UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 20-F

(Mark One)

☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended 31 December 2019

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission File Number: 001-14642

ING GROEP N.V.

(Exact name of Registrant as specified in its charter)

ING GROUP

(Translation of Registrant's name into English)

The Netherlands

(Jurisdiction of incorporation or organization)

ING Groep N.V. Bijlmerdreef 106

1102 CT Amsterdam

P.O. Box 1800, 1000 BV Amsterdam

The Netherlands

(Address of principal executive offices)

Erwin Olijslager

Telephone: +31 20 564 7705

E-mail: Erwin.Olijslager@ing.com

Bijlmerdreef 106

1102 CT Amsterdam

The Netherlands

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading symbols	Name of each exchange on which registered
American Depositary Shares	ING	New York Stock Exchange
Ordinary shares		New York Stock Exchange[(i)]
6.125% ING Perpetual Debt Securities	ISG	New York Stock Exchange
3.150% Fixed Rate Senior Notes due 2022	ING22	New York Stock Exchange
3.950% Fixed Rate Senior Notes due 2027	ING27	New York Stock Exchange
Floating Rate Senior Notes due 2022	ING22A	New York Stock Exchange
Floating Rate Senior Notes due 2023	ING23A	New York Stock Exchange
4.100% Fixed Rate Senior Notes due 2023	ING23	New York Stock Exchange
4.550% Fixed Rate Senior Notes due 2028	ING28	New York Stock Exchange
3.550% Fixed Rate Senior Notes due 2024	ING24	New York Stock Exchange
4.050% Fixed Rate Senior Notes due 2029	ING29	New York Stock Exchange

(i) Not for trading, but only in connection with the registration of American Depositary Shares representing such ordinary shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act.	None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.	None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

Ordinary Shares, nominal value EUR 0.01 per Ordinary Share	3.896.734.271

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

☐ Yes ☒ No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

☐ Yes ☒ No

Note — Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer☒ Accelerated filer☐ Non-accelerated filer☐ Emerging growth company☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP☐	International Financial Reporting Standards as issued by the International Accounting Standards Board ☒	Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. ☐ Item 17 ☐ Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). ☐ Yes ☒ No

ING Group

Annual Report 2019 on Form 20-F

Filed with the United States Securities and Exchange Commission for the year ended December 31st, 2019

Contents

PRESENTATION OF INFORMATION

In this Annual Report, and unless otherwise stated or the context otherwise dictates, references to "ING Groep N.V.", "ING Groep" and "ING Group" refer to ING Groep N.V. and references to "ING", the "Company", the "Group", "we" and "us" refer to ING Groep N.V. and its consolidated subsidiaries. ING Groep N.V.'s primary banking subsidiary is ING Bank N.V. (together with its consolidated subsidiaries, "ING Bank"). References to "Executive Board" and "Supervisory Board" refer to the Executive Board or Supervisory Board of ING Groep N.V., respectively.

ING presents its consolidated financial statements in euros, the currency of the European Economic and Monetary Union. Unless otherwise specified or the context otherwise requires, references to “$”, “US$” and “Dollars” are to the United States dollars and references to “EUR” are to euros.

Solely for the convenience of the reader, this Annual Report contains translations of certain euro amounts into U.S. dollars at specified rates. These translations should not be construed as representations that the translated amounts actually represent such dollar or euro amounts, as the case may be, or could be converted into U.S. dollars or euros, as the case may be, at the rates indicated or at any other rate. Therefore, unless otherwise stated, the translations of euros into U.S. dollars have been made at the rate of EUR 1.00 = U.S. $ 1.0855, the noon buying rate in New York City for cable transfers in euros as certified for customs purposes by the Federal Reserve Bank of New York (the “Noon Buying Rate”) on 21 February 2020.

ING prepares financial information in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (“IFRS-IASB”) for purposes of reporting with the U.S. Securities and Exchange Commission (“SEC”), including financial information contained in this Annual Report on Form 20-F. ING Group’s accounting policies and its use of various options under IFRS-IASB are described under ‘Principles of valuation and determination of results’ in the consolidated financial statements. In this document the term “IFRS-IASB” is used to refer to IFRS-IASB as applied by ING Group.

The published 2019 Annual Accounts of ING Group, however, are prepared in accordance with IFRS-EU. IFRS-EU refers to International Financial Reporting Standards (“IFRS”) as adopted by the European Union (“EU”), including the decisions ING Group made with regard to the options available under IFRS as adopted by the EU (IFRS-EU).

IFRS-EU differs from IFRS-IASB, in respect of certain paragraphs in IAS 39 ‘Financial Instruments: Recognition and Measurement’ regarding hedge accounting for portfolio hedges of interest rate risk. Under IFRS-EU, ING Group applies fair value hedge accounting for portfolio hedges of interest rate risk (fair value macro hedges) in accordance with the EU “carve-out” version of IAS 39. Under the EU “IAS 39 carve-out”, hedge accounting may be applied, in respect of fair value macro hedges, to core deposits and hedge ineffectiveness is only recognised when the revised estimate of the amount of cash flows in scheduled time buckets falls below the original designated amount of that bucket, and is not recognised when the revised amount of cash flows in scheduled time buckets is more than the original designated amount. Under IFRS-IASB, hedge accounting for fair value macro hedges cannot be applied to core deposits and hedge ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket. IFRS-IASB financial information is prepared by reversing the hedge accounting impacts that are applied under the EU “carve-out”’ version of IAS 39. Financial information under IFRS-IASB accordingly does not take account of the possibility that, had ING Group applied IFRS-IASB as its primary accounting framework, it might have applied alternative hedge strategies where those alternative hedge strategies could have qualified for IFRS-IASB compliant hedge accounting. These decisions could have resulted in different shareholders’ equity and net result amounts compared to those indicated in this Annual Report on Form 20-F.

Other than for the purpose of SEC reporting, ING Group intends to continue to prepare its Annual Accounts under IFRS-EU. A reconciliation between IFRS-EU and IFRS-IASB for shareholders’ equity and net result is included in Note 1 ‘accounting policies’ to the consolidated financial statements.

In addition to the consolidated financial statements, which are prepared in accordance with IFRS-IASB, this Annual Report on Form 20-F contains certain measures that are not defined by generally accepted accounting principles (GAAP) such as IFRS. Our management uses these financial measures, along with the most directly comparable GAAP financial measures, in evaluating segment performance and allocating resources. We believe that presentation of this information, along with comparable GAAP measures, is useful to investors because it allows investors to understand the primary method used by management to evaluate performance on a meaningful basis. Non-GAAP financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with GAAP, including the consolidated financial statements. Non-GAAP financial measures as defined by us may not be comparable with similarly titled measures used by other companies.

Certain amounts set forth herein, such as percentages, may not sum due to rounding.

This Annual Report on Form 20-F contains inactive textual addresses to Internet websites operated by us and third parties. Reference to such websites is made for information purposes only, and information found at such websites is not incorporated by reference into this Annual Report on Form 20-F.

