sheet that may have a maturity within different time periods. The Group monitors long-term funding maturity using a maturity distribution, for which it has set limits. It monitors structural funding risk on a monthly basis.

In addition, OP Financial Group has set liquidity risk tolerances for the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The calculation of the LCR is based on rules issued by the authorities. The LCR requires that a bank have sufficient liquid assets that cover the net cash outflows from the bank in shocks. The NSFR measures the sufficiency of the amalgamation's stable funding relative to the stable funding requirement of business.

Furthermore, OP Financial Group also monitors Group-level liquidity risk in scenarios based on liquidity stress testing. The funding liquidity risk indicators show for how long the liquidity buffer will cover the known and predictable net cash flows payable daily outside the Group and any unexpected liquidity stress scenario. Liquidity risk is subject to monitoring on a daily basis.

## 12. Market risk management

Market risks comprise structural market risks associated with the banking book and those associated with trading and long-term investment.

Market risks include all interest rate, equity, currency, credit spread and property risks associated with on- and off-balance sheet items as well as other price risks, if any. Market risk also affects the counterparty risk credit valuation adjustment (CVA).

Effective market risk management requires real-time and accurate information on exposures and markets and a quick response to changes.

The task of market risk management is to identify and assess market risks associated with business operations, mitigate them to an acceptable level, and report them regularly.  This ensures that changes in market prices or other external market factors will not excessively deteriorate long-term profitability or capital adequacy.

OP Corporate Bank Group controls and restricts market risk-taking by following the principles of OP Financial Group's risk-taking system and Risk Appetite Framework and using the supplementary Risk Policy, limits and risk management guidelines.

OP Corporate Bank Group assesses its market risks by means of sensitivity analyses, VaR (Value-at-Risk) analyses, and stress tests. VaR-based limiting covers OP Corporate Bank Group's key market risk exposures.

OP Corporate Bank Group uses actively derivatives for trading and hedging purposes. The Group monitors risks associated with derivatives as part of the exposure using the same benchmarks as for balance sheet exposure.

### 12.1 Structural market risk associated with the balance sheet

The most significant sources of the structural market risk in the balance sheet include the interest rate risk associated with the banking book and that associated with the insurance liability of non-life insurance operations.

The interest rate risk associated with banking is by nature structural interest rate risk related to interest income from financing. The banking book consists of the loan and deposit portfolio and domestic and foreign wholesale funding and derivative contracts hedging the abovementioned items. The liquidity buffer and other investment assets are also included in the banking book. The management of market risks associated with the banking book has the aim of hedging the Group's net financial income against interest rate fluctuations and the value change of investment assets against credit spreads. No currency risk is taken in the management of the banking book. In addition to the interest rate monitoring standardised throughout the Group, the Group's Treasury controls interest rate risk by means of interest rate risk limits specific to responsibility areas.

In Non-life Insurance, interest rate risk arises when changes in the interest rate affect the value of and income from investment assets and the cash flows of insurance liabilities. The values of insurance companies' investments and insurance liabilities is sensitive to changes in long-term interest rates. Interest rate risk arises from long-term annuities in particular.

OP Corporate Bank Group hedges interest rate risk for insurance liabilities of Non-life Insurance using the investment portfolio and interest rate derivatives in order to bring the overall risk exposure to the target level set in the investment plan.

### 12.2. Market risks associated with trading

Trading is aimed at earning commission income and benefiting from changes in market prices. Trading exposes OP Corporate Bank to market and counterparty risks. The effects on earnings of the market risks taken in trading are mainly immediately reflected in changes in the fair value of assets and derivatives. The Group limits market risks through VaR and sensitivity figure limits monitored on a daily basis.

### Market risks associated with long-term investment

In OP Corporate Bank Group, investment operations include investment by non-life insurance companies and the management of OP Financial Group's liquidity buffer. 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. Investments made by the insurance companies are aimed at obtaining assets covering insurance liabilities and investing profitably. The aim is that investment operations meet the needs of each entity and business division without compromising the entity's capital adequacy.

OP Corporate Bank Group controls and restrict investment operations by means of OP Financial Group's risk-taking system and Risk Appetite Framework, and Risk Policy. The risk policy provides OP Financial Group and its entities with quantitative and qualitative restrictions in terms of products, regions and creditworthiness. In addition, investment operations are guided by the principles of sustainable investment. The Group limits investment risks through statistical VaR metrics, allocation, credit rating and country risk limits.

Investment plans determining the desired risk and return level also play a key role. These investment plans also specify the mix, range and benchmark indices for investment assets as well as other restrictions on investment.

The investment asset allocation of insurance operations takes account of the insurance companies' risk capacity, structural interest rate risk and other requirements set by insurance liability on investment assets and their liquidity. The Group diversifies investments effectively among various asset classes and investment instruments, both by region and industry.

Insurance companies manage market risks associated with investment and insurance liabilities by means of various investment instruments and derivative contracts. The extent and principles of use of derivatives are determined annually in the companies' investment plans and the principles governing the use of derivatives.

Sensitivity analyses are used to assess investment risks. VaR limitation covers the key investment risk exposures of insurance companies. The Group uses stress tests to assess the effects of exceptional market conditions.

### 12.4 Market risk monitoring and reporting

In OP Corporate Bank Group, the extent and frequency of market risk reporting to the business and management vary by the nature and extent of business from real-time to monthly monitoring.

## 13. Risk management of Non-life Insurance

### 13.1 Risks of insurance operations

The insurance business is based on taking and managing risks. The largest underwriting risks pertain to risk selection and pricing, the acquisition of reinsurance cover, and the adequacy of insurance liabilities. The risk inherent in insurance liabilities lies mainly in insurance lines characterised by a long claims settlement period. In addition to underwriting risks, a significant insurance business risk consists of the investment risk related to the assets covering insurance liabilities.

### 13.2 Underwriting risks

Underwriting risks associated with Non-life Insurance comprise risk of loss or damage, and provision risk.

Risk of loss or damage occurs when there are an above-average number of losses or they are exceptionally large. This results in assets covering technical provisions differing due to expected higher claims incurred. Provision risk arises when the claims incurred due to already-occurred losses are higher than anticipated on the balance sheet date. The uncertainty related to the timing of claims paid out also has an effect on the amount of provision for unpaid claims. Once a loss has been reported, uncertainty may still prevail as regards the size of the loss. However, the most significant uncertainty relates to the assessment of unknown losses.

The majority of claims expenditure in statutory lines of insurance for bodily injuries consists of compensation for loss of income and for medical care. In addition to accidental injuries, statutory occupational accident and occupational disease insurance covers occupational diseases, which tend to develop slowly. For this reason, major uncertainty is involved in assessing claims incurred in the case of occupational diseases.

It is typical of the statutory lines of insurance that the period from the date of the occurrence of loss until the date on which the claim is fully paid is often long. Such underwriting business generates a long-term cash flow, on the evaluation of which the mortality of beneficiaries, medical-cost inflation and return to work have the greatest impact. With respect to occupational accident and occupational disease insurance and motor liability insurance, the insurance company is not, however, liable for the index increments of compensation for loss of income nor for any medical expenses that are paid for over ten years after the accident's occurrence. These are financed through the pay-as-you-go system. The pay-as-you-go system is a scheme based on special laws governing each statutory line of insurance. Under this system, the financing of benefits, the so-called pay-as-you-go benefits, specified in these laws, has been arranged through the pay-as-you-go system. The pay-as-you-go system does not generate any financial benefit or harm to the insurance company that would lead to changes in equity.

Individual claims are usually small in voluntary accident and health insurance. The largest claims may arise from catastrophes with a large number of injured people. Medical-cost inflation has a major impact on projecting cash flows in medical expenses insurance, with respect to illnesses for which compensation is paid for a long time. Rapid progress in medicine and rising pharmaceuticals costs increase medical-cost inflation. Developments in public healthcare will also affect future cash flows. If tax-funded public healthcare services decline, those insured will increasingly start paying for their medical care through medical expenses insurance.

In motor vehicle and cargo insurance, weather conditions have the greatest effect on the number and size of claims. Claims expenditure is therefore larger during the winter than during the summer. The greatest risks within cargo insurance are associated with risk concentrations caused by sea transport and trading stock. In addition, weather conditions, such as storms and floods, and snow and icy roads during the winter relating to motor vehicle insurance may involve accumulation risks covering a geographically large region.

The largest single risks within property and business interruption insurance include fire, natural phenomenon and breakage risks exposed by companies' production facilities and buildings, and the related business interruption risks. Households' individual property risks are small and the related individual claims have no material effect on the Non-life Insurance earnings. The majority of claims expenditure for households is due to leakage, fire and burglary claims.

The risk of natural catastrophes has been considered minor in Finland. However, studies have suggested that there are indications of a change in climatic conditions in our operating region at least in the longer term. The projected temperature increase will probably be reflected in changes in summer and winter conditions and, for instance, in higher precipitation and wind speeds.

Laws and legal practice governing the liability to pay damages have a major impact on the number and size of liability claims. For private individuals, claims have a minor effect on earnings. In addition, private individuals' risks account for a minor share of the total risk within the class. The majority of corporate liability policies consist of product liability and commercial general liability policies. Liability insurance is characterised by losses being revealed and settled slowly, especially in respect of product liability insurance in North America.

Decennial insurance and perpetual insurance are long-term contracts. Decennial insurance is a statutory policy where a loss event requires both a construction defect and the builder's default. The underwriting of perpetual insurance was terminated in the 1970s and their sums insured and associated risks are small due to low inflation. The policyholders consist mainly of private individuals.

A specific risk type consists of a claim accumulation generated by natural catastrophes or large catastrophes caused by human activity. In such a case, one catastrophic event may in practice give rise to simultaneously payable claims for a large number of insured risks at high amounts. The resulting total claims expenditure may be extremely large.

Unidentified background factors may also affect underwriting risks. Examples from recent history include cases of occupational diseases caused by exposure to asbestos dust, and the effect of higher life expectancy than predicted on the pension portfolio of statutory insurance.

### 13.2.1 Underwriting risk management

The most important tasks within the management of underwriting risks relate to risk selection and pricing, the acquisition of reinsurance cover, the monitoring of claims expenditure and the analysis of insurance liabilities. The highest underwriting risk decision-making body is the Insurance Committee tasked with managing Non-life Insurance underwriting risks. The Insurance Committee makes underwriting decisions within the framework of confirmed powers. It reports its decisions to the Insurance Customers management team.

Decisions on customer and insurance object selection and risk pricing are made according to the UW Guidelines. The Insurance Committee approves the most significant and demanding risks in terms of their effect. For smaller risks, decisions are made jointly by several underwriters or managers on the basis of risk size and severity. For basic insurance lines, decisions are made on a system-supported basis and customers and the objects of insurance are selected within the powers determined by instructions specifically approved.

### 13.2.2 Risk selection and pricing

Operating models highlight the role of risk selection and pricing. The Group has set limits for the size and extent of risk for each insurance line and risk concentration. Non-life Insurance has a centralised data warehouse and analysis applications in place to support risk selection and pricing. Insurance terms and conditions play a substantial role in risk mitigation. In addition, the Group performs risk analyses on a customer or insurance line specific basis to mitigate risks.

### 13.2.3 Reinsurance

The reinsurance principles and the maximum retention levels for different type of risks are annually approved by the board of directors of each insurance company. In practice, the Group's own retention levels can be kept lower than the maximum retention levels adopted by the board of directors, if the reinsurance pricing supports this. Retention in both risk-specific reinsurance and catastrophe reinsurance is a maximum of 5 million euros. Reinsurance has an effect on the solvency capital requirement. Only reinsurance companies with a sufficiently high financial strength rating are accepted as reinsurers. The reinsurer's counterparty risk is managed by means of reinsurance diversification limits.

### 13.2.4 Risk concentrations

The Group takes account of local risk concentrations in EML (Estimated Maximum Loss) estimates for property and business interruption risks and through EML breakthrough cover included in reinsurance cover. Our operating region has no major risk of earthquakes. With respect to risks associated with other natural disasters, such as storms and floods, Finland is a stable area. However, the Group has protected against catastrophe accumulation losses through an extensive catastrophe reinsurance cover whose size has been dimensioned to correspond to the calculated size of a catastrophe loss occurring once every 200 years. The catastrophe accumulation cover applies to property damage and personal injuries.

### 13.2.5 Evaluation of insurance liabilities

The Group monitors the adequacy of insurance liabilities on an annual basis. Insurance liabilities arising from insurance contracts are determined on the basis of estimated future cash flows. The cash flows comprise payable claims and loss adjustment expenses.

The amount of insurance liabilities has been estimated securely in such a way that it would be sufficient to fulfil the obligations arising from insurance contracts.  This has been performed in such a way that an expected value has first been estimated for the insurance liability on top of which a safety loading based on the degree of uncertainty related to the liability has been determined.

The evaluation of insurance liabilities always involves uncertainties which may be due, for instance, to the prediction of the claims trend, delays in verifying losses, cost inflation, legislative amendments and general economic development. Every three years, an external actuary performs for Non-life Insurance an analysis of the appropriateness of the calculation bases and the amount of insurance liabilities.

The provision for unpaid claims for annuities consists mainly of annuities of statutory insurance lines. Discounting is used in the computation of the provision for unpaid claims for annuities and the discount rate used is of great significance for the provision. Due to low interest rates, Non-life Insurance has reduced the discount rate.

## Note 3. Changes in accounting policies and presentation

### IFRS 9 Financial Instruments

On 1 January 2018, OP Corporate Bank Group adopted IFRS 9 Financial Instruments, issued by the IASB in July 2014 and approved by the EU in November 2016.

The adoption resulted in changes to the classification and measurement of financial instruments and impairments. Likewise, it has a significant effect of other standards dealing with financial instruments, such as IFRS 7 Financial Instruments, Disclosures. OP Corporate Bank Group continued to apply hedge accounting under IAS 39 after adoption of IFRS 9.

The IFRS 9 transition resulted in changes to the accounting policies as well as adjustments to the amounts of receivables previously recognised in the balance sheet. Adjustments made to carrying amounts were recognised in equity in the opening balance sheet on the adoption date of 1 January 2018. Changes in the notes to the financial statements under IFRS 7 arising from the application of IFRS 9 will only be presented for 2018. Notes for 2017 remained the same as in the financial statements for 2017.

*Classification and measurement*

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

OP Corporate Bank Group reclassified financial assets in accordance with IFRS 9 based on how the loans and various notes and bonds are managed within the business models and on the contractual cash flow characteristics of notes and bonds.

The majority of OP Corporate Bank Group's loans and notes and bonds will continue to be recognised at amortised cost or fair value through other comprehensive income.

The most significant classification changes applied to investment by OP Corporate Bank Group's Non-life Insurance investment. Equity instruments and mutual fund investments were mainly reclassified as those recognised at fair value through profit or loss. OP Corporate Bank Group applies the overlay approach to Non-life Insurance investments until the effective date of IFRS 17 that restores the earnings effect of such investments in accordance with IAS 39.

IFRS 9 did not change the classification of OP Corporate Bank Group's financial liabilities.

*Impairment*

The expected credit losses (ECL) for loss allowance are calculated on all balance sheet items measured at amortised cost and those recognised at fair value through other comprehensive income (FVOCI) as well as on off-balance-sheet loan commitments and guarantee agreements.

Loss allowance is calculated using modelled risk parameters and using the formula probability of default (PD) x loss given default (LGD) x exposure at default (EAD) for the majority of the portfolios. Large corporate exposures make an exception. They are still monitored on an individual basis. Loss allowance is calculated for each contract for 12 months or lifetime, depending on whether the instrument's credit risk on the reporting day has increased significantly from the original one.

Both qualitative and quantitative criteria are used to assess whether the credit risk has increased significantly. Qualitative factors consist of various credit risk indicators (e.g. forbearance measures). Credit ratings will affect the lifetime PD used for assessing the quantitative change. In addition, credit risk has increased significantly if payment is over 30 days past due.

Contracts are classified into three stages:

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

Definition of default is consistent with the definition that is used for regulatory purposes.

The calculation model includes forward-looking information and macroeconomic scenarios. The macroeconomic scenarios are the same that OP Corporate Bank Group uses otherwise in its financial annual planning. Three scenarios are used: baseline, upside and downside.

The tables below present the effect of the application of IFRS 9 on the balance sheet of 1 January 2018.

a) Classification and measurement

The table below presents the measurement classes and carrying amounts of financial assets and liabilities in the opening balance sheet of 1 January 2018 according to IAS 39 and IFRS 9. No changes have occurred in the classification and measurement of financial liabilities.

| Measurement classes of financial assets<br>Assets in the balance sheet | IAS 39<br>Valuation method (class)<br>31 Dec. 2017 | Carrying amount € million | IFRS 9<br>Valuation method 1 Jan. 2018 | Carrying amount € million |
|---|---|---|---|---|
| Cash and cash equivalents | Amortised cost | 12,825 | Amortised cost | 12,825 |
| Receivables from credit institutions | Amortised cost (loans and receivables) | 9,294 | Amortised cost | 9,294 |
| Derivative contracts | At fair value through profit or loss | 3,426 | At fair value through profit or loss | 3,426 |
| Receivables from customers | Amortised cost (loans and receivables) | 20,120 | Amortised cost | 20,062 |
| | | | At fair value through profit or loss 1) | 11 |
| Investment assets | | | | |
| Financial assets held for trading | At fair value through profit or loss | 589 | At fair value through profit or loss | 578 |
| Equity instruments | At fair value through other comprehensive income (available-for-sale financial assets) | 728 | At fair value through profit or loss | 727 |
| Debt instruments | At fair value through other comprehensive income (available-for-sale financial assets) | 14,050 | At fair value through other comprehensive income | 14,048 |
| | | | At fair value through profit or loss 1) | 12 |
| | | | Amortised cost | 0 |
| | At fair value through profit or loss | 304 | At fair value through profit or loss | 304 |
| | | | At fair value through other comprehensive income | 0 |
| | Amortised cost (held-to-maturity investments) | 51 | At fair value through other comprehensive income | 50 |
| | | | Amortised cost | 0 |
| | Amortised cost (Other investment loans, non-life insurance) | 1,779 | Amortised cost | 1,773 |
| | | | At fair value through profit or loss | 7 |
| Total financial assets in balance sheet | | 63,164 | | 63,115 |

1) Financial assets outside the trading book that are mandatorily measured at fair value through profit or loss.

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

Measurement classes under IFRS 9 were determined based on OP Corporate Bank Group's different business models and on the cash flow characteristics of the financial instrument concerned. OP Corporate Bank's business models are based on the existing business principles and they did not change as a result of entry into force of IFRS 9. A more detailed description of the classification requirements can be found in section 5.3 of the accounting policies.

The table below presents the transition of the carrying amounts of financial assets from the measurement class under IAS 39 to the measurement class under IFRS 9 on the date of transition on 1 January 2018.

Changes in classification and measurement

| Balance sheet items, € million | Reference | Carrying amount (IAS 39) 31 Dec. 2017 | Reclassification | Remeasure-ment | Carrying amount (IFRS 9) 1 Jan. 2018 |
|---|---|---|---|---|---|
| Cash and cash equivalents | | 12,825 | | | 12,825 |
| Receivables from credit institutions | | 9,294 | | | 9,294 |
| Derivative contracts | | 3,426 | | | 3,426 |
| Receivables from customers | | 20,120 | | -47 | 20,073 |
| Investment assets | | | | | |
| Financial assets held for trading | 1) | 589 | -11 | | 578 |
| Equity investments | | | | | |
| Fair value through other comprehensive income | | | | | |
| (Available-for-sale investments) | 2) | 728 | -728 | | 0 |
| Fair value through profit or loss | 3) | 0 | 728 | -1 | 727 |
| Debt investments | | | | | |
| Fair value through other comprehensive income | | | | | |
| (Available-for-sale investments) | 1) | 14,050 | 49 | -1 | 14,098 |
| Fair value through profit or loss | 4) | 304 | 19 | | 323 |
| Carried at amortised cost | 5) | 1,830 | -57 | | 1,773 |
| Total | | 63,164 | 0 | -49 | 63,115 |

The new classification requirements under IFRS 9 shown in the table above are described below:

1) Previously, OP Corporate Bank's liquidity buffer portfolio was classified as financial instruments recognised as fair value through profit or loss, available for sale, loans and receivables and held to maturity. Since OP Corporate Bank's business model for the liquidity buffer portfolio is to collect contractual cash flows and sales, the entire portfolio was designated as measured at fair value to be recognised through other comprehensive income. The business model is based on the portfolio management mechanisms and previous practice.

2) Equity instruments and mutual fund investments were previously classified as available-for-sale investments but which are chiefly designated as measured at fair value through profit or loss in accordance with IFRS 9. OP Corporate Bank reclassified equity instruments of EUR 728 million to be recognised at fair value through profit or loss. Gross fair value gains/losses of available-for-sale investments worth a total of EUR 56 million previously recognised in the fair value reserve were transferred to retained earnings.

3) Assets recognised at fair value through income statement increased by EUR 728 million as a result of reclassification of other measurement classes and related measurement changes.

4) OP Corporate Bank had EUR 19 million in notes and bonds on convertible and perpetual bonds whose contractual cash flows are not solely payment of principal and the interest on the principal outstanding. These investments were designated as measured at fair value through profit or loss.

5) Notes and bonds held to maturity worth EUR 51 million previously measured at amortised costs were designated as recognised at fair value through other comprehensive income in the adoption of IFRS 9.

## c) Effects on expected credit losses

Impairment loss on receivables

| Balance sheet items, € million | Impairment loss on receivables (IAS 39) 31 Dec. 2017 | Remeasurement | Expected credit losses (IFRS 9) 1 Jan. 2018 |
|---|---|---|---|
| Receivables from customers | 221 | 47 | 269 |
| Investment assets (FVOCI) | - | 4 | 4 |
| **Off-balance-sheet items** | | | |
| Loan commitments | - | 1 | 1 |
| Guarantees | - | 3 | 3 |
| **Total** | 221 | 55 | 276 |

OP Corporate Bank adopted the measurement of expected credit losses using mainly the models under IFRS 9. Consequently, prior impairment losses on an individual and collective basis under IAS 39, totalling EUR 221 million, were replaced with the loss allowance calculated on the expected credit losses under IFRS 9, totalling EUR 276 million.

Loss allowance increased in all product groups. Corporate loans showed the largest increase in loss allowance. In addition, notes and bonds measured at fair value through other comprehensive income and off-balance-sheet items were included in ECL measurement for the first time.

The table below shows liabilities in the calculation of the expected credit losses and their loss allowances by impairment stage. Stage 1 includes contracts whose credit risk has not increased significantly since initial recognition. Stage 2 includes contracts whose credit risk has increased significantly since initial recognition. Relative and absolute threshold values as well as payments past due over 30 days are used as the threshold values of a significant increase in credit risk. Sometimes the contract may fulfil more than one of the abovementioned threshold values. In the tables below, all such contracts are classified as more than 30 days past due, irrespective of whether some other threshold value has been fulfilled. Defaulted contracts are classified into Stage 3. The tables exclude internal OP Financial Group's contracts.

**Exposures within the scope of accounting for expected credit losses by impairment stage 1 Jan. 2018**

| On-balance-sheet exposures, € million | Stage 1 | Stage 2 | | | Stage 3 | Total exposure |
|---|---|---|---|---|---|---|
| | | Not more than 30 DPD | More than 30 DPD | Total | | |
| Receivables from customers (gross) | | | | | | |
| Non-banking corporates | 16,809 | 961 | 474 | 1,435 | 347 | 18,591 |
| Households | 1,045 | 138 | 15 | 153 | 5 | 1,203 |
| Public-sector entities | 81 | 12 | 12 | 24 | | 105 |
| Other | 11 | | 0 | 0 | | 11 |
| Total receivables from customers | 17,946 | 1,111 | 501 | 1,612 | 352 | 19,910 |
| Off-balance-sheet limits | | | | | | |
| Non-banking corporates | 594 | 72 | 0 | 72 | 3 | 668 |
| Households | 8 | 0 | 4 | 4 | 1 | 12 |
| Public-sector entities | | 5 | | 5 | | 5 |
| Other | 5 | | | 0 | 0 | 5 |
| Total | 607 | 77 | 4 | 81 | 3 | 691 |
| Other off-balance-sheet commitments | | | | | | |
| Non-banking corporates | 6,212 | 239 | | 239 | 15 | 6,466 |
| Households | 1 | | | 0 | 0 | 1 |
| Public-sector entities | | | | | | |
| Other | 0 | | | 0 | | 0 |
| Total | 6,213 | 239 | | 239 | 15 | 6,467 |
| Notes and bonds | | | | | | |
| Total notes and bonds | 14,027 | 30 | | 30 | 1 | 14,058 |
| Total exposures within the scope of accounting for expected credit losses | 38,793 | 1,457 | 505 | 1,962 | 371 | 41,126 |

Loss allowance by impairment stage 1 Jan. 2018

| On-balance-sheet exposures and related off-balance-sheet limits* € million | Stage 1 | Stage 2 | | | Stage 3 | Total loss allowance |
|---|---|---|---|---|---|---|
| | | Not more than 30 DPD | More than 30 DPD | Total | | |
| Receivables from customers | | | | | | |
| Non-banking corporates | -15 | -25 | -1 | -26 | -221 | -262 |
| Households | -1 | -3 | 0 | -3 | -2 | -6 |
| Public-sector entities | 0 | 0 | 0 | 0 | | 0 |
| Other | 0 | | | 0 | 0 | 0 |
| **Total** | -16 | -28 | -1 | -29 | -223 | -268 |
| **Other off-balance-sheet commitments**** | | | | | | |
| Non-banking corporates | -2 | -3 | | -3 | 0 | -5 |
| Households | 0 | | | | | 0 |
| Public-sector entities | | | | | | |
| Other | | | | | | |
| **Total** | -2 | -3 | | -3 | 0 | -5 |
| **Notes and bonds***** | -3 | 0 | | 0 | 0 | -4 |
| **Total** | -22 | -31 | -1 | -32 | -223 | -276 |

* Loss allowance is entered as one component to deduct the balance sheet item.
** Loss allowance is entered in provisions and other liabilities in the balance sheet.
*** Loss allowance is entered in the fair value reserve in OCI.

### d) Effects on equity and the CET1 ratio

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

| Changes in shareholders' equity, € million | Share capital | Fair value reserve | Other reserves | Retained earnings | Total | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| Shareholders' equity 31 Dec. 2017 | 428 | 164 | 1,093 | 2,404 | 4,089 | 60 | 4,149 |
| Reversal of previous IAS 39 impairment provision | | | | 221 | 221 | | 221 |
| New ECL under IFRS 9 | | 4 | | -276 | -272 | | -272 |
| Effect of reclassifications under IFRS 9 | | | | | | | |
| 1) Measured at fair value Reversal of the fair value reserve of available-for-sale investments to retained earnings | | -56 | | 55 | -1 | | -1 |
| 2) Held-to-maturity investments Revaluation of investments at fair value to be transferred as measured through other comprehensive income items | | -1 | | | -1 | | -1 |
| 3) Measured at cost Transferred as measured at fair value through profit or loss | | | | | 0 | | 0 |
| Net change in deferred tax | | 7 | | 2 | 9 | | 9 |
| **Shareholders' equity 1 Jan. 2018** | 428 | 118 | 1,093 | 2,406 | 4,044 | 60 | 4,104 |

Since the loss allowance of EUR 276 million was less than the expected loss deducted in capital adequacy measurement, the change had no effect on capital adequacy. The capital adequacy EL calculation method is regulated by the authorities and includes prudence, for example, in the form of various floors. However, the loss allowance accounting model describes the current economic situation and is based on OP Corporate Bank Group's own models without in-built prudence. OP Corporate Bank Group will not for the time being apply the transitional rules of Capital Requirements Regulation (CRR) for the period of 1 January 2018–31 December 2022, in which the effects of IFRS 9 based impairment calculation can be taken into account in stages.

### Adoption of IFRS 15 on 1 January 2018

OP Corporate Bank has applied IFRS 15, Revenue from Contracts with Customers, since 1 January 2018. In OP Corporate Bank, IFRS 15 mainly applies to fees not included in the calculation of the effective interest rate in the Banking segment. IFRS 15 led to added information presented in the Notes to the Financial Statements.

The grouping of commission income and expenses in net commissions and fees was specified in the Notes. Net commissions and fees were divided into groups according to commission income and expenses recorded from customer agreements. New groups to be presented in net commissions and fees include commission income and expenses from health and wellbeing services, asset management fees, fees paid for asset management services as well as legal fees. Net commissions and fees are presented as divided into segments.

IFRS 15 did not change the revenue recognition time of the fees included in the scope of application of the standard in comparison with the previous practices. Thus, the adoption of IFRS 15 did not have any effect on OP Corporate Bank's earnings before tax. OP Corporate Bank Group started to apply IFRS 15 using the full retrospective transition approach, i.e. the 2017 data was adjusted. Below is a description of the retrospective changes made to the specification of net commissions and fees:

- Commission income from health and wellbeing services, EUR 19 million, has been transferred from other operating income to commission income.
- Commission expenses from health and wellbeing services, EUR 7 million, have been transferred from other operating expenses to commission expenses.
- Asset management commission income and commission income from legal services, EUR 13 million, will be presented separately in future.
- Net commissions and fees have been presented as divided into segments.

### Changes in presentation

The "Share of associates' profit/loss line" in the income statement will be presented in net investment income and the Interest in associates line in the balance sheet will be presented in investment assets in the balance sheet. A significant number of the associates are private equity fund investments which are measured at fair value through income statement under IFRS 9. Data for 2017 was adjusted according to the new presentation.

The Financial assets held for trading line in the balance sheet will in future be presented under investment assets according to its nature. Data for 2017 was adjusted according to the new presentation.

The alternative ratio presented previously – the ratio of impairment loss on receivables to the loan and guarantee portfolio, %, – is no longer presented because the content of the ratio is not comparable as a result of the IFRS 9 transition. The ratio of non-performing receivables to the loan and guarantee portfolio, %, is a new alternative ratio presented.

# Notes to the income statement

## Note 4. Net interest income

| EUR million | 2018 | 2017 |
|---|---|---|
| **Interest income** | | |
| Receivables from credit institutions | | |
| Interest | 23 | 29 |
| Negative interest | 14 | 15 |
| Total | 36 | 43 |
| Receivables from customers | | |
| Loans | 318 | 309 |
| Finance lease receivables | 27 | 24 |
| Impaired loans and other commitments | 1 | 1 |
| Negative interest | 14 | 13 |
| Total | 359 | 348 |
| Notes and bonds | | |
| Held for trading | 7 | 6 |
| At fair value through profit or loss | 1 | |
| Available for sale | 90 | 98 |
| Held to maturity | 0 | 0 |
| Loans and receivables | | 1 |
| Total | 97 | 106 |
| Derivative contracts | | |
| Held for trading | 781 | 824 |
| Fair value hedge | -112 | -115 |
| Cash flow hedge | 3 | 5 |
| Ineffective portion of cash flow hedge | 0 | 0 |
| Total | 672 | 714 |
| Other | 7 | 9 |
| **Total** | **1,172** | **1,219** |
| | | |
| **Interest expenses** | | |
| Liabilities to credit institutions | | |
| Interest | 68 | 58 |
| Negative interest | 68 | 57 |
| Total | 137 | 115 |
| Liabilities to customers | 2 | -1 |
| Debt securities issued to the public | 170 | 193 |
| Subordinated liabilities | | |
| Subordinated loans | 5 | 6 |
| Other | 44 | 44 |
| Total | 49 | 50 |
| Derivative contracts | | |
| Held for trading | 766 | 792 |
| Cash flow hedge | -130 | -133 |
| Other | -92 | -65 |
| Total | 543 | 594 |
| Other | 7 | 9 |
| **Total** | **908** | **960** |

| | | |
|---|---|---|
| **Net interest income before fair value adjustment under hedge accounting** | **263** | **259** |
| Hedging derivatives | 5 | 16 |
| Value changes of hedged items | -5 | -17 |
| Total | 264 | 259 |

Interest income calculated using the effective interest method totalled EUR 395 million.

## Note 5. Net insurance income

| EUR million | 2018 | 2017 |
|---|---|---|
| Net insurance premium revenue | | |
| Premiums written | 1,478 | 1,446 |
| Insurance premiums ceded to reinsurers | 0 | -5 |
| Change in provision for unearned premiums | -10 | -6 |
| Reinsurers' share | -3 | -3 |
| Total | 1,465 | 1,432 |
| | | |
| Net Non-life Insurance claims | | |
| Claims paid | -951 | -889 |
| Insurance claims recovered from reinsurers | 30 | 8 |
| Change in provision for unpaid claims* | -6 | -109 |
| Reinsurers' share | 13 | 20 |
| Total | -915 | -970 |
| Other Non-life Insurance items | -3 | -3 |
| Total | 548 | 459 |

* The item includes EUR 17 million (102) as a result of changes in reserving bases.

## Note 6 Net commissions and fees

| 2018, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Commission income | | | | | |
| Lending | 44 | 0 | 0 | 0 | 44 |
| Deposits | 1 | | 0 | 0 | 1 |
| Payment transfers | 22 | | 0 | -1 | 22 |
| Securities brokerage | 16 | | 0 | | 16 |
| Securities issuance | 4 | | 4 | | 8 |
| Mutual funds | 0 | | | | 0 |
| Asset management | 13 | | 0 | 0 | 13 |
| Legal services | 0 | | 0 | 0 | 0 |
| Guarantees | 13 | | 0 | 0 | 13 |
| Insurance brokerage | | 12 | | | 12 |
| Health and wellbeing services | | 19 | | 0 | 19 |
| Other | 47 | | -34 | 0 | 13 |
| Total commission income | 162 | 31 | -31 | -2 | 160 |
| | | | | | |
| Commission expenses | | | | | |
| Payment transfers | 1 | 1 | 0 | -1 | 2 |
| Securities brokerage | 6 | | 0 | 0 | 6 |
| Securities issuance | 1 | | 1 | | 1 |
| Asset management | 3 | | 2 | | 4 |
| Insurance operations | | 64 | | | 64 |
| Health and wellbeing services | | 7 | | | 7 |
| Other* | 97 | 0 | 1 | 0 | 98 |
| Total commission expenses | 107 | 72 | 4 | -1 | 183 |
| | | | | | |
| Total net commissions and fees | 54 | -41 | -34 | -1 | -23 |

* The item includes EUR 91 million in commission expenses paid to member banks arising from derivative trading.

| 2017, EUR million | Banking | Non-life Insurance | Other operations | Elimi-nations | Group total |
|---|---|---|---|---|---|
| Commission income | | | | | |
| Lending | 42 | 0 | 0 | -1 | 42 |
| Deposits | 0 | | 0 | 0 | 0 |
| Payment transfers | 24 | | 0 | -1 | 24 |
| Securities brokerage | 19 | | 0 | 0 | 19 |
| Securities issuance | 7 | | 4 | | 11 |
| Mutual funds | 0 | | | | 0 |
| Asset management | 13 | | 0 | 0 | 13 |
| Legal services | 0 | | | | 0 |
| Guarantees | 12 | | 0 | 0 | 12 |
| Insurance brokerage | | 13 | | | 13 |
| Health and wellbeing services | | 13 | | 0 | 12 |
| Other | 100 | | -87 | 0 | 13 |
| Total commission income | 217 | 26 | -83 | -2 | 158 |
| | | | | | |
| Commission expenses | | | | | |
| Payment transfers | 5 | 1 | 0 | -1 | 5 |
| Securities brokerage | 9 | | | 0 | 9 |
| Securities issuance | 1 | | 1 | | 2 |
| Asset management | 3 | | 2 | 0 | 4 |
| Insurance operations | | 70 | | | 70 |
| Health and wellbeing services | | 5 | | | 5 |
| Other* | 72 | | 8 | 0 | 80 |
| Total commission expenses | 88 | 76 | 11 | -1 | 175 |
| | | | | | |
| Total net commissions and fees | 129 | -51 | -94 | -1 | -17 |

* The item includes EUR 66 million in commission expenses paid to member banks arising from derivative trading.

## Note 7. Net investment income

| EUR million | 2018 | 2017 |
|---|---|---|
| **Net income from assets at fair value through other comprehensive income (Net income from available-for-sale financial assets)** | | |
| Notes and bonds | | |
| Interest income | 35 | 39 |
| Capital gains and losses | 24 | 33 |
| Currency fair value gains and losses | 8 | -22 |
| Impairment losses and their reversal | -3 | 0 |
| Total | 64 | 49 |
| Shares and participations | | |
| Dividends | 6 | 50 |
| Other income and expenses | -4 | -8 |
| Capital gains and losses | | 110 |
| Impairment losses and their reversal | | -5 |
| Total | 2 | 147 |
| **Total** | **65** | **196** |
| | | |
| **Net income recognised at fair value through profit or loss** | | |
| | | |
| Financial assets held for trading | | |
| Notes and bonds | | |
| Fair value gains and losses | -5 | -3 |
| Total | -5 | -3 |
| Shares and participations | | |
| Fair value gains and losses | 3 | 0 |
| Dividend income | 2 | |
| Total | 6 | 0 |
| Derivatives | | |
| Fair value gains and losses | 106 | 161 |
| Total | 106 | 161 |
| Total | 107 | 158 |
| Financial assets that shall be measured at fair value through profit or loss | | |
| Notes and bonds | | |
| Interest income | 2 | |
| Fair value gains and losses | -3 | |
| Total | -1 | |
| Shares and participations | | |
| Fair value gains and losses | -12 | |
| Dividend income | 28 | |
| Total | 17 | |
| Total | 16 | |
| Financial assets designated as at fair value through profit or loss | | |
| Notes and bonds | | |
| Interest income | 1 | 4 |
| Fair value gains and losses | 0 | -6 |
| Total | 1 | -3 |
| Derivatives | | |
| Fair value gains and losses | | 14 |
| Total | | 14 |
| Total | 1 | 11 |
| **Total net income recognised at fair value through profit or loss** | **124** | **169** |

| | | |
|---|---|---|
| Net income from foreign exchange operations | | |
| Currency exchange | -1 | 1 |
| Fair value gains and losses* | 34 | 35 |
| Total net income from foreign exchange operations | 32 | 35 |

* Net income from hedging derivatives amounted to -1.8 million euros (6.0).

| | | |
|---|---|---|
| Net income from investment property | | |
| Rental income | 26 | 30 |
| Fair value gains and losses | 7 | 8 |
| Maintenance charges and expenses | -18 | -20 |
| Other | -4 | -2 |
| Net income from investment property total | 11 | 16 |

Net income from loans and receivables measured at amortised cost

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

| | | |
|---|---|---|
| Non-life Insurance | | |
| Unwinding of discount, Non-life Insurance | -28 | -32 |

The increase in the discounted insurance liabilities in Non-life Insurance due to passage of time is unwinding of discount. Unwinding of discount is computed monthly applying the discount rate at the end of the previous month and the insurance liabilities at the beginning of the current month. On 31 December 2018, the discount rate used was 1.5% (1.5).

| | | |
|---|---|---|
| Associates | | |
| Consolidated using the equity method | 1 | 1 |
| Total | 1 | 1 |

| | | |
|---|---|---|
| Total net investment income | 210 | 390 |

## Note 8. Other operating income

| EUR million | 2018 | 2017 |
|---|---|---|
| Capital gains on property in own use | 0 | 0 |
| Central banking service fees | 4 | 5 |
| Leasing agreements | 0 | 1 |
| ICT income | 2 | 2 |
| Other* | 40 | 18 |
| Total | 47 | 26 |

* All share capital of the Baltic subsidiary Seesam Insurance AS was sold to Vienna Insurance Group (VIG). OP Financial Group recognised a total of EUR 16 million in non-recurring capital gain on the sale.

## Note 9. Personnel costs

| EUR million | 2018 | 2017 |
|---|---|---|
| Wages and salaries | 135 | 118 |
| Variable remuneration* | 11 | 10 |
| Pension costs | 7 | 29 |
| Defined contribution plans | 18 | 16 |
| Defined benefit plans** | -11 | 13 |
| Other personnel related costs | 7 | 7 |
| Total | 159 | 164 |

* Note 44

** Note 30

The Representative Assembly of OP Bank Group Pension Fund, which manages statutory earnings-related pension for the personnel, decided on 31 July 2018 to transfer its pension liability and the management of earnings-related pension insurance portfolio worth around EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transfer was executed on 31 December 2018. The transfer of the liabilities resulted in a non-recurring item of EUR 34 million recognised in defined benefit plans for 2018.