CAUTIONARY STATEMENT WITH RESPECT TO FORWARD-LOOKING STATEMENTS

Certain of the statements contained herein are not historical facts, including, without limitation, certain statements made of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Actual results, performance or events may differ materially from those in such statements due to a number of factors, including, without limitation,

- changes in general economic conditions, in particular economic conditions in ING's core markets;
- changes affecting interest rate levels;
- changes in performance of financial markets, including developing markets;
- changes in the fiscal position and the future economic performance of the US including potential consequences of a downgrade of the sovereign credit rating of the US government;
- consequences of the United Kingdom's withdrawal from the European Union;
- introduction of, changes in or discontinuation of 'benchmark' indices;
- inflation and deflation in our principal markets; changes in conditions in the credit and capital markets generally, including changes in borrower and counterparty creditworthiness;
- changes in laws and regulations, including those governing financial services or financial institutions, and the interpretation and application thereof;
- changes in compliance obligations;
- geopolitical risks, political instability and policies and actions of governmental and regulatory authorities;
- ING's ability to meet minimum capital and other prudential regulatory requirements;
- the outcome of current and future legal and regulatory proceedings;
- changes in tax laws;
- operational risks, such as system disruptions or failures, breaches of security, cyber-attacks, human error, changes in operational practices, inadequate controls including in respect of third parties with which we do business, natural disasters or outbreaks of communicable diseases;
- risks and changes related to cybercrime including the effects of cyber-attacks and changes in legislation and regulation related to cybersecurity and data privacy;
- changes in general competitive factors;
- the inability to protect our intellectual property and infringement claims by third parties;
- changes in credit ratings;
- business, operational, regulatory, reputation and other risks and challenges in connection with climate change;
- the inability to attract and retain key personnel;
- conclusions with regard to purchase accounting assumptions and methodologies, and other changes in accounting assumptions and methodologies including changes in valuation of issued securities and credit market exposure;
- changes in investor and customer behavior;
- changes in the availability of, and costs associated with, sources of liquidity such as interbank funding;

- changes affecting currency exchange rate;
- changes in ownership that could affect the future availability to us of net operating loss, net capital and built-in loss carry forwards;
- ING's ability to achieve its strategy, including projected operational synergies and change programmes, and
- the other risks and uncertainties detailed in the most recent annual report of ING Groep N.V. (including the Risk Factors contained therein) and ING's more recent disclosures, including press releases, which are available on www.ING.com.

This annual report contains inactive textual addresses to internet websites operated by us and third parties. Reference to such websites is made for information purposes only, and information found at such websites is not incorporated by reference into this annual report. ING does not make any representation or warranty with respect to the accuracy or completeness of, or take any responsibility for, any information found at any websites operated by third parties. ING specifically disclaims any liability with respect to any information found at websites operated by third parties. ING cannot guarantee that websites operated by third parties remain available following the filing of this annual report or that any information found at such websites will not change following the filing of this annual report. Many of those factors are beyond ING's control.

Any forward looking statements made by or on behalf of ING speak only as of the date they are made, and ING assumes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information or for any other reason.

This document does not constitute an offer to sell, or a solicitation of an offer to purchase, any securities in the United States or any other jurisdiction.

PART I

Item 1. Identity of Directors, Senior Management And Advisors

Not Applicable.

Item 2. Offer Statistics and Expected Timetable

Not Applicable.

Item 3. Key Information

A. Selected financial data

The selected consolidated financial information data is derived from the IFRS-IASB consolidated financial statements of ING Group.

The following information should be read in conjunction with, and is qualified by reference to the Group's consolidated financial statements and other financial information included elsewhere herein.

IFRS-IASB Consolidated Income Statement

for the years ended 31 December In millions except amounts per share	**2019 US$**	**2019 EUR**	**2018 EUR**	**2017 EUR**	**2016 EUR**	**2015 EUR**
Continuing operations						
Interest income	30,571	28,163	28,129	43,890	44,182	46,321
Interest expense	15,580	14,353	14,169	30,243	30,941	33,760
Net interest result	14,992	13,811	13,960	13,647	13,241	12,561
Net fee and commission income	3,113	2,868	2,798	2,710	2,433	2,318
Other income	485	446	1,566	2,233	2,228	3,128
Total income	**18,589**	**17,125**	**18,324**	**18,590**	**17,902**	**18,007**
Addition to loan loss provision	1,215	1,120	656	676	974	1,347
Operating expenses	11,238	10,353	10,682	9,829	10,614	9,326
Total expenses	**12,453**	**11,472**	**11,338**	**10,505**	**11,588**	**10,673**
Result before tax from continuing operations	6,136	5,653	6,986	8,085	6,314	7,334
Taxation	1,793	1,652	2,116	2,539	1,705	1,924
Net result from continuing operations	**4,344**	**4,001**	**4,869**	**5,546**	**4,609**	**5,410**
Net result from discontinued operations	**0**	**0**	**0**	**0**	**441**	**–76**
Net result attributable to Non-controlling interests	107	99	108	82	75	408
Net result ING Group IFRS-IASB attributable to Equityholders of the parent	**4,236**	**3,903**	**4,761**	**5,464**	**4,975**	**4,926**
Addition to shareholders' equity	1,318	1,214	2,115	2,861	2,415	2,411
Dividend	2,919	2,689	2,646	2,603	2,560	2,515
Basic earnings per Ordinary Share	1.09	1.00	1.22	1.41	1.28	1.27
Diluted earnings per Ordinary Share	1.09	1.00	1.22	1.41	1.28	1.27
Dividend per Ordinary Share	0.75	0.69	0.68	0.67	0.66	0.65
Number of Ordinary Shares outstanding in the market (in millions)	3,896.7	3,896.7	3,891.7	3,884.8	3,877.9	3,868.7

Euro amounts have been translated into U.S. dollars at the exchange rate of $ 1.0855 to EUR 1.00, the Noon Buying Rate in New York City on 21 February 2020 for cable transfers in euros as certified for customs purposes by the Federal Reserve Bank of New York.

Reference is made to Note 1 'Accounting policies' for information on Changes in accounting principles, estimates and presentation of the consolidated financial statements and related notes.

Dividend reported is the amount declared over the year.

Basic earnings per share amounts have been calculated based on the weighted average number of ordinary shares of ING Groep N.V. (“Ordinary Shares”) outstanding during the relevant period. For purposes of this calculation, Ordinary Shares held by Group companies are deducted from the total number of Ordinary Shares in issue. The effect of dilutive securities is also adjusted.

IFRS-IASB Consolidated Balance Sheet Data

as at 31 December	**2019**	**2019**	**2018**	**2017**	**2016**	**2015**
In billions except amounts per share or otherwise indicated	**US$**	**EUR**	**EUR**	**EUR**	**EUR**	**EUR**
Total assets	964.5	888.5	884.6	843.9	842.2	1,002.3
Financial assets at fair value through profit or loss	104.4	96.2	120.5	123.2	122.1	138.0
Loans and advances to customers	660.0	608.0	589.7	571.9	560.2	696.9
Savings accounts	354.6	326.7	322.7	319.7	315.7	305.9
Other deposits and funds	268.8	247.7	233.0	220.1	207.2	358.3
Customer deposits	623.5	574.4	555.7	539.8	522.9	664.2
Deposits from banks	37.8	34.8	37.3	36.8	32.0	33.8
Shareholders' equity	55.4	51.0	49.0	48.4	47.3	45.0
Non-voting equity securities						
Shareholders' equity per Ordinary Share oustanding	14.21	13.09	12.61	12.47	12.19	11.62
Number of Ordinary shares outstanding (in millions)	3,895.8	3,895.8	3,890.6	3,885.8	3,878.5	3,870.2

Euro amounts have been translated into U.S. dollars at the exchange rate of $ 1.0855 to EUR 1.00, the Noon Buying Rate in New York City on 21 February 2020 for cable transfers in euros as certified for customs purposes by the Federal Reserve Bank of New York.

ING has changed its accounting policy for the netting of cash pooling arrangements in the second quarter of 2016. Loans and advances to customers and Customer deposits, as at 31 December 2015, are adjusted as a result.

The amounts for the period ended 31 December 2019 and 31 December 2018 have been prepared in accordance with IFRS 9. ING Group has applied the classification, measurement, and impairment requirements of IFRS 9 retrospectively as of 1 January 2018 by adjusting the opening balance sheet and opening equity at 1 January 2018. ING Group decided not to restate comparative periods as permitted by IFRS 9. Reference is made to Note 1 'Accounting policies' for information on Changes in accounting principles, estimates and presentation of the consolidated financial statements and related notes.

Shareholders’ equity per ordinary share amounts have been calculated based on the number of Ordinary Shares outstanding at the end of the respective periods.

B. Capitalization and indebtedness

This item does not apply to annual reports on Form 20-F.

C. Reasons for the offer and use of proceeds

This item does not apply to annual reports on Form 20-F.

D. Risk Factors

Any of the risks described below could have a material adverse effect on the business activities, financial condition, results and prospects of ING. ING may face a number of the risks described below simultaneously and some risks described below may be interdependent. While the risk factors below have been divided into categories, some risk factors could belong in more than one category and investors should carefully consider all of the risk factors set out in this section. Additional risks of which the Company is not presently aware, or that are currently viewed as immaterial, could also affect the business operations of ING and have a material adverse effect on

ING's business activities, financial condition, results and prospects. The market price of ING shares or other securities could decline due to any of those risks including the risks described below, and investors could lose all or part of their investments.

Risks related to financial conditions, market environment and general economic trends

Because we are a financial services company conducting business on a global basis, our revenues and earnings are affected by the volatility and strength of the economic, business, liquidity, funding and capital markets environments of the various geographic regions in which we conduct business, and an adverse change in any one region could have an impact on our business, results and financial condition.

Because ING is a multinational banking and financial services corporation, with a global presence and serving around 38.4 million customers, corporate clients and financial institutions in over 40 countries, ING's business, results and financial condition may be significantly impacted by turmoil and volatility in the worldwide financial markets or in the particular geographic areas in which we operate. In Retail Banking, our products include savings, payments, investments, loans and mortgages in most of our retail markets. In Wholesale Banking, we provide specialised lending, tailored corporate finance, debt and equity market solutions, payments & cash management and trade and treasury services. As a result, negative developments in financial markets and/or regions in which we operate have in the past had and may in the future have a material adverse impact on our business, results and financial condition, including as a result of the potential consequences listed below.

Factors such as interest rates, securities prices, credit spreads, liquidity spreads, exchange rates, consumer spending, changes in client behaviour, business investment, real estate values and private equity valuations, government spending, inflation or deflation, the volatility and strength of the capital markets, political events and trends, terrorism, pandemics and epidemics (such as COVID-19) or other widespread health emergencies all impact the business and economic environment and, ultimately, our solvency, liquidity and the amount and profitability of business we conduct in a specific geographic region. Certain of these risks are often experienced globally as well as in specific geographic regions and are described in greater detail below under the headings "–Interest rate volatility and other interest rate changes may adversely affect our business, results and financial condition", "–Inflation and deflation may negatively affect our business, results and financial condition", "–Market conditions, including those observed over the past few years and the application of IFRS 9 may increase the risk of loans being impaired and have a negative effect on our results and financial condition" and "–Continued risk of political instability and fiscal uncertainty in Europe and the United States, as well as ongoing volatility in the financial markets and the economy generally have adversely affected, and may continue to adversely affect, our business, results and financial condition".

In case one or more of the factors mentioned above adversely affects the profitability of our business, this might also result, among other things, in the following:
- reserve and provisions inadequacies, which could ultimately be realised through profit and loss and shareholders' equity;
- the write-down of tax assets impacting net results and/or equity;
- impairment expenses related to goodwill and other intangible assets, impacting net result; and/or
- movements in risk weighted assets for the determination of required capital.

In particular, we are exposed to financial, economic, market and political conditions in the Benelux countries and Germany, from which we derive a significant portion of our revenues in both Retail Banking and Wholesale Banking, and which present risks of economic downturn. Though less material, we also derive substantial revenues in the following geographic regions: Turkey, Eastern Europe (primarily Poland among others), Southern Europe (primarily Spain among others), East Asia (primarily Singapore among others) and Australia which also present risks of economic downturn. In an economic downturn, we expect that higher unemployment, lower family income, lower corporate earnings, higher corporate and private debt defaults, lower business investments and lower consumer spending would adversely affect the demand for banking products, and that

ING may need to increase its reserves and provisions, each of which may result in overall lower earnings. Securities prices, real estate values and private equity valuations may also be adversely impacted, and any such losses would be realised through profit and loss and shareholders' equity. We also offer a number of financial products that expose us to risks associated with fluctuations in interest rates, securities prices, corporate and private default rates, the value of real estate assets, exchange rates and credit spreads.

For further information on ING's exposure to particular geographic areas, see Note 35 'Information on geographic areas' to the consolidated financial statements.

Interest rate volatility and other interest rate changes may adversely affect our business, results and financial condition.

Changes in prevailing interest rates may negatively affect our business, including the level of net interest revenue we earn, and the levels of deposits and the demand for loans. A sustained increase in the inflation rate in our principal markets may also negatively affect our business, results and financial condition. For example, a sustained increase in the inflation rate may result in an increase in nominal market interest rates. A failure to accurately anticipate higher inflation and factor it into our product pricing assumptions may result in mispricing of our products, which could materially and adversely impact our results. On the other hand, recent concerns regarding negative interest rates and the low level of interest rates generally may negatively impact our net interest income, which may have an adverse impact on our profitability.

A prolonged period of low interest rates has resulted in, and may continue to result in:
- lower earnings over time on investments, as reinvestments will earn lower rates;
- increased prepayment or redemption of mortgages and fixed maturity securities in our investment portfolios, as well as increased prepayments of corporate loans. This as borrowers seek to borrow at lower interest rates potentially combined with lower credit spreads. Consequently, we may be required to reinvest the proceeds into assets at lower interest rates;
- lower profitability as the result of a decrease in the spread between client rates earned on assets and client rates paid on savings, current account and other liabilities;
- higher costs for certain derivative instruments that may be used to hedge certain of our product risks;
- lower profitability since we may not be able to fully track the decline in interest rates in our savings rates;
- lower profitability since we may not always be entitled to impose surcharges to customers to compensate for the decline in interest rates;
- lower profitability since we may have to pay a higher premium for the defined contribution scheme in the Netherlands for which the premium paid is dependent on interest rate developments and DNB's methodology for determining the ultimate forward rate;
- lower interest rates may cause asset margins to decrease thereby lowering our results. This may for example be the consequence of increased competition for investments as result of the low rates, thereby driving margins down; and/or
- (depending on the position) a significant collateral posting requirement associated with our interest rate hedge programs, which could materially and adversely affect liquidity and our profitability.

The foregoing impacts have been and may be further amplified in a negative interest rate environment, since we may not be able earn interest on our assets (including reserves), or may be forced to pay negative interest on our assets, while still paying a positive interest or no interest to others to hold our liabilities, resulting in an adverse impact on our credit spread and lowering of our net interest income. Furthermore, in the event that a negative interest rate environment results in ING's depositors being forced to pay a premium to ING to hold cash deposits, some depositors may choose to withdraw their deposits in lieu of making such payments to ING, which would have an adverse effect on our reputation, business, results and financial condition.