## Note 10. Depreciation/amortisation and impairment loss

| EUR million | 2018 | 2017 |
|---|---|---|
| Depreciation and amortisation | | |
| Buildings | 6 | 4 |
| Machinery and equipment | 0 | 1 |
| Intangible assets related to business combinations | 18 | 21 |
| Other intangible assets | 38 | 34 |
| Leased out assets | 0 | -1 |
| Other | 0 | 0 |
| Total | 62 | 59 |
| Impairment loss | | |
| Property in own use | 0 | 1 |
| Brand | 4 | |
| Information systems | 17 | 4 |
| Total | 21 | 5 |
| Total | 83 | 64 |

## Note 11. Other operating expenses

| EUR million | 2018 | 2017 |
|---|---|---|
| ICT costs | | |
| Production | 114 | 106 |
| Development | 62 | 52 |
| Rental expenses | 1 | 1 |
| Expenses for property in own use | 13 | 13 |
| Government charges and audit fees* | 39 | 17 |
| Membership fees | 2 | 2 |
| Services purchased from others | 50 | 61 |
| Telecommunications | 10 | 9 |
| Marketing | 13 | 13 |
| Corporate social responsibility expenses | 3 | 1 |
| Other administrative expenses | 26 | 28 |
| Insurance and security costs | 4 | 4 |
| Other Non-life Insurance expenses | 2 | 3 |
| Other | 30 | 30 |
| Total | 369 | 339 |

* The item includes EUR 250,000 (270,000) in audit fees paid to auditors, EUR 17,000 (0) in fees for assignments as referred to in sub-paragraph 2, paragraph 1 section 1 of the Auditing Act, EUR 10,000 (41,000) in fees for legal counselling and EUR 104,000 (111,000) in fees for other services. Non-audit services provided by KPMG Oy Ab to OP Corporate Bank Group companies totalled EUR 44,000 and services for tax advisory services EUR 10,000.

Development costs

| EUR million | 2018 | 2017 |
|---|---|---|
| ICT development costs | 62 | 52 |
| Share of own work | 1 | 1 |
| Total development costs in the income statement | 63 | 53 |
| Capitalised ICT costs | 34 | 46 |
| Capitalised share of own work | 0 | 0 |
| Total capitalised development costs | 34 | 46 |
| Total development costs | 97 | 99 |
| | | |
| Depreciation/amortisation and impairment loss | 57 | 36 |

The development investments ensure the competitiveness and continuity of the present-day business and regulatory compliance and create conditions for new customer-driven business models. The majority of the development expenditure was allocated to the development of the present-day business, but new businesses will account for a larger share in the future.

## Note 12. Impairment loss on receivables

| EUR million | 2018 | 2017 |
|---|---|---|
| Receivables written off as loan or guarantee losses | -21 | -35 |
| Recoveries of receivables written off | 1 | 0 |
| Expected credit losses** (ECL) on receivables from customers and off-balance-sheet items | 9 | |
| Expected credit losses** (ECL) on notes and bonds* | -1 | |
| Increase in impairment losses on individually assessed receivables | | -9 |
| Decrease in impairment losses on individually assessed receivables | | 36 |
| Collectively assessed impairment losses | | -5 |
| Total | -13 | -12 |

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

** Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

## Note 13. Temporary exemption (overlay approach)

| EUR million | 2018 |
|---|---|
| Net investment income within the scope of the overlay approach recognised according to IFRS 9 | |
| Financial assets that must measured at fair value through profit or loss | |
| Shares and participations | |
| Fair value gains and losses | -28 |
| Total (A) | -28 |
| | |
| Net investment income within the scope of the overlay approach measured according to IFRS 39 | |
| Shares and participations | |
| Capital gains and losses | -7 |
| Impairment losses and their reversals | -2 |
| Total (B) | -9 |
| | |
| Effect of the overlay approach on the income statement (-A+B) | 19 |
| Effect of the overlay approach on the statement of comprehensive income - (-A+B) | -19 |

## Note 14. Income tax

| EUR million | 2018 | 2017 |
|---|---|---|
| Current tax | 45 | 89 |
| Tax for previous financial years | 3 | -1 |
| Deferred tax | 39 | 16 |
| Income tax expense | 87 | 105 |
| | | |
| Corporate income tax rate | 20.0 | 20.0 |

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

| | | |
|---|---|---|
| Earnings before tax | 439 | 535 |
| Tax calculated at a tax rate of 20.0% | 88 | 107 |
| Tax for previous financial years | 3 | -1 |
| Tax-exempt income | -11 | -9 |
| Non-deductible expenses and income portions of limited partnerships | 7 | 6 |
| Re-evaluation of unrecognised tax losses | 1 | 1 |
| Tax adjustments | 1 | 1 |
| Other items | -1 | -1 |
| Tax expense | 87 | 105 |

# Notes to assets

## Note 15. Cash and cash equivalents

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Cash | 1 | 2 |
| Deposits with central banks repayable on demand | | |
| OP Corporate Bank plc's minimum reserve deposit | 703 | 668 |
| Cheque account | 11,535 | 12,155 |
| Total cash and cash equivalents | 12,239 | 12,825 |

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. 2018 | 31 Dec. 2017 |
|---|---|---|
| Deposits | | |
| Repayable on demand | 1,116 | 749 |
| Total | 1,116 | 749 |
| of which receivables from credit institutions due in less than 3 months | 1,112 | 749 |
| Loans and receivables | | |
| Repayable on demand | | |
| From other credit institutions | 0 | 0 |
| Total | 0 | 0 |
| Other | | |
| From OP Financial Group entities | 8,501 | 8,347 |
| From other credit institutions | 110 | 198 |
| Total | 8,611 | 8,546 |
| Total receivables from credit institutions | 9,727 | 9,295 |
| Impairments | | |
| From other credit institutions | | -2 |
| Loss allowance* | | |
| From other credit institutions | -1 | |
| Total | -1 | -2 |
| Total receivables from credit institutions | 9,726 | 9,294 |

* Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

## Note 17. Derivative contracts

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Held for trading | | |
| Interest rate derivatives | 3,153 | 3,043 |
| Currency derivatives | 145 | 213 |
| Equity and index derivatives | 0 | 1 |
| Credit derivatives | 3 | 1 |
| Commodity derivatives | 4 | 25 |
| Other | | |
| Total | 3,305 | 3,283 |
| Hedging derivative contracts | | |
| Fair value hedging | | |
| Interest rate derivatives | 45 | 60 |
| Currency derivatives | 142 | 84 |
| Cash flow hedge | | |
| Interest rate derivatives | 0 | 0 |
| Total | 187 | 143 |
| **Total derivative contracts** | **3,492** | **3,426** |

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. 2018 | 31 Dec. 2017 |
|---|---|---|
| Loans to the public and public sector entities | 15,575 | 14,026 |
| Finance lease receivables | 2,154 | 1,856 |
| Guarantee receivables | 2 | 2 |
| Other receivables | 4,878 | 4,455 |
| Total | 22,609 | 20,340 |
| Impairment losses | | -220 |
| Loss allowance* | -258 | |
| **Total receivables from customers** | **22,351** | **20,120** |

* Loss allowance is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

Changes in impairment losses on loans and guarantee receivables in receivables from customers

| EUR million | Loans | Notes and bonds | Bank guarantee receivables | Interest recei-vables | Total |
|---|---|---|---|---|---|
| Impairments 1 Jan. 2017 | 241 | -1 | 2 | 0 | 241 |
| Increase in impairments of individually assessed loans and receivables | 9 | 1 | | -12 | -2 |
| Change in impairments of collectively assessed loans and receivables | 5 | | 0 | | 5 |
| Reversal of impairments of loans and receivables individually assessed | -4 | | 0 | 11 | 7 |
| Loans and guarantee receivables derecognised from balance sheet, | | | | | |
| of which an individually assessed impairment was recognised | -32 | | | | -32 |
| **Impairments 31 Dec. 2017** | **219** | | **2** | **-1** | **220** |

Changes in loss allowance for 2018 is itemised in Note 45. Loss allowance regarding receivables and notes and bonds.

Finance lease receivables

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

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Maturity of finance leases | | |
| Not later than one year | 585 | 423 |
| 1–5 years | 1,336 | 1,132 |
| Over 5 years | 326 | 386 |
| Gross investment in finance leases | 2,246 | 1,941 |
| Unearned finance income (–) | -92 | -85 |
| **Present value of minimum lease payments** | **2,154** | **1,856** |
| | | |
| Present value of minimum lease payment receivables | | |
| Not later than one year | 557 | 401 |
| 1–5 years | 1,290 | 1,089 |
| Over 5 years | 307 | 367 |
| **Total** | **2,154** | **1,856** |

## Note 19. Investment assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Financial assets held for trading | | |
| Government notes and bonds | 3 | 7 |
| Certificates of deposit and commercial papers | 290 | 392 |
| Debentures | 24 | 30 |
| Perpetual loans | 4 | 9 |
| Bonds | 176 | 152 |
| Shares and participations | 36 | |
| Total | 534 | 589 |
| Financial assets that shall be measured at fair value through profit | | |
| Notes and bonds | 46 | |
| Shares and participations (Overlay approach) | 611 | |
| Shares and participations (other than those under Overlay approach) | 5 | |
| Total | 662 | |
| Financial assets at fair value through profit or loss at inception | | |
| Notes and bonds | | 304 |
| Total | | 304 |
| Financial assets at fair value through other comprehensive income (Available-for-sale financial assets) | | |
| Notes and bonds | 14,730 | 14,050 |
| Shares and participations | 0 | 728 |
| Total | 14,730 | 14,777 |
| Amortised cost | | |
| Other | 32 | |
| Total | 32 | |
| Financial assets held to maturity | | |
| Notes and bonds | | 51 |
| Total | | 51 |
| Investment property | | |
| Land and water areas | 45 | 44 |
| Buildings | 276 | 259 |
| Total | 320 | 303 |
| Loans and receivables | | |
| Other | | 71 |
| Total | | 71 |
| Associated companies | | |
| Associates | 72 | 49 |
| Total | 72 | 49 |
| **Total investment assets** | **16,351** | **16,144** |

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

| EUR million | 31 Dec. 2018 Notes and bonds | 31 Dec. 2018 Shares and partici-pations | 31 Dec. 2017 Notes and bonds | 31 Dec. 2017 Shares and partici-pations |
|---|---|---|---|---|
| Quoted | | | | |
| Public corporations | 7 | | 310 | |
| Others | 221 | 358 | 164 | |
| Other | | | | |
| Public sector entities | 17 | | 39 | |
| Others | 299 | 293 | 380 | |
| Total | 544 | 651 | 893 | |

Financial assets at fair value through profit or loss include EUR 108 million (70) in notes and bonds eligible for central bank refinancing and EUR 34 million (29) in subordinated publicly-quoted notes and bonds.

**Financial assets recognised at fair value through other comprehensive income and investments carried at amortised cost 31 December 2018**

| | Notes and bonds | | | Shares and participations | | | |
|---|---|---|---|---|---|---|---|
| EUR million | At fair value | At amortised cost | Total | At fair value | At cost | Total | Investments carried at amortised cost |
| Quoted | | | | | | | |
| Eligible as collateral | 11,835 | | 11,835 | | | | |
| Ineligible as collateral | 2,712 | | 2,712 | | | | |
| Other | | | | | | | |
| From public sector entities | 7 | | 7 | | | | |
| From others | 176 | | 176 | 0 | 0 | 0 | 32 |
| Total | 14,730 | | 14,730 | 0 | 0 | 0 | 32 |

Financial assets recognised at fair value through other comprehensive income did not include subordinated publicly-quoted notes and bonds.

**Available-for-sale financial assets and held-to-maturity investments on 31 Dec. 2017**

| | Available-for-sale notes and bonds | | | Available-for-sale shares and participations | | | |
|---|---|---|---|---|---|---|---|
| EUR million | At fair value | At amortised cost | Total | At fair value | At cost | Total | Held-to-maturity investments |
| Quoted | | | | | | | |
| Eligible as collateral | 11,189 | | 11,189 | | | | 41 |
| Ineligible as collateral | 2,683 | | 2,683 | 450 | | 450 | 9 |
| Other | | | | | | | |
| From others | 178 | | 178 | 277 | 2 | 278 | |
| Total | 14,050 | | 14,050 | 726 | 2 | 728 | 51 |
| Impairment losses for the financial year | 0 | | 0 | -5 | | -5 | |

| Changes in investment property, EUR million | 2018 | 2017 |
|---|---|---|
| Acquisition cost 1 Jan. | 267 | 279 |
| Increase | 53 | 41 |
| Decrease | -38 | -54 |
| Transfers between items | 1 | 0 |
| Acquisition cost 31 Dec. | 283 | 267 |
| Accumulated changes in fair value 1 Jan. | 37 | 36 |
| Changes in fair value during financial year | 4 | 4 |
| Decrease | -2 | -3 |
| Other changes | -1 | 0 |
| Accumulated changes in fair value 31 Dec. | 38 | 37 |
| Carrying amount 31 Dec. | 320 | 303 |

Increases in investment property include EUR 0 million (1) in capitalised expenses recognised after 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.

Information on investment property under operating lease can be found in Note 39.

Investment property does not include real property received as collateral in 2018 and 2017.

A total of 99% of investment property holdings, or EUR 316 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 45 describes expected credit losses of items measured at fair value through other comprehensive income and at amortised cost.

## Note 20. Investment accounted for using the equity method

Amounts entered in the balance sheet:

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Associates | 72 | 49 |
| Total | 72 | 49 |

Amounts entered in the income statement:

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Associates | 1 | 1 |
| Total | 1 | 1 |

**Investments in associates and joint ventures**

OP Corporate Bank Group has two (3) associated companies which are not significant when reviewing one by one. The table above shows OP Corporate Bank Group's share of the profit/loss of these associates. OP Corporate Bank Group has no investments in joint ventures.

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

## Note 21. Intangible assets

| Changes in intangible assets, EUR million | Goodwill | Brands | Customer relationships related to insurance contracts and policy acquisition costs | Other intangible assets | Total |
|---|---|---|---|---|---|
| Acquisition cost 1 Jan. 2018 | 422 | 179 | 291 | 368 | 1,261 |
| Increases | | | | 34 | 34 |
| Decreases | -1 | -13 | -10 | -9 | -33 |
| Acquisition cost 31 Dec. 2018 | 421 | 166 | 282 | 394 | 1,263 |
| Accumulated amortisation and impairments 1 Jan. 2018 | | -7 | -262 | -215 | -484 |
| Amortisation during the financial year | | | -19 | -36 | -56 |
| Impairments for the financial year | | -4 | | -17 | -21 |
| Decreases | | 7 | 10 | 3 | 19 |
| Accumulated amortisation and impairments 31 Dec. 2018 | | -4 | -272 | -266 | -541 |
| **Carrying amount 31 Dec. 2018** | **421** | **162** | **10** | **128** | **722** |

| Changes in intangible assets, EUR million | Goodwill | Brands | Customer relationships related to insurance contracts and policy acquisition costs | Other intangible assets | Total |
|---|---|---|---|---|---|
| Acquisition cost 1 Jan. 2017 | 422 | 179 | 291 | 322 | 1,215 |
| Increases | | | | 47 | 47 |
| Decreases | | | | 0 | 0 |
| Transfers between items | | | | 0 | 0 |
| Acquisition cost 31 Dec. 2017 | 422 | 179 | 291 | 368 | 1,261 |
| Accumulated amortisation and impairments 1 Jan. 2017 | | -7 | -239 | -179 | -425 |
| Amortisation during the financial year | | | -23 | -33 | -55 |
| Impairments for the financial year | | | | -4 | -4 |
| Decreases | | | | 0 | 0 |
| Accumulated amortisation and impairments 31 Dec. 2017 | | -7 | -262 | -215 | -484 |
| **Carrying amount 31 Dec. 2017** | **422** | **172** | **29** | **153** | **777** |

| Other intangible assets, EUR million | 31 Dec. 2018 Carrying amount | 31 Dec. 2017 Carrying amount |
|---|---|---|
| Information systems | 102 | 106 |
| Information systems under development | 30 | 46 |
| Other | -3 | 2 |
| Total | 128 | 153 |

| Intangible assets with indefinite economic lives, EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Goodwill | 421 | 422 |
| Brands | 162 | 172 |
| Total | 583 | 595 |

The economic lives of brands acquired through business combinations are estimated to be indefinite, since they affect the accrual of cash flows for an indefinable period.

Goodwill, EUR million

| Segment | Acquired business | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|---|
| Non-life Insurance | Acquisition of Pohjola Group plc's non-life insurance business and Excenta Ltd's wellness business | 409 | 410 |
| Banking | Acquisition of Pohjola Finance Ltd's businesses | 13 | 13 |
| Total | | 421 | 422 |

### Testing goodwill for impairment

Goodwill was determined by the so-called Purchase Price Allocation process (PPA). The resulting goodwill was allocated to the cash-generating units (CGUs), which were either business segments, entities or parts of a business division included in them. Impairment testing of goodwill was carried out in accordance with IAS 36 on those CGUs for which acquisition cost calculations were made.

For the purpose of goodwill testing, the value of the CGUs of OP Corporate Bank Group was determined by using the 'Excess Returns' method. Accordingly, profits for the current period and future periods were reduced by the return requirement set for shareholders' equity. Any excess return was discounted using a discount rate corresponding to the return requirement set for shareholders' equity in order to determine the present value of cash flows.

The testing period was determined to be five years under IAS 36, including residual values.

The forecasts used in cash flow statements are based on strategy figures for 2019–21 confirmed by OP Corporate Bank's Board of Directors in 2016, and post-strategy-period expectations derived from them regarding business developments. Growth in cash flows for post-forecast periods ranges between 2 and 3.6%.

The discount rate used in the calculations was the market-based equity cost, which is in line with the applied value determination methods (i.e. through cash flows, only the value of equity belonging to investors was determined and the value was discounted by using the return requirement rate on equity capital). The discount rate used in the calculations before tax (i.e. IFRS WACC) was 8.1% and 8.7%. In 2017, the discount rate was 8.9% and 9.4%. The Group decreased the discount rate before tax for Non-life Insurance by 0.5 percentage points and for OP Finance by 0.6 percentage points to correspond to the discount rate based on market information.

The impairment testing of goodwill did not lead to recognition of impairment losses.

### Sensitivity analysis of goodwill

A sensitivity analysis was carried out separately for each CGU on the basis of key parameters of each CGU. Variables used in the sensitivity analyses were the same a year ago. A change in one variable in relation to values used in forecasts causes an impairment risk. The sensitivity analysis does not include simultaneous changes in all key variables.

Key variables used in the sensitivity analysis and their changes that cause an impairment risk

| Segment | Acquired business | Key variables | Value used in forecasts, % | Change caused by impairment risk, pp |
|---|---|---|---|---|
| Non-life Insurance | Non-life Insurance business | Discount rate, % | 8.7 | 8.8 |
| | | Combined ratio, % | 90-92 | 9.3 |
| | | Net investment income, % | 2,3-4,0 | -3.7 |
| Banking | OP Finance Ltd's business | Discount rate, % | 8.1 | 14.8 |
| | | Loan portfolio growth, % | 2,0-4,1 | -15.7 |
| | | Growth in expenses, % | 2.0 | 14.4 |

### Impairment testing of brands

OP Corporate Bank Group's brands originate entirely from the acquisition of Pohjola Group plc's business operations. Impairment testing was carried out separately for the Pohjola, Eurooppalainen and A-Vakuutus (A-Insurance) brands, in accordance with IAS 36. OP Corporate Bank Group sold the Seesam brand to Vienna Insurance Group (VIG) as part of the sale of all share capital of Seesam Insurance AS as well as the sale of the Latvian and Lithuanian branches.

The value of the brands was determined by using the 'Relief from Royalty' method. Accordingly, their value was determined to be royalty savings accrued in the future from owning the brands, discounted to the present. In testing the Pohjola brand, the used discount rate was the weighted average of market-based equity costs for non-life and occupational healthcare services (7.3% and 7.3%) plus an asset-specific risk premium of 3%. The discount rate used in testing other brands was the market-based equity cost defined for Non-life Insurance (7.3%) plus an asset-specific risk premium of 3%. In 2018 were applied the same risk premium and the corresponding royalty percentages as in the PPA procedure and in previous years' tests.

The testing period of brands was determined to be five years under IAS 36. The forecasts used in cash flow statements are based on strategy figures for 2019-21 updated for Non-life Insurance and post-strategy-period expectations derived from them regarding the business line's future developments. A 3% inflationary expectation was used as growth in cash flows for post-forecast periods.

OP Corporate Bank is planning to adopt the Pohjola name in its non-life insurance business during 2019. OP Insurance Ltd would, in the future, be known under the name Pohjola Insurance Ltd. Alongside the rebranding of non-life insurance business, Pohjola Health will be renamed Pohjola Hospital and it will focus on hospital business in the future. If materialised, this change will become effective during 2019. As part of testing the Pohjola brand for impairment, the Group assessed the effect of the abovementioned change on the useful life and the length of the testing period, the discount rate, risk premium and royalty rate used in testing. As a result, the Group stated that the brand is, according to IAS 36, an intangible asset in terms of its useful life. The brand will also be used for traditional insurance business, so the testing period was restored to the original five years. Previously, the testing period was extended to 15 years because the brand was used only for the fast-growing healthcare and wellbeing business. No material changes was made to other parameters because the parameters initially were suitable for the insurance business. The testing of the brand took account of the cash flows comparable with the net sales of the businesses that will operate under the brand.

As a result of testing brands for any impairment, Pohjola did not recognise any impairment loss on brands in its financial statements 2018. The Eurooppalainen brand has, however, been written down in the financial statements because the company is planned to merge with OP Insurance.

### Impairment testing of customer relationships

OP Corporate Bank Group's customer relationships were acquired as part of the acquisition of the business operations of Pohjola Group plc. Intangible assets originating from customer relationships was amortised on a straight-line basis during 2018.

## Note 22. Property, plant and equipment

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Property in own use | | |
| Land and water areas | 10 | 10 |
| Buildings | 104 | 101 |
| Total | 115 | 111 |
| Machinery and equipment | 0 | 1 |
| Other tangible assets | 2 | 3 |
| Leased-out assets | 0 | 0 |
| **Total property, plant and equipment** | **117** | **115** |
| of which construction in progress | 0 | 18 |

| Changes in property, plant and equipment (PPE), EUR million | Property in own use | Machinery and equipment | Other tangible assets | Leased-out assets | Total PPE |
|---|---|---|---|---|---|
| Acquisition cost 1 Jan. 2018 | 139 | 31 | 3 | 2 | 175 |
| Increases | 10 | 0 | 0 | 0 | 11 |
| Decreases | 0 | -4 | -1 | -1 | -6 |
| Transfers between items | 0 | | | | 0 |
| Acquisition cost 31 Dec. 2018 | 148 | 27 | 2 | 1 | 179 |
| Accumulated depreciation and impairments 1 Jan. 2018 | -28 | -30 | 0 | -2 | -60 |
| Depreciation during the financial year | -6 | 0 | 0 | 0 | -6 |
| Impairments for the financial year | -1 | | | | -1 |
| Reversals of impairments for the financial year | 0 | | | | 0 |
| Decreases | 0 | 3 | 0 | 1 | 4 |
| Other changes | 0 | | | | 0 |
| Accumulated depreciation and impairments 31 Dec. 2018 | -34 | -27 | 0 | -1 | -62 |
| **Carrying amount 31 Dec. 2018** | **115** | **0** | **2** | **0** | **117** |

| Changes in property, plant and equipment (PPE), EUR million | Property in own use | Machinery and equipment | Other tangible assets | Leased-out assets | Total PPE |
|---|---|---|---|---|---|
| Acquisition cost 1 Jan. 2017 | 112 | 37 | 4 | 5 | 158 |
| Increases | 31 | 0 | 1 | 0 | 32 |
| Decreases | -4 | -6 | -2 | -3 | -15 |
| Transfers between items | 0 | | | | 0 |
| Acquisition cost 31 Dec. 2017 | 139 | 31 | 3 | 2 | 175 |
| Accumulated depreciation and impairments 1 Jan. 2017 | -25 | -36 | 0 | -4 | -65 |
| Depreciation during the financial year | -3 | -1 | 0 | 0 | -5 |
| Impairments for the financial year | -1 | | | | -1 |
| Decreases | 2 | 6 | 0 | 2 | 11 |
| Other changes | 0 | | | | 0 |
| Accumulated depreciation and impairments 31 Dec. 2017 | -28 | -30 | 0 | -2 | -60 |
| **Carrying amount 31 Dec. 2017** | **111** | **1** | **3** | **0** | **115** |

## Note 23. Other assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Payment transfer receivables | 16 | 22 |
| Pension assets | 3 | |
| Accrued income and prepaid expenses | | |
| Interest | 134 | 118 |
| Interest on derivatives receivables | 160 | 194 |
| Other insurance operations' items | 28 | 27 |
| Other | 19 | 13 |
| Derivatives receivables, central counterparty clearing | 3 | 11 |
| CSA receivables from derivative contracts | 458 | 543 |
| Securities receivables | 20 | 16 |
| Direct insurance receivables | 318 | 298 |
| Claims administration contracts | 181 | 181 |
| Reinsurance receivables | 14 | 8 |
| Reinsurers' share of provisions for unearned premiums | 8 | 11 |
| Reinsurers' share of provisions for unpaid claims | 97 | 84 |
| Other receivables | 189 | 182 |
| Total | 1,647 | 1,708 |

## Note 24. Tax assets and liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Income tax assets | 35 | 13 |
| Deferred tax assets | 31 | 22 |
| Total tax assets | 65 | 35 |

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Income tax liabilities | 0 | 9 |
| Deferred tax liabilities | 420 | 411 |
| Total tax liabilities | 421 | 419 |

| Deferred tax assets | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Due to financial assets at fair value through other comprehensive income (Available-for-sale financial assets) | 3 | 0 |
| Due to depreciation and impairment losses | 0 | 0 |
| Due to provisions and impairment losses on receivables | 15 | 7 |
| Due to timing difference of securities issued to the public | | 0 |
| Due to defined-benefit pension plans | 10 | 20 |
| Due to consolidation of Group accounts | 1 | 1 |
| Due to other temporary differences | 4 | 4 |
| Set-off against deferred tax liabilities | -2 | -10 |
| Total | 31 | 22 |

| Deferred tax liabilities | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Due to appropriations | 294 | 261 |
| Due to financial assets at fair value through other comprehensive income (Available-for-sale financial assets) | -1 | 40 |
| Due to cash flow hedging | 0 | 1 |
| Due to elimination of equalisation provision | 66 | 59 |
| Due to fair value measurement of investment | 26 | 15 |
| Due to allocation of sale price of business combinations | 32 | 36 |
| Due to defined benefit pension plans | 1 | 3 |
| Due to consolidation of Group accounts | 1 | 2 |
| Due to other temporary differences | 5 | 4 |
| Set-off against deferred tax assets | -2 | -10 |
| Total | 420 | 411 |
| | | |
| Net deferred tax asset (+)/liability (-) | -390 | -389 |

| Changes in deferred taxes | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Deferred tax assets/liabilities 1 Jan. | -389 | -380 |
| Effect of changes in accounting policies | -2 | |
| Deferred tax assets/liabilities 1 Jan. | -391 | -380 |
| Recognised on the income statement | | |
| Provisions and impairments on receivables | -1 | 0 |
| Appropriations | -33 | -17 |
| Elimination of equalisation provision | -7 | 0 |
| Fair value changes in and sale of investments | -2 | -3 |
| Depreciation/amortisation and impairments | 4 | 4 |
| Timing difference of securities issued to the public | 0 | -1 |
| Defined benefit pension plans | -3 | 1 |
| Other | 1 | -1 |
| Recognised in statement of comprehensive income | | |
| Fair value reserve | | |
| Fair value measurement | 38 | -12 |
| Cash flow hedges | 0 | 0 |
| Transfers to the income statement | 5 | 21 |
| Actuarial gains/losses on post-employment benefit obligations | -5 | -1 |
| Other | 2 | 0 |
| Total deferred tax assets 31 December, asset (+)/liability (-) | -390 | -389 |
| Income tax assets, asset (+)/liability (-) | 34 | 5 |
| Total tax assets, asset (+)/liability (-) | -356 | -384 |

Tax losses for which a deferred tax asset was not recognised came to EUR 18 million (6) at the end of 2018. The losses will expire before 2028.

A deferred tax liability has not been recognised for the EUR 22 million (56) of undistributed profits of the Baltic subsidiaries, since the assets have been permanently invested in these countries.

# Notes to liabilities and equity capital

## Note 25. Liabilities to credit institutions

| EUR Million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Liabilities to central banks | 4,006 | 4,023 |
| Liabilities to credit institutions | | |
| Repayable on demand | | |
| Deposits | | |
| With OP Financial Group entities | 305 | 641 |
| With other credit institutions | 24 | 10 |
| Other liabilities | | |
| With OP Financial Group entities | 700 | 1,166 |
| Total | 1,029 | 1,816 |
| Other than repayable on demand | | |
| Deposits | | |
| With OP Financial Group entities | 9,809 | 7,222 |
| With other credit institutions | 730 | 974 |
| Total | 10,540 | 8,196 |
| Total liabilities to credit institutions and central banks | 15,575 | 14,035 |

## Note 26. Derivative contracts

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Held for trading | | |
| Interest rate derivatives | 2,622 | 2,597 |
| Currency derivatives | 146 | 201 |
| Equity and index derivatives | 0 | 0 |
| Credit derivatives | 2 | 0 |
| Other | 8 | 26 |
| Total | 2,779 | 2,825 |
| Hedging derivative contracts | | |
| Fair value hedging | | |
| Interest rate derivatives | 209 | 305 |
| Currency derivatives | 55 | 86 |
| Cash flow hedge | | |
| Interest rate derivatives | | 0 |
| Total | 264 | 391 |
| Total derivative contracts | 3,043 | 3,216 |

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

## Note 27. Liabilities to customers

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Deposits | | |
| Repayable on demand | | |
| Private | 140 | 72 |
| Companies and public-sector entities | 11,021 | 10,361 |
| Total | 11,161 | 10,433 |
| Other | | |
| Private | 0 | |
| Companies and public-sector entities | 370 | 755 |
| Total | 370 | 755 |
| Total deposits | 11,531 | 11,189 |
| Other financial liabilities | | |
| Repayable on demand | | |
| Private | 15 | 11 |
| Total | 15 | 11 |
| Other | | |
| Companies and public-sector entities | 4,876 | 7,638 |
| Total | 4,876 | 7,638 |
| Total other financial liabilities | 4,890 | 7,648 |
| **Total liabilities to customers** | **16,422** | **18,837** |

## Note 28. Insurance liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Non-life Insurance insurance liabilities | 3,157 | 3,143 |
| Total | 3,157 | 3,143 |

Non-life Insurance contract liabilities and reinsurers' share

| | 31 Dec. 2018 | | | 31 Dec. 2017 | | |
|---|---|---|---|---|---|---|
| EUR million | Gross | Reinsurers' share | Net | Gross | Reinsurers' share | Net |
| Provision for unpaid claims for annuities | 1,510 | -4 | 1,506 | 1,516 | -6 | 1,510 |
| Other provisions by case | 182 | -69 | 113 | 194 | -53 | 141 |
| Special provision for occupational diseases | 13 | | 13 | 14 | | 14 |
| Collective liability (IBNR) | 761 | -23 | 737 | 779 | -25 | 754 |
| Reserved loss adjustment expenses | 101 | | 101 | 67 | | 67 |
| Provision for unearned premiums | 569 | -8 | 561 | 585 | -11 | 574 |
| Interest rate hedge for insurance liabilities | 21 | | 21 | -12 | | -12 |
| Total Non-life Insurance insurance liabilities | 3,157 | -104 | 3,053 | 3,143 | -95 | 3,048 |

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

| | 2018 | | | 2017 | | |
|---|---|---|---|---|---|---|
| EUR million | Gross | Reinsurers' share | Net | Gross | Reinsurers' share | Net |
| Provision for unpaid claims | | | | | | |
| Provision for unpaid claims 1 Jan. | 2,557 | -84 | 2,473 | 2,430 | -64 | 2,365 |
| Claims paid in financial year | -1,075 | 30 | -1,045 | -1,004 | 8 | -996 |
| Change in liability/receivable | 1,081 | -42 | 1,039 | 1,113 | -28 | 1,085 |
| Current period claims | 1,121 | -40 | 1,081 | 1,043 | -25 | 1,018 |
| Increase (decrease) from previous financial years | -39 | -2 | -42 | -32 | -3 | -35 |
| Change in discount rate | | | | 102 | | 102 |
| Unwinding of discount | 27 | | 27 | 31 | | 31 |
| Value change in interest rate hedges | 25 | | 25 | -12 | | -12 |
| Sold business operations | -28 | | -28 | | | |
| Foreign exchange gains (losses) | 0 | | 0 | 0 | 0 | 0 |
| Provision for unpaid claims 31 Dec. | 2,588 | -97 | 2,491 | 2,557 | -84 | 2,473 |
| | | | | | | |
| Liability for remaining contract period | | | | | | |
| Insurance liabilities 1 Jan. | 585 | -11 | 574 | 578 | -14 | 565 |
| Increase | 539 | -7 | 532 | 524 | -6 | 518 |
| Decrease | -528 | 10 | -518 | -518 | 9 | -509 |
| Sold business operations | -27 | | -27 | | | |
| Unwinding of discount | 1 | | 1 | 1 | | 1 |
| Insurance liabilities 31 Dec. | 569 | -8 | 561 | 585 | -11 | 574 |
| Total Non-life Insurance insurance liabilities | 3,157 | -105 | 3,052 | 3,143 | -95 | 3,048 |

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

**Determination of insurance liabilities arising from non-life insurance contracts**

**a) Methods and assumptions used**

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

The provision for unpaid claims for annuities corresponds to the discounted present value of cash flow of compensation for loss of income payable as continuous annuity. The discount rate is determined taking account of the current interest rate, security required by law and the maximum discount rate set by the authorities and expected reasonable return on assets covering insurance liabilities. On 31 December 2017, the discount rate used was 1.5%
(1.5). The mortality model applied is the cohort mortality model which is based on Finnish demographic statistics and which assumes the current trend of an increase in life expectancy to continue.

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

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

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

- Estimating the future rate of inflation (excl. indemnities for loss of income payable on the basis of statutory insurance)

- Adjustment of changes due to changed compensation practices and legislation in the development triangle of claims (i.e. whether history provides a correct picture of the future)

- Adequacy of historical information over dozens of years.

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

For the assessment of collective liability, the Group's non-life insurance portfolio is divided into several categories by risk and eg maturity of the cash flow applying to compensation paid. In each category, collective liability is first calculated using each statistical method stated above, and the method that best suits the category under review is chosen. The selection criteria used includes how well the model would have predicted developments in prior years of occurrence and the sensitivity of the estimate generated by the model with respect to the number of statistical years used. The safety margin of 2–10% is added to the expected value generated by the selected model. The safety margin is determined by the uncertainty associated with future cash flows and duration, as well as the quality of historical data.

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

| Effect of changes in methods and assumptions on amount of liability | 2018 | 2017 |
|---|---|---|
| EUR million (increase +/decrease - in liability) | | |
| Effect of changes in methods and assumptions on amount of liability | 17 | 102 |
| Total | 17 | 102 |

**b) Claims development**

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

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

**Claims triangles, gross business, EUR million**

| Occurrence year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated total claims expenditure | | | | | | | | | | | |
| 0* | 666 | 738 | 784 | 815 | 903 | 931 | 976 | 1,000 | 1,043 | 1,121 | 8,977 |
| n+1 | 633 | 746 | 751 | 802 | 879 | 905 | 887 | 1,006 | 1,063 | | |
| n+2 | 640 | 744 | 752 | 805 | 861 | 920 | 902 | 995 | | | |
| n+3 | 641 | 743 | 757 | 821 | 885 | 939 | 910 | | | | |
| n+4 | 651 | 750 | 771 | 836 | 891 | 929 | | | | | |
| n+5 | 653 | 760 | 786 | 840 | 888 | | | | | | |
| n+6 | 659 | 771 | 785 | 840 | | | | | | | |
| n+7 | 670 | 772 | 783 | | | | | | | | |
| n+8 | 673 | 779 | | | | | | | | | |
| n+9 | 674 | | | | | | | | | | |
| Current estimate of total claims expenditure | | | | | | | | | | | |
| | 674 | 779 | 783 | 840 | 888 | 929 | 910 | 995 | 1,063 | 1,121 | 8,982 |
| Accumulated claims paid | | | | | | | | | | | |
| | -645 | -740 | -743 | -791 | -833 | -858 | -818 | -882 | -892 | -652 | -7,854 |
| Provision for unpaid claims for 2009-18 | | | | | | | | | | | |
| | 29 | 39 | 40 | 49 | 56 | 71 | 92 | 113 | 171 | 469 | 1,128 |
| | | | | | | | | | | | |
| Provision for unpaid claims for previous years | | | | | | | | | | | 214 |

* = at the end of the occurrence year

Development of claims due to latent occupational diseases, EUR million

| Financial year | Collective liability | Known liabilities for annuities | Claims paid | Claims incurred | Changes in reserving basis* | Adequacy |
|---|---|---|---|---|---|---|
| 2009 | 42 | 43 | -4 | -8 | 4 | -4 |
| 2010 | 38 | 44 | -3 | 0 | | 0 |
| 2011 | 35 | 50 | -3 | -6 | 5 | -2 |
| 2012 | 32 | 53 | -4 | -4 | 2 | -1 |
| 2013 | 28 | 53 | -4 | -1 | 1 | 0 |
| 2014 | 22 | 53 | -4 | -2 | 2 | 0 |
| 2015 | 19 | 54 | -4 | -2 | 2 | -1 |
| 2016 | 17 | 53 | -5 | -1 | 2 | 1 |
| 2017 | 14 | 53 | -5 | -3 | 3 | 0 |
| 2018 | 13 | 51 | -6 | -2 | | -2 |

Development of annuities confirmed as final, EUR million

| Financial year | Year-start | Year-end | New annuity capital | Annuities paid | Changes in reserving basis* | Adequacy |
|---|---|---|---|---|---|---|
| 2009 | 763** | 771 | 42 | 32 | | 2 |
| 2010 | 771 | 794 | 60 | 34 | | 3 |
| 2011 | 794 | 895 | 66 | 35 | 77 | 7 |
| 2012 | 895 | 940 | 66 | 34 | 31 | 18 |
| 2013 | 940 | 965 | 51 | 37 | 23 | 12 |
| 2014 | 965 | 1,010 | 54 | 40 | 36 | 5 |
| 2015 | 1,010 | 1,046 | 53 | 44 | 30 | 2 |
| 2016 | 1,046 | 1,080 | 54 | 49 | 31 | 3 |
| 2017 | 1,080 | 1,141 | 54 | 52 | 75 | 16 |
| 2018 | 1,141 | 1,145 | 56 | 54 | | -2 |

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

** A small amount of healthcare and senior housing provisions was eliminated from 2009 figures.

Claims triangles, net business, EUR million

| Occurrence year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated total claims expenditure | | | | | | | | | | | |
| 0* | 649 | 693 | 721 | 796 | 861 | 897 | 957 | 992 | 1,019 | 1,081 | 8,666 |
| n+1 | 620 | 707 | 697 | 782 | 829 | 868 | 877 | 1,000 | 1,026 | | |
| n+2 | 629 | 705 | 710 | 786 | 819 | 875 | 892 | 990 | | | |
| n+3 | 629 | 705 | 714 | 804 | 843 | 887 | 898 | | | | |
| n+4 | 633 | 712 | 727 | 818 | 847 | 887 | | | | | |
| n+5 | 633 | 721 | 741 | 823 | 847 | | | | | | |
| n+6 | 635 | 732 | 743 | 823 | | | | | | | |
| n+7 | 646 | 734 | 742 | | | | | | | | |
| n+8 | 648 | 740 | | | | | | | | | |
| n+9 | 648 | | | | | | | | | | |
| Current estimate of total claims expenditure | | | | | | | | | | | |
| | 648 | 740 | 742 | 823 | 847 | 887 | 898 | 990 | 1,026 | 1,081 | 8,684 |
| Accumulated claims paid | | | | | | | | | | | |
| | -632 | -702 | -703 | -775 | -794 | -820 | -810 | -880 | -885 | -648 | -7,648 |
| **Provision for unpaid claims for 2009-18** | | | | | | | | | | | |
| | **16** | **39** | **39** | **49** | **54** | **68** | **88** | **110** | **141** | **432** | **1,036** |
| | | | | | | | | | | | |
| Provision for unpaid claims for previous years | | | | | | | | | | | 209 |

* = at the end of the occurrence year

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

Claims incurred for losses occurred in prior financial years decreased by EUR 42 million while those for the previous financial year increased by EUR 67 million. Change in claims incurred based on loss events for prior financial years describes the adequacy of insurance liabilities, which on average is positive due to the security of insurance liabilities.