Alternatively, any period of rapidly increasing interest rates may result in:
- a decrease in the demand for loans;

- higher interest rates to be paid on debt securities that we have issued or may issue on the financial markets from time to time to finance our operations and on savings, which would increase our interest expenses and reduce our results;
- higher interest rates can lead to lower investments prices reduce the revaluation reserves, thereby lowering IFRS equity and the capital ratios. Also the lower securities value leads to a loss of liquidity generating capacity which needs to be compensated by attracting new liquidity generating capacity which reduces our results;
- prepayment losses if prepayment rates are lower than expected or if interest rates increase too rapidly to adjust the accompanying hedges; and/or
- (depending on the position) a significant collateral posting requirement associated with our interest rate hedge program.

The default of a major market participant could disrupt the markets and may have an adverse effect on our business, results and financial condition.

Within the financial services industry, the severe distress or default of any one institution (including sovereigns and central counterparties (CCPs)) could lead to defaults by, or the severe distress of, other market participants. While prudential regulation may reduce the probability of a default by a major financial institution, the actual occurrence of such a default could have a material adverse impact on ING. Such distress of, or default by, a major financial institution could disrupt markets or clearance and settlement systems and lead to a chain of defaults by other financial institutions, since the commercial and financial soundness of many financial institutions may be closely related as a result of credit, trading, clearing or other relationships. Even the perceived lack of creditworthiness of a sovereign or a major financial institution (or a default by any such entity) may lead to market-wide liquidity problems and losses or defaults by us or by other institutions. This risk is sometimes referred to as 'systemic risk' and may adversely affect financial intermediaries, such as clearing agencies, clearing houses, banks, securities firms and exchanges with whom we interact on a daily basis and financial instruments of sovereigns in which we invest. Systemic risk could impact ING directly, by exposing it to material credit losses on transactions with defaulting counterparties or indirectly by significantly reducing the available market liquidity on which ING and its lending customers depend to fund their operations and/or leading to a write down of loans or securities held by ING. Systemic risk could have a material adverse effect on our ability to raise new funding and on our business, results and financial condition. In addition, such distress or failure could impact future product sales as a potential result of reduced confidence in the financial services industry.

Continued risk of political instability and fiscal uncertainty in Europe and the United States, as well as ongoing volatility in the financial markets and the economy generally have adversely affected, and may continue to adversely affect, our business, results and financial condition.

Our global business and results are materially affected by conditions in the global capital markets and the economy generally. In Europe, there are continuing concerns over weaker economic conditions, as well as concerns in relation to European sovereign debt, the uncertain outcome of the negotiations between the UK and the EU following the Brexit decisions in UK parliament, increasing political instability, levels of unemployment, the availability and cost of credit, credit spreads, and the impact of continued quantitative easing within the Eurozone through bond repurchases and the ECB's targeted longer-term refinancing operation ('TLTRO'). In the United States, political uncertainty, US national debt levels and changes in US trade and foreign investment policies (including tensions with China and Eurozone) may result in adverse economic developments. In addition, geopolitical issues, including with respect to the Middle East, Russia/Ukraine and North Korea may all contribute to adverse developments in the global capital markets and the economy generally.

Adverse developments in the market have included, for example, decreased liquidity, increased price volatility, credit downgrade events, and increased probability of default for fixed income securities. Moreover, there is a risk that an adverse credit event at one or more European sovereign debtors (including a credit rating downgrade or a default) could trigger a broader economic downturn in Europe and elsewhere. In addition, the confluence of these and other factors has resulted in volatile foreign exchange markets. Securities that are less liquid are more difficult to value and may be hard to dispose of. International equity markets have also continued to experience heightened volatility and turmoil, with issuers, including ourselves, that have exposure to the real estate, mortgage, private equity and credit markets particularly affected. These events, market upheavals and continuing risks, including high levels of volatility, have had and may continue to have an adverse effect on our results, in part because we have a large investment portfolio.

There is also continued uncertainty over the long-term outlook for the tax, spending and borrowing policies of the US, the future economic performance of the US within the global economy and any potential future budgetary restrictions in the US, with a potential impact on a future sovereign credit ratings downgrade of the US government, including the rating of US Treasury securities. A downgrade of US Treasury securities could also impact the ratings and perceived creditworthiness of instruments issued, insured or guaranteed by institutions, agencies or instrumentalities directly linked to the US government. US Treasury securities and other US government-linked securities are key assets on the balance sheets of many financial institutions and are widely used as collateral by financial institutions to meet their day-to-day cash flows in the short-term debt market. The impact of any further downgrades to the sovereign credit rating of the US government or a default by the US government on its debt obligations would create broader financial turmoil and uncertainty, which would weigh heavily on the global financial system and could consequently result in a significant adverse impact to the Group's business and operations.

In many cases, the markets for investments and instruments have been and remain illiquid, and issues relating to counterparty credit ratings and other factors have exacerbated pricing and valuation uncertainties. Valuation of such investments and instruments is a complex process involving the consideration of market transactions, pricing models, management judgment and other factors, and is also impacted by external factors, such as underlying mortgage default rates, interest rates, rating agency actions and property valuations. Historically these factors have resulted in, among other things, valuation and impairment issues in connection with our exposures to European sovereign debt and other investments.

Any of these general developments in global financial and political conditions could negatively impact to our business, results and financial condition in future periods.

The uncertainty surrounding the United Kingdom's withdrawal from the European Union may have adverse effects on our business, results and financial condition.

Although the UK is not a member state of the Eurozone, the departure of the UK from the EU (commonly referred to as 'Brexit') remains a major political and economic event whose consequences are not fully known or understood and may further destabilize the Eurozone. The UK withdrew from the EU on January 31, 2020, though the relationship between the UK and the EU remains uncertain during the ongoing transition period, which largely maintains current arrangements and provides time for the UK and the EU to negotiate the details of their future relationship. The transition period is currently expected to end on December 31, 2020, and, if no agreement is reached, the default scenario would be a non-negotiated Brexit. In the event of a non-negotiated Brexit, the UK will depart the EU with no agreements in place beyond any temporary arrangements which have been or may be put in place by the EU or individual EU Member States, and the UK as part of no-deal contingency efforts and those conferred by mutual membership of the World Trade Organization. Accordingly, there continues to be uncertainty with respect to the process surrounding Brexit and the outcome of the ongoing Brexit negotiations, including any related regulatory changes, and over the future economic relationship between the UK and the rest of the world (including the EU). Any of these developments could have an adverse effect on economic and financial conditions in the UK, the EU or globally. Although ING has continued to take further steps throughout 2019 to prepare for known risks related to Brexit, such as substantially progressing applications for a Third Country Branch banking licence in the UK, taking actions for contract continuity and working to establish alternatives in the EU for those euro clearing activities that may be expected to move from London following Brexit, the possible economic and operational impacts of Brexit on the Group and its counterparties remain uncertain. Given ING's significant pre-existing EU-licensed banking network and the various scenario analyses performed by ING on its Brexit sensitive clients and sectors, ING believes that it is positioned to largely avoid, or has taken significant steps to mitigate, potential direct adverse effects of Brexit.

However, the regulatory impact of Brexit continues to present material risks and uncertainties, particularly as to how regulations may diverge between the EU and the UK, which could materially increase ING's compliance costs and have a material adverse effect on ING's business, results and financial condition.

Discontinuation of or changes to 'benchmark' indices may negatively affect our business, results and financial condition.

The London Interbank Offered Rate ('LIBOR'), the Euro OverNight Index Average ('EONIA'), the Euro Interbank Offered Rate ('EURIBOR') and other interest rates or other types of rates and indices which are deemed to be 'benchmarks' are the subject of ongoing national and international regulatory reform. Following the implementation of any such potential reforms, the manner of administration of benchmarks may change, with the result that they may perform or be calculated differently than in the past, or benchmarks could cease to exist entirely, or there could be other consequences which cannot be predicted. Although the UK Financial Conduct Authority ('FCA') has authorized ICE Benchmark Administration as administrator of LIBOR, on 27 July 2017 the FCA announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021. The announcement indicates that the continuation of the LIBOR on the current basis cannot and will not be guaranteed after 2021. In addition, as of October 2019, the new euro risk-free rate euro short-term rate (€STR) is being published and the EONIA benchmark was reformed, making it dependant to the €STR benchmark. The reformed EONIA benchmark will cease to exist by 1 January 2022 and therefore the European Money Markets Institute (EONIA's administrator) has indicated that EONIA cannot be used in any contracts that will be outstanding as of 1 January 2022. Public authorities have initiated industry working groups in various jurisdictions to search for and recommend alternative risk-free rates that could serve alternatives if current benchmarks like LIBOR and EONIA cease to exist or materially change. The work of these working groups is still ongoing, though certain such organizations have advanced proposals for benchmark replacements. For example, the US Federal Reserve's Alternative Reference Rates Committee (commonly referred to as 'ARRC') has recommended adoption of the Secured Overnight Financing Rate (commonly referred to as 'SOFR') as an alternative to US dollar LIBOR.

The potential discontinuation of the LIBOR and EONIA benchmarks or any other benchmark, or changes in the methodology or manner of administration of any benchmark, could result in a number of risks for the Group, its clients, and the financial services industry more widely. These risks include legal risks in relation to changes required to documentation for new and existing transactions may be required. Financial risks may also arise from any changes in the valuation of financial instruments linked to benchmark rates, and changes to benchmark indices could impact pricing mechanisms on some instruments. Changes in valuation, methodology or documentation may also result into complaints or litigation. The Group may also be exposed to operational risks or incur additional costs due to the potential requirement to adapt IT systems, trade reporting infrastructure and operational processes, or in relation to communications with clients or other parties and engagement during the transition period.

Except for EONIA, the replacement of benchmarks together with the timetable and mechanisms for implementation have not yet been confirmed by central banks. Accordingly, it is not currently possible to determine whether, or to what extent, any such changes would affect the Group. However, the implementation of alternative benchmark rates may have a material adverse effect on our business, results and financial condition.

Inflation and deflation may negatively affect our business, results and financial condition.

A sustained increase in the inflation rate in our principal markets would have multiple impacts on us and may negatively affect our business, results and financial condition. For example, a sustained increase in the inflation rate may result in an increase in market interest rates, which may:

- decrease the estimated fair value of certain fixed income securities that we hold in our investment portfolios, resulting in:

  - reduced levels of unrealised capital gains available to us, which could negatively impact our solvency position and net income, and/or
  - a decrease in collateral values,
- result in increased withdrawal of certain savings products, particularly those with fixed rates below market rates,
- require us, as an issuer of securities, to pay higher interest rates on debt securities that we issue in the financial markets from time to time to finance our operations, which would increase our interest expenses and reduce our results.

A significant and sustained increase in inflation has historically also been associated with decreased prices for equity securities and sluggish performance of equity markets generally. A sustained decline in equity markets may:
- result in impairment charges to equity securities that we hold in our investment portfolios and reduced levels of unrealised capital gains available to us which would reduce our net income, and
- lower the value of our equity investments impacting our capital position.

In addition, a failure to accurately anticipate higher inflation and factor it into our product pricing may result in a systemic mispricing of our products, which would negatively impact our results.

On the other hand, deflation experienced in our principal markets may also adversely affect our financial performance. In recent years, the risk of low inflation and even deflation (i.e., a continued period with negative rates of inflation) in the Eurozone has materialized. Deflation may erode collateral values and diminish the quality of loans and cause a decrease in borrowing levels, which would negatively affect our business and results.

Market conditions, including those observed over the past few years, and the application of IFRS 9 may increase the risk of loans being impaired and have a negative effect on our results and financial condition.

We are exposed to the risk that our borrowers (including sovereigns) may not repay their loans according to their contractual terms and that the collateral securing the payment of these loans may be insufficient. We may see adverse changes in the credit quality of our borrowers and counterparties, for example, as a result of their inability to refinance their indebtedness, with increasing delinquencies, defaults and insolvencies across a range of sectors. This may lead to impairment charges on loans and other assets, higher costs and additions to loan loss provisions. A significant increase in the size of our provision for loan losses could have a material adverse effect on our business, results and financial condition.

IFRS 9 ‘Financial Instruments’ became effective as per 1 January 2018 and results in loan loss provisions that may be recognized earlier, on a more forward looking basis and on a broader scope of financial instruments than was previously the case under IAS 39. ING has applied the classification, measurement, and impairment requirements retrospectively by adjusting the opening balance sheet and opening equity as at 1 January 2018. As a result of applying IFRS 9 going forward, a shift in the forward looking consensus view of economic conditions may materially impact the models used to calculate loan loss provisions under IFRS 9 and cause more volatility in, or higher levels of, loan loss provisions, any of which could adversely affect the Group’s results, financial condition or regulatory capital position.

Economic and other factors could lead to contraction in the residential mortgage and commercial lending market and to decreases in residential and commercial property prices, which could generate substantial increases in impairment losses. Additionally, continuing low oil prices could have an influence on the repayment capacity of certain corporate borrowers active in the oil and oil related services industries.

We may incur losses due to failures of banks falling under the scope of state compensation schemes.

While prudential regulation is intended to minimize the risk of bank failures, in the event such a failure occurs, given our size, we may incur significant compensation payments to be made under the Dutch Deposit Guarantee Scheme (DGS), which we may be unable to recover from the bankrupt estate, and therefore the consequences of any future failure of such a bank could be significant to ING. Such costs and the associated costs to be borne by us may have a material adverse effect on our results and financial condition. On the basis of the EU Directive on deposit guarantee schemes, ING pays quarterly risk-weighted contributions into a DGS-fund. The DGS-fund is to grow to a target size of 0.8% of all deposits guaranteed under the DGS, which is expected to be reached in July 2024. In case of failure of a Dutch bank, depositor compensation is paid from the DGS-fund. If the available financial means of the fund are insufficient, Dutch banks, including ING, may be required pay to extraordinary ex-post contributions not exceeding 0.5% of their covered deposits per calendar year. In exceptional circumstances and with the consent of the competent authority, higher contributions may be required. However, extraordinary ex-post contributions may be temporarily deferred if, and for so long as, they would jeopardise the solvency or liquidity of a bank. Depending on the size of the failed bank, the available financial means in the fund, and the required additional financial means, the impact of the extraordinary ex-post contributions on ING may be material.

Since 2015, the EU has been discussing the introduction of a pan-European deposit guarantee scheme ('EDIS'), (partly) replacing or complementing national compensation schemes in two or three phases. Proposals contain elements of (re)insurance, mutual lending and mutualisation of funds. The new model is intended to be 'overall cost-neutral'. Discussions have continued in 2019, but it remains uncertain when EDIS will be introduced and, if introduced, what impact EDIS would have on ING's business and operations.

Risks related to the regulation and supervision of the Group

Non-compliance with laws and/or regulations concerning financial services or financial institutions could result in fines and other liabilities, penalties or consequences for us, which could materially affect our business and reduce our profitability.