## Note 29. Debt securities issued to the public

| EUR million | Average interest rate % | 31 Dec. 2018 | Average interest rate % | 31 Dec. 2017 |
|---|---|---|---|---|
| Bonds | 1.08 | 10,119 | 1.20 | 9,716 |
| Other | | | | |
| Certificates of deposit | 2.53 | 105 | 1.10 | 83 |
| Commercial paper | 0.55 | 10,162 | 0.47 | 7,034 |
| Included in own portfolio in trading (–)* | | -50 | | -42 |
| Total debt securities issued to the public | | 20,336 | | 16,791 |

*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. 2018 | 16,791 | 1,547 |
| Changes in cash flows from financing activities | | |
| Increases in bonds | 2,371 | |
| Increases in certificates of deposit | 141 | |
| Increases in commercial papers | 24,495 | |
| Increases total | 27,007 | |
| Decreases in bonds | -2,022 | |
| Decreases in certificates of deposit | -121 | |
| Decreases in commercial papers | -21,346 | |
| Decreases in subordinated loans | | -50 |
| Decreases total | -23,489 | -50 |
| Total changes in cash flows from financing activities | 3,518 | -50 |
| Valuations and changes in exchange rates | 27 | -15 |
| Balance sheet value 31 Dec. 2018 | 20,336 | 1,482 |

| EUR million | Debt securities issued to the public | Subordinated liabilities |
|---|---|---|
| Balance sheet value 1 Jan. 2017 | 19,826 | 1,592 |
| Changes in cash flows from financing activities | | |
| Increases in bonds | 1,194 | |
| Increases in certificates of deposit | 86 | |
| Increases in commercial papers | 19,779 | |
| Increases total | 21,060 | |
| Decreases in bonds | -2,980 | |
| Decreases in certificates of deposit | -28 | |
| Decreases in commercial papers | -20,459 | |
| Decreases total | -23,468 | |
| Total changes in cash flows from financing activities | -2,408 | |
| Valuations and changes in exchange rates | -627 | -45 |
| Balance sheet value 31 Dec. 2017 | 16,791 | 1,547 |

| Long-term loans and interest rate bases | Nominal amount | Interest rate | Maturity |
|---|---|---|---|
| OP Corporate Bank plc Issue of EUR 750,000,000 1.125 per cent. Instruments due 17 June 2019 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 750.0 | Fixed 1.125% | 17 June 2019 |
| OP Corporate Bank plc Japanese Yen Bonds JPY 42,400,000,000 - Fourth Series (2014) | 336.9 | Fixed 0.434 % | 18 June 2019 |
| OP Corporate Bank plc Issue of AUD 20,000,000 3.925 per cent Fixed Rate Notes due 27 June 2019 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 12.3 | Fixed 3.925 % | 27 June 2019 |
| OP Corporate Bank plc Issue of SEK 750,000,000 Floating Rate Note due September 2019 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 73.1 | SES3M + 0.520 % | 16 Sept. 2019 |
| OP Corporate Bank plc Issue of EUR 300,000,000 Floating Rate Instruments due 11 March 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 760.0 | EUB3M + 0.280 % | 11 March 2020 |
| OP Corporate Bank plc Issue of HKD 850,000,000 Floating Rate Note due May 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 94.8 | Fixed 2.140% | 27 May 2020 |
| OP Corporate Bank plc Issue of HKD 214,000,000 Floating Rate Note due September 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 23.9 | Fixed 2.160% | 18 Sept. 2020 |
| OP Corporate Bank plc issue of GBP 10 000 000 floating rate instruments due 13 November 2020 under EUR 20,000,000,000 programme for the Issuance of debt instruments | 11.2 | GBL3M + 0.850 % | 13 Nov. 2020 |
| OP Corporate Bank plc Issue of EUR 10,000,000 1.965 per cent. Instruments due 19 November 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 10.0 | Fixed 1.965 % | 19 Nov. 2020 |
| OP Corporate Bank plc Japanese Yen Bonds JPY 28,500,000,000 - Third Series (2015) | 226.5 | Fixed 0.325 % | 27 Nov. 2020 |
| OP Corporate Bank plc Japanese Yen Floating Rate Bonds JPY 1,500,000,000 - Third Series (2015) | 11.9 | JPL3M + 0.160 % | 27 Nov. 2020 |
| OP Corporate Bank plc Issue of JPY 8,000,000,000 Fixed Rate Instruments due December 2020 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 63.6 | Fixed 1.405 % | 3 Dec. 2020 |
| 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 | 223.6 | 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 | 266.2 | Fixed 1.000% | 14 July 2021 |
| 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 GBP 400,000,000 2.500 per cent. Instruments due 20 May 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 447.2 | Fixed 2.500 % | 20 May 2022 |
| OP Corporate Bank plc Issue of EUR 200,000,000 Floating Rate Instruments due 13 June 2022 under the EUR 20,000,000,000 Programme for the Issuance of Debt Instruments | 300.0 | EUB3M + 0.75 % | 13 June 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 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 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 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 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 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 | 141.6 | Fixed 3.001 % | 4 Sept. 2025 |
| 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 | 73.9 | Fixed 2.880 % | 21 Jan. 2026 |
| 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 | 52.4 | 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 | 87.3 | Fixed 3.901 % | 7. Dec. 2028 |
| OP Corporate Bank plc Issue of NOK 200,000,000 3.80 per cent. Instruments due 27 May 2029 under the EUR 20,000,000,000 Programme for Debt Instruments | 20.1 | Fixed 3.800 % | 27 May 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 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 | 19.9 | 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 1,163 million (1,229). 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 30. Provisions and other liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Provisions | | |
| Loss allowance | 4 | |
| Reorganisation provision | 3 | |
| Other statutory provisions | 5 | |
| Other liabilities | | |
| Payment transfer liabilities | 824 | 740 |
| Accrued expenses | | |
| Interest payable | 114 | 110 |
| Interest payable on derivatives | 220 | 230 |
| Other accrued expenses | 58 | 59 |
| CSA liabilities from derivatives | 504 | 657 |
| Pension liabilities | 58 | 90 |
| Accounts payable on securities | 21 | 36 |
| Payables based on purchase invoices | 14 | 30 |
| Direct insurance liabilities | 47 | 48 |
| Reinsurance liabilities | 11 | 15 |
| Claims administration contracts | 209 | 192 |
| Other | 37 | 98 |
| **Total provisions and other liabilities** | **2,128** | **2,307** |

Changes in provisions

| EUR million | Loss allowance | Re-organisation | Other provisions | Total |
|---|---|---|---|---|
| 31 Dec. 2017 | | | | |
| 1 Jan. 2018 IFRS 9 transition | 4 | | | 4 |
| Increase in provisions | | 3 | 5 | 8 |
| 31 Dec. 2018 | 4 | 3 | 5 | 12 |

**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 OP Bank Group Pension Fund, OP Bank Group Pension Foundation and insurance companies. Schemes related to supplementary pensions in the Pension Foundation and insurance company, as well as the TyEL (Employees' Pensions Act) funded old-age and disability pension schemes managed by the Pension Fund are treated as defined benefit plans. Contributions to the TyEL pay-as-you-go system are treated as defined contribution plans.

**OP Bank Group Pension Fund**

OP Bank Group Pension Fund managed statutory pension insurance for the employees of OP Corporate Bank Group employers in 2016. The statutory pension scheme under TyEL (Employees' Pensions Act) provides pension benefits based on the years of employment and earnings as prescribed in the Act.

The new TyEL came into force in 2017. Benefits under the employees pension scheme comprise old-age pension, partial early old-age pension, year-of-service pension, disability pension, survivors' pension and rehabilitation benefits. Partial early old-age pension based on the previous TyEL was replaced with partial old-age pension and it did not recognise years-of-age pension. The changes in benefits caused by the amended law was already recognised in the income statement before 2017.

The TyEL pension scheme is based on a system that is partly a funded system and partly a pay-as-you go system. A pension insurance institution, which has insured each employment, manages funding for each employee. The funded portion of the pension benefits disbursed annually by the Pension Fund accounts for an average of a quarter.

The Pension Fund aims to manage statutory pension insurance in such a way that the level of contributions will remain steady year after year and be below the average contribution level of the employees pension scheme. In 2018, OP Bank Group Pension Fund's level of contributions was 22.9% and the plan's average contribution level is 24.4%. The most significant associated risk relates to the possibility of the actual return on investment assets being lower than the actual average investment return under the pension scheme. If such a risk materialises in several consecutive years, this would result in increasing the level of insurance contributions.

The most significant actuarial risks of OP Bank Group Pension Fund are associated with interest rate and market risks, future increases in pension benefits and systematically increasing life expectancy. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities.

Under the Employee Benefit Funds Act, the Pension Fund must invest its assets securely and profitably and in view of its liquidity. The Pension Fund must cover the insurance liability arising from pension obligations, in accordance with the national accounting framework. When covering the insurance liability, the Pension Fund must consider what type of insurance business it conducts and, accordingly, must ensure the security of, return on and cashability of its assets and that they are appropriately versatile and properly diversified. As prescribed by law, the Pension Fund has a specific solvency limit which it must cover through its solvency capital.

Responsible for investment, the Board of Trustees of the Pension Fund approves the pension institution's investment plan related to its assets. A pension institution's chief actuary prepares annually a forecast for developments in insurance liabilities and pension costs. On this basis, investment asset allocation takes account of the requirements set by the nature of insurance liabilities for investment operations with respect to the level of security, productivity and liquidity, as well as the Pension Fund's risk-bearing capacity.

The Representative Assembly of OP Bank Group Pension Fund decided on 31 July 2018 to transfer the management of statutory earnings-related pension insurance and the pension insurance portfolio of EUR 1,068 million to Ilmarinen Mutual Pension Insurance Company. The transferred solvency capital totalled EUR 263 million. This decision was preceded by competitive bidding in which the Board of Trustees of OP Bank Group Pension Fund invited bids from the largest pension insurance companies. The insurance portfolio concerned accounted for some 90.8% of OP Bank Group Pension Fund's total pension liability. The transfer was executed on 31 December 2018. Based on the initial plan, the remaining pension liability will be transferred to Ilmarinen at a later date, but no earlier than at the end of 2020. The remaining portion mainly consists of OP Insurance's pension liabilities transferred on 31 December 2015 from Ilmarinen Mutual Pension Insurance Company to OP Bank Group Pension Fund. The transfer reduced OP Corporate Bank Group's pension costs and improved earnings before tax by EUR 34 million while improving its capital adequacy ratio by 0.1 percentage point.

**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 Group. The purpose of the Pension Foundation is to grant old-age and disability pension benefits and sickness benefits to employees covered by the Pension Foundation activities, and survivors' pension benefits to their beneficiaries, and burial grant. In addition, the Pension Foundation may grant said employees benefits related to rehabilitation. Given that providing supplementary pension is voluntary, not all employers belonging to the Pension Fund belong automatically to the Pension Foundation. Supplementary pension cover provided by the Pension Foundation is fully funded.

The Pension Foundation covers every employee who has reached the age of 20 years and who has been employed, as specified by TyEL, for two consecutive years by the employer within the Pension Foundation and whose employment has begun before 1 July 1991. The employment term entitling to pension begins from the day the employee turned 23 years in the employment of the employer. The salary/wage serving as the basis for the calculation of pension refers to pensionable pay based on one and the same employment and calculated under the Finnish Employees' Pensions Act, TEL, in force until 31 December 2006. The retirement age of those covered by the Pension Foundation varies from 60 to 65 years, depending on the personnel group to which the employee belongs under the Pension Foundation rules.

OP Bank Group Pension Foundation altered its bylaws to be in line with the amended TyEL effective since 1 January 2017. The effect of this alteration was EUR –0.2 million on income and EUR –1.2 million on comprehensive income. In 2017, the obligation was increased by a one-off increase in the liability of paid-up policies performed based on the Finnish Insurance Complaints Board's recommendation, and by a decision by the Labour Court on adjusting supplementary pensions under the collective agreement in the financial sector to TyEL that entered into force at the beginning of the year. The effect of the liability on comprehensive income for 2017 was EUR 5 million.

The most significant associated risk relates to the possibility of the actual return on investment assets being lower than the target set for the minimum return. If such a risk materialises in several consecutive years, this would result in charging contributions.

The most significant actuarial risks of OP Bank Group Pension Foundation are associated with interest rate and market risks, systematically increasing life expectancy and inflation risk. A change in the discount rate for pension liabilities has a substantial effect on the amount of pension liabilities.

Responsible for investment, the Board of Trustees of the Pension Foundation approves the pension institution's investment plan related to its assets. A pension institution's chief actuary prepares annually a forecast for developments in insurance liabilities and pension costs. On this basis, investment asset allocation takes account of the requirements set by the nature of insurance liabilities for investment operations with respect to the level of security, productivity and liquidity, as well as the Pension Foundation's risk-bearing capacity.

Supplementary pension has also been arranged in life insurance companies. The adaptation performed as a result of the TyEL change in 2017 increased the liability by EUR 9 million in the financial statements for 2018.

| Balance sheet value of defined benefit plans, EUR million | Defined benefit obligations | | Fair value of pension assets | | Net liabilities (assets) | |
|---|---|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| Opening balance 1 Jan. | 423 | 394 | -333 | -307 | 90 | 88 |
| **Defined benefit pension costs recognised in income statement** | | | | | | |
| Current service cost | 13 | 11 | | | 13 | 11 |
| Interest expense (income) | 7 | 7 | -6 | -5 | 2 | 1 |
| Effect of plan curtailment, change and fulfilment of obligation or previous service cost | -162 | 0 | 137 | | -26 | 0 |
| Administrative expenses | | | 0 | 0 | 0 | 0 |
| **Total** | **-142** | **18** | **131** | **-5** | **-11** | **13** |
| **Losses (gains) recognised in other comprehensive income arising from remeasurement** | | | | | | |
| Actuarial losses (gains) arising from changes in economic expectations | -21 | -4 | | | -21 | -4 |
| Actuarial losses (gains) arising from changes in demographic expectations | | 0 | | | | 0 |
| Return on TyEL interest rate difference and growth in old-age pension liabilities (net) and corporate transaction | 6 | 6 | -6 | -6 | | |
| Experience adjustments | 3 | 17 | | | 3 | 17 |
| Return on plan assets, excluding amount (–) of net defined benefit liability (asset) | | | -5 | -18 | -5 | -18 |
| Total | -12 | 20 | -11 | -24 | -23 | -4 |
| Other | | | | | | |
| Employer contributions* | | | -2 | -6 | -2 | -6 |
| Benefits paid | -10 | -9 | 10 | 9 | | |
| Total | -10 | -9 | 8 | 3 | -2 | -6 |
| Closing balance 31 Dec. | 260 | 423 | -205 | -333 | 55 | 90 |

* Include refund of OP Bank Group Pension Fund's solvency capital surplus, totalling EUR 5 million.

| Liabilities and assets recognised in the balance sheet, EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Net liabilities/assets (Pension Foundation) | -3 | 0 |
| Net liabilities/assets (Pension Fund) | 34 | 70 |
| Net liabilities (Other pension plans) | 24 | 20 |
| Total net liabilities | 58 | 90 |
| Total net assets | -3 | 0 |

| Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2018, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Shares and participations | 22 | 0 | 5 | 27 |
| Notes and bonds | 49 | 0 | 3 | 52 |
| Real property | | | 5 | 5 |
| Mutual funds | 53 | 2 | 20 | 75 |
| Derivatives | 0 | 0 | | 0 |
| Other assets | 12 | | 1 | 13 |
| Total | 136 | 2 | 33 | 172 |

| Pension Fund and Pension Foundation assets, grouped by valuation technique, 31 Dec. 2017, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Shares and participations | 19 | | 10 | 29 |
| Notes and bonds | 59 | 9 | 3 | 72 |
| Real property | | | 19 | 19 |
| Mutual funds | 80 | 6 | 71 | 157 |
| Structured investment vehicles | | | 1 | 1 |
| Derivatives | 0 | 0 | | 1 |
| Other assets | 24 | | | 24 |
| Total | 183 | 15 | 104 | 302 |

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

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

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

| Proportion of the most significant assets of total fair value of plan assets, % | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Shares and participations | 16 | 10 |
| Financial sector | 0 | 1 |
| Forest | 5 | 3 |
| Real estate | 3 | 1 |
| Other | 8 | 5 |
| Notes and bonds | 30 | 24 |
| Government bonds | 28 | 3 |
| Other | 2 | 21 |
| Real property | 3 | 6 |
| Mutual funds | 44 | 52 |
| Equity funds | 17 | 32 |
| Bond funds | 2 | 7 |
| Real estate funds | 19 | 9 |
| Hedge funds | 6 | 4 |
| Derivatives | 0 | 0 |
| Interest rate derivatives | 0 | 0 |
| Currency derivatives | | 0 |
| Other | | 0 |
| Structured investment vehicles | | 0 |
| Other | 8 | 8 |
| Total | 100 | 100 |

| Pension plan assets include, EUR million, | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Securities issued by OP Financial Group companies | | 4 |
| Other receivables from OP Financial Group companies | 13 | 25 |
| Total | 13 | 29 |

Contributions payable under the defined benefit pension plan in 2019 are estimated at EUR 5 million.
The duration of the defined benefit pension obligation in the Pension Fund on 31 December 2018 was 25.4 years, in the Pension Foundation 14 years and in other plans 20.2 years.

| Key actuarial assumptions used, 31 Dec. 2018, EUR million | Pension Fund | Pension Foundation | Other |
|---|---|---|---|
| Discount rate, % | 1.9 | 1.7 | 2.0 |
| Future pay increase assumption, % | 2.5 | 2.3 | 2.5 |
| Future pension increases, % | 1.1 | 1.6 | 1.9 |
| Turnover rate, % | 3.0 | 0.0 | 0.0 |
| Inflation rate, % | 1.7 | 1.5 | 1.7 |
| Estimated remaining service life of employees in years | 24.0 | 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 |

| Key actuarial assumptions used, 31 Dec. 2017, EUR million | Pension Fund | Pension Foundation | Other |
|---|---|---|---|
| Discount rate, % | 1.8 | 1.5 | 1.7 |
| Future pay increase assumption, % | 2.7 | 2.5 | 2.6 |
| Future pension increases, % | 1.1 | 1.9 | 2.0 |
| Turnover rate, % | 3.0 | 0.0 | 0.0 |
| Inflation rate, % | 1.9 | 1.7 | 1.8 |
| Estimated remaining service life of employees in years | 23.3 | 8.0 | 10.0 |
| 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 |

| | Change in defined benefit pension obligation | | | |
|---|---|---|---|---|
| | Pension Fund | | Pension Foundation | |
| Sensitivity analysis of key actuarial assumptions, 31 Dec. 2018 | EUR million | % | EUR million | % |
| Discount rate | | | | |
| 0.5 pp increase | -17 | -10.8 | -3 | -6.2 |
| 0.5 pp decrease | 20 | 12.7 | 4 | 7.0 |
| Pension increases | | | | |
| 0.5 pp increase | 18 | 11.7 | 3 | 6.3 |
| 0.5 pp decrease | -17 | -10.5 | -3 | -5.9 |
| Mortality | | | | |
| 1-year increase in life expectancy | 5 | 3.0 | 2 | 3.3 |
| 1-year decrease in life expectancy | -5 | -2.9 | -2 | -3.2 |

| | Change in defined benefit pension obligation | | | |
|---|---|---|---|---|
| | Pension Fund | | Pension Foundation | |
| Sensitivity analysis of key actuarial assumptions, 31 Dec. 2017 | EUR million | % | EUR million | % |
| Discount rate | | | | |
| 0.5 pp increase | -33 | -10.3 | -3 | -6.7 |
| 0.5 pp decrease | 39 | 12.1 | 3 | 7.5 |
| Pension increases | | | | |
| 0.5 pp increase | 37 | 11.4 | 3 | 6.6 |
| 0.5 pp decrease | -33 | -10.2 | -3 | -6.2 |
| Mortality | | | | |
| 1-year increase in life expectancy | 11 | 3.3 | 2 | 3.3 |
| 1-year decrease in life expectancy | -10 | -3.2 | -1 | -3.2 |

The Pension Foundation's sensitivity figures do not include the one-off increase of EUR 4 million in paid-up policy liability on 31 December 2017, based on the recommendation issued by the Finnish Insurance Complaints Board.

## Note 31. Subordinated liabilities

| EUR million | Average interest rate % | 31 Dec. 2018 | Average interest rate % | 31 Dec. 2017 |
|---|---|---|---|---|
| Subordinated loans | 1.98 | 223 | 2.06 | 273 |
| Other | | | | |
| Debentures | 3.49 | 1,259 | 3.40 | 1,274 |
| **Total subordinated liabilities** | | **1,482** | | **1,547** |

**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 will 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. OP 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 OP 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. OP 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 OP 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. A-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 A-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 89 million), which is a ten-year bullet loan, will mature on 14 July 2021. The loan carries a fixed interest rate of 3.375% p.a.

2. A debenture loan of EUR 100 million, which is a ten-year bullet loan, will mature on 14 September 2021. The loan carries a fixed interest rate of 5.25% p.a.

3. A debenture loan of EUR 500 million, which is a 10-year bullet loan, will mature on 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 SEK 3,500 million (euro equivalent 341 million), which is a ten-year non-call 5 loan. The loan may be called in on 25 August 2020, matures on 25 August 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to Stibor + 1.60% .

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

Loans 1–6 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.

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 32. Equity capital

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Capital and reserves attributable to owners | | |
| Liabilities to central banks | 428 | 428 |
| Reserves | | |
| Restricted reserves | | |
| Share premium account | 519 | 519 |
| Reserve fund | 203 | 204 |
| Reserves according to the Articles of Association/Bylaws | | |
| Fair value reserve | | |
| Cash flow hedge | 0 | 2 |
| Measurement at fair value | | |
| Notes and bonds | -3 | 117 |
| Loss allowance regarding notes and bonds | 6 | |
| Shares and participations | | 45 |
| Shares and participations (overlay approach) | -15 | |
| 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 | 2,213 | 1,981 |
| Profit (loss) for the financial year | 346 | 424 |
| Equity capital attributable to owners | 4,067 | 4,089 |
| Non-controlling interests | 80 | 60 |
| Total equity capital | 4,147 | 4,149 |

### 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 proposes to the Annual General Meeting that a dividend of EUR 0.54 (0.66) be distributed per share, totalling EUR 173 million (211).

### 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 (available-for-sale) and within the scope of the overlay approach. Items included in this reserve will be derecognised and recorded in the income statement when an available-for-sale financial asset is disposed of or is subject to impairment. The expected loss on notes and bonds recognised through other comprehensive income is recognised to 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

| | Available-for-sale financial assets | | | |
|---|---|---|---|---|
| EUR million | Notes and bonds | Equity instruments | Cash flow hedging | Total |
| **Opening balance 1 Jan. 2017** | 85 | 106 | 6 | 197 |
| Fair value changes | 50 | 12 | 1 | 63 |
| Capital gains transferred to income statement | -11 | -89 | | -100 |
| Impairment loss transferred to income statement | 0 | 2 | | 2 |
| Transfers to net interest income | | | -5 | -5 |
| Deferred tax | -8 | 15 | 1 | 8 |
| **Closing balance 31 Dec. 2017** | 117 | 45 | 2 | 164 |

| | Fair value through other comprehensive income | | | | |
|---|---|---|---|---|---|
| EUR million | Notes and bonds | Shares and participations | Shares and participations (overlay approach) | Cash flow hedging | Total |
| **Balance sheet 31 Dec. 2017** | 117 | 45 | | 2 | 164 |
| Effect of IFRS 9 transition at 1 January 2018 | -1 | -45 | | | -46 |
| **Opening balance 1 Jan. 2018** | 115 | 0 | | 2 | 118 |
| Fair value changes | -111 | 0 | -20 | 1 | -130 |
| Capital gains transferred to income statement | -30 | | -3 | | -33 |
| Impairment loss transferred to income statement | | | 5 | | 5 |
| Transfers to net interest income | | | | -3 | -3 |
| Deferred tax | 28 | 0 | 4 | 0 | 32 |
| **Closing balance 31 Dec. 2018** | 3 | | -15 | 0 | -12 |

The fair value reserve before tax amounted to EUR 15 million negative at the end of the reporting period and the related deferred tax liability was EUR 3 million. At the end of 2017, the fair value reserve totalled EUR 204 million and the related deferred tax liability was EUR 41 million. At the end of the reporting period, positive mark-to-market valuations of equity instruments in the fair value reserve totalled EUR 24 million (67) and negative mark-to-market valuations EUR 43 million (11), owing to the application of the overlay approach. The loss allowance on notes and bonds recognised at fair value through other comprehensive income totalled EUR -4 million in the fair value reserve. 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 33. Collateral given

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Given on behalf of own liabilities and commitments | | |
| Pledges | 59 | 35 |
| Others | 5,775 | 5,663 |
| **Total collateral given*** | **5,834** | **5,699** |
| | | |
| Secured derivative liabilities | 928 | 889 |
| Other secured liabilities | 4,072 | 4,081 |
| Total secured liabilities | 5,000 | 4,969 |

* In addition, bonds with a book value of EUR 5.1 billion have been pledged in the central bank, of which EUR 1.5 billion in intraday settlement collateral. Given that the bonds are available for withdrawal without the central bank's advance permission, they are not presented in the table above.

## Note 34. Financial collateral held

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Fair value of collateral received | | |
| Other | 490 | 414 |
| Total | 490 | 414 |

The credit risk arising from derivatives is mitigated through collateral, which means the use of ISDA Credit Support Annex (CSA) contract associated with the ISDA general agreement. In the collateral system, the counterparty provides securities or cash in security for the receivable. The amount of CSA-related collateral received in cash totalled EUR 490 million on the balance sheet date (414). The Group had no securities received as collateral on the balance sheet date.

## Note 35. Classification of financial assets and liabilities

| Assets, EUR million | Amortised cost | Fair value through other comprehensive income | Financial assets held for trading | Must be measured at fair value through profit or loss | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | 12,239 | | | | | 12,239 |
| Receivables from credit institutions | 9,726 | | | | | 9,726 |
| Derivative contracts | | | 3,305 | | 187 | 3,492 |
| Receivables from customers | 22,351 | | | | | 22,351 |
| Notes and bonds | | 14,730 | 498 | 46 | | 15,275 |
| Equity instruments | | 0 | 36 | 616 | | 651 |
| Other financial assets | 1,680 | | | | | 1,680 |
| Financial assets | | | | | | 65,414 |
| Other than financial assets | | | | | | 1,296 |
| Total 31 December 2018 | 45,996 | 14,730 | 3,839 | 662 | 187 | 66,710 |

| Assets, EUR million | Loans and other receivables | Investments held to maturity | Available-for-sale financial assets | Financial assets at fair value through profit or loss* | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|---|---|
| Cash and cash equivalents | 12,825 | | | | | 12,825 |
| Receivables from credit institutions | 9,294 | | | | | 9,294 |
| Derivative contracts | | | | 3,283 | 143 | 3,426 |
| Receivables from customers | 20,120 | | | | | 20,120 |
| Notes and bonds | | 51 | 14,050 | 893 | | 14,993 |
| Equity instruments | | | 728 | 0 | | 728 |
| Other financial assets | 1,779 | | | | | 1,779 |
| **Financial assets** | | | | | | **63,164** |
| Other than financial assets | | | | | | 1,280 |
| **Total 31 December 2017** | **44,017** | **51** | **14,777** | **4,176** | **143** | **64,445** |

* Investment assets in the balance sheet include Non-life Insurance notes and bonds recognised through profit or loss, and equity instruments.

| Liabilities, EUR million | Financial liabilities at fair value through profit or loss | Other liabilities | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|
| Liabilities to credit institutions | | 15,575 | | 15,575 |
| Derivative contracts | 2,779 | | 264 | 3,043 |
| Liabilities to customers | | 16,422 | | 16,422 |
| Insurance liabilities | | 3,157 | | 3,157 |
| Debt securities issued to the public | | 20,336 | | 20,336 |
| Subordinated loans | | 1,482 | | 1,482 |
| Other financial liabilities | | 2,010 | | 2,010 |
| **Financial liabilities** | | | | **62,023** |
| Other than financial liabilities | | | | 539 |
| **Total 31 December 2018** | **2,779** | **58,981** | **264** | **62,562** |

| Liabilities, EUR million | Financial liabilities at fair value through profit or loss | Other liabilities | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|
| Liabilities to credit institutions | | 14,035 | | 14,035 |
| Derivative contracts | 2,825 | | 391 | 3,216 |
| Liabilities to customers | | 18,837 | | 18,837 |
| Insurance liabilities | | 3,143 | | 3,143 |
| Debt securities issued to the public | | 16,791 | | 16,791 |
| Subordinated loans | | 1,547 | | 1,547 |
| Other financial liabilities | | 2,084 | | 2,084 |
| **Financial liabilities** | | | | **59,653** |
| Other than financial liabilities | | | | 642 |
| **Total 31 December 2017** | **2,825** | **56,437** | **391** | **60,295** |

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 102 million (227) 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 36. Recurring fair value measurements by valuation technique

| Fair value of assets on 31 December 2018, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Recognised at fair value through profit or loss | | | | |
| Equity instruments | 297 | 53 | 301 | 651 |
| Debt instruments | 115 | 130 | 299 | 544 |
| Derivative financial instruments | 0 | 3,435 | 57 | 3,492 |
| Fair value through other comprehensive income | | | | |
| Equity instruments | | 0 | | 0 |
| Debt instruments | 11,873 | 2,666 | 191 | 14,730 |
| Total financial instruments | 12,286 | 6,285 | 848 | 19,418 |
| Investment property | | | 320 | 320 |
| Total | 12,286 | 6,285 | 1,168 | 19,738 |

| Fair value of assets on 31 December 2017, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Recognised at fair value through profit or loss | | | | |
| Debt instruments | 410 | 74 | 409 | 893 |
| Derivative financial instruments | 1 | 3,294 | 131 | 3,426 |
| Available-for-sale | | | | |
| Equity instruments | 386 | 86 | 256 | 728 |
| Debt instruments | 10,313 | 3,418 | 319 | 14,050 |
| Total financial instruments | 11,109 | 6,873 | 1,115 | 19,096 |
| Investment property | | | 303 | 303 |
| Total | 11,109 | 6,873 | 1,419 | 19,400 |

| Fair value of liabilities on 31 December 2018, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Recognised at fair value through profit or loss | | | | |
| Other | | 0 | | 0 |
| Derivative financial instruments | 10 | 2,989 | 44 | 3,043 |
| Total | 10 | 2,990 | 44 | 3,043 |

| Fair value of liabilities on 31 December 2017, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Recognised at fair value through profit or loss | | | | |
| Other | | 1 | | 1 |
| Derivative financial instruments | 5 | 3,120 | 92 | 3,216 |
| Total | 5 | 3,120 | 92 | 3,217 |

### Fair value measurement

#### Derivatives

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

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

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

The fair value measurement of OTC derivatives takes account of the credit risk of the parties to a transaction. Credit risk is adjusted with a Credit Valuation Adjustment (CVA) and with a Debit Valuation Adjustment (DVA). CVA and DVA valuation adjustments are calculated for each counterparty.

CVA and DVA adjustments are calculated by simulating the market values of derivatives and events of default based primarily on data obtained from markets. In assessing probabilities of default, the Group utilises market data through illiquid counterparties too by combining the counterparties with liquid market data.

Fair value hierarchy

Level 1: Quoted prices in active markets
This level includes equities listed on 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. This hierarchy level includes the majority of OP Corporate Bank Group's OTC derivatives and quoted debt instruments issued by companies, governments and financial institutions which have not been included in Level 1.

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

Transfers between levels of the fair value hierarchy

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

Reconciliation of Level 3 items

Specification of financial assets and liabilities

| Financial assets, EUR million | Financial assets at fair value through profit or loss | Derivative contracts | Fair value through other comprehen-sive income | Total assets |
|---|---|---|---|---|
| **Balance sheet 31 December 2017** | **409** | **131** | **574** | **1,115** |
| Effects of IFRS 9 transition 1 January 2018 | 270 | | -263 | 6 |
| **Opening balance 1 January 2018** | **679** | **131** | **311** | **1,122** |
| Total gains/losses in profit or loss | -406 | -75 | -1 | -481 |
| Total gains/losses in other | | | 0 | 0 |
| Purchases | 107 | | 1 | 108 |
| Sales | -60 | | 0 | -60 |
| Settlements | -8 | | -5 | -12 |
| Transfers into Level 3 | 287 | | 134 | 421 |
| Transfers out of Level 3 | | | -250 | -250 |
| Closing balance 31 December 2018 | 600 | 57 | 191 | 848 |

| Financial assets, EUR million | Financial assets at fair value through profit or loss | Derivative contracts | Available-for-sale financial assets | Total assets |
|---|---|---|---|---|
| Opening balance 1 January 2017 | 8 | 160 | 608 | 776 |
| Total gains/losses in profit or loss | 9 | -29 | -36 | -56 |
| Total gains/losses in other | | | 4 | 4 |
| Purchases | | | 73 | 73 |
| Sales | | | -69 | -69 |
| Settlements | | | -7 | -7 |
| Transfers into Level 3 | 392 | | 112 | 504 |
| Transfers out of Level 3 | | | -110 | -110 |
| Closing balance 31 December 2017 | 409 | 131 | 574 | 1,115 |

| Financial liabilities, EUR million | Derivative contracts | Total liabilities |
|---|---|---|
| Opening balance 1 January 2018 | 92 | 92 |
| Total gains/losses in profit or loss | -48 | -48 |
| Closing balance 31 December 2018 | 44 | 44 |

| Financial liabilities, EUR million | Derivative contracts | Total liabilities |
|---|---|---|
| Opening balance 1 January 2017 | 107 | 107 |
| Total gains/losses in profit or loss | -15 | -15 |
| Closing balance 31 December 2017 | 92 | 92 |

Total gains/losses included in profit or loss by item for the financial year on 31 December 2018

| EUR Million | Net interest income | Net investment income | Statement of comprehensive income/ Change in fair value reserve | Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end |
|---|---|---|---|---|
| Realised net gains (losses) | -411 | 6 | | -406 |
| Unrealised net gains (losses) | -26 | | 0 | -26 |
| Total net gains (losses) | -438 | 6 | 0 | -432 |

Total gains/losses included in profit or loss by item for the financial year on 31 December 2017

| EUR Million | Net interest income | Net investment income | Statement of comprehensive income/ Change in fair value reserve | Total gains/ losses for the financial year included in profit or loss for assets/ liabilities held at year-end |
|---|---|---|---|---|
| Realised net gains (losses) | 9 | | | 9 |
| Unrealised net gains (losses) | -14 | -36 | 4 | -46 |
| Total net gains (losses) | -4 | -36 | 4 | -37 |

Derivatives included in Level 3 comprise structured derivatives for customer needs, whose market risk is covered by a corresponding derivatives contract. The uncovered market risk does not have any effect on earnings. Level 3 derivatives relate to structured bonds issued by OP Corporate Bank, whose return is determined by the value performance of an embedded derivative instrument. The fair value change of these embedded derivatives is not presented in the above table. In addition, long-maturity derivatives have been included in Level 3 for which the Group had to extrapolate the market data used in their value measurement.

### Changes in the levels of hierarchy

No major changes occurred in valuation techniques in 2018.

### Sensitivity analysis of input parameters involving uncertainty on 31 December 2018

| Type of instrument, EUR million | Receivab-les | Liabilities | Net balance | Sensitivity analysis | Reasonably possible change in fair value |
|---|---|---|---|---|---|
| Recognised at fair value through profit or loss: | | | | | |
| Bond investments | 299 | | 299 | 29.9 | 10% |
| Illiquid investments | 48 | | 48 | 7.2 | 15% |
| Private equity funds** | 132 | | 132 | 13.2 | 10% |
| Real estate funds*** | 121 | | 121 | 24.2 | 20% |
| Derivatives: | | | | | |
| Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity* | 57 | -44 | 13 | 1.4 | 11% |
| Fair value through other comprehensive income: | | | | | |
| Bond investments | 191 | | 191 | 19.1 | 10% |
| Investment property | | | | | |
| Investment property*** | 320 | | 320 | 64.0 | 20% |

### Sensitivity analysis of input parameters involving uncertainty on 31 December 2017

| Type of instrument, EUR million | Receivab-les | Liabilities | Net balance | Sensitivity analysis | Reasonably possible change in fair value |
|---|---|---|---|---|---|
| Recognised at fair value through profit or loss: | | | | | |
| Bond investments | 409 | 0 | 409 | 41.0 | 10% |
| Derivatives: | | | | | |
| Index-linked bond hedges and structured derivatives, and derivatives with a long-term maturity* | 131 | -92 | 39 | 4.3 | 11% |
| Available-for-sale: | | | | | |
| Bond investments | 319 | | 319 | 0 | 0 |
| Illiquid investments | 32 | | 32 | 4.8 | 15% |
| Private equity funds** | 124 | | 124 | 12.4 | 10% |
| Real estate funds*** | 100 | | 100 | 20.0 | 20% |
| Investment property | | | | | |
| Investment property*** | 303 | | 303 | 60.6 | 20% |

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

** 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.

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

# Notes to contingent liabilities and derivatives

## Note 37. Off-balance-sheet commitments

| | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Guarantees | 647 | 532 |
| Other guarantee liabilities | 1,668 | 1,470 |
| Loan commitments | 5,257 | 5,495 |
| Commitments related to short-term trade transactions | 265 | 359 |
| Other | 712 | 729 |
| Total off-balance-sheet commitments | 8,549 | 8,585 |

## Note 38. 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 39. Operating leases

OP Corporate Bank Group as Lessee
The Group has leased some of the office premises it uses. The remaining term of these leases varies between one and ten years and they usually include the option of extending the lease after the original date of expiry. In addition, motor vehicles and office equipment have been leased under lease agreements.

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

Future minimum lease payments under non-cancellable operating leases

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| No later than 1 year | 2 | 3 |
| Later than 1 year and no later than 5 years | 1 | 1 |
| Later than 5 years | 0 | 0 |
| Total | 3 | 4 |

OP Corporate Bank Group as Lessor
OP Corporate Bank Group companies have leased out investment properties they own, which generated lease income of EUR 26 million (30).