Despite our efforts to maintain effective compliance procedures and to comply with applicable laws and regulations, we have faced, and in the future may continue to face, the risk of consequences in connection with non-compliance with applicable laws and regulations. For additional information on legal proceedings, see Note 46 'Legal proceedings' to the consolidated financial statements. There are a number of risks in areas where applicable regulations may be unclear, subject to multiple interpretations or under development, or where regulations may conflict with one another, or where regulators revise their previous guidance or courts overturn previous rulings, which could result in our failure to meet applicable standards. Regulators and other authorities have the power to bring administrative or judicial proceedings against us, which could result, among other things, in suspension or revocation of our licenses, cease and desist orders, fines, civil penalties, criminal penalties or other disciplinary action, which could materially harm our results and financial condition. If we fail to address, or appear to fail to address, any of these matters appropriately, our reputation could be harmed and we could be subject to additional legal risk, which could, in turn, increase the size and number of claims and damages brought against us or subject us to enforcement actions, fines and penalties.

Changes in laws and/or regulations governing financial services or financial institutions or the application of such laws and/or regulations may increase our operating costs and limit our activities.

We are subject to detailed banking laws and government regulation in the jurisdictions in which we conduct business. Regulation of the industries in which we operate is becoming increasingly more extensive and complex, while also attracting scrutiny from regulators. Compliance with applicable and new laws and regulations is resources-intensive, and may materially increase our operating costs. Moreover, these regulations can limit our activities, among others, through stricter net capital, customer protection and market conduct requirements and restrictions on the businesses in which we can operate or invest.

Our revenues and profitability and those of our competitors have been and will continue to be impacted by requirements relating to capital, additional loss-absorbing capacity, leverage, minimum liquidity and long-term funding levels, requirements related to resolution and recovery planning, derivatives clearing and margin rules and levels of regulatory oversight, as well as limitations on which and, if permitted, how certain business activities may be carried out by financial institutions.

We are subject to additional legal and regulatory risk in certain countries where we operate with less developed or predictable legal and regulatory frameworks.

In certain countries in which we operate, judiciary and dispute resolution systems may be less developed. As a result, in case of a breach of contract, we may have difficulties in making and enforcing claims against contractual counterparties and, if claims are made against us, we might encounter difficulties in mounting a defence against such allegations. If we become party to legal proceedings in a market with an insufficiently developed judicial system, it could have an adverse effect on our operations and net results.

In addition, as a result of our operations in certain countries, we are subject to risks of possible nationalisation, expropriation, price controls, exchange controls and other restrictive government actions, as well as the outbreak of hostilities and or war, in these markets. Furthermore, the current economic environment in certain countries in which we operate may increase the likelihood for regulatory initiatives to enhance consumer protection or to protect homeowners from foreclosures. Any such regulatory initiative could have an adverse impact on our ability to protect our economic interest, for instance in the event of defaults on residential mortgages.

We are subject to the regulatory supervision of the ECB and other regulators with extensive supervisory and investigatory powers.

In its capacity as principal bank supervisor in the EU, the ECB has extensive supervisory and investigatory powers, including the ability to issue requests for information, to conduct regulatory investigations and on-site inspections, and to impose monetary and other sanctions. For example, under the SSM, the regulators with jurisdiction over the Group, including the ECB, may conduct stress tests and have discretion to impose capital surcharges on financial institutions for risks that are not otherwise recognised in risk-weighted assets or other surcharges depending on the individual situation of the bank and take or require other measures, such as restrictions on or changes to the Group’s business. Competent regulators may also, if the Group fails to comply with regulatory requirements, in particular with minimum capital requirements (including buffer requirements) or with liquidity requirements, or if there are shortcomings in its governance and risk management processes, prohibit the Group from making dividend payments to shareholders or distributions to holders of its regulatory capital instruments. Generally, a failure to comply with the new quantitative and qualitative regulatory requirements could have a material adverse effect on the Group’s business, results and financial condition.

Failure to meet minimum capital and other prudential regulatory requirements as applicable to us from time to time may have a material adverse effect on our business, results and financial condition and on our ability to make payments on certain of our securities.

We are subject to regulations that require us to comply with minimum requirements for capital (own funds) and additional loss absorbing capacity, as well as for liquidity, and to comply with leverage restrictions. These are developed or enacted by various organisations such as the Basel Committee on Banking Supervision (‘BCBS’), the Financial Stability Board (‘FSB’) and the European Union (‘EU’). The main pieces of legislation in this field that apply to us are the EU’s Capital Requirements Directive (‘CRD’) and Capital Requirements Regulation (‘CRR’), and the Bank Recovery and Resolution Directive, all as amended from time to time and as implemented in national law where required.

The capital and liquidity requirements and leverage restrictions that apply to us result in various minimum capital ratios (of capital to risk-weighted assets) and liquidity ratios that we must maintain, and in a minimum leverage ratio (based on unweighted assets). A key capital ratio is the Common Equity Tier 1 ratio or CET1 ratio, which is the ratio of common equity tier 1 capital to the total risk exposure amount ('TREA', often referred to as risk-weighted assets or 'RWA'). In addition to the capital requirements, we must maintain at all times a sufficient aggregate amount of own funds and 'eligible liabilities' (that is, liabilities that may be bailed in using the bail-in tool), known as the minimum requirements for own funds and eligible liabilities ('MREL').

Capital, liquidity and leverage requirements and their application and interpretation may change. Any changes may require us to maintain more capital or to raise a different type of capital by disqualifying existing capital instruments from continued inclusion in regulatory capital, requiring replacement with new capital instruments that meet the new criteria. Sometimes changes are introduced subject to a transitional period during which the new requirements are being phased in, gradually progressing to a fully phased-in, or fully-loaded, application of the requirements.

Any failure to comply with these requirements may have a material adverse effect on our business, results and financial condition, and may require us to seek additional capital. It may also prohibit us from making payments on certain of our securities. Our business, results and financial condition may also be adversely affected if these requirements change, which may also require us to seek additional capital or a different type of capital. Because implementation phases and transposition into EU or national regulation where required may often involve a lengthy period, the impact of changes in capital, liquidity and leverage regulations on our business, results and financial condition, and on our ability to make payments on certain of our securities, is often unclear.

Our US commodities and derivatives business is subject to CFTC and SEC regulation under the Dodd-Frank Act.

Title VII of Dodd-Frank created a new framework for regulation of the over-the-counter derivatives markets and certain market participants which has affected and could continue to affect various activities of the Group and its subsidiaries. ING Capital Markets LLC, a wholly-owned indirect subsidiary of ING Bank N.V., has registered with the US Commodity Futures Trading Commission ('CFTC') as a swap dealer and intends to register with the SEC as a securities-based swap dealer. The SEC has adopted regulations, among others, establishing registration, reporting, risk management, business conduct, and margin and capital requirements for security-based swaps. Such regulations are expected to be effective on or around September 1, 2021.Additionally, the CFTC recently re-proposed, and is expected to adopt, capital requirements for swap dealers, although the specific requirements, and any available exemptions, have not been finalized. If these requirements are applicable to ING, and no exemptions are available, it is possible that these requirements will be difficult for ING to comply with and may, as a result, materially and adversely impact ING's ability to operate as a swap dealer in the US. Other CFTC regulatory requirements, already implemented, include registration of swap dealers, business conduct rules imposed on swap dealers, requirements that some categories of swaps be centrally executed on regulated trading facilities and cleared through regulated clearing houses, and initial and variation margin requirements for uncleared swaps. In addition, new position limits requirements for market participants that have been proposed and may be contained in final regulations to be adopted by the CFTC could limit ING's position sizes in swaps referencing specified physical commodities and similarly limit the ability of counterparties to utilize certain of our products by narrowing the scope of hedging exemptions from position limits for commercial end users and the trading activity of speculators. All of the foregoing areas of regulation of the derivative markets and market participants will likely result in increased cost of hedging and other trading activities, both for ING and its customers, which could expose our business to greater risk and could reduce the size and profitability of our customer business. In addition, the imposition of these regulatory restrictions and requirements, could result in reduced market liquidity, which could in turn increase market volatility and the risks and costs of hedging and other trading activities.