Future minimum lease payments receivable under non-cancellable operating leases

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| No later than 1 year | 25 | 23 |
| Later than 1 year and no later than 5 years | 70 | 59 |
| Later than 5 years | 86 | 69 |
| Total | 181 | 151 |

## Note 40. Derivative contracts

Derivatives held for trading 31 December 2018

| | Nominal values/residual maturity | | | | Fair values | | Potential |
|---|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Assets | Liabilities | future exposure |
| **Interest rate derivatives** | | | | | | | |
| Interest rate swaps | 21,091 | 42,938 | 53,949 | 117,979 | 1,614 | 1,258 | 3,443 |
| Cleared by the central counterparty | 7,151 | 21,767 | 27,371 | 56,288 | 6 | 10 | 1,226 |
| OTC interest rate options | | | | | | | |
| Call and caps | | | | | | | |
| Purchased | 3,128 | 8,713 | 6,926 | 18,767 | 212 | 75 | 526 |
| Written | 2,624 | 9,983 | 4,651 | 17,258 | 86 | 115 | 23 |
| Put and floors | | | | | | | |
| Purchased | 4,637 | 5,717 | 2,823 | 13,177 | 116 | 56 | 241 |
| Written | 4,360 | 6,281 | 1,771 | 12,412 | 59 | 50 | 55 |
| Total OTC interest rate derivatives | 35,841 | 73,632 | 70,120 | 179,593 | 2,087 | 1,553 | 4,288 |
| Interest rate futures | 3,850 | 3,280 | | 7,129 | 0 | 0 | |
| Total exchange traded derivatives | 3,850 | 3,280 | | 7,129 | 0 | 0 | |
| Total interest rate derivatives | 39,691 | 76,912 | 70,120 | 186,723 | 2,087 | 1,553 | 4,288 |
| **Currency derivatives** | | | | | | | |
| Forward exchange agreements | 18,022 | 631 | 2 | 18,654 | 137 | 137 | 352 |
| Interest rate and currency swaps | 2,699 | 4,269 | 2,928 | 9,896 | 751 | 761 | 1,200 |
| Currency options | | | | | | | |
| Call | | | | | | | |
| Purchased | 180 | 17 | | 197 | 1 | 1 | 4 |
| Written | 239 | 24 | | 262 | 1 | 1 | |
| Put | | | | | | | |
| Purchased | 316 | 24 | | 340 | 2 | 1 | 7 |
| Written | 299 | 21 | | 319 | 1 | 2 | |
| Total OTC currency derivatives | 21,754 | 4,986 | 2,930 | 29,669 | 892 | 903 | 1,563 |
| Total currency derivatives | 21,754 | 4,986 | 2,930 | 29,669 | 892 | 903 | 1,563 |
| **Equity and index derivatives** | | | | | | | |
| Equity index options | | | | | | | |
| Call | | | | | | | |
| Purchased | | 3 | | 3 | 0 | 0 | 0 |
| Total OTC equity and index derivatives | | 3 | | 3 | 0 | 0 | 0 |
| Total equity and index derivatives | | 3 | | 3 | 0 | 0 | 0 |
| **Credit derivatives** | | | | | | | |
| Credit default swaps | 15 | 189 | 2 | 206 | 4 | 9 | 4 |
| Total credit derivatives | 15 | 189 | 2 | 206 | 4 | 9 | 4 |
| **Other** | | | | | | | |
| Other forward contracts | 16 | 1 | | 17 | 0 | 4 | 2 |
| Other swaps | 190 | 363 | 8 | 560 | 34 | 24 | 78 |
| Other options | | | | | | | |
| Call | | | | | | | |
| Purchased | 0 | | | 0 | | | 0 |
| Written | 0 | | | 0 | | | |
| Put | | | | | | | |
| Purchased | 0 | | | 0 | | | 0 |
| Written | 0 | | | 0 | | | |
| Total other OTC derivatives | 207 | 364 | 8 | 579 | 34 | 28 | 80 |
| Other futures contracts | 0 | 0 | | 1 | 0 | 0 | |
| Total other derivatives | 208 | 364 | 8 | 580 | 34 | 29 | 80 |
| **Total derivatives held for trading** | **61,667** | **82,454** | **73,060** | **217,180** | **3,017** | **2,494** | **5,936** |

Derivatives held for trading 31 December 2017

| EUR million | Nominal values/residual maturity <1 year | 1–5 years | >5 years | Total | Fair values Assets | Liabilities | Potential future exposure |
|---|---|---|---|---|---|---|---|
| **Interest rate derivatives** | | | | | | | |
| Interest rate swaps | 18,966 | 46,891 | 55,469 | 121,326 | 2,474 | 2,351 | 3,541 |
| Cleared by the central counterparty | 7,311 | 22,328 | 29,198 | 58,837 | 757 | 814 | 1,307 |
| Forward rate agreements | | | | | | | |
| OTC interest rate options | | | | | | | |
| Call and caps | | | | | | | |
| Purchased | 2,907 | 4,463 | 5,054 | 12,423 | 298 | 3 | 406 |
| Written | 2,801 | 6,822 | 4,231 | 13,853 | 4 | 208 | 14 |
| Put and floors | | | | | | | |
| Purchased | 1,050 | 6,133 | 2,777 | 9,960 | 146 | 10 | 226 |
| Written | 1,069 | 6,277 | 2,135 | 9,481 | 11 | 97 | 55 |
| Total OTC interest rate derivatives | 26,793 | 70,585 | 69,666 | 167,043 | 2,933 | 2,670 | 4,242 |
| Interest rate futures | 1,615 | 1,000 | | 2,615 | 1 | 1 | |
| Total exchange traded derivatives | 1,615 | 1,000 | | 2,615 | 1 | 1 | |
| Total interest rate derivatives | 28,408 | 71,585 | 69,666 | 169,659 | 2,934 | 2,670 | 4,242 |
| | | | | | | | |
| **Currency derivatives** | | | | | | | |
| Forward exchange agreements | 28,073 | 263 | 23 | 28,359 | 206 | 195 | 489 |
| Interest rate and currency swaps | 2,059 | 6,932 | 2,472 | 11,463 | 705 | 654 | 1,258 |
| Currency options | | | | | | | |
| Call | | | | | | | |
| Purchased | 115 | 28 | | 143 | 3 | | 6 |
| Written | 151 | 17 | | 168 | | 3 | |
| Put | | | | | | | |
| Purchased | 227 | 17 | | 244 | 1 | | 4 |
| Written | 178 | 31 | | 209 | | 1 | |
| Total OTC currency derivatives | 30,802 | 7,288 | 2,496 | 40,586 | 915 | 853 | 1,757 |
| Total currency derivatives | 30,802 | 7,288 | 2,496 | 40,586 | 915 | 853 | 1,757 |
| | | | | | | | |
| **Equity and index derivatives** | | | | | | | |
| Equity index options | | | | | | | |
| Call | | | | | | | |
| Purchased | 5 | 3 | | 8 | 1 | 0 | 2 |
| Total OTC equity and index derivatives | 5 | 3 | | 8 | 1 | 0 | 2 |
| Total equity and index derivatives | 5 | 3 | | 8 | 1 | 0 | 2 |
| | | | | | | | |
| **Credit derivatives** | | | | | | | |
| Credit default swaps | 28 | 188 | 10 | 226 | 9 | 6 | 10 |
| Total credit derivatives | 28 | 188 | 10 | 226 | 9 | 6 | 10 |
| | | | | | | | |
| **Other** | | | | | | | |
| Other forward contracts | 17 | 0 | | 17 | 0 | 3 | 2 |
| Other swaps | 211 | 513 | | 723 | 65 | 31 | 130 |
| Total other OTC derivatives | 228 | 513 | | 741 | 65 | 34 | 132 |
| Other futures contracts | 7 | 1 | | 8 | 0 | 2 | |
| Total other derivatives | 235 | 513 | | 748 | 65 | 36 | 132 |
| **Total derivatives held for trading** | **59,479** | **79,576** | **72,172** | **211,226** | **3,925** | **3,565** | **6,142** |

Derivative contracts for hedging purposes - fair value hedging 31 December 2018

| EUR million | Nominal values/residual maturity <1 year | 1–5 years | >5 years | Total | Fair values Assets | Liabilities | Potential future exposure |
|---|---|---|---|---|---|---|---|
| **Interest rate derivatives** | | | | | | | |
| Interest rate swaps | 2,539 | 17,454 | 9,679 | 29,671 | 45 | 30 | 518 |
| Cleared by the central counterparty | 2,027 | 16,903 | 9,333 | 28,264 | 2 | 2 | 459 |
| Total OTC interest rate derivatives | 2,539 | 17,454 | 9,679 | 29,671 | 45 | 30 | 518 |
| Total interest rate derivatives | 2,539 | 17,454 | 9,679 | 29,671 | 45 | 30 | 518 |
| **Currency derivatives** | | | | | | | |
| Interest rate and currency swaps | 422 | 1,799 | 475 | 2,696 | 91 | 179 | 223 |
| Total OTC currency derivatives | 422 | 1,799 | 475 | 2,696 | 91 | 179 | 223 |
| Total currency derivatives | 422 | 1,799 | 475 | 2,696 | 91 | 179 | 223 |
| **Total derivative contracts, fair value hedge** | **2,961** | **19,252** | **10,154** | **32,367** | **136** | **209** | **741** |

Average interest rates of derivative contracts in hedge accounting – fair value hedge 31 Dec. 2018

| | <1 yr | 1–5 yrs | >5 yrs | Total |
|---|---|---|---|---|
| Interest rate derivatives | | | | |
| Cleared by the central counterparty | 0.616 | 0.488 | 0.771 | 0.591 |
| OTC interest rate derivatives | 2.185 | 3.852 | 2.658 | 2.986 |
| Total interest rate derivatives | 0.747 | 0.542 | 0.829 | 0.654 |

Average interest rates of derivative contracts in hedge accounting – fair value hedge 31 Dec. 2018

| | <1 yr | 1–5 yrs | >5 yrs | Total |
|---|---|---|---|---|
| Interest rate and currency swaps | | | | |
| GBP | 0.910 | 2.231 | | 2.000 |
| JPY | 0.434 | 0.562 | 1.300 | 0.518 |
| USD | | 1.939 | 3.823 | 2.764 |

Derivative contracts for hedging purposes – cash flow hedge 31 December 2018

| EUR million | Nominal values /residual term to maturity <1 year | 1–5 years | >5 years | Total | Fair values Assets | Liabilities | Potential future exposure |
|---|---|---|---|---|---|---|---|
| **Interest rate derivatives** | | | | | | | |
| Interest rate swaps | 100 | | | 100 | 0 | | 1 |
| Cleared by the central counterparty | 100 | | | 100 | 0 | | 1 |
| Total OTC interest rate derivatives | 100 | 0 | | 100 | 0 | | 1 |
| Total interest rate derivatives | 100 | 0 | | 100 | 0 | | 1 |
| **Currency derivatives** | | | | | | | |
| Forward exchange agreements | 6,843 | | | 6,843 | 35 | 39 | 106 |
| Total OTC currency derivatives | 6,843 | | | 6,843 | 35 | 39 | 106 |
| Total currency derivatives | 6,843 | | | 6,843 | 35 | 39 | 106 |
| **Total derivative contracts, cash flow hedge** | **6,943** | **0** | | **6,943** | **35** | **39** | **107** |
| **Total derivative contracts held for hedge** | **9,905** | **19,252** | **10,154** | **39,311** | **171** | **248** | **848** |

Average prices of derivative contracts in hedge accounting – cash flow hedge 31 Dec. 2018

| | <1 yr | 1–5 yrs | >5 yrs | total |
|---|---|---|---|---|
| Interest rate derivatives | | | | |
| Cleared by the central counterparty | 0.602 | | | 0.602 |
| OTC interest rate derivatives | | | | |
| Total interest rate derivatives | 0.602 | | | 0.602 |

| | <1 yr | 1–5 yrs | >5 yrs | total |
|---|---|---|---|---|
| Currency derivatives | | | | |
| Forward exchange agreements | | | | |
| Average EUR:USD | 1.165 | | | 1.165 |
| Average EUR:GBP | 0.894 | | | 0.894 |
| Average EUR:CHF | 1.153 | | | 1.153 |

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

| | Nominal values/residual maturity | | | | Fair values | | Potential future |
|---|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Assets | Liabilities | exposure |
| Interest rate derivatives | | | | | | | |
| Interest rate swaps | 2,323 | 17,126 | 6,740 | 26,189 | 254 | 310 | 441 |
| Cleared by the central counterparty | 880 | 16,158 | 6,417 | 23,455 | 179 | 285 | 356 |
| Total OTC interest rate derivatives | 2,323 | 17,126 | 6,740 | 26,189 | 254 | 310 | 441 |
| Total interest rate derivatives | 2,323 | 17,126 | 6,740 | 26,189 | 254 | 310 | 441 |
| Currency derivatives | | | | | | | |
| Interest rate and currency swaps | 517 | 1,958 | 319 | 2,794 | 35 | 265 | 162 |
| Total OTC currency derivatives | 517 | 1,958 | 319 | 2,794 | 35 | 265 | 162 |
| Total currency derivatives | 517 | 1,958 | 319 | 2,794 | 35 | 265 | 162 |
| Total derivative contracts, fair value hedge | 2,840 | 19,084 | 7,059 | 28,983 | 289 | 575 | 603 |

Derivative contracts for hedging purposes – cash flow hedge 31 December 2017

| | Nominal values /residual term to maturity | | | | Fair values | | Potential future |
|---|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | 5>years | Total | Assets | Liabilities | exposure |
| Interest rate derivatives | | | | | | | |
| Interest rate swaps | 200 | 100 | | 300 | 4 | | 5 |
| Cleared by the centra | 200 | 100 | | 300 | 4 | | 5 |
| Total OTC interest rate derivatives | 200 | 100 | | 300 | 4 | 0 | 5 |
| Total interest rate derivatives | 200 | 100 | | 300 | 4 | 0 | 5 |
| Currency derivatives | | | | | | | |
| Interest rate and currency swaps | 5,794 | | | 5,794 | 32 | 67 | 88 |
| Total OTC currency derivatives | 5,794 | | | 5,794 | 32 | 67 | 88 |
| Total currency derivatives | 5,794 | | | 5,794 | 32 | 67 | 88 |
| Total derivative contracts, cash flow hedge | 5,994 | 100 | | 6,094 | 36 | 67 | 92 |
| Total derivative contracts held for hedging | 8,834 | 19,184 | 7,059 | 35,077 | 325 | 642 | 695 |

Total derivatives 31 December 2018

| EUR million | Nominal values/residual maturity <1 year | 1–5 years | >5 years | Total | Fair values Assets | Liabilities | Potential future exposure |
|---|---|---|---|---|---|---|---|
| Interest rate derivatives | 42,330 | 94,366 | 79,799 | 216,494 | 2,132 | 1,583 | 4,807 |
| Cleared by the central counterparty | 9,278 | 38,670 | 36,704 | 84,652 | 8 | 12 | 1,686 |
| Currency derivatives | 29,019 | 6,784 | 3,404 | 39,208 | 1,018 | 1,121 | 1,893 |
| Equity and index-linked derivatives | | 3 | | 3 | 0 | 0 | 0 |
| Credit derivatives | 15 | 189 | 2 | 206 | 4 | 9 | 4 |
| Other derivatives | 208 | 364 | 8 | 580 | 34 | 29 | 80 |
| Total derivatives | 71,572 | 101,706 | 83,213 | 256,491 | 3,188 | 2,742 | 6,784 |

Total derivatives 31 December 2017

| EUR million | Nominal values/residual maturity <1 year | 1–5 years | >5 years | Total | Fair values Assets | Liabilities | Potential future exposure |
|---|---|---|---|---|---|---|---|
| Interest rate derivatives | 30,931 | 88,811 | 76,406 | 196,148 | 3,192 | 2,981 | 4,688 |
| Cleared by the central counterparty | 8,392 | 38,585 | 35,615 | 82,592 | 941 | 1,100 | 1,668 |
| Currency derivatives | 37,113 | 9,246 | 2,815 | 49,174 | 982 | 1,185 | 2,007 |
| Equity and index-linked derivatives | 5 | 3 | | 8 | 1 | 0 | 2 |
| Credit derivatives | 28 | 188 | 10 | 226 | 9 | 6 | 10 |
| Other derivatives | 235 | 513 | 0 | 748 | 65 | 36 | 132 |
| Total derivatives | 68,313 | 98,760 | 79,230 | 246,303 | 4,250 | 4,208 | 6,837 |

*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 41 below presents the effects of netting. Other derivative contracts are presented on a gross basis in the balance sheet. In capital adequacy measurement, OP Crporate Bank Group also applies netting of derivatives. Note 77 below presents the effects of netting. Netting would reduce the credit equivalent of OP Corporate Bank plc's derivative contracts by EUR 4,099 million (4,495).

## Note 41. Financial assets and liabilities offset in the balance sheet or subject to enforceable master netting arrangements or similar agreements

Financial assets

| 31 December 2018, EUR million | Gross amount of financial assets | Gross amount of financial liabilities deducted from financial assets* | Net amount presented in the balance sheet** | Financial assets not set off in the balance sheet: Derivative contracts*** | Collateral received | Net amount |
|---|---|---|---|---|---|---|
| Derivatives | 4,426 | -934 | 3,492 | -1,884 | -490 | 1,118 |

| 31 December 2017, EUR million | Gross amount of financial assets | Gross amount of financial liabilities deducted from financial assets* | Net amount presented in the balance sheet** | Financial assets not set off in the balance sheet: Derivative contracts*** | Collateral received | Net amount |
|---|---|---|---|---|---|---|
| Derivatives | 4,354 | -928 | 3,426 | -1,994 | -412 | 1,020 |

Financial liabilities

| 31 December 2018, EUR million | Gross amount of financial liabilities | Gross amount of financial assets deducted from financial liabilities* | Net amount presented in the balance sheet** | Financial liabilities not set off in the balance sheet | | |
|---|---|---|---|---|---|---|
| | | | | Derivative contracts*** | Collateral given | Net amount |
| Derivatives | 4,109 | -1,066 | 3,043 | -1,884 | -703 | 456 |

| 31 December 2017, EUR million | Gross amount of financial liabilities | Gross amount of financial assets deducted from financial liabilities* | Net amount presented in the balance sheet** | Financial liabilities not set off in the balance sheet | | |
|---|---|---|---|---|---|---|
| | | | | Derivative contracts*** | Collateral given | Net amount |
| Derivatives | 4,302 | -1,085 | 3,216 | -1,994 | -717 | 506 |

* Incl. daily cleared derivatives on a net basis included in cash and cash equivalents, totalling -140 (-161) million euros.

** Fair values excluding accrued interest

*** It is the practice to enter into master agreements for derivative transactions with all derivative counterparties.

**Central counterparty clearing for OTC derivatives**

Standardised OTC derivative transactions entered into with financial counterparties are cleared in London Clearing House, in accordance with EMIR (EU 648/2012). Based on this model, the central counterparty will become the derivatives counterparty at the end of the daily clearing process, with whom daily payments for derivatives are netted. In addition, collateral is paid or received daily, which corresponds to the change in the fair value of open positions (variation margin). Interest rate derivatives cleared by the central counterparty are presented on a net basis in the balance sheet.

**Other bilaterally cleared OTC derivative contracts**

The ISDA Master Agreement or the Master Agreement of 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.

# Other notes

## Note 42. Ownership interests in subsidiaries, structured entities and joint operations

**Changes occurred in subsidiaries and structured entities during the financial year**

On 31 August 2018, OP Insurance Ltd sold all share capital of its Baltic-based subsidiary Seesam Insurance As, including its Latvian and Lithuanian branches, to Vienna Insurance Group (VIG).

**Material subsidiaries included in the consolidated financial statements in 2018**

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 |
|---|---|---|---|
| A-Insurance Ltd | Helsinki | 100 | 100 |
| Pohjola Health Ltd | Helsinki | 100 | 100 |
| OP Finance AS | Estonia | 100 | 100 |
| OP Finance SIA | Latvia | 100 | 100 |
| OP Insurance Ltd | Helsinki | 100 | 100 |
| UAB OP Finance | Lithuania | 100 | 100 |
| Eurooppalainen Insurance Company Ltd | Helsinki | 100 | 100 |

The number of other subsidiaries included in the consolidated financial statements was 1 (1), in addition to major subsidiaries.

**Material subsidiaries included in the consolidated financial statements in 2017**

| Company | Domicile | % of share-holding | % of votes |
|---|---|---|---|
| A-Insurance Ltd | Helsinki | 100 | 100 |
| Pohjola Health Ltd | Helsinki | 100 | 100 |
| OP Finance AS | Estonia | 100 | 100 |
| OP Finance SIA | Latvia | 100 | 100 |
| OP Insurance Ltd | Helsinki | 100 | 100 |
| Seesam Insurance AS | Estonia | 100 | 100 |
| UAB OP Finance | Lithuania | 100 | 100 |
| Eurooppalainen Insurance Company Ltd | Helsinki | 100 | 100 |

**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, % 2018 | Interest, % 2017 | Non-controlling interests, % 2018 | Non-controlling interests, % 2017 |
|---|---|---|---|---|---|---|
| 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 | 24.5 | 33.3 | 75.5 | 66.7 |

**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 | 2018 | 2017 | 2018 | 2017 |
| Cash and cash equivalents | 4 | 0 | 1 | 20 |
| Investments | 21 | 36 | 287 | 233 |
| Other assets | 1 | 0 | 4 | 1 |
| **Total assets** | **26** | **36** | **292** | **254** |
| Financial liabilities | | | 209 | 199 |
| Other liabilities | 0 | 0 | 3 | 6 |
| **Total liabilities** | **0** | **0** | **212** | **205** |
| **Net assets** | **25** | **36** | **80** | **48** |
| Accrued share of non-controlling interests | 20 | 28 | 60 | 32 |

| Statement of comprehensive income in summary | 2018 | 2017 | 2018 | 2017 |
|---|---|---|---|---|
| Net sales | 4 | 3 | 6 | 6 |
| Profit or loss of continuing operations after tax | 3 | 3 | 5 | 6 |
| Other comprehensive income | -1 | 0 | | |
| **Comprehensive income** | **2** | **3** | **5** | **6** |
| Comprehensive income attributable to non-controlling interests | 2 | 2 | 4 | 4 |
| Share of profit paid to non-controlling interests | 2 | 2 | 11 | 4 |

| Cash flows in summary | | | | |
|---|---|---|---|---|
| Net cash flow from operating activities | -2 | 0 | 28 | 40 |
| Net cash flow from investing activities | 19 | 9 | -83 | -101 |
| Net cash flow from financing activities | -14 | -9 | 36 | 77 |
| **Net change in cash flows** | **3** | **-1** | **-19** | **16** |
| Cash and cash equivalents at year start | 0 | 1 | 20 | 5 |
| Cash and cash equivalents at year end | 4 | 0 | 1 | 20 |

**Joint operations**

A total of 42 (45) 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 | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Land | 41 | 41 |
| Buildings | 372 | 351 |
| **Total assets** | **413** | **392** |
| Total liabilities | 136 | 129 |

Most significant joint operations included in the consolidated financial statements in 2018

| Name | Domicile | Sector | Holding |
|---|---|---|---|
| Kiinteistö Oy Helsingin Puutarhurinkuja 2 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö 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 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 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Topeliuksenkatu 41b | Helsinki | Property holding and management | 50.0 |
| Kiinteistö Oy Asiakkaankatu 3 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Tuusulan Jatke | Tuusula | Property holding and management | 100.0 |
| Keskinäinen Kiinteistö Oy Marikko | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Helsingin Kaarlenkadun Fenno | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Koivuhaan Yrityskeskus | Vantaa | Property holding and management | 100.0 |

Most significant joint operations included in the consolidated financial statements in 2017

| Name | Domicile | Sector | Holding |
|---|---|---|---|
| Kiinteistö Oy Helsingin Puutarhurinkuja 2 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö 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 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 Frantseninkatu 13 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Topeliuksenkatu 41b | Helsinki | Property holding and management | 50.0 |
| Kiinteistö Oy Asiakkaankatu 3 | Helsinki | Property holding and management | 100.0 |
| Kiinteistö Oy Tuusulan Jatke | Tuusula | Property holding and management | 100.0 |

The consolidated financial statements include the share of assets and related liabilities under joint control.

Interests in unconsolidated structured entities

OP Fund Management Company Ltd within OP Financial Group manages OP Mutual Funds OP Fund Management Company Ltd uses OP Asset Management Ltd as the portfolio manager for many of the mutual funds it manages In addition, OP Property Management Ltd within the Group manages several real estate funds. In many funds, the fund management company controls significant operations by making investment decisions in accordance with the fund rules. OP Financial Group companies have no interests in the funds managed by the abovementioned companies that would significantly expose the Group to the varying return on the investment and would thereby cause a consolidation obligation.

OP 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 104 million (180) on 31 December 2018.

## Note 43. Related-party transactions

OP Corporate Bank Group's related parties comprise its parent company OP Cooperative, subsidiaries consolidated into the Group, associates and administrative personnel and other related-party entities. Administrative personnel comprises OP Corporate Bank plc's President and CEO, members of the Board of Directors and their close family members. Related parties also include companies over which a person among administrative personnel or his close family member exercises significant influence. Other related-party entities include OP Pension Fund, OP Pension Foundation and sister companies within OP Financial Group Central 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.

Related-party transactions 2018

| EUR 1,000 | Parent company | Associates | Administrative personnel | Others* |
|---|---|---|---|---|
| Loans | | | 55 | 6,101,037 |
| Other receivables | 61 | | 55 | 108,846 |
| Deposits | 425,907 | 307 | | 3,106,589 |
| Other liabilities | 1,220 | | | 277,792 |
| | | | | |
| Interest income | 643 | | | 53,827 |
| Interest expenses | 4,557 | | | 165,405 |
| Dividend income | 1 | | | |
| Net income from Non-life Insurance | 387 | | | -2,324 |
| Net commissions and fees | 417 | 0 | 0 | 36,392 |
| Net trading income | | | | 16,747 |
| Other operating income | 14 | | | 4,848 |
| Operating expenses | 37,844 | | | 147,005 |
| | | | | |
| **Contingent liabilities and derivatives** | | | | |
| **Off-balance-sheet commitments** | | | | |
| Guarantees | | | | |
| Other guarantee liabilities | | | | 3,389 |
| Loan commitments | | | | |
| Commitments related to short-term trade transactions | | | | |
| Other | | | | |
| **Derivative contracts** | | | | |
| Nominal values | | | | 22,118,429 |
| Credit equivalents | | | | 211,175 |
| | | | | |
| **Salaries, other short-term benefits and performance-based pay** | | | | |
| Salaries, other short-term benefits and performance-based pay | | | 401 | |
| | | | | |
| **Related-party holdings** | | | | |
| Number of shares | 319,551,415 | | | |

Related-party transactions 2017

| EUR 1,000 | Parent company | Associates | Administrative personnel | Others* |
|---|---|---|---|---|
| Loans | | | 70 | 5,584,630 |
| Other receivables | 107 | | 70 | 164,235 |
| Deposits | 434,657 | 419 | | 2,534,165 |
| Other liabilities | 1,449 | | | 319,432 |
| | | | | |
| Interest income | 3,006 | | | 82,699 |
| Interest expenses | 4,891 | | | 188,934 |
| Dividend income | 1 | | | |
| Net income from Non-life Insurance | 411 | | | 4,760 |
| Net commissions and fees | 91 | 0 | | 36,108 |
| Net trading income | | | | 71,165 |
| Other operating income | 356 | | | 5,654 |
| Operating expenses | 36,061 | | | 143,691 |
| | | | | |
| Contingent liabilities and derivatives | | | | |
| Off-balance-sheet commitments | | | | |
| Guarantees | | | | |
| Other guarantee liabilities | | | | 9,828 |
| Loan commitments | | | | |
| Commitments related to short-term trade transactions | | | | |
| Other | | | | |
| Derivative contracts | | | | |
| Nominal values | | | | 22,432,461 |
| Credit equivalents | | | | 220,908 |
| | | | | |
| Salaries, other short-term benefits and performance-based pay | | | | |
| Salaries, other short-term benefits and performance-based pay | | | 598 | |
| | | | | |
| 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 2018

In 2018, 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 performance-based bonuses paid to the President and CEO and his deputy in the financial year ending 31 December 2018 were as follows:

| | |
|---|---|
| President and CEO Jouko Pölönen, until 30 April 2018 | EUR 239,556* |
| President and CEO Katja Keitaanniemi, since 6 August 2018 | EUR 161,295 |

In addition to other duties, Hannu Jaatinen acted as President and CEO between 1 May and 5 August 2018, and no separate salary was paid.

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 and his executive contract has been effective throughout the performance year. In addition, the President and CEO belongs to the long-term management incentive schemes for 2014–16 and 2017–2019, under which bonuses will be paid from 2018 until 2020 and 2020–23, respectively. The President and CEO has unlimited company car benefit.

* The amount included EUR 48,832 in performance-based bonus for 2017 under the short-term scheme.

**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 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. More detailed information on OP Corporate Bank Group's pension plan can be found in Note 30 Provisions and other liabilities.

| | Pension costs under TyEL plan* | | IFRS expense of voluntary supplementary defined benefit pension | |
|---|---|---|---|---|
| EUR 1,000 | 2018 | 2017 | 2018 | 2017 |
| Katja Keitaanniemi, President and CEO since 6 August 2018 | 27 | | | |
| Hannu Jaatinen, acting President and CEO 1 May–5 August 2018 | 16 | | | |
| Jouko Pölönen, President and CEO until 30 April 2018 | 45 | 96 | 40 | 101 |

* IFRS expense has been used for the portion of the TyEL defined benefit plan and the equalisation portion of an employee's contribution less the employee's portion of the contribution has been used for the defined contribution plan.

## Note 44. Variable remuneration

**Personnel fund**

The 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 2018 was based on the achievement of the following targets: OP Financial Group's EBT with a weight of 60%, use of digital services with a weight of 20%, service encounter NPS with a weight of 15% and brand NPS with a weight of 5%. Profit-based bonuses for 2018 transferred to the Fund account for some 1.7% (3.2) of the combined salaries and wages earned by the Fund's members. The bonuses recognised in 2018 totalled EUR 2.0 million (3.3).

**Long-term remuneration schemes**

OP Financial Group's remuneration schemes are in compliance with regulation in the financial sector and are based on OP Financial Group's strategic targets.

OP Financial Group's variable remuneration principles take account of the Group's risk exposure and risk management methods. The performance indicator targets have been set at a level that does not encourage excessive risk-taking. Long-term variable remuneration is based on reaching OP Financial Group's targets, whereas short-term variable remuneration is based on how an individual Group company or business unit reaches its targets. The maximum amount of remuneration is limited in all schemes.

**Long-term scheme**

OP Corporate Bank plc belongs to the long-term incentive scheme within OP Financial Group, which has OP Financial Group level targets. These targets conform to those of OP Personnel Fund for all of the Group's personnel.

OP Corporate Bank's and its subsidiaries' directors and designated persons in key positions are included in the long-term management incentive scheme whom the board of directors of the company concerned or the Executive Board of OP Cooperative has appointed. Some 310 OP Financial Group employees are included in the long-term management remuneration scheme. The number of those included in the scheme has varied by performance period from some 270 to 320.

The scheme consists of consecutive three-year performance periods. The bonus for the performance period of 1 January 2014–31 December 2016 was paid after a deferment period in three equal instalments by the end of each June from 2018 to 2020. Bonuses for the performance period of 1 January 2017–31 December 2019 will be paid in four equal instalments between 2020 and 2023.

During the performance period of 2014–16, it was possible to annually earn bonuses equalling a person's 2–8-month salary and the targets were achieved at around 57%. During the performance period of 2017–19, it is possible to annually earn bonuses equalling a person's 1–8-month salary, provided that the targets are achieved at 100%.

Performance metrics under the long-term scheme
The Supervisory Board of OP Cooperative shall determine the performance metrics for the scheme and targets set for them separately for each performance period.

In setting targets for the 2014–16 scheme, OP has taken account of the Capital Requirements Directive IV (CRD IV) of the European Parliament and of the Council, which limits the maximum variable remuneration to the amount of a person's annual fixed remuneration. The targets for the 2014-16 scheme were based on the following criteria.

- OP Financial Group´s EBT
- OP Financial Group's CET1
- Growth in the number of customers using OP as their main bank and insurer

The targets set for the 2017–19 scheme are in line with the strategy in force and are based on the following criteria:

- Group EBT
- Use of digital services
- Service encounter NPS
- Brand NPS

The Group-level targets are the same in the management incentive scheme and OP Financial Group's Personnel Fund.

Determination and payout of bonuses under the long-term scheme
At the beginning of the scheme for 2014–16, bonuses were determined in euro terms and bonuses that may be paid under the terms and conditions of the scheme will be paid in terms of debentures issued by OP. The earned euro bonus will be converted into the number of debentures once the outcome of the scheme is known. An amount paid in cash will be deducted from the bonus to cover related taxes and fiscal charges. During the financial year, OP Cooperative's Supervisory Board decided to change the terms and conditions of the scheme in such a way that, instead of the debentures, the bonus payout is tied to a reference instrument decided by the Supervisory Board or the Remuneration Committee it has appointed.

Bonuses for 2017–19 will be paid in cash unless deferral procedures under regulation are applied to the person.

Bonuses for the 2014–16 scheme will be paid to their beneficiaries provided that OP Financial Group's FiCo capital adequacy is 1.30 or higher on the payout date. Bonuses for the 2017–19 scheme will be paid to their beneficiaries provided that OP Financial Group's CET1 ratio is over the CET1 buffer set by the ECB + 3% on the payout date and that the person within the scheme is employed by OP Financial Group up to the payout date.

Expenses for both schemes are recognised from the beginning of the performance period up to the date of payment (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses. A liability recognised under the scheme amounted to EUR 2.7 million (2.7) on 31 December 2018.

OP Cooperative's Supervisory Board or the Remuneration Committee it has appointed manages the long-term scheme and supervises compliance with it. OP Cooperative's Supervisory Board may exercise discretion to change the terms and conditions of the scheme and defer bonus payout for compelling reasons.

Short-term remuneration schemes
In short-term schemes, the performance period is one calendar year and the bonus is primarily paid in cash. The short-term incentive schemes are based on performance and other business targets specified for each business unit, covering all OP Corporate Bank Group's staff.

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

**Performance metrics under the short-term scheme**
The shared metrics at OP Corporate Bank Group determine the maximum bonus payable under the short-term scheme. The shared metrics include OP Financial Group's EBT (weight of 50%), OP Financial Group's operating expenses (weight of 25%) and OP Financial Group's service encounter NPS (weight of 25%). Targets shown in the balanced scorecards and derived from annual planning are decided by the business lines/functions.

**Determination and payout of bonuses under the short-term scheme**
Like in the long-term remuneration, bonuses will be paid to their beneficiaries provided that OP Financial Group's CET1 ratio is over the CET1 buffer set by the ECB + 3% on the payout date. The person within the scheme must be 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.

**Deferral of variable remuneration**
The payment of variable remuneration has been prescribed in the Act on Credit Institutions (610/2014). If a person is categorised on the basis of his duties as belonging to a group that may cause considerable risk (identified staff) to his company, the company may defer the payment of variable remuneration over three years under certain conditions.

Identified staff in OP Corporate Bank Group include managing directors and other key management personnel, other people with a major impact on the company's risk exposure, Internal Control and other designated persons or special groups.

The deferment of variable remuneration payment applies to identified staff if their variable remuneration for a 12-month performance period exceeds EUR 50,000 – the maximum recommended by the Financial Supervisory Authority. The remuneration of the identified staff is reviewed up to the EUR 50,000 deferment limit as a whole, considering both long- and short-term remuneration.

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

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

**Monitoring of OP Financial Group's remuneration**
OP Financial Group monitors the market consistency of its total remuneration on a regular basis. It receives information on trading venues and on the market consistency of the structures of the systems from providers, such as Alexander Incentives, Aon Hewitt, Hay Group and Mercer.

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

**Expenses recognised for variable remuneration***

| EUR million | 2018 | 2017 |
|---|---|---|
| Personnel fund | 2 | 3 |
| Short-term schemes | 8 | 6 |
| Long-term schemes | | |
| Scheme for 2011–13 | | 0 |
| Scheme for 2014–16 | 0 | 0 |
| Scheme for 2017–19 | 1 | 1 |
| **Total** | **11** | **10** |

* Excl. social expenses

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

## Note 45. 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 10 of Note 2. The measurement principles of expected credit losses are described in section 5 Impairment of Note 1.

Expected credit losses are calculated on receivables measured at amortised cost and notes and bonds recognised at fair value through other comprehensive income (investments in bonds). OP 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 2018**

| On-balance-sheet exposure | Stage 1 | Stage 2 | | | Stage 3 | Total exposure |
|---|---|---|---|---|---|---|
| EUR million | | Not more than 30 DPD | More than 30 DPD | Total | | |
| **Receivables from customers (gross)** | | | | | | |
| Non-banking corporates | 19,169 | 1,104 | 189 | 1,293 | 347 | 20,810 |
| Households | 1,762 | 153 | 87 | 240 | 13 | 2,015 |
| Public-sector entities | 484 | | 6 | 6 | | 491 |
| Other | 1,590 | | 0 | 0 | | 1,590 |
| **Total** | **23,006** | **1,257** | **283** | **1,540** | **360** | **24,906** |
| | | | | | | |
| **Off-balance-sheet limits** | | | | | | |
| Non-banking corporates | 2,627 | 461 | 128 | 589 | 12 | 3,229 |
| Households | 89 | 5 | 2 | 7 | 0 | 97 |
| Public-sector entities | 373 | | 9 | 9 | | 382 |
| Other | 1,047 | | | | | 1,047 |
| **Total** | **4,136** | **466** | **139** | **605** | **13** | **4,754** |
| | | | | | | |
| **Other off-balance-sheetcommitments** | | | | | | |
| Non-banking corporates | 5,976 | 178 | | 178 | 20 | 6,174 |
| Households | 1 | | | | | 1 |
| Public-sector entities | 309 | | | | | 309 |
| Other | 370 | | | | | 370 |
| **Total** | **6,655** | **178** | | **178** | **20** | **6,854** |
| | | | | | | |
| **Notes and bonds** | **14,540** | **215** | | **215** | **6** | **14,761** |
| **Total** | **14,540** | **215** | | **215** | **6** | **14,761** |
| | | | | | | |
| **Total exposures within the scope of accounting for expected credit losses** | **48,338** | **2,116** | **422** | **2,538** | **399** | **51,274** |

Loss allowance by stage 31 December 2018

| On-balance-sheet exposures and related off-balance-sheet limits* EUR million | Stage 1 | Stage 2 Not more than 30 DPD | More than 30 DPD | Total | Stage 3 | Total loss |
|---|---|---|---|---|---|---|
| Receivables from customers | | | | | | |
| Non-banking corporates | -22 | -22 | -1 | -23 | -202 | -247 |
| Households | -2 | -3 | -2 | -5 | -4 | -11 |
| Public-sector entities | -1 | 0 | 0 | 0 | | -1 |
| Other | -1 | | 0 | 0 | | -1 |
| Total | -25 | -25 | -3 | -28 | -206 | -259 |
| Off-balance-sheet commitments** | | | | | | |
| Non-banking corporates | -2 | -1 | | -1 | 0 | -4 |
| Households | 0 | | | 0 | | 0 |
| Public-sector entities | 0 | | | 0 | | 0 |
| Other | 0 | | | 0 | | 0 |
| Total | -2 | -1 | | -1 | 0 | -4 |
| Notes and bonds*** | -4 | -2 | | -2 | -2 | -9 |
| Total | -31 | -29 | -3 | -32 | -208 | -272 |

* 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 | Stage 1 | Stage 2 Not more than 30 DPD | More than 30 DPD | Total | Stage 3 | Total |
|---|---|---|---|---|---|---|
| Receivables from customers and off-balance-sheet items | | | | | | |
| Non-banking corporates | 27,773 | 1,743 | 318 | 1,883 | 379 | 30,213 |
| Loss allowance | -24 | -24 | -1 | -25 | -202 | -251 |
| Coverage ratio, % | -0.09% | -1.35% | -0.29% | -1.30% | -53.29% | -0.83% |
| Households | 1,852 | 158 | 89 | 247 | 14 | 2,113 |
| Loss allowance | -2 | -3 | -2 | -5 | -4 | -11 |
| Coverage ratio, % | -0.08% | -1.79% | -2.47% | -2.04% | -32.30% | -0.52% |
| Public-sector entities | 1,166 | 0 | 15 | 15 | 0 | 1,181 |
| Loss allowance | -1 | 0 | 0 | 0 | | -1 |
| Coverage ratio, % | -0.06% | | -0.01% | -0.01% | | -0.06% |
| Other | 3,006 | | 0 | 0 | | 3,006 |
| Loss allowance | -1 | | 0 | 0 | | -1 |
| Coverage ratio, % | -0.03% | | -0.91% | -0.91% | | -0.03% |
| Total receivables from customers and off-balance-sheet items | 33,797 | 1,901 | 422 | 2,323 | 393 | 36,513 |
| Loss allowance | -27 | -26 | -3 | -30 | -207 | -263 |
| Coverage ratio, % | -0.08% | -1.39% | -0.74% | -1.27% | -52.56% | -0.72% |
| Carrying amount, notes and bonds | 14,540 | 215 | | 215 | 6 | 14,761 |
| Loss allowance | -4 | -2 | | -2 | -2 | -9 |
| Coverage ratio, % | -0.03% | -1.10% | | -1.10% | -33.79% | -0.06% |

Contracts have been classified into thee groups by credit risk characteristics on the basis of exposure classes used in capital adequacy measurement: corporate customers, households and public-sector entities. Class Other includes, e.g. credit institutions.

Changes in loss allowance during financial year

The table below shows the change in loss allowance by impairment stage during 2018 in respect of the effect of the following factors: Note 1, section 5.4.1 describes impairment stages.

| Receivables from customers and off-balance-sheet items, EUR million | Stage 1<br>12 months | Stage 2<br>Lifetime | Stage 3<br>Lifetime | Total |
|---|---|---|---|---|
| Loss allowance 1 January 2018 | 18 | 32 | 223 | 273 |
| Transfers from Stage 1 to Stage 2 | -1 | 5 | | 4 |
| Transfers from Stage 1 to Stage 3 | 0 | | 2 | 2 |
| Transfers from Stage 2 to Stage 1 | 1 | -4 | | -3 |
| Transfers from Stage 2 to Stage 3 | | -2 | 4 | 2 |
| Transfers from Stage 3 to Stage 2 | | 1 | -4 | -4 |
| Transfers from Stage 3 to Stage 1 | 0 | | -2 | -2 |
| Increases due to origination and acquisition | 8 | 2 | 6 | 17 |
| Decreases due to derecognition | -2 | -5 | -8 | -16 |
| Changes in risk parameters (net) | 3 | 2 | 16 | 22 |
| Decrease in allowance account due to write-offs | 0 | | -30 | -30 |
| Net change in expected credit losses | 9 | -2 | -16 | -10 |
| Loss allowance 31 December 2018 | 27 | 30 | 207 | 263 |

In June 2018, forborne exposures were included as the qualitative criterion of a significant increase in credit risk, which slightly increased transfers from Stage 1 to Stage 2.

Transfers from Stage 1 to State 3 compare the current year-end Stage 3 of a financial asset to the Stage 3 at the beginning of the year. Of these, some 85% (see the default capture rate below) have been reported in Stage 2 during 2018, so the agreements have, as a rule, transferred to Stage 3 through Stage 2. The agreement may transfer directly to Stage 3 due to external payment default. Transfers from Stage 3 to Stages 2 or 1 compare the year-start Stage 3 with the year-end Stage 2 or 1. As the main rule, the transfers, however, took place within 2018 with a delay of three months.

Risk parameters included in the LGD (loss given default) model have been calibrated during the financial year, for example, by reducing the recovery rate by –10 percentage points and removing it altogether from corporate exposures in bankruptcy. This is shown in an increase in loss allowance.

| Notes and bonds, EUR million | Stage 1<br>12 months | Stage 2<br>Lifetime | Stage 3<br>Lifetime | Total |
|---|---|---|---|---|
| Loss allowance 1 January 2018 | 3 | 0 | 0 | 4 |
| Transfers from Stage 1 to Stage 2 | 0 | 0 | | 0 |
| Transfers from Stage 1 to Stage 3 | 0 | | 1 | 1 |
| Transfers from Stage 2 to Stage 1 | 0 | 0 | | 0 |
| Transfers from Stage 2 to Stage 3 | | | | |
| Transfers from Stage 3 to Stage 2 | | 0 | 0 | 0 |
| Transfers from Stage 3 to Stage 1 | 0 | | 0 | 0 |
| Increases due to origination and acquisition | 1 | 2 | 1 | 4 |
| Decreases due to derecognition | -1 | 0 | | -1 |
| Changes in risk parameters (net) | 0 | | | 0 |
| Changes due to update in the methodology for estimation (net) | 1 | | | 1 |
| Other adjustments | | | | |
| Net change in expected credit losses | 1 | 2 | 2 | 5 |
| Loss allowance 31 December 2018 | 4 | 2 | 2 | 9 |

The table below presents exposures of receivables in the balance sheet by rating and off-balance-sheet exposures, exposure amount after deducting collateral as well as loss allowance. Ratings 1–12 are used in the credit rating of public-sector entities and Ratings A–F in the credit rating of households. The ratings have been combined into the table in such a way that the corporate customer rating 1 comprises ratings 1 and 1.5 etc. The private customer rating A comprises A+, A and A- etc. Note 2, section 10.3.1 describes OP Financial Group's ratings. Net exposure has been calculated for each contract and it excludes overcollateralisation.

| EUR million | Balance sheet exposures | | | Off-balance-sheet exposure, gross | | | Net exposure after collateral | | | Loss allowance | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rating | Stage 1 | Stage 2 | Stage 3 | Stage 1 | Stage 2 | Stage 3 | Stage 1 | Stage 2 | Stage 3 | Stage 1 | Stage 2 | Stage 3 |
| 1 | 1,460 | 6 | | 474 | 8 | | 311 | 6 | | 1 | 0 | |
| 2 | 2,018 | 5 | | 837 | 9 | | 2,029 | 4 | | 1 | 0 | |
| 3 | 3,519 | 39 | | 2,198 | 36 | | 3,121 | 30 | | 1 | 0 | |
| 4 | 4,004 | 142 | | 1,991 | 138 | | 3,745 | 117 | | 2 | 0 | |
| 5 | 3,080 | 82 | | 2,004 | 59 | | 2,578 | 65 | | 3 | 0 | |
| 6 | 3,358 | 198 | | 1,298 | 117 | | 2,182 | 123 | | 4 | 1 | |
| 7 | 2,440 | 295 | | 1,114 | 118 | | 1,830 | 177 | | 7 | 3 | |
| 8 | 1,055 | 290 | | 786 | 190 | | 594 | 168 | | 7 | 6 | |
| 9 | | 157 | | | 91 | | | 65 | | | 6 | |
| 10 | | 84 | | | 3 | | | 43 | | | 9 | |
| 11 | | | 208 | | | 33 | | | 180 | | | 111 |
| 12 | | | 140 | | | 0 | | | 132 | | | 91 |
| A | 28 | 0 | | 24 | 0 | | 5 | 0 | | 0 | 0 | |
| B | 423 | 5 | | 47 | 2 | | 145 | 4 | | 0 | 0 | |
| C | 1,072 | 7 | | 13 | 1 | | 450 | 4 | | 0 | 0 | |
| D | 550 | 31 | | 7 | 2 | | 268 | 21 | | 1 | 0 | |
| E | | 198 | | | 2 | | | 114 | | | 5 | |
| F | | | 13 | | | 0 | | | 8 | | | 4 |
| NA | | | | | 9 | | | | | | | |
| Total | 23,006 | 1,540 | 360 | 10,792 | 784 | 33 | 17,259 | 942 | 320 | 27 | 30 | 207 |

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 13 million on 31 December 2018.

### Significant increase in credit risk (SICR)

A significant increase in credit risk is discovered on a technical basis as presented in the accounting policies (Note 1 section 5.4.1).

The classification of contracts under SICR into similar groups in terms of credit risk is identical with lifetime PD (probability at default) models. Credit ratings are input data of the PD models. Both the current PDs and threshold PDs include forward-looking information (below).

The effectiveness of SICR is assessed on every reporting date using the following indicators:
The default capture rate measures how many contracts were in Stage 2 before it transferred to Stage 3. The rate was 85% on 31 December 2018. The higher the rate is, the better the SICR model can capture a significant increase in credit risk. Contracts in Stage 2 accounted for 8% of the entire non-default loan portfolio.

### Forward-looking information included in the ECL measurement models

The assessment of SICR and the measurement of expected credit loss incorporate forward-looking information; OP Financial Group has analysed what macroeconomic variables have an explanatory significance to the credit risk amount.

The table below shows a summary of the values of the five most important macroeconomic variables for 2018–2046 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of the expected credit loss. These values were used for all product groups on 31 January 2018.

| Economic variable | Scenario | Average (%) | Minimum (%) | Maksimum (%) |
|---|---|---|---|---|
| GDP growth | Downside | 0.6 | -0.7 | 2.5 |
| | Baseline | 1.5 | 1.3 | 2.5 |
| | Upside | 2.2 | 2.0 | 3.8 |
| Unemployment rate | Downside | 8.8 | 7.6 | 9.0 |
| | Baseline | 7.0 | 7.0 | 7.6 |
| | Upside | 5.3 | 5.0 | 7.6 |
| Investment growth % | Downside | 0.7 | -0.9 | 4.0 |
| | Baseline | 1.7 | 1.5 | 4.0 |
| | Upside | 2.6 | 2.0 | 7.0 |
| House price index | Downside | 1.1 | -2.0 | 1.5 |
| | Baseline | 2.8 | 1.0 | 3.0 |
| | Upside | 4.1 | 1.0 | 5.5 |
| 12-month Euribor | Downside | 1.2 | -0.2 | 1.8 |
| | Baseline | 2.0 | -0.1 | 2.5 |
| | Upside | 2.9 | -0.1 | 3.3 |

On 31 December 2018, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%.

The table below shows a summary of the values of the five most important macroeconomic variables for 2018–2045 used in the models (average, minimum and maximum) for three scenarios that have been used in the measurement of expected credit losses. These values were used for all product groups on 1 January 2018.

| Economic variable | Scenario | Average (%) | Minimum (%) | Maksimum (%) |
|---|---|---|---|---|
| GDP growth | Downside | 0.7 | -0.5 | 3.2 |
| | Baseline | 1.6 | 1.3 | 3.2 |
| | Upside | 2.2 | 2.0 | 4.0 |
| Unemployment rate | Downside | 9.0 | 8.5 | 10.2 |
| | Baseline | 6.7 | 6.5 | 8.6 |
| | Upside | 5.3 | 5.0 | 8.6 |
| Investment growth % | Downside | 0.5 | -2.7 | 8.0 |
| | Baseline | 2.0 | 1.5 | 8.0 |
| | Upside | 3.0 | 2.0 | 8.1 |
| House price index | Downside | 1.1 | -1.5 | 1.5 |
| | Baseline | 2.9 | 1.5 | 3.0 |
| | Upside | 4.1 | 1.5 | 5.5 |
| 12-month Euribor | Downside | 1.2 | -0.1 | 1.8 |
| | Baseline | 2.0 | -0.1 | 2.5 |
| | Upside | 3.0 | -0.1 | 3.4 |

On 1 January 2018, the probability weights of the scenarios were Downside 20%, Baseline 60% and Upside 20%. The scenarios are based on the forecasts performed by OP Financial Group economists. The forecast process also takes account of comparable forecasts by external organisations, such as the OECD, International Monetary Fund, Bank of Finland, Ministry of Finance etc., as well as academic research.

The rationality of the used macroeconomic variables is assessed when reviewing the functionality of the models for PD, LGD, EAD and prepayment.

The table below shows loss allowance regarding significant receivables under various scenarios by impairment stage on 31 December 2018.

| Total private customer and corporate customer exposures | Weighted loss allowance | Loss allowance under downside scenario | Loss allowance under baseline scenario | Loss allowance under upside scenario |
|---|---|---|---|---|
| Stage 1 | 25 | 27 | 25 | 22 |
| Stage 2 | 29 | 32 | 29 | 27 |
| Stage 3 | 207 | 207 | 207 | 207 |
| Total | 261 | 266 | 261 | 256 |

As a rule, loss allowance is the largest under the downside scenario. Private customer loans are mainly variable rate loans, so an increase in interest rates has a major effect on PD parameters. This is why loss allowance of private customers in Stage 1 is the highest under the upside scenario because the 12-month Euribor rate has the strongest effect on it through the PD change. Loss allowance of private customers in Stage 2 contracts, however, is the highest under the downside scenario, which is due to developments in the lifetime LGD parameter. All corporate customer risk parameters affect in a parallel way in such a way that loss allowance is clearly the largest under the downside scenario.  The LGD model for Stage 3 is independent of macroeconomic factors, but a significant proportion of Stage 3 exposures is assessed by means of a cash flow based expert assessment that also takes account of forward-looking information.

## Sensitivity analysis

The sensitivity analysis describes the sensitivity of loss allowance to changes in macroeconomic factors. The analysis below only describes somewhat potential economic deterioration and not an economic upswing at all. In addition, all different components of the sensitivity analysis do not necessarily develop together during a recession in the way presented in the sensitivity analysis.

The most significant macroeconomic variables in risk parameters and exposure classes include the 12-month Euribor rate, investment growth rate and GDP development. Changes used in sensitivity analyses include a 1% increase in the 12-month Euribor rate, a 6% decrease in investment growth and a 3.5% decrease in the GDP growth rate. So the figures reflect an economic situation that is poorer than now and all of them increase loss allowance and are based on the following facts. First of all, the interest rate and related forecasts in the modelling period of 2008–2016 are clearly lower and GDP and the investment growth rate plus their forecasts are considerably higher, i.e. the economic situation is good in view of history. The levels used in the sensitivity analysis are based on the behaviour of variables in the historic period, and the changes roughly correspond to the change of standard deviation.

The sensitivity analysis covers only Stage 1 and 2 contracts. The sensitivity analysis does not take account of the transfers between Stage 1 and 2 as a result of SICR. Changes in the lifetime PD stressed scenarios are included only in PD estimates based on the loss allowance formula and the effects of PD changes are not taking into account through SICR in the sensitivity analysis.

The table below show the sensitivity of change in the loss allowance of the groups household and corporate customers on 31 December 2018, when the economic situation weakens due to changes in the combined effects of interest rates, investment growth rate and GDP:

| Group<br>Stage | Loss allowance | Loss allowance sensitivity analysis* | Proportional change |
|---|---|---|---|
| Households | | | |
| Stage 1 | 2 | 2 | 7.0 % |
| Stage 2 | 5 | 5 | 7.0 % |
| Corporate customers | | | |
| Stage 1 | 24 | 34 | 41.0 % |
| Stage 2 | 25 | 37 | 51.0 % |
| Total | 55 | 78 | 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 raises the amount of loss allowance in corporate customers, as well as through changes in PD and LGD.  GDB growth has a negative relation to the amount of loss allowance through all model components. Slower GDP growth increases PD values for both private customers and corporate customers. It also affects through the LGD in such a way that a GDP decrease weakens developments in home collateral, which has an effect on Stage 2 contracts.

The analysis shows that the most significant proportional and absolute changes apply to the corporate customers where the amounts of loss allowance regarding Stage 1 and 2 contracts increase by over 50%. Changes are considerably smaller in private customers than in corporate customers because the estimates of their risk parameters are not so sensitive to economic conditions.

Comparison of exposures in impairment stage 3 in the balance sheet with non-performing receivables

The value of impairment stage 3 exposures are impaired financial assets due to credit risk. The table below shows a reconciliation statement between exposures and loss allowance presented in impairment stage 3 and Note 55 concerning doubtful receivables.

| EUR million  31.12.2018 | Balance sheet exposure | Loss allowance |
|---|---|---|
| Impairment stage 3 | 360 | 206 |
| Difference between the definitions* | 0 | 0 |
| Performing and forborne receivables (stage 2) | 53 | 6 |
| Other differences | -55 | -2 |
| Doubtful receivables (Note 51) | 354 | 210 |

* Commission Implementing Regulation (EU) 2015/227 Annex 5 part 2: 155, 157, 176

## Note 46. Events after the balance sheet date

In January 2019, Moody's upgraded OP Insurance Ltd's financial strength rating by one notch from A3 to A2. Moody’s kept the rating outlook stable. The underlying reasons for the upgrade were insurance operations' close integration with OP's business and capital management, strong non-life insurance market share and good financial fundamentals.

# Notes to risk management

Note 2 covers risk management and capital adequacy management principles. Notes 48–58 present the risk exposure within Banking and Other Operations. Notes 59–70 present the risk exposure within Non-life Insurance. OP Corporate Bank Group's capital adequacy information under Pillar III is disclosed as part of the OP Amalgamation Capital Adequacy Report. OP Corporate Bank Group's capital base, minimum capital requirements, derivative contracts and counterparty risk are presented in Notes 71–77.

## Note 47. 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 2018, EUR million**

| Geographic region | Exposure to central governments and central banks | Exposures to credit institutions | Exposures to corporates | Retail exposures | Equity investments* | Collateralised notes and bonds** | Other | Total |
|---|---|---|---|---|---|---|---|---|
| Finland | 14,367 | 12,225 | 29,104 | 2,997 | 409 | 523 | 397 | 60,022 |
| Baltic countries | 271 | 0 | 2,121 | 1 | | | 6 | 2,399 |
| Other Nordic countries | 149 | 263 | 1,404 | 22 | 1 | 1,680 | 0 | 3,519 |
| Germany | 2,092 | 147 | 47 | 33 | 2 | 1,362 | | 3,683 |
| France | 182 | 323 | 205 | 70 | 14 | 808 | | 1,601 |
| UK | | 696 | 84 | 88 | 18 | 415 | | 1,300 |
| Italy | | 6 | 24 | 5 | | | | 35 |
| Spain | | 27 | 9 | 0 | | | | 36 |
| Other EU countries | 1,633 | 308 | 474 | 90 | 108*** | 1,054 | | 3,667 |
| Rest of Europe | | 102 | 107 | 1 | 15 | 5 | | 231 |
| USA | | 137 | 33 | 207 | 14 | 8 | | 400 |
| Russia | | 42 | 3 | | | | | 45 |
| Asia | | 279 | 40 | 19 | | | | 337 |
| Other countries | 31 | 65 | 209 | 30 | 266*** | 1,192 | 447 | 2,241 |
| Total | 18,725 | 14,620 | 33,864 | 3,564 | 847 | 7,048 | 850 | 79,517 |

* Also include EUR 40 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 2017, EUR million

| Geographic region | Exposure to central governments and central banks | Exposures to credit institutions | Exposures to corporates | Retail exposures | Equity investments* | Collateralised notes and bonds** | Other | Total |
|---|---|---|---|---|---|---|---|---|
| Finland | 14,861 | 12,046 | 26,890 | 2,448 | 388 | 500 | 228 | 57,360 |
| Baltic countries | 129 | 194 | 1,878 | 5 | 0 | | | 2,207 |
| Other Nordic countries | 186 | 506 | 1,276 | 33 | 3 | 1,721 | 15 | 3,740 |
| Germany | 2,007 | 174 | 41 | 58 | 7 | 1,059 | 3 | 3,349 |
| France | 358 | 272 | 141 | 48 | 14 | 640 | 10 | 1,483 |
| UK | | 686 | 85 | 83 | 31 | 455 | 7 | 1,348 |
| Italy | | 3 | 16 | 8 | | | 4 | 31 |
| Spain | | 10 | 5 | 7 | | | 1 | 23 |
| Other EU countries | 1,114 | 304 | 470 | 57 | 277*** | 886 | 18 | 3,126 |
| Rest of Europe | 7 | 194 | 64 | 26 | 4 | 5 | 5 | 306 |
| USA | | 158 | 21 | 193 | 103 | 8 | 104 | 588 |
| Russia | | 50 | 11 | | 7 | | | 68 |
| Asia | | 346 | 76 | 23 | 18 | 2 | 26 | 492 |
| Other countries | 961 | 70 | 78 | 29 | 147*** | 1,288 | 88 | 2,660 |
| Total | 19,623 | 15,014 | 31,052 | 3,019 | 999 | 6,564 | 508 | 76,780 |

* Also include EUR 68 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 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 48. Impairment loss recognised on financial assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Derivative contracts | | |
| Held for trading | | -1 |
| Loans and receivables | | |
| Loans granted | | 10 |
| Guarantee receivables | | 2 |
| Available-for-sale financial assets | | |
| Shares and participations | | 0 |
| **Total** | | 12 |

Note 45. Loss allowance regarding receivables and notes and bonds shows a specification of expected credit losses for 2018.

## Note 49. Exposure

| 31 December 2018, EUR million | Finland<br>Balance sheet value | Loss allowance* | Accrued interest | Other countries<br>Balance sheet value | Loss allowance* | Accrued interest |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Receivables from credit institutions | 9,560 | 0 | 0 | 166 | 1 | 0 |
| Receivables from customers | 17,657 | 246 | 40 | 2,544 | 7 | 3 |
| Finance leases | 1,479 | 4 | | 671 | 1 | |
| Notes and bonds | 2,177 | | 14 | 10,572 | | 35 |
| Other | 83 | | | 420 | | |
| **Total** | **30,956** | **250** | **54** | **14,373** | **9** | **39** |
| **Off-balance-sheet commitments** | | | | | | |
| Unused standby credit facilities | 4,386 | | | 871 | | |
| Guarantees and letters of credit | 1,920 | | | 660 | | |
| Derivative contracts | 1,091 | | | 2,071 | | |
| Other | 235 | | | 477 | | |
| **Total** | **7,632** | | | **4,080** | | |
| **Total exposure** | **38,588** | **250** | **54** | **18,453** | **9** | **39** |

| 31 December 2017, EUR million | Finland<br>Balance sheet value | Impair-ments | Accrued interest | Other countries<br>Balance sheet value | Impair-ments | Accrued interest |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Receivables from credit institutions | 8,920 | 0 | 1 | 374 | -2 | 1 |
| Receivables from customers | 15,986 | 216 | 40 | 2,277 | 4 | 3 |
| Finance leases | 1,360 | | | 496 | | 0 |
| Notes and bonds | 1,899 | | 13 | 10,625 | | 40 |
| Other | 99 | | | 480 | | |
| **Total** | **28,263** | **216** | **54** | **14,253** | **3** | **44** |
| **Off-balance-sheet commitments** | | | | | | |
| Unused standby credit facilities | 4,751 | | | 744 | | |
| Guarantees and letters of credit | 1,770 | | | 591 | | |
| Derivative contracts | 1,065 | | | 3,180 | | |
| Other | 241 | | | 488 | | |
| **Total** | **7,827** | | | **5,003** | | |
| **Total exposure** | **36,090** | **216** | **54** | **19,256** | **3** | **44** |

The tables show the recognised positive market value of derivative contracts.

* Note 45. Loss allowance regarding receivables and notes and bonds shows a specification of expected credit losses for 2018.

## Note 50. Exposure by sector

| 31 December 2018, EUR million | Balance sheet values Finnish | Foreign | Off-balance-sheet Finnish | Foreign | Total |
|---|---|---|---|---|---|
| Non-banking corporate sector | 16,389 | 3,744 | 6,123 | 1,238 | 27,493 |
| Financial institutions and insurance companies | 10,963 | 6,741 | 517 | 2,488 | 20,708 |
| Households | 1,930 | 26 | 1 | 0 | 1,958 |
| Non-profit organisations | 365 | 92 | 35 | | 491 |
| Public sector entities | 1,364 | 3,810 | 957 | 353 | 6,484 |
| Total | 31,011 | 14,412 | 7,632 | 4,080 | 57,134 |

| 31 December 2017, EUR million | Balance sheet values Finnish | Foreign | Off-balance-sheet Finnish | Foreign | Total |
|---|---|---|---|---|---|
| Non-banking corporate sector | 15,289 | 3,235 | 6,556 | 1,027 | 26,106 |
| Financial institutions and insurance companies | 10,162 | 6,642 | 480 | 3,722 | 21,005 |
| Households | 1,698 | 26 | 1 | 0 | 1,725 |
| Non-profit organisations | 336 | 67 | 68 | | 471 |
| Public sector entities | 832 | 4,328 | 722 | 254 | 6,137 |
| Total | 28,317 | 14,297 | 7,827 | 5,003 | 55,445 |

The balance sheet values are carrying amounts including impairments and accrued interest income.

## Note 51. Receivables from credit institutions and customers, and doubtful receivables

| 31 December 2018, EUR million | Not impaired (gross) | Loss allowance | Balance sheet value |
|---|---|---|---|
| **Receivables from credit institutions and customers** | | | |
| Receivables from credit institutions | 9,727 | 1 | 9,726 |
| Receivables from customers | 20,455 | 254 | 20,202 |
| of which bank guarantee receivables | 2 | 0 | 2 |
| Finance leases | 2,154 | 4 | 2,150 |
| Total | 32,337 | 259 | 32,078 |
| **Receivables from credit institutions and customers by sector** | | | |
| Non-banking corporate sector | 18,338 | 241 | 18,097 |
| Financial institutions and insurance companies | 10,503 | 2 | 10,501 |
| Households | 1,966 | 10 | 1,956 |
| Non-profit organisations | 368 | 3 | 364 |
| Public sector entities | 1,162 | 3 | 1,159 |
| Total | 32,337 | 259 | 32,078 |

| 31 December 2017, EUR million | Not impaired (gross) | Impaired (gross) | Total | Individual assessment of impairment | Collective assessment of impairment | Balance sheet value |
|---|---|---|---|---|---|---|
| **Receivables from credit institutions and customers** | | | | | | |
| Receivables from credit institutions | 9,295 | | 9,295 | | 2 | 9,294 |
| Receivables from customers | 18,264 | 219 | 18,483 | 192 | 28 | 18,263 |
| of which bank guarantee receivables | 0 | 2 | 2 | 2 | 0 | 0 |
| Finance leases | 1,856 | | 1,856 | | | 1,856 |
| **Total** | **29,416** | **219** | **29,635** | **192** | **30** | **29,413** |
| **Receivables from credit institutions and customers by sector** | | | | | | |
| Non-banking corporate sector | 16,581 | 218 | 16,799 | 191 | 16 | 16,592 |
| Financial institutions and insurance companies | 10,077 | | 10,077 | | 2 | 10,075 |
| Households | 1,736 | 1 | 1,736 | 1 | 12 | 1,724 |
| Non-profit organisations | 336 | | 336 | | 0 | 336 |
| Public sector entities | 687 | | 687 | | 0 | 687 |
| **Total** | **29,416** | **219** | **29,635** | **192** | **30** | **29,413** |

| 31 December 2018, EUR million | Not impaired (gross) | Capital arrears | Interest in arrears | Loss allowance |
|---|---|---|---|---|
| **Doubtful receivables** | | | | |
| Receivables from credit institutions | | | | |
| Receivables from customers, of which | 350 | 73 | 7 | 209 |
| Bank guarantee receivables | 2 | | | 0 |
| Finance leases | 5 | 0 | | 0 |
| Overdrafts | | | | |
| **Total** | **354** | **73** | **7** | **210** |
| **Doubtful receivables by sector** | | | | |
| Non-banking corporate sector | 315 | 71 | 7 | 203 |
| Financial institutions and insurance companies | 0 | 0 | | 0 |
| Households | 28 | 2 | 0 | 5 |
| Non-profit organisations | 12 | 0 | | 2 |
| Public sector entities | | 0 | | |
| **Total** | **354** | **73** | **7** | **210** |

| 31 December 2017, EUR million | Not impaired (gross) | Impaired (gross) | Total | Arrears | Impairments Individually assessed | Impairments Collectively assessed |
|---|---|---|---|---|---|---|
| Doubtful receivables | | | | | | |
| Receivables from credit institutions | | | | | | 2 |
| Receivables from customers, of which | 166 | 218 | 384 | 82 | 192 | 28 |
| Bank guarantee receivables | 0 | 2 | 2 | | 2 | 0 |
| Finance leases | 2 | 1 | 3 | 1 | | |
| **Total** | **168** | **219** | **387** | **83** | **192** | **30** |
| Doubtful receivables by sector | | | | | | |
| Non-banking corporate sector | 150 | 218 | 368 | 81 | 191 | 16 |
| Financial institutions and insurance companies | 0 | | 0 | 0 | | 2 |
| Households | 18 | 1 | 19 | 1 | 1 | 12 |
| Non-profit organisations | 0 | | 0 | 0 | | 0 |
| Public sector entities | | | | 0 | | 0 |
| **Total** | **168** | **219** | **387** | **83** | **192** | **30** |

Doubtful and forborne receivables

| 31 December 2018, EUR million | Performing receivables from credit institutions and customers (gross) | Non-performing receivables from credit institutions and customers (gross) | Receivables from credit institutions and customers, total (gross) | Loss allowance | Receivables from credit institutions and customers (net) |
|---|---|---|---|---|---|
| Over 90 days past due | | 86 | 86 | 83 | 3 |
| Unlikely to be paid | | 194 | 194 | 115 | 79 |
| Forborne loans | 53 | 22 | 75 | 12 | 62 |
| **Total** | **53** | **301** | **354** | **210** | **145** |

Doubtful and forborne receivables

| 31 December 2017, EUR million | Performing receivables from credit institutions and customers (gross) | Non-performing receivables from credit institutions and customers (gross) | Receivables from credit institutions and customers (gross) | Individually assessed impairment | Receivables from credit institutions and customers (net) |
|---|---|---|---|---|---|
| Over 90 days past due | | 89 | 89 | 79 | 10 |
| Unlikely to be paid | | 225 | 225 | 106 | 119 |
| Forborne loans | 49 | 24 | 73 | 7 | 66 |
| **Total** | **49** | **338** | **387** | **192** | **195** |

The Group reports on the remaining principal as the amount of a receivable that is more than 90 days past due whose interest or principal amount has been overdue and outstanding for over three months. Contracts with the lowest credit ratings (F for private customers and 11–12 for others) are reported as unlikely to be paid. Forborne receivables include receivables that have been renegotiated due to the customer's financial difficulties. The loan terms and conditions of renegotiated receivables have been eased due to the customer's financial difficulties for example by transferring to interest only terms for a period of 6–12 months. Forborne receivables are in ECL measurement at stage two or three.

| Key ratio, % | 2018 | 2017 |
|---|---|---|
| Loss allowance/Exposures individually assessed for impairment, % of doubtful receivables | 59.1 % | 49.5 % |

Financial assets to which impairment is applied and payment related to them is past due

| | | Days | | | |
|---|---|---|---|---|---|
| 31 December 2018, EUR million | Less than 30 | 30–90 | Over 90–180 | Over 180 | Total |
| Receivables past due | 99 | 33 | 4 | 22 | 159 |

| | | Days | | | |
|---|---|---|---|---|---|
| 31 December 2017, EUR million | Less than 30 | 30–90 | Over 90–180 | Over 180 | Total |
| Past due but not impaired loans and receivables | 274 | 33 | 23 | 5 | 335 |

## Note 52. Credit losses and impairments

Credit losses and impairments

| EUR million | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018* |
|---|---|---|---|---|---|---|---|
| Gross credit losses and impairments | -97 | -82 | -75 | -69 | -83 | -49 | -14 |
| Reversals | 40 | 45 | 49 | 40 | 46 | 36 | 1 |
| Net credit losses and impairments | -57 | -37 | -25 | -29 | -37 | -12 | -13 |

* Impairment losses have been calculated under IFRS 9 in 2018.

## Note 53. Collateral received by type of collateral

| EUR million | 31 Dec. 2018 | Proportion% | 31 Dec. 2017 | Proportion% |
|---|---|---|---|---|
| Object of financing as collateral | 2,659 | 26.5 | 2,377 | 26.1 |
| Property or lease mortgage on office or industrial property | 2,542 | 25.3 | 2,289 | 25.1 |
| Public-sector guarantees | 2,342 | 23.3 | 2,533 | 27.8 |
| Shares and participations, other | 1,011 | 10.1 | 785 | 8.6 |
| Property or lease mortgage on residential property | 352 | 3.5 | 235 | 2.6 |
| Other collateral | 299 | 3.0 | 212 | 2.3 |
| Shares in housing corporations, and housing associations and property companies in residential use | 274 | 2.7 | 231 | 2.5 |
| Business mortgage | 265 | 2.6 | 182 | 2.0 |
| Factoring | 192 | 1.9 | 191 | 2.1 |
| Bank guarantee | 113 | 1.1 | 87 | 1.0 |
| **Total** | **10,051** | **100.0** | **9,124** | **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 54. Funding structure

| EUR million | 31 Dec. 2018 | Pro-portion% | 31 Dec. 2017 | Pro-portion% |
|---|---|---|---|---|
| Liabilities to credit institutions | 15,575 | 28.9 | 14,035 | 27.4 |
| Liabilities to customers | | | | |
| Deposits | 11,531 | 21.4 | 11,189 | 21.8 |
| Other | 4,890 | 9.1 | 7,648 | 14.9 |
| Debt securities issued to the public | | | | |
| Certificates of deposit and ECPs | 10,266 | 19.1 | 7,117 | 13.9 |
| Bonds | 10,069 | 18.7 | 9,674 | 18.9 |
| Subordinated liabilities | 1,482 | 2.8 | 1,547 | 3.0 |
| Total | 53,814 | 100.0 | 51,210 | 100.0 |

## Note 55. Maturity of financial assets and liabilities by residual term to maturity

| 31 December 2018, EUR million | Less than 3 months | 3–12 months | 1–5 years | 5–10 years | More than 10 years | Total |
|---|---|---|---|---|---|---|
| Liquid assets | 12,218 | | | | | 12,218 |
| Receivables from credit institutions | 4,313 | 2,326 | 2,936 | 151 | | 9,726 |
| Receivables from customers | 3,925 | 2,739 | 11,989 | 2,112 | 1,586 | 22,351 |
| Investment assets | | | | | | |
| Financial assets held for trading | 164 | 145 | 146 | 37 | 5 | 498 |
| Financial assets designated as at fair value through profit or loss | | | 12 | | | 12 |
| Financial assets at fair value through other comprehensive income | 229 | 535 | 7,068 | 4,407 | | 12,239 |
| Total assets | 20,849 | 5,745 | 22,151 | 6,707 | 1,591 | 57,044 |
| | | | | | | |
| Liabilities to credit institutions | 2,344 | 456 | 7,120 | 5,655 | | 15,575 |
| Liabilities to customers | 14,837 | 814 | 303 | 468 | | 16,422 |
| Debt securities issued to the public | 7,404 | 4,234 | 6,990 | 1,357 | 350 | 20,336 |
| Subordinated liabilities | | 140 | 1,077 | 179 | 85 | 1,482 |
| Total liabilities | 24,585 | 5,644 | 15,490 | 7,660 | 435 | 53,814 |
| | | | | | | |
| Guarantees | 90 | 122 | 389 | 1 | 44 | 647 |
| Other guarantee liabilities | 267 | 426 | 459 | 29 | 486 | 1,668 |
| Loan commitments | 5,257 | | | | | 5,257 |
| Commitments related to short-term trade transactions | 66 | 127 | 72 | | | 265 |
| Other | 505 | 2 | 1 | 204 | | 712 |
| Total off-balance-sheet commitments | 6,185 | 678 | 922 | 234 | 531 | 8,549 |

| 31 December 2017, EUR million | Less than 3 months | 3–12 months | 1–5 years | 5–10 years | More than 10 years | Total |
|---|---|---|---|---|---|---|
| Liquid assets | 12,816 | | | | | 12,816 |
| Financial assets at fair value through profit or loss | | | | | | |
| Notes and bonds | 219 | 196 | 135 | 38 | 0 | 589 |
| Receivables from credit institutions | 2,693 | 3,146 | 3,252 | 181 | 22 | 9,294 |
| Receivables from customers | 3,915 | 2,189 | 10,780 | 1,683 | 1,553 | 20,120 |
| Available-for-sale financial assets | | | | | | |
| Notes and bonds | 58 | 755 | 7,831 | 2,986 | 255 | 11,884 |
| Held-to-maturity financial assets | | | | | | |
| Notes and bonds | | | 30 | 21 | | 51 |
| **Total assets** | **19,701** | **6,286** | **22,028** | **4,908** | **1,830** | **54,754** |
| | | | | | | |
| Liabilities to credit institutions | 3,337 | 190 | 5,513 | 4,995 | | 14,035 |
| Liabilities to customers | 16,617 | 1,379 | 349 | 493 | | 18,837 |
| Debt securities issued to the public | 5,248 | 3,750 | 6,759 | 735 | 299 | 16,791 |
| Subordinated liabilities | | 190 | 1,098 | 174 | 85 | 1,547 |
| **Total liabilities** | **25,202** | **5,509** | **13,718** | **6,397** | **384** | **51,210** |
| | | | | | | |
| Guarantees | 3 | 50 | 436 | 1 | 43 | 532 |
| Other guarantee liabilities | 198 | 374 | 441 | 32 | 426 | 1,470 |
| Loan commitments | 5,495 | | | | | 5,495 |
| Commitments related to short-term trade transactions | 105 | 181 | 73 | | | 359 |
| Other | 516 | 2 | 1 | 209 | | 729 |
| **Total off-balance-sheet commitments** | **6,317** | **606** | **951** | **242** | **468** | **8,585** |

## Note 56. Liquidity buffer

The liquidity buffer is presented under the Other Operations segment.

Liquidity buffer by maturity and credit rating on 31 December 2018, EUR million

| Year(s) | 0–1 | 1–3 | 3–5 | 5–7 | 7–10 | 10– | Total | Pro-portion, % |
|---|---|---|---|---|---|---|---|---|
| Aaa* | 12,499 | 2,254 | 2,088 | 1,383 | 1,018 | | 19,243 | 84.6 |
| Aa1–Aa3 | 38 | 529 | 520 | 661 | 376 | 0 | 2,125 | 9.3 |
| A1–A3 | 23 | 23 | 9 | 4 | | 2 | 62 | 0.3 |
| Baa1–Baa3 | 18 | 56 | 60 | 110 | 19 | 3 | 265 | 1.2 |
| Ba1 or lower | 5 | 34 | 11 | 61 | 15 | | 127 | 0.6 |
| Internally rated** | 400 | 81 | 310 | 123 | | | 914 | 4.0 |
| Total | 12,983 | 2,978 | 2,998 | 2,342 | 1,428 | 5 | 22,735 | 100.0 |

* incl. deposits with the central bank

** PD </= 0.40%

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 4.2 years.

Liquidity buffer by maturity and credit rating on 31 December 2017, EUR million

| Year(s) | 0–1 | 1–3 | 3–5 | 5–7 | 7–10 | 10– | Total | Pro-portion, % |
|---|---|---|---|---|---|---|---|---|
| Aaa* | 13,201 | 2,499 | 2,470 | 1,367 | 435 | 20 | 19,992 | 85.6 |
| Aa1–Aa3 | 205 | 707 | 475 | 423 | 225 | 0 | 2,036 | 8.7 |
| A1–A3 | 1 | 18 | 6 | 0 | 5 | 0 | 30 | 0.1 |
| Baa1–Baa3 | 10 | 36 | 64 | 18 | 13 | | 141 | 0.6 |
| Ba1 or lower | 0 | 12 | 20 | 65 | 22 | 0 | 119 | 0.5 |
| Internally rated** | 480 | 198 | 252 | 99 | | | 1,029 | 4.4 |
| Total | 13,897 | 3,470 | 3,286 | 1,973 | 700 | 21 | 23,347 | 100.0 |

* incl. deposits with the central bank

** PD </= 0.40%

The liquidity buffer's (excl. deposits with the central bank) residual term to maturity averages 3.7 years.