We are subject to the 'Bank Recovery and Resolution Directive' ('BRRD') among several other bank recovery and resolution regimes that include statutory write down and conversion as well as other powers, which remains subject to significant uncertainties as to scope and impact on us.

We are subject to several recovery and resolution regimes, including the Single Resolution Mechanism ('SRM'), the BRRD as implemented in national legislation, and the Dutch 'Intervention Act' (Wet bijzondere maatregelen financiële ondernemingen. as implemented in the Dutch Financial Supervision Act). The aim of the BRRD is to provide supervisory authorities and resolution authorities with common tools and powers to address banking crises pre-emptively in order to safeguard financial stability and minimise taxpayers' exposure to losses.

The powers granted to authorities include, among others, a statutory 'write-down and conversion power' and a 'bail-in' power, which gives the resolution authority the power to, as a resolution action or when the resolution authority determines that otherwise we would no longer be viable, inter alia, (i) reduce or cancel existing shares, (ii) convert relevant capital instruments or eligible liabilities or bail-inable liabilities into shares or other instruments of ownership of the relevant entity and/or (iii) write down relevant capital instruments or eligible liabilities or reduce or cancel the principal amount of, or interest on, certain unsecured liabilities (which could include certain securities that have been or will be issued by us), whether in whole or in part and whether or not on a permanent basis.

In addition to the 'write-down and conversion power' and the 'bail-in' power, the powers granted to the resolution authority include the power to (i) sell and transfer a banking group or all or part of its business on commercial terms without requiring the consent of the shareholders or complying with the procedural requirements that would otherwise apply, (ii) transfer a banking group or all or part of its business to a 'bridge institution' (a publicly controlled entity) and (iii) separate and transfer all or part of a banking group's business to an asset management vehicle (a publicly controlled entity) to allow them to be managed over time.

In addition, among the broader powers granted to the resolution authority, the BRRD provides powers to the resolution authority to amend the maturity date and/or any interest payment date of, or the interest amount payable under, debt instruments or other bail-inable liabilities, including by suspending payment for a temporary period.

The Intervention Act confers wide-ranging powers to the Dutch Minister of Finance, including, among other things, in relation to shares and other securities issued by us or with our cooperation or other claims on us (including, without limitation, expropriation thereof) if there is a grave and immediate threat to the stability of the financial system.

None of these actions would be expected to constitute an event of default under our securities entitling holders to seek repayment. If these powers were to be exercised in respect of us, there could be a material adverse effect on us and on holders of our securities, including through a material adverse effect on credit ratings and/or the price of our securities. Investors in our securities may lose their investment if resolution measures are taken under current or future regimes.

For further discussion of the impact of bank recovery and resolution regimes on ING, see "Item 4. Information on the Company—Regulation and Supervision—Regulatory Developments—Bank recovery and resolution directive."

Risks related to changes in laws of general application, litigation, enforcement proceedings and investigations

We may be subject to litigation, enforcement proceedings, investigations or other regulatory actions, and adverse publicity.

We are involved in governmental, regulatory, arbitration and legal proceedings and investigations involving claims by and against us which arise in the ordinary course of our businesses, including in connection with our activities as financial services provider, employer, investor and taxpayer. As a financial institution, we are subject to specific laws and regulations governing financial services or financial institutions. See "– Changes in laws and/or regulations governing financial services or financial institutions or the application of such laws and/or regulations may increase our operating costs and limit our activities" above. Financial reporting irregularities involving other large and well-known companies, possible findings of government authorities in various jurisdictions which are investigating several rate-setting processes, notifications made by whistleblowers, increasing regulatory and law enforcement scrutiny of 'know your customer' anti-money laundering, tax evasion, prohibited transactions with countries or persons subject to sanctions, and bribery or other anti-corruption measures and anti-terrorist-financing procedures and their effectiveness, regulatory investigations of the banking industry, and litigation that arises from the failure or perceived failure by us to comply with legal, regulatory, tax and compliance requirements could result in adverse publicity and reputational harm, lead to increased regulatory supervision, affect our ability to attract and retain customers and maintain access to the capital markets, result in cease and desist orders, claims, enforcement actions, fines and civil and criminal penalties, other disciplinary action or have other material adverse effects on us in ways that are not predictable. Some claims and allegations may be brought by or on behalf of a class and claimants may seek large or indeterminate amounts of damages, including compensatory, liquidated, treble and punitive damages. Our reserves for litigation liabilities may prove to be inadequate. Claims and allegations, should they become public, need not be well founded, true or successful to have a negative impact on our reputation. In addition, press reports and other public statements that assert some form of wrongdoing could result in inquiries or investigations by regulators, legislators and law enforcement officials, and responding to these inquiries and investigations, regardless of their ultimate outcome, is time consuming and expensive. Adverse publicity, claims and allegations, litigation and regulatory investigations and sanctions may have a material adverse effect on our business, results, financial condition and/or prospects in any given period.

We are subject to different tax regulations in each of the jurisdictions where we conduct business, and are exposed to changes in tax laws, and risks of non-compliance with or proceedings or investigations with respect to, tax laws.

Changes in tax laws (including case law) could increase our taxes and our effective tax rates and could materially impact our tax receivables and liabilities as well as deferred tax assets and deferred tax liabilities, which could have a material adverse effect on our business, results and financial condition. Changes in tax laws could also make certain ING products less attractive, which could have adverse consequences for our businesses and results. Because of the geographic spread of its business, ING may be subject to tax audits, investigations and procedures in numerous jurisdictions at any point in time. Although we believe that we have adequately provided for all our tax positions, the ultimate resolution of these audits, investigations and procedures may result in liabilities which are different from the amounts recognized.

Increased bank taxes in countries where the Group is active result in increased taxes on ING's banking operations, which could negatively impact our operations, financial condition and liquidity.

We may be subject to withholding tax if we fail to comply with the Foreign Account Tax Compliance Act and other US withholding tax regulations

Under provisions of US tax law commonly referred to as FATCA, non-US financial institutions are required to provide to the US Internal Revenue Service ('IRS') certain information about financial accounts held by US taxpayers or by foreign entities in which US taxpayers hold a substantial ownership interest. Every three years, certain ING branches and subsidiaries are required to certify their compliance with FATCA requirements to the IRS. If the IRS determines that any such branches and/or subsidiaries are not in compliance with the FATCA requirements, then the FATCA regulations would impose a 30 percent penalty tax on all US-source payments (e.g., interest and dividends) made to the branch/subsidiary, regardless of whether the branch/subsidiary is the beneficial owner of such payment or is acting as an intermediary for customers/payees.