## Note 57. Maturities of financial assets and liabilities by maturity or repricing

| 31 December 2018, EUR million | 1 month or less | >1–3 months | >3–12 months | >1–2 years | >2–5 years | >5 years | Total |
|---|---|---|---|---|---|---|---|
| Cash and cash equivalents | 12,218 | | | | | | 12,218 |
| Receivables from credit institutions | 4,386 | 2,730 | 2,257 | 170 | 148 | 35 | 9,726 |
| Receivables from customers | 6,191 | 6,920 | 5,656 | 381 | 1,901 | 1,303 | 22,351 |
| Investment assets | | | | | | | |
| Financial assets held for trading | 48 | 131 | 151 | 23 | 103 | 42 | 498 |
| Financial assets designated as at fair value through profit or loss | | | | 1 | 10 | | 12 |
| Financial assets at fair value through other comprehensive income | 630 | 342 | 439 | 1,690 | 4,731 | 4,407 | 12,239 |
| **Total assets** | **23,472** | **10,123** | **8,503** | **2,266** | **6,893** | **5,787** | **57,044** |
| | | | | | | | |
| Liabilities to credit institutions | 2,270 | 3,154 | 1,396 | 3,183 | 2,019 | 3,552 | 15,575 |
| Liabilities recognised at fair value through profit or loss | 0 | | | | 0 | | 0 |
| Liabilities to customers | 14,028 | 1,427 | 791 | 176 | | | 16,422 |
| Debt securities issued to the public | 2,913 | 6,765 | 5,347 | 595 | 3,292 | 1,423 | 20,336 |
| Subordinated liabilities | 79 | 513 | 51 | | 739 | 100 | 1,482 |
| **Total liabilities** | **19,291** | **11,859** | **7,586** | **3,954** | **6,050** | **5,075** | **53,814** |

Debt repayable on demand totalled EUR 12.2 billion, consisting mainly of public deposits.

| 31 December 2017, EUR million | 1 month or less | >1–3 months | >3–12 months | >1–2 years | >2–5 years | >5 years | Total |
|---|---|---|---|---|---|---|---|
| Cash and cash equivalents | 12,816 | | | | | | 12,816 |
| Financial assets at fair value through profit or loss | | | | | | | |
| Notes and bonds | 97 | 138 | 196 | 22 | 97 | 39 | 589 |
| Receivables from credit institutions | 4,964 | 2,141 | 1,541 | 385 | 219 | 43 | 9,294 |
| Receivables from customers | 5,800 | 6,220 | 4,783 | 396 | 1,803 | 1,117 | 20,120 |
| Available-for-sale financial assets | | | | | | | |
| Notes and bonds | 545 | 248 | 686 | 1,117 | 6,048 | 3,241 | 11,884 |
| Held-to-maturity financial assets | | | | | | | |
| Notes and bonds | 15 | 16 | | | 20 | | 51 |
| **Total assets** | **24,238** | **8,764** | **7,207** | **1,920** | **8,187** | **4,439** | **54,754** |
| | | | | | | | |
| Liabilities to credit institutions | 3,349 | 1,846 | 1,228 | 283 | 4,394 | 2,936 | 14,035 |
| Liabilities to customers | 16,251 | 768 | 1,689 | | 129 | | 18,837 |
| Debt securities issued to the public | 3,003 | 4,064 | 4,586 | 1,211 | 3,256 | 670 | 16,791 |
| Subordinated liabilities | 74 | 453 | 176 | | 745 | 100 | 1,547 |
| **Total liabilities** | **22,677** | **7,131** | **7,679** | **1,493** | **8,525** | **3,706** | **51,210** |

Debt repayable on demand totalled EUR 12.3 billion, consisting mainly of public deposits.

## Note 58. Sensitivity analysis of interest rate and market risk

### Interest rate risk associated with balance sheet

| | -200bp | | +200bp | |
|---|---|---|---|---|
| Currency EUR million | 2018 | 2017 | 2018 | 2017 |
| EUR | 33 | -11 | -33 | 11 |
| GBP | -1 | -1 | 1 | 1 |
| USD | 1 | 2 | -1 | -2 |
| Other | 1 | 1 | 1 | 1 |

Risks of GBP and USD are expressed in euro equivalents. Euro-denominated risks of other currencies have been added up as intrinsic values. Interest rate risk is calculated daily as the volatility of the present value of balance sheet cash flows to the parallel 2 percentage point change of the yield curve.

### Sensitivity analysis of market risk

| EUR million | | 2018 | 2017 |
|---|---|---|---|
| Interest rate volatility* | 10bp | 1 | 2 |
| Currency volatility* | 10 pps | 0 | 1 |
| Credit risk premium** | 10bp | -55 | -45 |

* Trading portfolio

** Long-term investment assets

# *Risk exposure by Non-life Insurance*

## Note 59. Non-life Insurance risk-bearing capacity

Non-life Insurance must fulfil all capital adequacy requirements set by regulatory authorities mainly at company level. Based on EU directives, a minimum solvency margin requirement and a minimum solvency capital requirement apply to all non-life insurance companies.

The ratio of the capital base to solvency capital is described as the solvency ratio that reflects the company's opportunity to cover unexpected risks. The solvency figures are unaudited.

| Insurance company solvency, EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Eligible capital | 818 | 902 |
| Solvency capital requirement (SCR) | | |
| Market risk | 421 | 460 |
| Underwriting risk | 281 | 289 |
| Counterparty risk | 36 | 40 |
| Operational risk | 45 | 45 |
| Diversification benefits and loss absorbency | -162 | -169 |
| Total | 621 | 666 |
| Buffer for SCR | 197 | 236 |
| SCR ratio, % | 132% | 135% |
| SCR ratio, % excluding transitional provisions | 132% | 135% |

## Note 60. 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 2017, EUR million | Change in risk parameter | Effect on share-holders' equity, EUR million | Effect on combined ratio |
|---|---|---|---|---|
| Insurance portfolio or insurance premium revenue* | 1,465 | Up by 1% | 14 | Up by 0.9 pps |
| Claims incurred* | 1,039 | Up by 1% | -10 | Down by 0.8 pps |
| Large claim, over EUR 5 million | | 1 loss | -5 | Down by 0.3 pps |
| Personnel costs* | 130 | Up by 8% | -10 | Down by 0.6 pps |
| Expenses by function*/** | 401 | Up by 4% | -16 | Down by 1.1 pps |
| Inflation for collective liability | 750 | Up by 0.25 pps | -5 | Down by 0.3 pps |
| Life expectancy for discounted insurance liabilities | 1,928 | Up 1 year | -45 | Down by 3.1 pps |
| Discount rate for discounted insurance liabilities | 1,928 | Down by 0.1 pp | -27 | Down by 1.8 pps |

* Moving 12-month

** Expenses by function in Non-life Insurance excluding expenses for investment management and expenses for other services rendered.

## Note 61. Premiums written and sums insured by class

### Premiums written by EML* class in corporate property insurance

The degree of risk in property insurance can be evaluated by dividing risks into classes by their EML* amounts. The table below shows premiums written calculated for each risk class.

| EUR million | 5–20 | 20–50 | 50–100 | 100–500 |
|---|---|---|---|---|
| 2018 | 10 | 10 | 8 | 10 |
| 2017 | 13 | 10 | 9 | 8 |

* EML = Estimated Maximum Loss per object of insurance

### Premiums written by TSI* class in corporate liability insurance

The degree of risk in liability insurance can be evaluated by dividing risks into classes by their TSI* amounts. The table below shows premiums written calculated for each risk class.

| EUR million | 2–4 | 4–10 | 10–30 | 30–90 |
|---|---|---|---|---|
| 2018 | 4 | 3 | 6 | 3 |
| 2017 | 4 | 4 | 6 | 3 |

* TSI = Total Sum Insured

### Sums insured in decennial insurance

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

| | Gross | | Net* | |
|---|---|---|---|---|
| EUR million | 2018 | 2017 | 2018 | 2017 |
| Decennial insurance | 1,802 | 1,882 | 1,802 | 1,882 |

* For insurance company's own account after reinsurers' share but before counter guarantee.

## Note 62. Trend in large claims

### Number of detected large claims by year of detection for 2013–17

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 |
|---|---|---|---|---|---|---|
| 2014 | 6 | | | 5 | 2 | |
| 2015 | 1 | | | 6 | | |
| 2016 | | | | 5 | | |
| 2017 | | | | 7 | | |
| 2018 | | | | 17 | 3 | |
| | | | | Total claims, EUR million | 228 | |
| Gross amount, total claims, EUR million | | | | | | |
| 2014–2018 | 15 | | | 187 | 26 | |

Net amount

| Number of claims exceeding EUR 2 million | Statutory lines | Other accident and health | Hull and cargo | Property and business interruption | Liability and legal expenses | Long term |
|---|---|---|---|---|---|---|
| 2014 | 6 | | | 5 | 1 | |
| 2015 | 1 | | | 6 | | |
| 2016 | | | | 5 | | |
| 2017 | | | | 7 | | |
| 2018 | | | | 15 | | |
| | | | | Total claims, EUR million | 158 | |
| Net amount, total claims, EUR million | | | | | | |
| 2014–2018 | 15 | | | 130 | 12 | |

## Note 63. Insurance profitability

**Trends in insurance premium revenue (gross and net) and combined ratio (net)**

Insurance premium revenue describes the volume of an insurance class, enabling the evaluation of the importance of the insurance class in relation to the whole portfolio. Similarly, the combined ratio (CR) is used to evaluate fluctuations in the results of the insurance class and the profitability of the class. The combined ratio is presented separately adjusted for one-off items relating to previous insurance periods.

| 2018, EUR million | Gross IP revenue | Net IP revenue | Net CR* | Net** CR* |
|---|---|---|---|---|
| Statutory lines | 442 | 440 | 89% | 89% |
| Other accident and health | 272 | 272 | 94% | 94% |
| Hull and cargo | 302 | 301 | 95% | 95% |
| Property and business interruption | 398 | 365 | 90% | 90% |
| Liability and legal expenses | 89 | 84 | 97% | 97% |
| Long-term | 4 | 3 | 60% | 60% |
| Total | 1,507 | 1,465 | 92% | 92% |

| 2017, EUR million | Gross IP revenue | Net IP revenue | Net CR* | Net** CR* |
|---|---|---|---|---|
| Statutory lines | 442 | 440 | 105% | 105% |
| Other accident and health | 250 | 250 | 94% | 94% |
| Hull and cargo | 302 | 301 | 92% | 92% |
| Property and business interruption | 385 | 354 | 93% | 93% |
| Liability and legal expenses | 89 | 83 | 87% | 87% |
| Long-term | 5 | 3 | 14% | 14% |
| Total | 1,473 | 1,431 | 96% | 96% |

* 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 64. Information on the nature of insurance liabilities

| Information on the nature of liabilities | 2018 | 2017 |
|---|---|---|
| Net liabilities due to insurance contracts (EUR million) | | |
| Latent occupational diseases | 13 | 15 |
| Other | 3,040 | 3,033 |
| Total (before transfers) | 3,053 | 3,048 |
| | | |
| Duration of debt (years) | | |
| Discounted insurance liabilities | 14.4 | 14.4 |
| Undiscounted insurance liabilities | 2.2 | 2.2 |
| Total | 9.9 | 9.8 |
| | | |
| Discounted net debt (EUR million) | | |
| Known provision for claims for annuities | 1,552 | 1,517 |
| Collective liability | 338 | 351 |
| Provision for unearned premiums | 41 | 43 |
| Total | 1,932 | 1,911 |

## Note 65. Insurance liabilities by estimated maturity

| 31 December 2018, EUR million | 0–1 yr | 1–5 yrs | 5–10 yrs | 10–15 yrs | over 15 yrs | Total |
|---|---|---|---|---|---|---|
| Provision for unearned premiums* | 406 | 117 | 22 | 6 | 10 | 561 |
| Provision for unpaid claims | | | | | | |
| Undiscounted | 296 | 213 | 58 | 11 | 4 | 584 |
| Discounted | 97 | 473 | 358 | 285 | 694 | 1,908 |
| **Total insurance liabilities**** | **799** | **804** | **438** | **302** | **708** | **3,053** |

* Includes EUR 41 million in discounted liability.

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

| 31 December 2017, EUR million | 0–1 yr | 1–5 yrs | 5–10 yrs | 10–15 yrs | over 15 yrs | Total |
|---|---|---|---|---|---|---|
| Provision for unearned premiums* | 416 | 120 | 21 | 6 | 10 | 574 |
| Provision for unpaid claims | | | | | | |
| Undiscounted | 322 | 225 | 60 | 12 | 4 | 624 |
| Discounted | 96 | 434 | 354 | 281 | 685 | 1,849 |
| **Total insurance liabilities**** | **835** | **779** | **435** | **299** | **699** | **3,048** |

* Includes EUR 43 million in discounted liability.

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

## Note 66. Risk exposure of Non-life Insurance investments

| Allocation of investment portfolio | 31 December 2018 Fair value, EUR million* | % | 31 December 2017 Fair value, EUR million* | % |
|---|---|---|---|---|
| Money market total | 173 | 5 | 332 | 9 |
| Money market instruments and deposits** | 167 | 4 | 327 | 8 |
| Derivative instruments*** | 5 | 0 | 5 | 0 |
| Total bonds and bond funds | 2,857 | 77 | 2,812 | 72 |
| Governments | 498 | 13 | 511 | 13 |
| Inflation-indexed bonds | | | 14 | 0 |
| Investment Grade | 1,895 | 51 | 1,835 | 47 |
| Emerging markets and High Yield | 243 | 7 | 251 | 6 |
| Structured investments**** | 222 | 6 | 201 | 5 |
| Total equities | 360 | 10 | 408 | 10 |
| Finland | 60 | 2 | 70 | 2 |
| Developed markets | 147 | 4 | 185 | 5 |
| Emerging markets | 76 | 2 | 76 | 2 |
| Fixed assets and unlisted equities | 1 | 0 | 3 | 0 |
| Private equity investments | 76 | 2 | 75 | 2 |
| Total alternative investments | 28 | 1 | 26 | 1 |
| Hedge funds | 28 | 1 | 26 | 1 |
| Total property investments | 312 | 8 | 324 | 8 |
| Direct property investments | 157 | 4 | 187 | 5 |
| Indirect property investments | 155 | 4 | 137 | 4 |
| Total | 3,730 | 100 | 3,903 | 100 |

* Includes accrued interest income.

** Includes settlement receivables and liabilities and market value of derivatives.

*** Effect of derivatives on the allocation of the asset class (delta-weighted equivalents).

**** Include covered bonds, loan funds and illiquid bonds.

## Liite 67. 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 60. 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. 2018 | Risk parameter | Change | 31 Dec. 2018 | 31 Dec. 2017 |
| Bonds and bond funds* | 2,808 | Interest rate | 1 pp | 115 | 127 |
| Equities** | 388 | Market value | 10% | 39 | 34 |
| Capital investments and unquoted equities | 77 | Market value | 10% | 8 | 8 |
| Commodities | | Market value | 10% | | |
| Real property | 312 | Market value | 10% | 31 | 32 |
| Currency | 147 | Currency value | 10% | 19 | 20 |
| Credit risk premium*** | 3,030 | Credit spread | 0.1 pp | 34 | 31 |
| Derivatives | 5 | Volatility | 10 pps | 4 | 1 |

* Include money-market investments, convertible bonds and interest-rate derivatives.

** Include hedge funds and equity derivatives.

*** Includes bonds and convertible bonds and money-market investments, excluding government bonds issued by developed countries.

## Note 68. 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 28).

| Fair value by duration or repricing date, EUR million* | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| 0–1 year | 421 | 442 |
| >1–3 years | 673 | 643 |
| >3–5 years | 781 | 776 |
| >5–7 years | 432 | 415 |
| >7–10 years | 353 | 385 |
| >10 years | 161 | 267 |
| Total | 2,821 | 2,929 |
| Modified duration | 4.3 | 5.1 |
| Effective interest rate, % | 1.7 | 1.8 |

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

Fixed-income portfolio by maturity and credit rating on 31 December 2018*, EUR million

| Year(s) | 0–1 | 1–3 | 3–5 | 5–7 | 7–10 | 10– | Total | Pro-portion, % |
|---|---|---|---|---|---|---|---|---|
| Aaa | 3 | 62 | 378 | 45 | 110 | 85 | 682 | 24.2 |
| Aa1-Aa3 | 200 | 94 | 55 | 49 | 47 | 8 | 453 | 16.0 |
| A1-A3 | 77 | 181 | 144 | 109 | 55 | 48 | 613 | 21.7 |
| Baa1-Baa3 | 112 | 296 | 177 | 186 | 126 | 18 | 915 | 32.4 |
| Ba1 or lower | 31 | 34 | 25 | 14 | 9 | 2 | 114 | 4.0 |
| Internally rated | 0 | 6 | 3 | 29 | 6 | | 45 | 1.6 |
| Total | 421 | 673 | 781 | 432 | 353 | 161 | 2,821 | 100.0 |

Fixed-income portfolio by maturity and credit rating on 31 December 2017*, EUR million

| Year(s) | 0–1 | 1–3 | 3–5 | 5–7 | 7–10 | 10– | Total | Pro-portion, % |
|---|---|---|---|---|---|---|---|---|
| Aaa | 6 | 82 | 149 | 143 | 172 | 164 | 715 | 24.4 |
| Aa1-Aa3 | 326 | 49 | 162 | 33 | 50 | 34 | 654 | 22.3 |
| A1-A3 | 33 | 199 | 168 | 70 | 54 | 41 | 564 | 19.2 |
| Baa1-Baa3 | 48 | 248 | 274 | 153 | 107 | 27 | 856 | 29.2 |
| Ba1 or lower | 27 | 65 | 25 | 16 | 2 | 0 | 135 | 4.6 |
| Internally rated | 1 | 1 | 0 | 0 | 1 | 0 | 3 | 0.1 |
| Total | 442 | 643 | 776 | 415 | 385 | 267 | 2,929 | 100.0 |

* Excludes credit derivatives.

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

The average credit rating of the Non-life Insurance fixed-income portfolio is Moody's A2.

The term to maturity of the Non-life Insurance fixed-income portfolio averages 4.3 years (calculated on the basis of the call date and the maturity date).

## Note 69. Currency risk associated with Non-life Insurance investments

| Foreign currency exposure, EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| USD | 86 | 72 |
| SEK | 4 | 0 |
| JPY | 0 | 0 |
| GBP | 1 | 9 |
| Other | 57 | 56 |
| Total* | 147 | 138 |

* The currency exposure was 3.9% (3.5) of the investment portfolio. It is calculated as the sum total of individual currencies' intrinsic values.

## Note 70. Counterparty risk associated with Non-life Insurance investments

| | 31 December 2018 | | 31 December 2017 | |
|---|---|---|---|---|
| Credit rating, consistent with Moody's, EUR million | Invest-ment* | Insurance** | Invest-ment* | Insurance** |
| Aaa | 682 | | 715 | |
| Aa1–Aa3 | 453 | 24 | 654 | 25 |
| A1–A3 | 613 | 38 | 564 | 29 |
| Baa1–Baa3 | 915 | 0 | 856 | 0 |
| Ba1 or lower | 114 | | 135 | |
| Internally rated | 45 | 43 | 3 | 42 |
| **Total** | **2,821** | **106** | **2,929** | **96** |

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

** Includes the reinsurers' share of insurance liabilities, and receivables from reinsurers.

# *Capital adequacy*

Notes 71–77 disclose a summary of information on the capital adequacy of the consolidation group, as specified in the Capital Requirements Regulation of the European Parliament and of the Council (Pillar III disclosures). Given that this information is based on the consolidated capital adequacy, it is not directly comparable with other information disclosed on OP Corporate Bank Group. Complete Pillar III information can be found in the OP Amalgamation Capital Adequacy Report.

The consolidation group that forms the basis of OP Corporate Bank plc's capital adequacy comprises OP Corporate Bank Group companies excluding insurance companies and their subsidiaries.

The Group has applied the Internal Ratings Based Approach (IRBA) to retail, credit institution and corporate exposures and equity investments. The Standardised Approach (SA) is used for other exposure categories.

## Note 71. Capital base

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| OP Corporate Bank Group's equity capital | 4,147 | 4,149 |
| Elimination of insurance companies' effect in equity capital | -6 | -125 |
| Fair value reserve, cash flow hedging | 0 | -2 |
| Common Equity Tier 1 (CET1) before deductions | 4,141 | 4,022 |
| Intangible assets | -63 | -76 |
| Excess funding of pension liability and valuation adjustments | -29 | -16 |
| Dividend distribution proposed by Board of Directors | -173 | -212 |
| Shortfall of ECL minus expected losses | -105 | -134 |
| Common Equity Tier 1 (CET1) | 3,772 | 3,584 |
| Subordinated loans to which transitional provisions applies | 90 | 137 |
| Additional Tier 1 capital (AT1) | 90 | 137 |
| Tier 1 capital (T1) | 3,862 | 3,720 |
| Debenture loans | 944 | 1,073 |
| Excess of ECL minus expected losses | 47 | |
| Tier 2 capital (T2) | 990 | 1,073 |
| Total capital base | 4,852 | 4,793 |

The CET1 capital totalled EUR 3.8 billion (3.6) on 31 December 2018. The increase was due to earnings, non-life insurance companies' dividends and the transfer of the statutory earnings-related pension liability.

A prudent valuation adjustment of EUR 6 (5) million has been deducted from CET1 capital.

OP Corporate Bank Group has applied transitional provisions regarding old capital instruments to subordinated loans. A subordinated loan of EUR 50 million was repaid in September 2018. In the calculation of capital adequacy and the leverage ratio, the Group has not applied the IFRS 9 transitional provision.

## Note 72. Minimum capital requirement

OP Corporate Bank has applied the Internal Ratings Based Approach (IRBA) to retail, credit institution and corporate exposures and equity investments. The Standardised Approach (SA) is used for other exposure categories. Investments in OP Corporate Bank Group's insurance companies have been deducted from the capital base. OP Corporate Bank has used the Foundation Internal Ratings Based Approach (FIRBA) to measure capital requirement for corporate and credit institution exposures. This approach uses internal credit ratings to determine a customer's probability of default (PD), whereas loss given default (LDG) and credit conversion factor (CF) are standard estimates supplied by the authorities. OP Corporate Bank has used the Internal Ratings Based Approach (IRBA) to measure capital requirement for retail exposures. This approach uses internal credit ratings to determine a customer's PD, and LGD and CF are estimated internally.

It is possible to use various methods to measure capital adequacy requirement for equity investments. In the PD/LGD method, investments' risk-weighted exposure is calculated using PD, based on internal credit rating, and the official LGD. According to the Simple Risk Weight Approach, investments' risk-weighted exposure amount derives from multiplying each investment by the risk-weight determined by the type of investment.

OP Corporate Bank has used the Standardised Approach to measure capital requirement for operational risks and market risks.

| | 31 December 2018 | | 31 December 2017 | |
|---|---|---|---|---|
| EUR million | Capital require-ment* | Risk-weighted assets | Capital require-ment* | Risk-weighted assets |
| Credit and counterparty risk | 1,777 | 22,216 | 1,576 | 19,694 |
| Standardised Approach (SA) | 197 | 2,458 | 165 | 2,069 |
| Exposures to central government and central banks | 5 | 62 | | |
| Exposures to regional government or local authorities | | | 1 | 18 |
| Exposures to public sector entities | 2 | 23 | | |
| Exposures to multilateral development banks | 0 | 0 | | |
| Exposures to institutions | 1 | 6 | 2 | 29 |
| Exposures to corporates | 184 | 2,299 | 150 | 1,879 |
| Retail exposures | 0 | 6 | 1 | 14 |
| Exposures secured by mortgages on immovable property | 2 | 29 | 7 | 83 |
| Exposures in default | 1 | 11 | 0 | 0 |
| Other items | 2 | 22 | 4 | 44 |
| Internal Ratings Based Approach (IRB) | 1,581 | 19,758 | 1,410 | 17,626 |
| Exposures to institutions | 87 | 1,083 | 84 | 1,053 |
| Exposures to corporates | 1,056 | 13,198 | 931 | 11,643 |
| Retail exposures | 113 | 1,416 | 90 | 1,130 |
| Exposures secured by mortgages on immovable property | 4 | 50 | 2 | 21 |
| Other retail exposures | 109 | 1,365 | 89 | 1,109 |
| Equity investments | 298 | 3,725 | 300 | 3,753 |
| PD/LGD method | 295 | 3,688 | 295 | 3,688 |
| Basic Indicator Approach | 3 | 37 | 5 | 64 |
| Private equity investments | 2 | 23 | 4 | 44 |
| Other | 1 | 14 | 2 | 21 |
| Securitisation positions | 4 | 46 | 3 | 42 |
| Other non-credit obligations | 23 | 291 | 0 | 5 |
| Clearing/settlement risk | | | 0 | 1 |

| | | | | |
|---|---|---|---|---|
| Market risk (Standardised Approach) | 106 | 1,319 | 94 | 1,178 |
| Notes and bonds | 105 | 1,308 | 93 | 1,159 |
| Equities | 0 | 0 | 0 | 0 |
| Commodities | 1 | 11 | 2 | 19 |
| Operational risk (Standardised Approach) | 103 | 1,285 | 101 | 1,266 |
| Risk associated with exposure value adjustment | 14 | 175 | 16 | 205 |
| Total risk | 2,000 | 24,996 | 1,787 | 22,343 |

* Capital requirement = Risk-weighted assets * 0.08

On 31 December 2018, the risk exposure amount (REA) totalled EUR 25.0 billion (22.3), or 11.9% higher than on 31 December 2017. The average credit risk weights rose slightly.

The risk weight of equity investments includes EUR 3.7 billion in insurance holdings within OP Financial Group.

EUR 62 million (44 in other exposures a year ago) of government exposures represent deferred tax assets that are treated with a risk weight of 250% instead of a deduction from Common Equity Tier 1 capital.

Capital requirement for counterparty risk amounts to EUR 37 million (39).

## Note 73. Capital ratios

| | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Ratios, % | | |
| CET1 ratio | 15.1 | 16.0 |
| Tier 1 ratio | 15.5 | 16.7 |
| Capital adequacy ratio | 19.4 | 21.5 |
| | | |
| Rations without the effects of transitional provisions, % | | |
| CET1 ratio | 15.1 | 16.0 |
| Tier 1 ratio | 15.1 | 16.0 |
| Capital adequacy ratio | 19.1 | 20.8 |
| | | |
| Capital requirement, EUR million | | |
| Capital base | 4,852 | 4,793 |
| Capital requirement | 2,642 | 2,358 |
| Buffer for capital requirements | 2,210 | 2,435 |

The capital requirement comprises the minimum requirement of 8%, the capital conservation buffer of 2.5% and the institution-specific capital conservation buffer for foreign exposures.

## Note 74. Corporate exposure by sector

| 31 December 2018, EUR million | Exposure amount | RWA | Past due exposures | Impaired exposures | Impairment loss | Exposure as percentage |
|---|---|---|---|---|---|---|
| Trade | 4,032 | 1,909 | 2 | 2,169 | 8 | 11.6 |
| Energy | 3,933 | 1,223 | 38 | 3,113 | 34 | 11.3 |
| Services | 3,532 | 2,168 | 4 | 2,401 | 6 | 10.2 |
| Financial and insurance activities | 2,638 | 1,151 | 0 | 1,766 | 3 | 7.6 |
| Other manufacturing | 2,583 | 1,234 | 22 | 1,234 | 8 | 7.4 |
| Operating of other real estate | 2,516 | 1,416 | 1 | 2,097 | 6 | 7.3 |
| Renting and operation of residential real estate | 2,215 | 633 | 11 | 1,584 | 5 | 6.4 |
| Manufacture of machinery and equipment (incl. maintenance) | 2,181 | 616 | 19 | 1,204 | 9 | 6.3 |
| Construction | 2,004 | 1,159 | 30 | 1,200 | 15 | 5.8 |
| Transportation and storage | 1,427 | 811 | 12 | 1,035 | 6 | 4.1 |
| Forest industry | 1,311 | 629 | 124 | 1,003 | 91 | 3.8 |
| Agriculture, forestry and fishing | 1,042 | 530 | 5 | 572 | 3 | 3.0 |
| Information and communication | 973 | 377 | 6 | 639 | 4 | 2.8 |
| Food industry | 921 | 465 | 6 | 672 | 7 | 2.7 |
| Metal industry | 912 | 636 | 41 | 587 | 17 | 2.6 |
| Buying and selling of own real estate | 818 | 375 | 0 | 630 | 0 | 2.4 |
| Other sectors | 599 | 325 | 3 | 81 | 8 | 1.7 |
| Manufacture of chemicals and chemical products | 393 | 170 | | 268 | 0 | 1.1 |
| Water supply and waste management | 337 | 151 | 0 | 242 | 0 | 1.0 |
| Mining and quarrying | 314 | 110 | 27 | 277 | 21 | 0.9 |
| **Total** | **34,681** | **16,089** | **353** | **22,774** | **252** | **100.0** |

| 31 December 2017, EUR million | Exposure amount | RWA | Past due exposures | Impaired exposures | Impairment loss | Exposure as percentage |
|---|---|---|---|---|---|---|
| Energy | 4,026 | 1,251 | 37 | 13 | 14 | 12.7 |
| Trade | 3,668 | 1,874 | 2 | 1 | 0 | 11.6 |
| Services | 3,012 | 1,690 | 3 | 0 | 0 | 9.5 |
| Financial and insurance activities | 2,432 | 936 | 1 | 0 | 0 | 7.7 |
| Other manufacturing | 2,223 | 1,024 | 27 | 20 | 11 | 7.0 |
| Operating of other real estate | 2,088 | 1,101 | 1 | 7 | 2 | 6.6 |
| Renting and operation of residential real estate | 2,076 | 587 | 0 | | | 6.6 |
| Manufacture of machinery and equipment (incl. maintenance) | 2,018 | 618 | 59 | 23 | 25 | 6.4 |
| Construction | 1,817 | 1,008 | 30 | 8 | 6 | 5.7 |
| Transportation and storage | 1,518 | 831 | 11 | 5 | 2 | 4.8 |
| Forest industry | 1,192 | 659 | 114 | 105 | 105 | 3.8 |
| Agriculture, forestry and fishing | 1,002 | 498 | 7 | 1 | 1 | 3.2 |
| Food industry | 987 | 462 | 6 | 5 | 5 | 3.1 |
| Metal industry | 959 | 614 | 41 | 26 | 21 | 3.0 |
| Information and communication | 886 | 295 | 8 | 2 | 3 | 2.8 |
| Buying and selling of own real estate | 828 | 393 | 0 | | | 2.6 |
| products | 331 | 109 | | | | 1.0 |
| Water supply and waste management | 325 | 157 | 0 | | | 1.0 |
| Mining and quarrying | 310 | 104 | 27 | 24 | 23 | 1.0 |
| Other sectors | -53 | -234 | 0 | | 2 | -0.2 |
| Total | 31,646 | 13,978 | 376 | 240 | 221 | 100.0 |

Corporate exposures in this Note also include SMEs with retail exposures. This standard industrial classification is based on the latest TOL 2008 classification issued by Statistics Finland.

Past due exposures in the Standardised Approach are exposures whose interest or capital are over 90 days overdue. In the FIRB Approach, past due exposures are exposures to customers at default belonging to rating categories 11–12 or F.

## Note 75. Corporate exposure by rating category (FIRB)

31 December 2018

| Rating category | Exposure value (EAD), MEUR | Average CF, % | Average PD, % | Average LGD, % | Average maturity, yrs | RWA | Average risk weight, % | Expected losses, EUR million |
|---|---|---|---|---|---|---|---|---|
| 1.0–2.0 | 1,216 | 84.9 | 0.0 | 44.6 | 7.8 | 182 | 15.0 | 0 |
| 2.5–5.5 | 14,408 | 72.6 | 0.2 | 44.0 | 4.2 | 5,632 | 39.1 | 11 |
| 6.0–7.0 | 4,360 | 72.3 | 1.3 | 43.5 | 4.3 | 4,156 | 95.3 | 23 |
| 7.5–8.5 | 1,980 | 73.5 | 4.3 | 43.5 | 6.1 | 2,655 | 134.1 | 37 |
| 9.0–10.0 | 264 | 68.2 | 16.0 | 44.4 | 4.9 | 573 | 216.7 | 19 |
| 11.0–12.0 | 301 | 61.3 | 100.0 | 44.7 | 9.3 | | | 135 |
| Total | 22,529 | 73.3 | 0.9 | 43.9 | 4.7 | 13,198 | 59.4 | 225 |

31 December 2017

| Rating category | Exposure value (EAD), MEUR | Average CF, % | Average PD, % | Average LGD, % | Average maturity, yrs | RWA | Average risk weight, % | Expected losses, EUR million |
|---|---|---|---|---|---|---|---|---|
| 1.0–2.0 | 970 | 93.3 | 0.0 | 44.7 | 8.3 | 144 | 14.9 | 0 |
| 2.5–5.5 | 14,036 | 72.7 | 0.2 | 44.4 | 3.6 | 5,250 | 37.4 | 11 |
| 6.0–7.0 | 3,572 | 68.8 | 1.2 | 43.5 | 3.0 | 3,261 | 91.3 | 19 |
| 7.5–8.5 | 1,765 | 68.9 | 4.0 | 44.0 | 3.3 | 2,333 | 132.2 | 31 |
| 9.0–10.0 | 292 | 62.2 | 16.6 | 44.9 | 18.3 | 655 | 224.3 | 22 |
| 11.0–12.0 | 338 | 58.8 | 100.0 | 45.9 | 4.4 | | | 155 |
| Total | 20,972 | 72.0 | 0.9 | 44.3 | 3.9 | 11,643 | 56.4 | 238 |

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

In setting PD values given by rating models assessing solvency of corporate customers' retail exposures, OP Financial Group has used its own payment default data and external data. As external data, the Group has used bankruptcy statistics since 1987. The Group has taken account of uncertainty associated with the data using a statistical margin of conservatism. The current corporate customer PDs in use were adopted in the first quarter of 2015. In the risk weight calculation, the Group applies the PD minimum of 0.03% to corporate exposures.

## Note 76. Credit institution exposures (FIRB) by rating category

31 December 2018

| Rating category | Exposure value (EAD), MEUR | Average CF, % | Average PD, % | Average LGD, % | Average maturity, yrs | RWA | Average risk weight, % | Expected losses, EUR million |
|---|---|---|---|---|---|---|---|---|
| 1.0–2.0 | 0 | | 0.0 | 43.0 | 2.2 | 0 | 14.9 | 0 |
| 2.5–5.5 | 7,487 | 66.7 | 0.1 | 15.5 | 4.9 | 889 | 11.9 | 1 |
| 6.0–7.0 | 35 | 30.4 | 1.6 | 45.0 | 5.0 | 41 | 117.2 | 0 |
| 7.5–8.5 | 88 | 36.8 | 5.1 | 45.0 | 2.9 | 145 | 165.3 | 2 |
| 9.0–10.0 | 3 | 37.0 | 11.6 | 45.0 | 0.4 | 6 | 244.8 | 0 |
| Total | 7,613 | 64.0 | 0.1 | 15.9 | 4.9 | 1,083 | 14.2 | 3 |

31 December 2017

| Rating category | Exposure value (EAD), MEUR | Average CF, % | Average PD, % | Average LGD, % | Average maturity, yrs | RWA | Average risk weight, % | Expected losses, EUR million |
|---|---|---|---|---|---|---|---|---|
| 1.0–2.0 | 2,507 | 76.3 | 0.0 | 14.9 | 4.0 | 131 | 5.2 | 0 |
| 2.5–5.5 | 4,588 | 60.8 | 0.1 | 19.6 | 6.2 | 656 | 14.3 | 1 |
| 6.0–7.0 | 182 | 24.7 | 1.9 | 45.0 | 0.9 | 236 | 129.2 | 2 |
| 7.5–8.5 | 16 | 20.9 | 5.6 | 45.0 | 0.4 | 26 | 165.6 | 0 |
| 9.0–10.0 | 2 | 56.6 | 24.0 | 45.0 | 0.1 | 4 | 260.1 | 0 |
| Total | 7,295 | 57.1 | 0.1 | 18.7 | 5.3 | 1,053 | 14.4 | 3 |

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

For setting PD values given by the credit institution exposure rating model, OP Financial Group has used rating scores for credit institution exposure and external credit ratings and the corresponding payment default data.  PD values have been adjusted with a margin of conservatism in order to take account of uncertainties associated with the data. In the risk weight calculation, the Group applies the PD minimum of 0.03% to credit institution exposures.

## Note 77. Derivative contracts and counterparty risk

Credit risk arising from derivative contracts is defined as a credit equivalent based on the daily market valuation of derivative contracts.

The size of customer limits are defined on the basis of assets included in derivative contracts and the estimated validity of the contracts.

Counterparty risk associated with derivative contracts arises from receivables which OP Financial Group may have from its counterparties in case they default. OP Financial Group measures counterparty risk using a fair value model, whereby the value of liability comprises the contract market value and the expected potential future credit risk. The exposure amount based on the fair value model is used in the calculation of regulatory capital requirement and of economic capital.

OP Financial Group manages counterparty risks associated with derivative contracts through master agreements enabling netting related to bankruptcies, through collateral and optional early termination. With respect to master agreements, there exist written statements issued by an external legal expert of the legal validity of netting in each derivative counterparty's national legislation. OP Financial Group uses netting for counterparty exposure arising from derivative contracts in both capital adequacy measurement and the monitoring of credit risk limits. Derivative contracts are also increasingly novated to a central counterparty. On 31 December 2018, the gross exposure value of derivative contracts for central counterparty clearing amounted to EUR 0.9 billion and the net credit risk to EUR 298 million. These are included in the figures shown in the table.

The Group confirms corporate counterparty exposure limits once a year and in this connection also checks the status of collateral applying to the limits for derivative transactions.

Credit risk arising from bank counterparties is 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 cash or securities in security for the receivable. Matching between counterparties are performed on a daily basis. In respect of guarantees and collateral securities, the Group applies the same practice as in credit risks.

If S&P had downgraded OP Financial Group's credit rating from AA– to A on 31 December 2018, an additional collateral worth EUR 59 million would have been required. If the credit rating had been downgraded in 2017, additional collateral of EUR 7 million would have been required.

Capital adequacy requirement due to counterparty risk may arise from items related to financing operations and the trading book. Capital adequacy requirement due to counterparty risk is calculated, for example, on OTC derivatives and sale and repurchase agreements.

| Counterparty risk contract types, 31 Dec. 2018, EUR million | Gross positive fair value | Benefits from netting | Present netted credit risk | Collateral held | Net credit risk |
|---|---|---|---|---|---|
| Derivative contracts | 4,207 | 1,337 | 2,870 | 490 | 2,380 |
| Total | 4,207 | 1,337 | 2,870 | 490 | 2,380 |

| Counterparty risk contract types, 31 Dec. 2017, EUR million | Gross exposure | Benefits from netting | Present netted credit risk | Collateral held | Net credit risk |
|---|---|---|---|---|---|
| Derivative contracts | 7,077 | 4,327 | 2,750 | 412 | 2,338 |
| Total | 7,077 | 4,327 | 2,750 | 412 | 2,338 |

The gross positive fair value of derivatives and netting benefits are not comparable with those reported a year ago due to change in reporting.

# Parent Company Financial Statements, FAS

## Financial Statements

### Income statement

| EUR million | 2018 | 2017 |
|---|---|---|
| Interest income | 1,152 | 1,205 |
| Net lease income | 24 | 23 |
| Interest expenses | -905 | -962 |
| **Net interest income** | **272** | **266** |
| Income from equity investments | 203 | 208 |
| From subsidiaries | 195 | 200 |
| From other companies | 8 | 8 |
| Commissions and fees | 128 | 132 |
| Commission expenses | -111 | -98 |
| Net income from securities and foreign exchange trading | 167 | 172 |
| Net income from securities trading | 133 | 135 |
| Net income from foreign exchange trading | 33 | 37 |
| Net income from financial assets recognised at fair value through fair value reserve | 21 | |
| Net income from available-for-sale financial assets | | 20 |
| Net income from hedge accounting | 0 | -1 |
| Net income from investment property | 0 | 2 |
| Other operating income | 26 | 29 |
| Administrative expenses | -158 | -149 |
| Personnel costs | -56 | -55 |
| Wages and salaries | -51 | -45 |
| Social expenses | -5 | -9 |
| Pension costs | -3 | -7 |
| Other social expenses | -2 | -2 |
| Other administrative expenses | -102 | -94 |
| Depreciation/amortisation and write-downs on tangible and intangible assets | -18 | -13 |
| Other operating expenses | -42 | -27 |
| Expected credit losses on financial assets recognised at amortised cost | -23 | |
| Impairment loss on other financial assets | | -12 |
| **Operating profit** | **466** | **529** |
| Appropriations | -165 | -87 |
| Income taxes | -23 | -48 |
| Taxes for the financial year | -22 | -48 |
| Taxes for previous financial years | 0 | 0 |
| Change in deferred taxes | -2 | -1 |
| **Profit for the financial year** | **278** | **394** |

## Balance sheet

### Assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Cash and cash equivalents | 12,217 | 12,816 |
| Notes and bonds eligible for refinancing with central banks | 11,429 | 11,077 |
| Other | 11,429 | 11,077 |
| Receivables from credit institutions | 9,722 | 9,293 |
| Repayable on demand | 1,112 | 749 |
| Other | 8,610 | 8,544 |
| Receivables from the public and public sector entities | 20,851 | 18,742 |
| Other | 20,851 | 18,742 |
| Lease assets | 1,478 | 1,359 |
| Notes and bonds | 1,368 | 1,489 |
| From public sector entities | 48 | 62 |
| From other | 1,320 | 1,427 |
| Shares and participations | 12 | 11 |
| Shares and participations in subsidiaries | 1,025 | 1,025 |
| Derivative contracts | 3,463 | 3,425 |
| Intangible assets | 45 | 58 |
| Tangible assets | 4 | 5 |
| Investment property and shares and participations in investment property | 0 | 0 |
| Other property and shares and participations in property companies | 2 | 2 |
| Other tangible assets | 2 | 3 |
| Other assets | 771 | 856 |
| Deferred income and advances paid | 343 | 334 |
| | | |
| Total assets | 62,743 | 60,492 |

Liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Liabilities | | |
| Liabilities to credit institutions | 15,575 | 14,035 |
| Central banks | 4,006 | 4,023 |
| Credit institutions | 11,568 | 10,012 |
| Repayable on demand | 1,029 | 1,816 |
| Other | 10,540 | 8,196 |
| Liabilities to the public and public sector entities | 16,531 | 19,050 |
| Deposits | 11,777 | 11,531 |
| Repayable on demand | 11,407 | 10,775 |
| Other | 370 | 755 |
| Other liabilities | 4,754 | 7,519 |
| Repayable on demand | 15 | 11 |
| Other | 4,740 | 7,508 |
| Debt securities issued to the public | 20,420 | 16,869 |
| Bonds | 10,154 | 9,752 |
| Other | 10,266 | 7,117 |
| Derivative contracts and other liabilities held for trading | 3,040 | 3,216 |
| Other liabilities | 1,359 | 1,522 |
| Other liabilities | 1,359 | 1,522 |
| Deferred expenses and advances received | 362 | 383 |
| Subordinated liabilities | 1,347 | 1,412 |
| Subordinated loans | 88 | 138 |
| Other | 1,259 | 1,274 |
| Deferred tax liabilities | | 12 |
| Total liabilities | 58,635 | 56,499 |
| Appropriations | 1,460 | 1,295 |
| Depreciation difference | 244 | 204 |
| Taxation-based provisions | 1,215 | 1,091 |
| Shareholders' equity | | |
| Share capital or cooperative capital | 428 | 428 |
| Share capital | 428 | 428 |
| Share premium account | 524 | 524 |
| Other restricted reserves | 157 | 242 |
| Reserve fund | 164 | 164 |
| Fair value reserve | -7 | 79 |
| Cash flow hedging | 0 | 2 |
| Fair value measurement | -7 | 77 |
| Non-restricted reserves | 331 | 331 |
| Reserve for invested non-restricted equity | 308 | 308 |
| Other reserves | 23 | 23 |
| Retained earnings | 931 | 778 |
| Profit for the financial year | 278 | 394 |
| Total shareholders' equity | 2,649 | 2,698 |
| Total liabilities and shareholders' equity | 62,743 | 60,492 |

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Off-balance-sheet commitments | 8,359 | 8,389 |
| Commitments given to a third party on behalf of customers | 2,593 | 2,374 |
| Guarantees and pledges | 2,328 | 2,015 |
| Other | 265 | 359 |
| Irrevocable commitments given on behalf of customers | 5,766 | 6,015 |
| Securities repurchase commitments | 5 | 5 |
| Other | 5,761 | 6,010 |

## Cash flow statement

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Cash flow from operating activities | | |
| Profit for the financial year | 278 | 394 |
| Adjustments to profit for the financial year | -21 | -33 |
| Increase (-) or decrease (+) in operating assets | -2,589 | 228 |
| Notes and bonds eligible for refinancing with central banks | -353 | 273 |
| Receivables from financial institutions | -67 | 586 |
| Receivables from the public and public sector entities | -2,280 | -1,289 |
| Lease assets | 13 | -124 |
| Notes and bonds | 77 | 22 |
| Shares and participations | -2 | -1 |
| Derivative contracts | -86 | -29 |
| Other assets | 107 | 789 |
| Increase (+) or decrease (-) in operating liabilities | -1,235 | 5,567 |
| Liabilities to credit institutions and central banks | 1,470 | 3,763 |
| Liabilities to the public and public sector entities | -2,518 | 2,771 |
| Derivative contracts and other liabilities held for trading | -11 | -36 |
| Other liabilities | -176 | -931 |
| Income tax paid | -57 | -23 |
| Dividends received | 203 | 208 |
| A. Net cash from operating activities | -3,421 | 6,341 |
| Cash flow from investing activities | | |
| Disposal of subsidiaries and associates | 0 | |
| Purchase of tangible and intangible assets | -5 | -14 |
| Proceeds from sale of tangible and intangible assets | 1 | 9 |
| B. Net cash used in investing activities | -3 | -5 |
| Cash flow from financing activities | | |
| Increases in subordinated liabilities | | 5 |
| Decreases in subordinated liabilities | -50 | -49 |
| Increases in debt securities issued to the public | 27,005 | 21,047 |
| Decreases in debt securities issued to the public | -23,480 | -23,466 |
| Dividends paid and interest on cooperative capital | -211 | -201 |
| C. Net cash used in financing activities | 3,263 | -2,665 |
| D. Effect of foreign exchange rate changes on cash and cash equivalents | -75 | 265 |
| Cash and cash equivalents transferred due to combination | -236 | 3,937 |
| Cash and cash equivalents at year-start | 13,565 | 9,629 |
| Cash and cash equivalents at year-end | 13,330 | 13,565 |
| Change in cash and cash equivalents | -236 | 3,937 |
| Interest received | 1,224 | 1,334 |
| Interest paid | 1,010 | 1,129 |

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Adjustments to profit for the financial year | | |
| Non-cash items | | |
| Change in fair value for trading | 2 | 1 |
| Unrealised net gains on foreign exchange operations | 75 | -265 |
| Change in fair value of investment assets | -23 | 0 |
| Depreciation/amortisation, change in depreciation/amortisation difference and voluntary provisions | 182 | 99 |
| Impairment losses on receivables | 24 | 12 |
| Other | -280 | 119 |

| | | |
|---|---|---|
| **Items presented outside cash flow from operating activities** | | |
| Capital gains, share of cash flow from investing activities | 0 | |
| **Total adjustments** | **-21** | **-33** |
| | | |
| **Cash and cash equivalents** | | |
| Liquid assets | 12,217 | 12,816 |
| Receivables from credit institutions payable on demand | 1,112 | 749 |
| **Total** | **13,330** | **13,565** |

# Parent Company's (OP Corporate Bank plc) Accounting Policies

## 1. 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 156 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, OP Mortgage Bank 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 Gebhardinauko 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.

## 2. 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 (available-for-sale), 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.

## 3. 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.

## 4. Financial instruments

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

### 4.1 Fair value determination

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

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

If the market has a commonly used valuation technique applied to a financial instrument to which the fair value is not directly available, 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 plc's balance sheet.

## 4.2 Financial assets and liabilities

### 4.2.1 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 shall estimate the expected cash flows by considering all the contractual terms of the financial instrument excluding the expected credit losses (ECL). The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs, and all other premiums or discounts.

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

OP Corporate Bank plc 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 plc 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 plc 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).

#### 4.2.2 Initial recognition and measurement

At initial recognition, OP Corporate Bank plc 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.

### 4.3 Classification and subsequent measurement of financial assets

OP Corporate Bank plc has classified financial assets into the following categories since 1 January 2018:

- Fair value through profit or loss (FVTPL)
- Recognised at fair value through fair value reserve (FVOCI)
- Amortised cost.

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

2) Financial assets recognised at fair value through 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 give rise on specified dates that are solely payments of principal and interest on the principal amount outstanding. Changes in the fair value are recognised in the fair value reserve. Impairment gains or losses and foreign exchange gains or losses are recognised in profit or loss. When a financial asset is derecognised, the cumulative profit or loss in the fair value reserve is reclassified from equity to profit or loss in net investment income as a reclassification adjustment. Interest calculated using the effective interest method is recognised in interest 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 Executive Board 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 measure-ment category | New measure-ment 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 plc uses Bloomberg's SPPI Test solution to test the cash flow characteristics of notes and bonds. On the basis of its test result (pass/fail), the SPPI test is either passed or failed with no further reviews or OP Corporate Bank 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 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 plc 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.

### 4.3.2 Equity instruments

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

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

#### 4.3.3 Modification of contractual cash flows

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

If modifications to the loan terms are significant or the loan is renegotiated, OP 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.

### 4.4 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.

#### 4.4.1 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 its internal rating system based on payment behaviour. Default as definition for private customers is applied on a contract-by-contract basis whereas corporate customers are reviewed in terms of a group of connected clients. A customer is classified as a default customer when it is probable that the customer will not pay his loan obligations in full without OP Corporate Bank plc resorting to measures (e.g. realisation of collateral) or no later than when payment related to financial assets is more than 90 days past due.

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

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

*Significant increase in credit risk*

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

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

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

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

In the assessment of a significant increase in credit risk, OP 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.

### 4.4.2 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.

#### 4.4.2.1 PD/LGD method

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

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

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

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

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

*Determining the period of a contract*

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

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

*Forward-looking information*

The calculation model includes forward-looking information and macroeconomic scenarios. OP 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.

#### 4.4.2.2 Cash flow based ECL method based on customer-specific expert assessment

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

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

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

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

#### 4.4.3.1 Bloomberg tool

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

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

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

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

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

#### 4.4.3.2 Model based on credit rating information

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

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

#### 4.4.3.3 Classification of notes and bonds into impairment stages

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

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

### 4.4.4 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.

#### 4.4.5 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.

#### 4.4.6 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.

### 4.5 Cash and cash equivalents

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

### 4.6 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 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.

### 4.7 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. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

## 5. Accounting policies regarding financial instruments in 2017

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

### 5.1 Impairment of financial assets in 2017

At the end of each reporting period, OP Corporate Bank plc assesses whether there is objective evidence that a financial asset other than that carried at fair value through profit or loss is impaired. A financial asset is impaired and impairment losses are incurred if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset and that the loss event has an impact on the estimated future cash flows of the financial asset that can be reliably estimated.

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

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

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

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

### 5.2 Securities sale and repurchase agreements in 2017

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

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

### 5.3 Classification and recognition of financial instruments in 2017

Upon initial recognition, financial assets and liabilities are classified as follows: financial assets and liabilities at fair value through profit or loss, loans and receivables, held-to-maturity investments, available-for-sale financial assets and other financial liabilities. The classification depends on the purpose for which the financial assets and liabilities were acquired. The purchase and sale of financial assets and liabilities at fair value through profit or loss, held-to-maturity investments and available-for-sale financial assets are recognised in the balance sheet on the transaction date, or the date on which the company agrees to buy or sell the asset or liability in question.

Notes and bonds classified as loans and receivables are recognised as financial assets on the transaction date and loans granted on the date on which the customer draws down the loan.

Financial assets and liabilities are offset in the balance sheet if OP 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. OTC interest rate derivatives for central counterparty clearing are offset in the balance sheet, which are cleared in the daily clearing process with London Clearing House.

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

### 5.4 Financial assets and liabilities held for trading in 2017

Financial assets at fair value through profit or loss are subdivided into financial assets held for trading and financial assets at fair value through profit or loss at inception. Financial liabilities at fair value through profit or loss are financial liabilities held for trading.

All financial assets and liabilities that are expected to generate short-term profits arising from fluctuations in interest rates, prices and quotations or in which an embedded derivative contract cannot be separated from the host contract are classified as held for trading. Liabilities held for trading refer to the obligation to deliver securities which have been sold but which have not been owned at the time of selling (short selling).

Financial assets and liabilities held for trading include derivatives other than those used for hedging purposes.

Financial assets and liabilities held for trading are recognised at fair value in the balance sheet, and subsequent changes in the fair value are recognised under Net income from securities trading in the income statement.

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

Financial assets at fair value through profit or loss at inception include financial assets which are designated as at fair value through profit or loss upon their initial recognition. These financial assets are measured at fair value and any change in their fair value and any capital gains and losses, interest income and expenses as well as dividend income are recognised in the income statement.

Bonds, which OP Corporate Bank plc, in accordance with the Group's risk management principles, manages and assesses their performance at fair value in order to receive a true and real-time picture of investment operations, are defined as those recognised at fair value through profit or loss at inception. Reporting to the Group's management is based on fair values.

Since the business involves investment on a long-term basis, financial assets are presented separately from those held for trading.

Financial assets at fair value through profit or loss also include hybrid instruments in which the fair value of an embedded derivative cannot be determined separately. These financial assets are measured at fair value in the balance sheet, and any subsequent changes in the fair value are recognised under Net income from securities trading in the income statement.

### 5.6 Loans and receivables in 2017

Financial assets classified as loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.

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

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

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

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

Collectively assessed impairment is measured by customer segment on the basis of the expected loss and the measurement also takes account of the emergence period and the discounted present values of collateral.

If the contractual payment terms of a loan are modified, the reason for such modification and the severity class are documented using an internally defined scale. Loans may also be modified for reasons related to the management of customer relationships, not to the financial difficulties of the customer. Such modifications do not affect loan impairment recognition. In some cases, OP Corporate Bank plc may, due to the customer's financial difficulties, modify the loan terms and conditions, such as in terms of repayment holiday for a limited period or another loan modification, which are aimed at securing the customer's repayment capacity and limiting credit risk associated with liabilities. Such renegotiated loans are reported as doubtful receivables. Modifications in the contractual payment terms that are due to the customer's financial difficulties are forbearance measures and together with other criteria reduce the customer's credit rating and thereby increase collective impairment allowance. In addition, they will also have an effect on the loan being assessed on an individual basis for impairment. If the customer has adhered to the new payment terms and no impairment allowance has been recognised for the customer's exposure, it will be removed from doubtful debt classification after two years. Modifications in payment terms are subject to regular monitoring and reporting to the management as an indicator anticipating customers' solvency.

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

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

### 5.7 Held-to-maturity investments in 2017

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

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

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

Impairment loss on investments held to maturity is reviewed on the basis of the same principles.

### 5.8 Available-for-sale financial assets in 2017

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

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

If the fair value cannot be determined reliably, shares and holdings necessary for operations and other unquoted shares and holdings are measured at cost. Any changes in their fair value are recognised in the Fair value reserve under shareholders' equity, from where they, including any capital gain or loss, are transferred to Net income from available-for-sale financial assets in the income statement when the asset is derecognised or impaired. Interest income and dividends are recorded in the income statement.

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

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

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

Interest income and dividends related to available-for-sale financial assets are recognised in the income statement.

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

### 5.9 Participating interests, and shares and holdings in Group companies

Participating interests, and shares and holdings and other equity investments in Group companies are recognised at cost or, if the item's value on the balance sheet date is found to be lower than the acquisition cost due to impairment, at cost less impairment loss.

Impairment losses are recognised under Impairment losses on other financial assets in the income statement.

### 5.10 Cash and cash equivalents in 2017

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

### 5.11 Other assets in 2017

Other assets comprise receivables repayable on demand arising from payment transfers, receivables in various clearing accounts, marginal account receivables related to derivative contracts and all other receivables that cannot be presented under any other suitable balance sheet item, such as various accounts receivable and rental receivables.

### 5.12 Other financial liabilities in 2017

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

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

### 5.13 Other liabilities in 2017

Other liabilities consist mainly of payment transfer liabilities, accounts payable and liabilities related to securities trading.

### 5.14 Derivative contracts

Derivatives are divided into hedging and non-hedging contracts. Both hedging and non-hedging derivatives are recognised at fair value in 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.

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

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.

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

### 5.15 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, containing information on risk management principles, hedging strategy and the methods used to demonstrate hedge effectiveness. Hedge effectiveness is tested at the inception of the hedge and in subsequent periods by comparing respective changes in the fair value or cash flows of the hedging instrument and the hedged item. The hedge is considered 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%.

#### 5.15.1 Fair value hedges

Fair value hedging against interest rate risk involves long-term fixed-rate debt instruments (OP Corporate Bank plc's own issues), individual bond and loan portfolios, as well as individual loans. OP Corporate Bank plc uses forward exchange contracts and interest-rate and currency swaps as hedging instruments.

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

#### 5.15.2 Cash flow hedges

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

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

## 6. Lease assets

Leased out assets and lease assets' advance payments are recognised at non-depreciated cost and presented under Lease assets in 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.

## 7. 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 referred to Chapter 5, Section 8 of the Accounting Act are 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.

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.

## 8. Tangible assets

### 8.1 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.

### 8.2 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 5% 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 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.

### 8.3 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 asset's 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.

## 9. Employee benefits

### 9.1 Pension benefits

The statutory pension cover for OP Corporate Bank plc's employees has been managed through contributions to OP Bank Group Pension Fund 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.

The Representative Assembly of OP Bank Group Pension Fund, which manages statutory earnings-related pension for OP Corporate Bank plc, decided in 2018 to transfer the management of its pension liability to Ilmarinen Mutual Pension Insurance Company. The transfer was completed at the end of 2018. The refund of surplus solvency capital is presented in the 2018 income statement under personnel costs.

### 9.2 Long-term management remuneration

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

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

### 9.3 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.

## 10. 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.

## 11. 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 charges of the financial authorities are recognised under other operating expenses on an accrual basis.

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. The deposit guarantee contribution had no effect on OP Corporate Bank plc in 2018 in terms of expenses.

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'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.

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 institution which shares the fee among OP Financial Group's member banks.

## 12. 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.

## 13. Appropriations

The depreciation difference under appropriations in 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 e.g. 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.

## 14. 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.

## 15. Revenue recognition

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

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

## 16. Off-balance-sheet commitments

Off-balance-sheet commitments 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.

## 17. Adoption of IFRS 9 on 1 January 2018

On 1 January 2018, OP Corporate Bank plc adopted sections of IFRS 9 Financial Instruments included in the Financial Supervisory Authority's regulations and instructions (2/2016) as well as other amendments due to entry into force of IFRS 9 on 1 January 2018. For OP Corporate Bank plc, the most significant change was that impairment losses are recognised on a more front-loaded basis, based on expected credit losses (ECL). IFRS 9 also entails changes to accounting policies, adjustments for receivables recognised earlier in the balance sheet and changes to classification of financial instruments. Adjustments made to carrying amounts were recognised in retained earnings in the opening balance sheet on the adoption date.

Table listing changes in impairment loss on receivables 1 January 2018

Impairment loss on receivables

| Balance sheet items, € million | Impairment loss on receivables (IAS 39) 31 Dec. 2017 | Remeasurement | Expected credit losses (IFRS 9) 1 Jan. 2018 |
|---|---|---|---|
| Receivables from the public and public sector entities | 210 | | 246 |
| Notes and bonds | | | 2 |
| **Off-balance-sheet items** | | | |
| Loan commitments | | | 3 |
| Guarantees | | | 1 |
| **Total** | | | **252** |

OP Corporate Bank plc continued to apply hedge accounting under IAS 39 after adoption of IFRS 9. Data for 2017 was not restated in the financial statements for 2018. Changes in the notes to the financial statements arising from the application of IFRS 9 are only presented for the financial year 2018.

The adoption of IFRS 9 reduced OP Corporate Bank plc's equity of 1 January 2018 by EUR 34 million. The allowance for expected credit losses under equity capital on 1 January 2018 totalled EUR 252 million. Impairment loss on receivables assessed individually and collectively on 31 December 2017, amounting to EUR 210 million, was reversed to retained earnings.

In addition, the amount of shareholders' equity on 1 January 2018 was affected by the difference between the fair value and carrying amount arising from the remeasurement of financial assets and by change in deferred tax.

| Changes in shareholders' equity, EUR million | Share capital | Fair value reserve | Other reserves | Retained earnings | Total |
|---|---|---|---|---|---|
| Shareholders' equity 31 Dec. 2017 | 428 | 79 | 1,019 | 1,172 | 2,698 |
| Reversal of previous IAS 39 impairment provision | | | | 210 | 210 |
| New ECL under IFRS 9 | | 2 | | -252 | -250 |
| Effect of reclassifications under IFRS 9 | | | | | |
| Measured at fair value | | | | | |
| Reversal of the fair value reserve of available-for-sale investments to retained earnings | | -3 | | 3 | 0 |
| Held-to-maturity investments | | | | | |
| Revaluation of investments to be transferred as measured through fair value reserve | | -1 | | | -1 |
| Measured at cost | | | | | |
| Transferred as measured at fair value through profit or loss | | | | 2 | 2 |
| Net change in deferred tax | | 1 | | 6 | 6 |
| Shareholders' equity 1 Jan. 2018 | 428 | 77 | 1,019 | 1,141 | 2,664 |

Equity instruments and mutual fund investments were previously classified as available-for-sale investments. Equity instruments were recognised at fair value through profit or loss in accordance with IFRS 9. Fair value gains/losses of available-for-sale investments previously recognised in the fair value reserve were transferred to retained earnings on 1 January 2018.

Previously, OP Corporate Bank plc's liquidity buffer portfolio was classified as financial instruments recognised as fair value through profit or loss, available for sale, loans and receivables and held to maturity. Since OP Corporate Bank plc's business model for the liquidity buffer portfolio is to collect contractual cash flows and sales, the entire portfolio is classified at fair value to be recognised through fair value reserve. The business model is based on the portfolio management mechanisms and previous practice.

OP Corporate Bank plc has a small amount of convertible, perpetual and hybrid bonds whose contractual cash flows are not solely payment of principal and the interest on the principal outstanding. Consequently, they fail the SPPI test and must be measured and classified at fair value through profit or loss.

Notes and bonds held by OP Corporate Bank plc that were previously held to maturity were measured and classified at fair value through fair value reserve in the transition.

# Notes to Parent Company Financial Statements

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# Notes to the Income Statement

## *Notes concerning an entity under the Group's control*

### Note 1. Interest income and expenses

| EUR million | 2018 | 2017 |
|---|---|---|
| **Interest income** | | |
| Receivables from credit institutions | 36 | 43 |
| Receivables from the public and public sector entities | 332 | 324 |
| Notes and bonds | 100 | 113 |
| Derivative contracts | 677 | 716 |
| Trading items | 787 | 826 |
| Hedge accounting | -110 | -110 |
| of which cash flow hedge | 3 | 5 |
| Other | 7 | 9 |
| Total | 1,152 | 1,205 |
| Of which interest income from impaired receivables | 1 | 1 |
| Of which interest income of financial assets recognised in stage 3 | 0 | |
| | | |
| **Interest expenses** | | |
| Liabilities to credit institutions | 139 | 117 |
| Liabilities to the public and public sector entities | -3 | -4 |
| Debt securities issued to the public | 173 | 200 |
| Derivative contracts and other liabilities held for trading | 543 | 594 |
| Subordinated liabilities | 46 | 46 |
| Other | 7 | 9 |
| Total | 905 | 962 |

Interest income received from Group and associated companies and interest expenses paid to them

| | 2018 | | 2017 | |
|---|---|---|---|---|
| EUR million | Subsidiaries | Associates | Subsidiaries | Associates |
| Interest income | 13 | | 9 | |
| Interest expenses | 5 | | 4 | |

### Note 2. Net lease income

| EUR million | 2018 | 2017 |
|---|---|---|
| Lease income | 317 | 295 |
| Planned depreciation | -291 | -270 |
| Capital gains and losses (net) on the disposal of lease assets | 1 | 1 |
| Commissions and fees | 2 | 2 |
| Other direct income | 0 | 0 |
| Other direct expenses | -4 | -5 |
| Total | 24 | 23 |

### Note 3. Income from equity investments

| EUR million | 2018 | 2017 |
|---|---|---|
| Financial assets at fair value through profit or loss | 8 | |
| Available for sale | | 8 |
| Subsidiaries | 195 | 200 |
| Total | 203 | 208 |

## Note 4. Commissions and fees

| EUR million | 2018 | 2017 |
|---|---|---|
| Commissions and fees | | |
| Lending | 41 | 40 |
| Deposits | 1 | 0 |
| Payment transfers | 22 | 24 |
| Asset management | 13 | 13 |
| Legal services | 0 | 0 |
| Securities brokerage | 16 | 19 |
| Securities issuance | 7 | 11 |
| Guarantees | 13 | 12 |
| Other | 14 | 13 |
| Total | 128 | 132 |
| | | |
| Commission expenses | | |
| Service fees paid | 2 | 5 |
| Securities brokerage and issuance | 5 | 6 |
| Refunds of fees for shares | 4 | 5 |
| Other | 101 | 82 |
| Total | 111 | 98 |

## Note 5. Net income from securities and foreign exchange trading

Net income from securities and foreign exchange trading 2018

| EUR million | Capital gains and losses | Due to fair value changes | Other income | Total |
|---|---|---|---|---|
| Notes and bonds | -3 | -2 | | -5 |
| Shares and participations | 16 | | | 16 |
| Other | -2 | 1 | | -1 |
| Derivative contracts | | 68 | 55 | 124 |
| Liabilities held for trading | 0 | 0 | | 0 |
| Total net income from securities trading | 10 | 68 | 55 | 133 |
| | | | | |
| Net income from foreign exchange trading | | | | 33 |
| | | | | |
| Total net income from securities and foreign exchange trading | | | | 167 |

Net income from securities and foreign exchange trading 2017

| EUR million | Capital gains and losses | Due to fair value changes | Other income | Total |
|---|---|---|---|---|
| Notes and bonds | -2 | -1 | | -4 |
| Shares and participations | 0 | | | 0 |
| Other | -1 | 3 | | 2 |
| Derivative contracts | | 87 | 50 | 137 |
| Liabilities held for trading | 0 | 0 | | 0 |
| Total net income from securities trading | -3 | 89 | 50 | 135 |
| | | | | |
| Net income from foreign exchange trading | | | | 37 |
| | | | | |
| Total net income from securities and foreign exchange trading | | | | 172 |

## Note 6. Net income from financial assets recognised at fair value through fair value reserve (Net income from available-for-sale financial assets)

| EUR million | 2018 | 2017 |
|---|---|---|
| Notes and bonds | | |
| Capital gains and losses | -2 | 20 |
| Transferred from fair value reserve during the financial year | 23 | 0 |
| Total | 21 | 20 |
| Shares and participations | | |
| Capital gains and losses | | 0 |
| Impairment losses | | 0 |
| Total | | 0 |
| Total net income from financial assets recognised at fair value through fair value reserve | 21 | |
| Total net income from available-for-sale financial assets | | 20 |

## Note 7. Net income from hedge accounting

| EUR million | 2018 | 2017 |
|---|---|---|
| Net income from hedging instruments | 4 | 16 |
| Net income from hedged items | -4 | -17 |
| Total | 0 | -1 |

## Note 8. Net income from investment property

| EUR million | 2018 | 2017 |
|---|---|---|
| Rental and dividend income | | 0 |
| Capital gains | | 6 |
| Other income | 0 | |
| Rental expenses | | -2 |
| Capital losses | | -3 |
| Total | 0 | 2 |

## Note 9. Other operating income

| EUR million | 2018 | 2017 |
|---|---|---|
| Rental income from property in own use | 0 | 0 |
| Income from central banking services | 4 | 5 |
| Other | 22 | 24 |
| Total | 26 | 29 |

## Note 10. Depreciation/amortisation and write-downs on tangible and intangible assets

| EUR million | 2018 | 2017 |
|---|---|---|
| Planned depreciation | 14 | 13 |
| Write-down | 4 | |
| Total | 18 | 13 |

## Note 11. Other operating expenses

| EUR million | 2018 | 2017 |
|---|---|---|
| Rental expenses | 2 | 2 |
| Expenses for property in own use | 0 | 0 |
| Other | 40 | 25 |
| Total | 42 | 27 |

OP Financial Group's internal service charges have been transferred to other expenses.

## Note 12. 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. 2018, 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 | 21 | | 21 |
| Recoveries of eliminated receivables | 0 | | 0 |
| Total | 23 | 0 | 23 |
| | | | |
| Total expected credit losses and impairment losses | 23 | 0 | 23 |

| 31 Dec. 2017, EUR million | Gross impairment losses on individually assessed receivable | Gross impairment losses on collectively assessed receivable | Reductions | Entered in income statement |
|---|---|---|---|---|
| Impairment losses on loans and other commitments | | | | |
| Receivables from the public and public | 44 | 4 | -36 | 12 |
| Total | 44 | 4 | -36 | 12 |
| | | | | |
| Total impairment losses | 44 | 4 | -36 | 12 |

## Note 13. Income, operating profit or loss and assets and liabilities by Division

| 31 Dec. 2018, EUR million | Corporate customers | Corporate Banking | Other | Total |
|---|---|---|---|---|
| Income* | 616 | 32 | 170 | 817 |
| Operating profit | 301 | 2 | 163 | 466 |
| Assets | 23,542 | 37,885 | 1,316 | 62,743 |
| Liabilities | 13,737 | 43,447 | 1,450 | 58,635 |
| Personnel | 624 | 53 | 16 | 693 |

| 31 Dec. 2017, EUR million | Corporate customers | Corporate Banking | Other | Total |
|---|---|---|---|---|
| Income* | 580 | 69 | 179 | 828 |
| Operating profit | 331 | 24 | 174 | 529 |
| Assets | 21,096 | 38,115 | 1,281 | 60,492 |
| Liabilities | 13,665 | 41,322 | 1,513 | 56,499 |
| Personnel | 593 | 50 | 17 | 660 |

* 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 14. Receivables from credit institutions

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Repayable on demand | | |
| Deposits | 1,054 | 571 |
| Other | 58 | 178 |
| **Total** | **1,112** | **749** |
| Other than those repayable on demand | | |
| From OP Financial Group institutions | 5,605 | 5,509 |
| Other | 3,005 | 3,035 |
| **Total** | **8,610** | **8,544** |
| Total receivables from credit institutions | **9,722** | **9,293** |
| of which subordinated receivables | | 22 |

OP Corporate Bank plc has only receivables repayable on demand from central banks.

## Note 15. Receivables from the public and public sector entities

| EUR million | 31 Dec. 2018 | Loss allowance on 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|---|
| Receivables from the public and public sector entities by sector | | | |
| Non-banking corporate sector and housing corporations | 14,000 | -231 | 12,930 |
| Financial institutions and insurance companies | 711 | 0 | 687 |
| Public sector entities | 701 | 0 | 377 |
| Non-profit organisations serving households | 350 | -3 | 322 |
| Households | 1,945 | -9 | 1,707 |
| Foreign | 3,149 | -6 | 2,747 |
| Collective impairments | -5 | | -28 |
| **Total** | **20,851** | **-249** | **18,742** |
| of which subordinated receivables | 11 | | 10 |

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”.

| Write-downs on loans | | |
|---|---|---|
| Write-downs at year-start | 11 | 248 |
| + Write-downs on individually assessed receivables during the financial year | 1 | 9 |
| +/- Write-downs on collectively assessed receivables during the financial year | 1 | 4 |
| - Write-downs reversed for individually assessed receivables during the financial year | -1 | -4 |
| of which write-downs on individually assessed receivables were made previously | 0 | -32 |
| Write-downs at year-end | 12 | 225 |

Final loan losses of EUR 21 million (35) were recognised from receivables.

## Note 16. Asset leased out under finance leases

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Advance payments | 33 | 38 |
| Machinery and equipment | 984 | 869 |
| Real property and buildings | 415 | 399 |
| Other assets | 45 | 53 |
| **Total** | **1,478** | **1,359** |

## Note 17. Notes and bonds

Notes and bonds eligible for refinancing with central banks and other notes and bonds 31 December 2018

| 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 | 108 | 451 | 558 | 43 |
| Of which financial assets held for trading | 108 | 439 | 547 | 32 |
| Financial assets measured at fair value through other comprehensive income | 11,321 | 918 | 12,239 | |
| Total | 11,429 | 1,368 | 12,797 | 43 |

Notes and bonds eligible for refinancing with central banks and other notes and bonds 31 December 2017

| 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 | 70 | 561 | 631 | 40 |
| Available for sale | 10,965 | 919 | 11,884 | 12 |
| Held to maturity | 41 | 9 | 51 | |
| Total | 11,077 | 1,489 | 12,566 | 52 |

Publicly-quoted and other notes and bonds 31 December 2018

| EUR million | Publicly quoted | Other | Total |
|---|---|---|---|
| Financial assets at fair value through profit or loss | 244 | 314 | 558 |
| Of which financial assets held for trading | 233 | 314 | 547 |
| Financial assets measured at fair value through other comprehensive income | 12,056 | 183 | 12,239 |
| Total | 12,300 | 497 | 12,797 |

Publicly-quoted and other notes and bonds 31 December 2017

| EUR million | Publicly quoted | Other | Total |
|---|---|---|---|
| Financial assets at fair value through profit or loss | 205 | 426 | 631 |
| Available for sale | 11,706 | 178 | 11,884 |
| Held to maturity | 51 | | 51 |
| Total | 11,962 | 604 | 12,566 |

| Notes and bonds by type, EUR million | 31 Dec. 2018 | Loss allowance on 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|---|
| Financial assets at fair value through profit or loss | | | |
| Local authority papers | 17 | | 39 |
| Commercial papers | 273 | | 345 |
| Certificates of deposit | 0 | | 8 |
| Other bonds | 268 | | 239 |
| Total | 558 | | 631 |
| Financial assets at fair value through other comprehensive income (Available-for-sale financial assets) | | | |
| Certificates of deposit | 0 | | |
| Convertible bonds | | | 0 |
| Other bonds | 12,239 | 3 | 11,884 |
| Total | 12,239 | 3 | 11,884 |
| Carried at amortised cost (Held to maturity | | | |
| Other bonds | | | 51 |
| Total | | | 51 |

By 31 December 2018, all OP Corporate Bank plc's notes and bonds accrued interest recognised in accounting.

## Note 18. Loss allowance

| EUR million | Receivables from customers and off-balance-sheet commitments Stage 1 12 months | Stage 2 lifetime | Stage 3 lifetime | Total |
|---|---|---|---|---|
| Loss allowance on 1 January 2018 | 1 | 0 | | 2 |
| Transfers from Stage 1 to Stage 2 | 0 | 0 | | 0 |
| Transfers from Stage 2 to Stage 1 | 0 | 0 | | 0 |
| Increases due to origination and acquisition | 1 | 0 | | 1 |
| Decreases due to derecognition | -1 | 0 | | -1 |
| Changes in risk parameters | 0 | | | 0 |
| Changes due to update in the methodology for estimation | 0 | | | 0 |
| Total net result effect | 1 | 0 | | 1 |
| Loss allowance on 31 Dec. 2018 | 3 | 0 | | 3 |

## Note 19. Shares and participations

| 31 Dec. 2018, EUR million | Publicly quoted | Other | Total |
|---|---|---|---|
| Shares and participations | | | |
| Financial assets at fair value through profit or loss | | 12 | 12 |
| Of which financial assets held for trading | | 12 | 12 |
| Financial assets measured at fair value through other comprehensive income | | 0 | 0 |
| Shares and participations in Group companies | | 1,025 | 1,025 |
| Total | | 1,037 | 1,037 |

| 31 Dec. 2017, EUR million | Publicly quoted | Other | Total |
|---|---|---|---|
| Shares and participations | | | |
| Available for sale | | 11 | 11 |
| Shares and participations in Group companies | | 1,025 | 1,025 |
| Total | | 1,036 | 1,036 |

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Shares and participations by sector | | |
| Non-banking corporate sector and housing corporations | 4 | 4 |
| Financial institutions and insurance companies | 1,021 | 1,018 |
| Foreign entities | 12 | 15 |
| Total | 1,037 | 1,036 |

## Note 20. Derivative contracts

Derivative contracts for hedging purposes – fair value hedge in 2018

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **2,539** | **17,454** | **9,679** | **29,671** | **45** | **30** |
| Interest rate swaps | 2,539 | 17,454 | 9,679 | 29,671 | 45 | 30 |
| **Currency derivatives** | **422** | **1,799** | **475** | **2,696** | **91** | **179** |
| Interest rate and currency swaps | 422 | 1,799 | 475 | 2,696 | 91 | 179 |

Derivative contracts for hedging purposes – cash flow hedge in 2018

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **100** | | | **100** | | |
| Interest rate swaps | 100 | | | 100 | | |
| **Currency derivatives** | **6,843** | | | **6,843** | **35** | **39** |
| Forward exchange agreements | 6,843 | | | 6,843 | 35 | 39 |

Derivative contracts held for trading in 2018

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **41,512** | **77,030** | **69,471** | **188,013** | **2,362** | **1,851** |
| Futures and forwards | 3,850 | 3,280 | | 7,129 | | |
| **Options** | **16,571** | **31,172** | **16,171** | **63,913** | **475** | **298** |
| Called | 8,713 | 14,772 | 9,750 | 33,234 | 330 | 131 |
| Put | 7,858 | 16,400 | 6,421 | 30,679 | 145 | 167 |
| Interest rate swaps | 21,091 | 42,579 | 53,300 | 116,971 | 1,887 | 1,553 |
| **Currency derivatives** | **21,776** | **4,986** | **2,930** | **29,691** | **892** | **904** |
| Futures and forwards | 18,044 | 631 | 2 | 18,676 | 136 | 137 |
| **Options** | **1,033** | **86** | | **1,119** | **4** | **5** |
| Called | 496 | 41 | | 537 | 3 | 2 |
| Put | 537 | 45 | | 582 | 1 | 3 |
| Interest rate and currency swaps | 2,699 | 4,269 | 2,928 | 9,896 | 751 | 761 |
| **Equity derivatives** | **131** | | | **490** | **30** | **20** |
| **Options** | | **3** | | **3** | | |
| Called | | 3 | | 3 | | |
| Other swap contracts | 131 | 349 | 8 | 487 | 30 | 20 |
| **Other derivatives** | **94** | **201** | **2** | **299** | **8** | **17** |
| Futures and forwards | 16 | 1 | | 18 | | 4 |
| **Options** | | | | **2** | | |
| Called | 1 | | | 1 | | |
| Put | 1 | | | 1 | | |
| Other swap contracts | 63 | 10 | | 73 | 4 | 4 |
| Credit derivatives | 15 | 189 | 2 | 206 | 4 | 9 |

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.

Credit equivalents of contracts in 2018

| | Made for hedging purposes | | Held for trading |
|---|---|---|---|
| EUR million | Fair value hedge | Cash flow hedge | |
| **Interest rate derivatives** | **518** | **1** | **4,258** |
| **Options** | | | **851** |
| Called | | | 773 |
| Put | | | 78 |
| Interest rate swaps | 518 | 1 | 3,407 |
| **Currency derivatives** | **223** | **106** | **1,563** |
| Futures and forwards | | 106 | 352 |
| **Options** | | | **12** |
| Called | | | 12 |
| Interest rate and currency swaps | 223 | | 1,200 |
| **Equity derivatives** | | | **66** |
| **Options** | | | **66** |
| Other swap contracts | | | 66 |
| **Other derivatives** | | | **17** |
| Futures and forwards | | | 2 |
| Other swap contracts | | | 12 |
| Credit derivatives | | | 4 |

Derivative contracts for hedging purposes – fair value hedge in 2017

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **2,323** | **17,126** | **6,740** | **26,189** | **254** | **310** |
| Interest rate swaps | 2,323 | 17,126 | 6,740 | 26,189 | 254 | 310 |
| **Currency derivatives** | **517** | **1,958** | **319** | **2,794** | **35** | **265** |
| Interest rate and currency swaps | 517 | 1,958 | 319 | 2,794 | 35 | 265 |

Derivative contracts for hedging purposes – cash flow hedge in 2017

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **200** | **100** | | **300** | **4** | |
| Interest rate swaps | 200 | 100 | | 300 | 4 | |
| **Currency derivatives** | **5,794** | | | **5,794** | **32** | **67** |
| Forward exchange agreements | 5,794 | | | 5,794 | 32 | 67 |

Derivative contracts held for trading in 2017

| | Nominal values/residual term to maturity | | | | Fair values | |
|---|---|---|---|---|---|---|
| EUR million | <1 year | 1–5 years | >5 years | Total | Positive | Negative |
| **Interest rate derivatives** | **28,831** | **72,518** | **69,050** | **170,399** | **2,935** | **2,664** |
| Futures and forward contracts | 1,615 | 1,000 | | 2,615 | 1 | 1 |
| **Options** | **8,250** | **24,672** | **14,270** | **47,192** | **461** | **321** |
| Called | 4,171 | 11,115 | 7,871 | 23,157 | 446 | 14 |
| Put | 4,078 | 13,557 | 6,399 | 24,034 | 15 | 307 |
| Interest rate swaps | 18,966 | 46,846 | 54,780 | 120,592 | 2,474 | 2,343 |
| **Currency derivatives** | **30,973** | **7,288** | **2,496** | **40,756** | **915** | **855** |
| Futures and forwards | 28,243 | 263 | 23 | 28,530 | 206 | 197 |
| **Options** | **671** | **93** | | **764** | **4** | **4** |
| Called | 342 | 45 | | 387 | 4 | |
| Put | 329 | 48 | | 377 | | 4 |
| Interest rate and currency swaps | 2,059 | 6,932 | 2,472 | 11,463 | 705 | 654 |
| **Equity derivatives** | **82** | **380** | | **462** | **41** | **9** |
| **Options** | **5** | **3** | | **8** | **1** | |
| Called | 5 | 3 | | 8 | 1 | |
| Other swap contracts | 77 | 377 | | 454 | 40 | 9 |
| **Other derivatives** | **290** | **212** | **10** | **513** | **34** | **33** |
| Futures and forwards | 24 | 1 | | 25 | 0 | 4 |
| Other swap contracts | 238 | 31 | | 269 | 25 | 22 |
| Credit derivatives | 28 | 181 | 10 | 219 | 9 | 6 |

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.

Credit equivalents of contracts in 2017

| | Made for hedging purposes | | Held for trading |
|---|---|---|---|
| EUR million | Fair value hedge | Cash flow hedge | |
| **Interest rate derivatives** | **441** | **5** | **4,237** |
| **Options** | | | **706** |
| Called | | | 637 |
| Put | | | 70 |
| Interest rate swaps | 441 | 5 | 3,531 |
| **Currency derivatives** | **162** | **88** | **1,759** |
| Futures and forwards | | 88 | 491 |
| **Options** | | | **10** |
| Called | | | 10 |
| Interest rate and currency swaps | 162 | | 1,258 |
| **Options** | | | **77** |
| Called | | | 2 |
| Other swap contracts | | | 75 |
| **Other derivatives** | | | **65** |
| Futures and forwards | | | 2 |
| Other swap contracts | | | 55 |
| Credit derivatives | | | 9 |

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 4,330 million (4,495).

## Note 21. Intangible assets and tangible assets and changes during the financial year

### Intangible assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| IT costs | 40 | 37 |
| Other intangible assets | 6 | 22 |
| Total | 45 | 58 |

### Tangible assets

| 31 Dec. 2018, EUR million | In own use | Investment property Book value | Investment property Fair value |
|---|---|---|---|
| Property holdings | | | |
| Land and water | | 0 | 0 |
| Buildings | 0 | | |
| Shares and holdings in property companies | 2 | 0 | 0 |
| Total | 2 | 0 | 0 |

Tangible assets 2

| 31 Dec. 2017, EUR million | In own use | Investment property Book value | Investment property Fair value |
|---|---|---|---|
| Property holdings | | | |
| Land and water | | 0 | 0 |
| Buildings | 0 | | |
| Shares and holdings in property companies | 2 | 0 | 0 |
| Total | 2 | 0 | 0 |

Other tangible assets 3

### 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 2018 | 12 | 162 | 1 | 3 | 50 |
| + increases during the year | | 5 | | 0 | 0 |
| - decreases during the year | | | | 0 | -1 |
| - planned depreciation/amortisation | | -14 | | 0 | 0 |
| -/+ impairment losses and their reversals | | | | 0 | |
| + accumulated depreciation/amortisation and writedowns on adjustments and transfers 1 January | | | | | 0 |
| - accumulated depreciation/amortisation 1 January | -12 | -104 | | -1 | -48 |
| - accumulated impairment 1 January | | | -1 | 0 | |
| +/- financial year revaluations and their reversals | | -4 | | | |
| Book value 31 December 2018 | 0 | 45 | 0 | 2 | 2 |

| EUR million | Goodwill | Other intangible assets | Investment property | Property in own use | Other tangible assets |
|---|---|---|---|---|---|
| Acquisition cost 1 January 2017 | 12 | 149 | 12 | 3 | 51 |
| + increases during the year | | 14 | | | 1 |
| - decreases during the year | | | -10 | | -2 |
| - planned depreciation/amortisation | | -13 | | 0 | 0 |
| -/+ impairment losses and their reversals | | | 2 | | |
| + accumulated depreciation/amortisation and writedowns on adjustments and transfers 1 January | | | | | 0 |
| - accumulated depreciation/amortisation 1 January | -12 | -91 | | -1 | -48 |
| - accumulated impairment 1 January | | | -3 | 0 | |
| Book value 31 December 2017 | 0 | 58 | 0 | 2 | 3 |

## Note 22. Other assets

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Accounts receivable from securities | 20 | 16 |
| Payment transfer receivables | 16 | 22 |
| Derivative contracts | 6 | 2 |
| Margin receivables related to derivative contracts | 3 | 11 |
| Accounts receivable | 199 | 208 |
| Emissions allowances | 21 | 18 |
| Other | 507 | 580 |
| Total | 771 | 856 |

"Other" under Other assets includes EUR 458 million (543) in CSA collateral receivables.

## Note 23. Deferred income and advances paid

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Interest | | |
| Interest receivables | 300 | 320 |
| Interest advances paid | 2 | 2 |
| Total | 302 | 322 |
| | | |
| Other | | |
| Other advances paid | 0 | 0 |
| Other deferred income | 40 | 12 |
| Total | 40 | 12 |
| Total deferred income and advances paid | 343 | 334 |

## Note 24. Deferred tax assets and liabilities

| 31 Dec .2018, EUR million | Deferred tax assets | Deferred tax liabilities | Net |
|---|---|---|---|
| From timing differences | 14 | 0 | 14 |
| From other temporary differences | 2 | 2 | 1 |
| Total | 17 | 2 | 15 |

| 31 Dec. 2017, EUR million | Deferred tax assets | Deferred tax liabilities | Net |
|---|---|---|---|
| From timing differences | 8 | 0 | 8 |
| From other temporary differences | | 20 | -20 |
| Total | 8 | 20 | -12 |

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 2018

The balance sheet does not include any revaluation (-).

Appropriations

| 31 Dec. 2018, EUR million | Balance sheet value | Deferred tax liability | Net |
|---|---|---|---|
| Depreciation difference | 244 | 49 | 196 |
| Taxation-based provisions | 1,215 | 243 | 972 |
| Total | 1,460 | 292 | 1,168 |

| 31 Dec. 2017, EUR million | Balance sheet value | Deferred tax liability | Net |
|---|---|---|---|
| Depreciation difference | 204 | 41 | 163 |
| Taxation-based provisions | 1,091 | 218 | 873 |
| Total | 1,295 | 259 | 1,036 |

Depreciation difference and voluntary provisions have been entered in the balance sheet to the amount of non-deducted deferred tax.

## Note 25. Debt securities issued to the public

| EUR million | Book value 31 Dec. 2018 | Nominal value 31 Dec. 2018 | Book value 31 Dec. 2017 | Nominal value 31 Dec. 2017 |
|---|---|---|---|---|
| Certificates of deposit | 105 | 105 | 83 | 83 |
| Bonds | 10,154 | 10,145 | 9,752 | 9,745 |
| Other | 10,162 | 10,173 | 7,034 | 7,039 |
| **Total** | **20,420** | **20,423** | **16,869** | **16,866** |

## Note 26. Other liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Payment transfer liabilities | 824 | 740 |
| Accounts payable on securities | 21 | 36 |
| Margin liabilities related to derivative contracts | | 0 |
| Other | 514 | 746 |
| **Total** | **1,359** | **1,522** |

Other' includes EUR 490 million (412) in CSA collateral liabilities.

## Note 27. Statutory provisions

| EUR million | Reorganisation | Total |
|---|---|---|
| 1 Jan. 2018 | | |
| Increase in provisions | 6 | 6 |
| **31 Dec. 2018** | **6** | **6** |

The reorganisation provision derives from expenses arising from personnel reduction.

## Note 28. Deferred expenses and advances received

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| **Interest** | | |
| Interest liabilities | 333 | 343 |
| Interest advances received | 4 | 4 |
| **Total** | **337** | **347** |
| | | |
| **Other** | | |
| Other advance payments received | | 0 |
| Vacation pay liabilities | 8 | 7 |
| Tax liabilities | | 8 |
| Other deferred expenses | 18 | 21 |
| **Total** | **26** | **37** |
| **Total deferred expenses and advances received** | **362** | **383** |

## Note 29. Subordinated liabilities

| EUR million | Book value 31 Dec. 2018 | Nominal value 31 Dec. 2018 | Book value 31 Dec. 2017 | Nominal value 31 Dec. 2017 |
|---|---|---|---|---|
| Subordinated loans | 88 | 90 | 138 | 140 |
| Debenture loans | 1,259 | 1,210 | 1,274 | 1,216 |
| **Total** | **1,347** | **1,300** | **1,412** | **1,356** |

Perpetual loans and debentures

1. A debenture loan of CHF 100 million (euro equivalent 89 million), which is a ten-year bullet loan, will mature on 14 July 2021. The loan carries a fixed interest rate of 3.375% p.a.

2. A debenture loan of EUR 100 million, which is a ten-year bullet loan, will mature on 14 September 2021. The loan carries a fixed interest rate of 5.25% p.a.

3. A debenture loan of EUR 500 million, which is a 10-year bullet loan, will mature on 22 August 2022. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a fixed interest rate of 5.75% p.a.

4. Debenture loan of JPY 10 billion (euro equivalent 79 million), which is a ten-year bullet loan, will mature on 3 July 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to the JPY Libor + 0.735%.

5. Debenture loan of SEK 3,500 million (euro equivalent 341 million), which is a ten-year non-call 5 loan. The loan may be called in on 25 August 2020, matures on 25 August 2025. Under the terms and conditions of the loan, the issuer will have the opportunity for early redemption in case the principal cannot be counted as part of the bank's Tier 2 capital. The loan carries a floating rate linked to Stibor + 1.60%.

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

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 30. Shareholders' equity

| EUR million | Shareholder´s equity 1 Jan. 2018 | IFRS 9 1 Jan. 2018 | Increases | Decreases | Shareholder´s equity 31 Dec. 2018 |
|---|---|---|---|---|---|
| Total shareholders' equity | 2,698 | | | | 2,649 |
| Share capital | 428 | | | | 428 |
| Share premium account | 524 | | | | 524 |
| Other restricted reserves | 242 | | | | 157 |
| Reserve fund | 164 | | | | 164 |
| Fair value reserve | 79 | -2 | | 84 | -7 |
| Fair value measurement | 77 | -2 | | 82 | -7 |
| Cash flow hedge | 2 | | | 2 | 0 |
| Non-restricted funds | 331 | | | | 331 |
| Reserve for invested non-restricted equity | 308 | | | | 308 |
| Other funds | 23 | | | | 23 |
| Retained earnings or losses after | 1,172 | -31 | | 211 | 931 |
| Profit or loss for the financial year | | | 278 | | 278 |

Changes in fair value reserve

| EUR million | At year-start 1 Jan. 2018 | IFRS 9 1 Jan. 2018 | Increases | Decreases | Transferred to income statement | At year-end 31 Dec. 2018 |
|---|---|---|---|---|---|---|
| Notes and bonds | 75 | 0 | 3 | 105 | 23 | -7 |
| Deferred tax | -19 | 0 | 21 | | | 2 |
| Shares and participations | 2 | -2 | | | | 0 |
| Deferred tax | 0 | 0 | 0 | | | 0 |
| Other | 2 | | 1 | 3 | | 0 |
| Cash flow hedge | 3 | | 1 | 3 | | 0 |
| Deferred tax | -1 | | 0 | | | 0 |
| Total | 79 | -2 | 25 | 108 | 23 | -7 |

| EUR million | Shareholder's equity 1 Jan. 2017 | Increases | Decreases | Shareholder´s equity 31 Dec. 2017 |
|---|---|---|---|---|
| Total shareholders' equity | 2,474 | | | 2,698 |
| Share capital | 428 | | | 428 |
| Share premium account | 524 | | | 524 |
| Other restricted reserves | 212 | 30 | | 242 |
| Reserve fund | 164 | | | 164 |
| Fair value reserve | 48 | 30 | | 79 |
| Fair value measurement | 43 | 34 | | 77 |
| Cash flow hedge | 6 | | 4 | 2 |
| Non-restricted funds | 331 | | | 331 |
| Reserve for invested non- | 308 | | | 308 |
| Other funds | 23 | | | 23 |
| Retained earnings or losses after | 979 | | 201 | 778 |
| Profit or loss for the financial year | | 394 | | 394 |

Changes in fair value reserve

| EUR million | At year-start 1 Jan. 2017 | Increases | Decreases | Transferred to income statement | At year-end 31 Dec. 2017 |
|---|---|---|---|---|---|
| Notes and bonds | 41 | 42 | | 0 | 75 |
| Deferred tax | -10 | | 8 | | -19 |
| Shares and participations | 1 | 0 | 0 | | 2 |
| Deferred tax | 0 | | 0 | | 0 |
| Other | 6 | 1 | 4 | | 2 |
| Cash flow hedge | 7 | | 4 | | 3 |
| Deferred tax | -1 | 1 | | | -1 |
| Total | 48 | 43 | 13 | 0 | 79 |

## Note 31. Restricted and non-restricted equity and distributable funds

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Shareholders' equity | | |
| Restricted equity | 1,109 | 1,194 |
| Non-restricted equity | 1,540 | 1,504 |
| Total shareholders' equity | 2,649 | 2,698 |

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Distributable funds | | |
| Non-restricted equity | 1,540 | 1,504 |
| Capitalised development expenditure | -45 | -58 |
| Total distributable funds | 1,495 | 1,445 |

## Note 32. Financial assets and liabilities by residual term to maturity

| 31 Dec. 2018, 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 | 158 | 412 | 6,542 | 4,314 | 2 |
| Receivables from credit institutions | 4,311 | 2,327 | 2,936 | 148 | |
| Receivables from the public and public sector entities | 3,746 | 2,571 | 11,306 | 1,988 | 1,240 |
| Notes and bonds | 240 | 275 | 715 | 136 | 3 |
| Total assets | 8,456 | 5,584 | 21,499 | 6,586 | 1,245 |
| | | | | | |
| Liabilities to credit institutions and central banks | 2,344 | 456 | 7,120 | 5,637 | 19 |
| Liabilities to the public and public sector entities | 15,082 | 814 | 167 | 468 | |
| Debt securities issued to the public | 7,412 | 4,251 | 7,044 | 1,364 | 350 |
| Subordinated liabilities | | 90 | 1,077 | 179 | |
| Total liabilities | 24,838 | 5,611 | 15,408 | 7,648 | 369 |

| 31 Dec. 2017, 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 | 59 | 721 | 7,171 | 2,870 | 255 |
| Receivables from credit institutions | 2,691 | 3,147 | 3,252 | 181 | 22 |
| Receivables from the public and public sector entities | 3,355 | 2,086 | 10,400 | 1,675 | 1,225 |
| Notes and bonds | 219 | 237 | 857 | 175 | |
| **Total assets** | **6,324** | **6,191** | **21,681** | **4,901** | **1,503** |
| | | | | | |
| Liabilities to credit institutions and central banks | 3,337 | 190 | 5,513 | 4,977 | 18 |
| Liabilities to the public and public sector entities | 16,959 | 1,379 | 219 | 493 | |
| Debt securities issued to the public | 5,255 | 3,759 | 6,821 | 736 | 299 |
| Subordinated liabilities | | 140 | 1,098 | 174 | |
| **Total liabilities** | **25,551** | **5,468** | **13,651** | **6,379** | **317** |

Deposits other than fixed-term deposits are included in the maturity class 'less than 3 months'.

## Note 33. Classification of assets and liabilities

| 31 Dec. 2018, EUR million | Amortised cost | At fair value through profit or loss* | Available for sale | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|---|
| Cash and balances with central | 12,217 | | | | 12,217 |
| Receivables from credit institutions and central banks | 9,722 | | | | 9,722 |
| Derivative contracts | | 3,276 | | 187 | 3,463 |
| Receivables from customers | 22,329 | | | | 22,329 |
| Notes and bonds | | 558 | 12,239 | | 12,797 |
| Shares and participations | | 12 | 1,025 | | 1,037 |
| Other receivables | 1,178 | 0 | | | 1,178 |
| **Total assets** | **45,446** | **3,846** | **13,264** | **187** | **62,743** |

| 31 Dec. 2018, EUR million | At fair value through profit or loss* | Amortised cost | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|
| Liabilities to credit institutions | | 15,575 | | 15,575 |
| Financial liabilities held for trading (excl. derivatives) | 0 | | | 0 |
| Derivative contracts | 2,776 | | 264 | 3,040 |
| Liabilities to customers | | 16,531 | | 16,531 |
| Debt instruments issued to the public | | 20,420 | | 20,420 |
| Subordinated liabilities | | 1,347 | | 1,347 |
| Other liabilities | | 3,181 | | 3,181 |
| **Total liabilities** | **2,776** | **57,054** | **264** | **60,094** |

| 31 Dec. 2017, EUR million | Loans and receivables | Held to maturity | At fair value through profit or loss* | Available for sale | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|---|---|
| Cash and balances with central | 12,816 | | | | | 12,816 |
| Receivables from credit institutions and central banks | 9,293 | | | | | 9,293 |
| Derivative contracts | | | 3,282 | | 143 | 3,425 |
| Receivables from customers | 20,061 | | | | | 20,061 |
| Notes and bonds | | 51 | 631 | 11,884 | | 12,566 |
| Shares and participations | | | | 1,036 | | 1,036 |
| Other receivables | 1,294 | | 0 | | | 1,294 |
| **Total assets** | **43,465** | **51** | **3,913** | **12,920** | **143** | **60,492** |

| 31 Dec. 2017, EUR million | At fair value through profit or loss* | Other liabilities | Hedging derivatives | Carrying amount total |
|---|---|---|---|---|
| Liabilities to credit institutions | | 14,035 | | 14,035 |
| Financial liabilities held for trading (excl. derivatives) | 1 | | | 1 |
| Derivative conctracts | 2,824 | | 391 | 3,215 |
| Liabilities to customers | | 19,050 | | 19,050 |
| Debt instruments issued to the public | | 16,869 | | 16,869 |
| Subordinated liabilities | | 1,412 | | 1,412 |
| Other liabilities | | 3,212 | | 3,212 |
| Total liabilities | 2,825 | 54,579 | 391 | 57,795 |

* Assets at fair value through profit or loss include financial assets held for trading, financial assets at fair value through profit or loss at inception and investment property.

Debt securities issued to the public are carried at amortised cost. On 31 December 2018, the fair value of these debt instruments was EUR 102 million (227) 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 34. Financial instruments measured at fair value, grouped by valuation technique

| balance sheet,<br>31 Dec. 2018, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Assets | | | | |
| Recognised at fair value through profit or loss | 88 | 169 | 302 | 559 |
| Derivative contracts | 0 | 57 | 3,406 | 3,463 |
| Recognised at fair value through fair value reserve | 9,762 | 3,339 | 163 | 13,264 |
| Total assets | 9,850 | 6,914 | 522 | 17,286 |
| | | | | |
| Liabilities | | | | |
| Derivative contracts | 10 | 2,987 | 44 | 3,040 |
| Total liabilities | 10 | 2,987 | 44 | 3,040 |

| Financial instruments measured at fair value in the balance sheet,<br>31 Dec. 2017, EUR million | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Assets | | | | |
| Recognised at fair value through profit or loss | 106 | 116 | 409 | 631 |
| Derivative contracts | 1 | 3,293 | 131 | 3,425 |
| Available-for-sale | 8,468 | 4,155 | 297 | 12,920 |
| Total assets | 8,575 | 7,564 | 838 | 16,977 |
| | | | | |
| Liabilities | | | | |
| Derivative contracts | 5 | 3,118 | 92 | 3,215 |
| Total liabilities | 5 | 3,118 | 92 | 3,215 |

### 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. In many cases, the Level 3 fair value is based on pricing information from a third party.

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Net income for the financial year from Level 3 | | |
| Realised net income | -134 | 17 |
| Unrealised net income | -26 | -14 |
| **Total net income** | **-161** | **3** |

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 Pohjola, 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.

## Note 35. Assets and liabilities denominated in euros and foreign currencies

| 31 Dec. 2018, EUR million | Euros | Foreign currencies | Subsidiaries | Associates |
|---|---|---|---|---|
| Receivables from credit institutions | 9,602 | 120 | | |
| Receivables from the public and public sector entities | 20,243 | 608 | 679 | |
| Notes and bonds | 12,269 | 528 | | |
| Derivative contracts | 3,343 | 119 | 1 | |
| Other assets | 15,815 | 95 | 1,221 | |
| **Total assets** | **61,272** | **1,471** | **1,901** | |
| | | | | |
| Liabilities to credit institutions and central banks | 14,896 | 679 | | |
| Liabilities to the public and public sector entities | 15,690 | 841 | 246 | 0 |
| Debt securities issued to the public | 11,788 | 8,632 | 34 | |
| Derivative contracts and liabilities held for trading | 2,944 | 96 | 4 | |
| Subordinated liabilities | 837 | 510 | | |
| Other liabilities | 1,653 | 68 | 1 | |
| **Total liabilities** | **47,809** | **10,825** | **285** | **0** |

| | | | Of which | |
|---|---|---|---|---|
| 31 Dec. 2017, EUR million | Euros | Foreign currencies | Subsidiaries | Associates |
| Receivables from credit institutions | 8,981 | 312 | | |
| Receivables from the public and public sector entities | 18,021 | 721 | 501 | |
| Notes and bonds | 11,954 | 611 | | |
| Derivative contracts | 3,280 | 145 | 5 | |
| Other assets | 16,374 | 92 | 1,230 | |
| **Total assets** | **58,610** | **1,882** | **1,736** | |
| | | | | |
| Liabilities to credit institutions and central banks | 12,948 | 1,087 | | |
| Liabilities to the public and public sector entities | 18,028 | 1,021 | 342 | 1 |
| Debt securities issued to the public | 9,767 | 7,102 | 37 | |
| Derivative contracts and liabilities held for trading | 3,100 | 116 | 8 | |
| Subordinated liabilities | 897 | 515 | | |
| Other liabilities | 1,782 | 135 | 1 | |
| **Total liabilities** | **46,523** | **9,976** | **388** | **1** |

# Other notes

## Note 36. Variable remuneration

### Personnel fund

OP Corporate Bank plc is a member of OP Financial Group´s Personel fund. Payment of profit-based bonuses to OP Financial Group´s Personnel Fund in 2018 was based on the achievement of the following targets: OP Financial Group´s EBT with a weight 60 %, use of digital services with a weight of 20 %, service encounter NPS with a weight of 15% and brand NPS with a weight of 5%. Profit-based bonuses for 2018 transferred to the Fund account for some 1,7 % (3,2 %) of the combined salaries and wages earned by the Fund´s members. The bonuses recognised in 2018 totalled EUR 0,5 million (1,1).

### Long-term remuneration schemes

OP Financial Group's remuneration schemes are in compliance with regulation in the financial sector and are based on OP Financial Group's strategic targets.

OP Financial Group's variable remuneration principles take account of the Group's risk exposure and risk management methods. The performance indicator targets have been set at a level that does not encourage excessive risk-taking. Long-term variable remuneration is based on reaching OP Financial Group's targets, whereas short-term variable remuneration is based on how an individual Group company or business unit reaches its targets. The maximum amount of remuneration is limited in all schemes.

### Long-term scheme

Executives and separately defined key employees, appointed by the company's Board of Directors, are included in the long-term management remuneration scheme. The scheme consists of consecutive three-year performance periods.

The bonus for the performance period of 1 January 2014–31 December 2016 was paid after a deferment period in three equal instalments by the end of each June from 2018 to 2020. Bonuses for the performance period of 1 January 2017–31 December 2019 will be paid in four equal instalments between 2020 and 2023.

Expenses for both schemes are recognised from the beginning of the performance period up to the date of payment (vesting period) as personnel costs, and the equivalent liability is recognised under deferred expenses. A liability recognised under the scheme amounted to EUR 0.4 million (0.7) on 31 December 2018.

### Short-term remuneration schemes

In the short-term incentive scheme, the performance period is one calendar year and the bonus is paid in cash. This short-term scheme covers all OP Financial Group's staff.

The shared metrics at OP Central Cooperative Consolidated determine the maximum bonus payable under the short-term scheme. The shared metrics include OP Financial Group's EBT (weight of 50%), OP Financial Group's operating expenses (weight of 25%) and OP Financial Group's service encounter NPS (weight of 25%). Targets shown in the balanced scorecards and derived from annual planning are decided by the business lines/functions.

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.

A liability recognised under the scheme amounted to EUR 4.8 million (3.1) on 31 December 2018.

### Deferred payment of variable remuneration

The payment of variable remuneration has been prescribed in the Act on Credit Institutions (610/2014). If a person is categorised on the basis of his duties as belonging to a group that may cause considerable risk (person affecting risk profile) to his company, the company may defer the payment of variable remuneration over three years under certain conditions.

These persons affecting the risk profile in OP Financial Group include managing directors and other key management personnel, other people with a major impact of the company's risk exposure, Internal Control and other designated persons or special groups.

Expenses charged for variable remuneration *

| EUR million | 2018 | 2017 |
|---|---|---|
| Personnel fund | 1 | 1 |
| Short-term schemes | 5 | 3 |
| Long-term schemes | | |
| Scheme for 2011–2013 | | 0 |
| Scheme for 2014–2016 | 0 | 0 |
| Scheme for 2017–2019 | 0 | 0 |
| Total | 6 | 5 |

* Excluding social expenses

## Note 37. Collateral given

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Given on behalf of own debts and commitments | | |
| Other | 5,775 | 5,662 |
| Total assets pledged as collateral | 5,775 | 5,662 |
| | | |
| Secured derivative liabilities | 887 | 864 |
| Other secured liabilities | 4,032 | 4,057 |
| Total secured liabilities* | 4,919 | 4,921 |

* In addition, bonds with a book value of EUR 5.1 billion have been pledged in the central bank, of which EUR 1.5 billion in intrady 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 38. Pension liabilities

| EUR million | 31 Dec. 2018 | 31 Dec. 2017 |
|---|---|---|
| Direct liabilities from pension commitments | 3 | 3 |

The statutory pension cover for OP Corporate Bank plc employees is managed through the OP Bank Group Pension Fund and the supplementary pension cover through the OP Bank Group Pension Foundation. The Foundation has not accepted new beneficiaries since 30 June 1991. OP Bank plc's pension liabilities are fully covered.

## Note 39. 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 40. 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 2018 | | | 8,359 | 8,359 |
| Commitments given to a third party on behalf of customers | | | 2,593 | 2,593 |
| Guarantees and pledges | | | 2,328 | |
| Other | | | 265 | |
| Irrevocable commitments given on behalf of customers | | | 5,766 | 5,766 |
| Loan commitments | | | 5,257 | |
| Other | | | 509 | |

| EUR million | On behalf of subsidiaries | On behalf of affiliates | On behalf of others | Total |
|---|---|---|---|---|
| Off-balance-sheet commitments 31 December 2017 | | | 8,389 | 8,389 |
| Commitments given to a third party on behalf of customers | | | 2,374 | 2,374 |
| Guarantees and pledges | | | 2,015 | |
| Other | | | 359 | |
| Irrevocable commitments given on behalf of customers | | | 6,015 | 6,015 |
| Loan commitments | | | 5,495 | |
| Other | | | 520 | |

## Note 41. Other contingent liabilities and commitments at the year-end

On 31 December 2018, OP Corporate Bank plc's commitments to private equity funds amounted to EUR 4.7 (5.0) million and relate to those presented in Note 42.

Client assets related to brokerage amounted to EUR 4.3 (-1.0) million included in 'Liabilities to the public and public sector entities'. Accounts payable related to brokerage totalled EUR 126.1 (75.0) million and accounts receivable EUR 121.8 (75.3) million.

## Note 42. Personnel and members of administrative bodies, and related parties

| Average personnel in 2017 | Average no. | Change during the year |
|---|---|---|
| Permanent full-time personnel | 607 | 28 |
| Permanent part-time personnel | 30 | 9 |
| Fixed-term personnel | 49 | -4 |
| Total | 686 | 33 |

| Remuneration paid to members of administrative bodies in 2018 | Wages and salaries, EUR million |
|---|---|
| Members of the Board of Directors, President and CEO, and Deputy CEO | |
| Jouko Pölönen (1.1.-30.4.2018) | 0 |
| Katja Keitaanniemi (6.8.-31.12.2018) | 0 |
| | 0 |

In the financial year 2018, the members of the Board of Directors did not receive any monthly fees or attendance allowances.

Salaries and bonuses paid to President and CEO Jouko Pölönen between 1 January and 30 April 2018 totalled 239,556 euros.*
* The amount included EUR 48,832 in performance-based bonus for 2017 under the short-term scheme.

In addition to other duties, Hannu Jaatinen acted as President and CEO between 1 May and 5 August 2018, and no separate salary was paid.

Salaries and bonuses paid to President and CEO Katja Keitaanniemi between 6 August and 31 December 2018 totalled EUR 161,295.

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 2014–2016 will be paid between 2018 and 2020, and those for 2017–2019 between 2020 and 2023.

The President and CEO as OP Financial Group's Executive Vice President, Banking, is a member of OP Cooperative's Executive Board. His/her retirement age is determined as specified in applicable pension laws. Pension benefits are determined in accordance with pension laws and OP Financial Group's own pension plans. 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. Furthermore, the President and CEO belongs to the supplementary pension plan for the Executive Board of OP Cooperative.

### Loans, guarantees and collateral granted to members of the administrative bodies on 31 December 2018

As at 31 December 2018 and 31 December 2017, 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 | 2018 | 2017 |
|---|---|---|
| Audit | 130.168 | 131.050 |
| Tax counsultation | 8.297 | 40.716 |
| Other services | 103.609 | 111.222 |
| **Total** | **242.074** | **282.988** |

Non-audit services provided by KPMG Oy Ab totalled EUR 111,906 (151,938).

### Related parties

OP Corporate Bank plc's related parties include members and deputy members of the Board of Directors, President and CEO and his deputy, auditor and deputy auditor or the chief auditor of the accounting firm as well as their spouses or persons living in a marital-type relationship and underage children. The related parties also include OP Cooperative which owns 100% of OP Life Assurance Company Ltd. Related party transactions consist of paid salaries and fees as well as ordinary business transactions with OP Financial Group entities.

| Transactions based on ownership, EUR million | 2018 | 2017 |
|---|---|---|
| Loans and other receivables | 0 | 0 |
| Deposits and other debts | -427 | -436 |
| Net interest income | 0 | -2 |
| Dividend income | 0 | 0 |
| Net commissions and fees | 0 | 0 |
| Net other operating income | 14 | 15 |

No significant expected credit losses have been recognised on the items.

## Note 43. Holdings in other companies

| Subsidiaries, 31 December 2018 | Holding, % | Equity capital | Profit or loss for the financial year |
|---|---|---|---|
| OP Insurance Ltd<br>Helsinki | 100 | 312 | 122 |
| A-Insurance Ltd<br>Helsinki | 100 | 68 | 2 |
| Kaivokadun PL-hallinto Oy<br>Helsinki | 100 | 5 | 0 |
| OP Finance AS<br>Estonia | 100 | 9 | 2 |
| "OP Finance" SIA<br>Latvia | 100 | 12 | 2 |
| UAB "OP Finance"<br>Lithuania | 100 | 14 | 4 |

| Participating interests, 31 December 2018 | Holding, % | Equity capital | Profit or loss for the financial year |
|---|---|---|---|
| Finnmezzanine Rahasto III B Ky<br>Helsinki | 49.49 | 0 | -1 |

Associate's data as per 31 December 2018. OP Corporate Bank plc has no shareholdings in companies in which it would have unlimited liability.

## Note 44. Information by country

OP Corporate Bank plc has branches engaged in banking in Estonia, Latvia and Lithuania. In addition, it has subsidiaries in Estonia, Latvia and Lithuania engaged in finance-company operations. 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 |

| Financial information, EUR million | Estonia | Latvia | Lithuania | 31 Dec. 2018 Total |
|---|---|---|---|---|
| Total operating income | 11 | 10 | 16 | **36** |
| Total EBIT | 4 | 3 | 7 | **14** |
| Total current tax | 0 | 0 | 1 | **1** |
| | | | | |
| Total personnel in man-years | 127 | 75 | 92 | **294** |

| Financial information, EUR million | Estonia | Latvia | Lithuania | 31 Dec. 2017 Total |
|---|---|---|---|---|
| Total operating income | 42 | 22 | 29 | **94** |
| Total EBIT | 9 | 2 | 8 | **19** |
| Total current tax | | 0 | 1 | **1** |
| | | | | |
| Total personnel in man-years | 170 | 104 | 124 | **399** |

## Note 45. Trustee Services

OP Corporate Bank plc provides the general public with investment services and asset management and custodian services. 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,

# Signatures for the Financial Statements and Report by the Board of Directors

Helsinki, 5 February 2019

Timo Ritakallio
Chair of the Board of Directors

Tony Vepsäläinen

Vesa Aho

Tiia Tuovinen

Jarmo Viitanen

Katja Keitaanniemi
President and CEO

# Auditors' note

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

Helsinki, 13 February 2019

KMPG Oy Ab
Audit firm

Raija-Leena Hankonen
Authorised Public Accountant

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*This document is an English translation of the Finnish auditor's report. Only the Finnish version of the report is legally binding.*

# Auditor's Report

## To the 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 31 December 2018. The financial statements comprise the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, statement of cash flows 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.

To 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 |
| --- | --- |
| **Receivables from customers (notes 1, 3, 12, 18 and 45 to the financial statements)** | |
| — Receivables from customers, totaling €22.4 billion, are the most significant item on the OP Corporate Bank's consolidated balance sheet representing 33.5 percent of the total assets. Interest income accruing on receivables was €0.3 billion.<br>— OP Corporate Bank adopted the IFRS 9 Financial instruments standard on 1 January 2018. The adoption resulted in a shift from calculating impairments on an individual and collective basis to the expected credit loss models set out in IFRS 9.<br>— The calculation of expected credit losses involves assumptions, estimates and management judgements for example in respect to the probability and amount of the expected credit losses as well as determining significant increases in credit risk.<br>— Due to the significance of the carrying amount involved, the adoption of IFRS 9, complexity of the accounting methods and management judgement involved, receivables from customers are addressed as a key audit matter. | — We evaluated compliance with the lending instructions and assessed principles and controls over recognition and monitoring of loan receivables and interest. We utilised data analysis in our audit focusing on the lending process and loans.<br>— As regards the adoption of IFRS, we assessed the models and key assumptions for calculating expected credit losses as well as tested the controls related to calculation process and credit risk models for the expected credit losses. KPMG IFRS and financial instruments specialists have been involved in the audit.<br>— Our audit procedures also comprised interest income analysis by reference to developments in loan receivables and interest margins.<br>— Furthermore, we considered the appropriateness of the notes provided by OP Corporate Bank in respect of receivables and expected credit losses.<br>— Finally, we considered the appropriateness of the notes on investment assets and derivatives, including the notes related to the IFRS 9 transition. |

### Investment assets and derivative contracts (notes 1, 3, 7, 17, 19, 26 and 56 to consolidated financial statements)

- The carrying value of investment assets totals €16.4 billion mainly consisting of investments measured at fair value. The aggregate derivative assets are €3.5 billion and derivative liabilities €3.0 billion comprising contracts held for trading and hedging purposes. Derivatives are measured at fair value in preparing financial statements.
- The fair value of financial instruments is determined using either prices quoted in an active market or own valuation techniques where no active market exists. Determining the fair values for investments and derivatives involves management judgements, especially in respect of those instruments for which market-based data is not available.
- The adoption of IFRS 9 Financial instruments resulted in changes to the classification and measurement of financial assets and liabilities. The most significant classification changes applied to investments of OP Corporate Bank Group's Non-life insurance which are mainly recognized at fair value through profit and loss.
- Due to the significant carrying values of investment assets and derivative positions involved, and management judgements related to measurement of illiquid investments, valuation of these assets is addressed as a key audit matter.

- We evaluated the appropriateness of the accounting principles applied and the valuation techniques used by OP Corporate Bank, and tested internal controls over the valuation process of investments and derivative contracts including data analysis.
- Our audit procedures also comprised the assessment of net investment income by reference to developments in market and the structure of the investment portfolio.
- In respect of derivative contracts we considered the appropriateness of the accounting treatment applied with the requirements set under IFRS. As regards the adoption of IFRS 9, we assessed classification principles for the financial instruments and tested the classification by a sample.
- As part of our year-end audit procedures we compared the fair values used in valuation of investment assets and derivatives to market quotations and other external price references.
- We also assessed the impairment principles applied and techniques used by OP Corporate Bank in respect of investments.

### Insurance liabilities (notes 1, 5 and 28 to consolidated financial statements)

- Measurement of insurance liabilities, amounting to €3.1 billion on OP Corporate Bank's balance sheet, is based on various

- Our audit procedures included assessment of the principles related to calculation and recognition of insurance liabilities. Our actuary specialist evaluated the actuarial assumptions and calculation methods.

- Calculation of insurance liabilities is based on data processed in many IT systems and combination of that data. The databases are extensive and data volumes processed by the IT systems are substantial.
- Interest rate risk associated with insurance liabilities is hedged with derivatives and interest rate instruments, which are measured at fair value in the financial statements.
- Due to the significant carrying value of insurance liabilities involved, and the complexity associated with actuarial models used, insurance liabilities are addressed as a key audit matter.

appropriateness of the assumptions and methods used in determining insurance liabilities, and compared the assumptions to industry development and market information, among other things.

- We evaluated internal control over the accuracy of data used in calculating insurance liabilities and assessed the related controls.
- We analysed the effectiveness of hedging against interest rate risks, and the appropriateness of the accounting for derivative instruments used for hedging purposes.
- Furthermore, we considered the appropriateness of the notes on insurance liabilities.

**Control environment relating to financial reporting process and IT system**

- OP Corporate Bank has outsourced a significant part of its financial reporting process and IT systems to the parent company OP Cooperative and its subsidiaries.
- In respect of the accuracy of the financial statements of OP Corporate Bank, the key reporting processes are dependent on information systems. Therefore, information technology plays an essential role for business continuity, incident management and the accuracy of financial reporting. Consequently, the IT environment related to the financial reporting process and the application controls of individual IT systems have a significant effect on the selected audit approach.
- As the consolidated financial statements of OP Corporate Bank are based on a large number of data flows from many systems, the financial reporting IT environment is addressed as a key audit matter.

- We obtained an understanding of the IT systems related to financial reporting and the associated control environment, and tested the effectiveness of the related internal controls.
- Our audit procedures also concentrated on monitoring of key data flows and transactions, change management, interfaces and outsourcing management.
- For the financial year 2018, our focus areas were IT systems with a substantial impact on financial statement figures and assessment of the processes for managing access rights in the key financial reporting systems.
- As part of our audit we performed extensive substantive procedures and data analyses relating to various aspects in 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 17 years.

### Other Information

The Board of Directors and the President and CEO 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, 13 February 2019

KPMG OY AB

RAIJA-LEENA HANKONEN
*Authorised Public Accountant, KHT*