Under provisions of other US tax law concerning withholding tax, non-US financial institutions acting as intermediaries are required to withhold tax on US-source payments to payees and remit the tax to the IRS. Every three years, certain ING branches and subsidiaries are required to certify their compliance with such Qualified Intermediary ('QI') requirements to the IRS. If the IRS determines that any such branches and/or subsidiaries are not in compliance with the QI requirements, then it would not be commercially feasible for ING to offer certain products to customers.

Failure to comply with FATCA and/or QI requirements and regulations could also harm our reputation and could subject the Group to enforcement actions, fines and penalties, which could have a material adverse effect on our business, reputation, revenues, results, financial condition and prospects. For additional information with respect to specific proceedings, see Note 46 'Legal proceedings' to the consolidated financial statements.

ING is exposed to the risk of claims from customers who feel misled or treated unfairly because of advice or information received.

Our banking products and advice services for third-party products are exposed to claims from customers who might allege that they have received misleading advice or other information from advisers (both internal and external) as to which products were most appropriate for them, or that the terms and conditions of the products, the nature of the products or the circumstances under which the products were sold, were misrepresented to them. When new financial products are brought to the market, ING engages in a multidisciplinary product approval process in connection with the development of such products, including production of appropriate marketing and communication materials. Notwithstanding these processes, customers may make claims against ING if the products do not meet their expectations. Customer protection regulations, as well as changes in interpretation and perception by both the public at large and governmental authorities of acceptable market practices, influence customer expectations.

Products distributed through person-to-person sales forces have a higher exposure to such claims as the sales forces provide face-to-face financial planning and advisory services. Complaints may also arise if customers feel that they have not been treated reasonably or fairly, or that the duty of care has not been complied with. While a considerable amount of time and resources have been invested in reviewing and assessing historical sales practices and products that were sold in the past, and in the maintenance of risk management, legal and compliance procedures to monitor current sales practices, there can be no assurance that all of the issues associated with current and historical sales practices have been or will be identified, nor that any issues already identified will not be more widespread than presently estimated.

The negative publicity associated with any sales practices, any compensation payable in respect of any such issues and regulatory changes resulting from such issues, has had and could have a material adverse effect on our reputation, business, results, financial condition and prospects. For additional information regarding legal proceedings or claims, see Note 46 'Legal proceedings' to the consolidated financial statements.

Risks related to the Group's business and operations

Operational risks, such as systems disruptions or failures, breaches of security, cyber attacks, human error, changes in operational practices, inadequate controls including in respect of third parties with which we do business, natural disasters or outbreaks of communicable diseases may adversely impact our reputation, business and results.

We face the risk that the design and operating effectiveness of our controls and procedures may prove to be inadequate. Operational risks are inherent to our business. Our businesses depend on the ability to process a large number of transactions efficiently and accurately. In addition, we routinely transmit, receive and store personal, confidential and proprietary information by email and other electronic means. Although we endeavour to safeguard our systems and processes, losses can result from inadequately trained or skilled personnel, IT failures (including due to a computer virus or a failure to anticipate or prevent cyber attacks or other attempts to gain unauthorised access to digital systems for purposes of misappropriating assets or sensitive information, corrupting data, or impairing operational performance, or security breaches by third parties), inadequate or failed internal control processes and systems, regulatory breaches, human errors, employee misconduct, including fraud, or from natural disasters or other external events that interrupt normal business operations. Such losses may adversely affect our reputation, business and results. We depend on the secure processing, storage and transmission of confidential and other information in our computer systems and networks. The equipment and software used in our computer systems and networks may not always be capable of processing, storing or transmitting information as expected. Despite our business continuity plans and procedures, certain of our computer systems and networks may have insufficient recovery capabilities in the event of a malfunction or loss of data. As part of our Accelerated Think Forward strategy, we are consistently managing and monitoring our IT risk profile globally. ING is subject to increasing regulatory requirements including EU General Data Protection Regulation ('GDPR') and EU Payment Services Directive ('PSD2'). Failure to appropriately manage and monitor our IT risk profile could affect our ability to comply with these regulatory requirements, to securely and efficiently serve our clients or to timely, completely or accurately process, store and transmit information, and may adversely impact our reputation, business and results. For further description of the particular risks associated with cybercrime, see "–We are subject to increasing risks related to cybercrime and compliance with cybersecurity regulation" below.

Widespread outbreaks of communicable diseases may impact the health of our employees, increasing absenteeism, or may cause a significant increase in the utilisation of health benefits offered to our employees, either or both of which could adversely impact our business. We also face physical risks, including as a direct result of climate change, such as extreme weather events or rising water levels, which could have a material adverse effect on our operations, particularly where our headquarters may be impacted. In addition, other events including unforeseeable and/or catastrophic events can lead to an abrupt interruption of activities, and our operations may be subject to losses resulting from such disruptions. Losses can result from destruction or impairment of property, financial assets, trading positions, and the loss of key personnel. If our business continuity plans are not able to be implemented, are not effective or do not sufficiently take such events into account, losses may increase further.

We are subject to increasing risks related to cybercrime and compliance with cybersecurity regulation.

Like other financial institutions and global companies, we are regularly the target of cyber attacks. In particular, threats from Distributed Denial of Service ('DDoS'), targeted attacks (also called Advanced Persistent Threats) and Ransomware intensify worldwide, and attempts to gain unauthorised access and the techniques used for such attacks are increasingly sophisticated. We have faced, and expect to continue to face, an increasing number of cyber attacks (both successful and unsuccessful) as we have further digitalized. This includes the continuing expansion of our mobile- and other internet-based products and services, as well as our usage and reliance on cloud technology. In 2019 we experienced continuous DDoS attacks, of which one DDoS attack breached our DDoS defences (compared to two attacks in 2018). This DDoS attack caused an outage of approximately four-hours, which affected customers of ING in Romania. In addition, ING Philippines experienced one virus infection on a vendor-supplied server for two hours, which had no customer impact. Furthermore, due to our reliance on national critical infrastructure and interconnectivity with third-party vendors, exchanges, clearing houses, financial institutions and other third parties, we could be adversely impacted if any of them is subject to a successful cyber attack or other information security event.

Cybersecurity, customer data and data privacy have become the subject of increasing legislative and regulatory focus. The EU's second Payment Services Directive ('PSD2'), implemented in 2019, and GDPR are examples of such regulations. In certain locations where ING is active, there are additional local regulatory requirements and legislation on top of EU regulations that must be followed for business conducted in that jurisdiction. Some of these legislations and regulations may be conflicting due to local regulatory interpretations. We may become subject to new EU and local legislation or regulation concerning cybersecurity, security of customer data in general or the privacy of information we may store or maintain. Compliance with such new legislation or regulation could increase the Group's compliance cost. Failure to comply with new and existing legislation or regulation could harm our reputation and could subject the Group to enforcement actions, fines and penalties.

ING may be exposed to the risks of misappropriation, unauthorised access, computer viruses or other malicious code, cyber attacks and other external attacks or internal breaches that could have a security impact. These events could also jeopardise our confidential information or that of our clients or our counterparties and this could be exacerbated by the increase in data protection requirements as a result of GDPR. These events can potentially result in financial loss and harm to our reputation, hinder our operational effectiveness, result in regulatory censure, compensation costs or fines resulting from regulatory investigations and could have a material adverse effect on our business, reputation, revenues, results, financial condition and prospects. Even when we are successful in defending against cyber attacks, such defence may consume significant resources or impose significant additional costs on ING.

Because we operate in highly competitive markets, including our home market, we may not be able to increase or maintain our market share, which may have an adverse effect on our results.

There is substantial competition in the Netherlands and the other countries in which we do business for the types of wholesale banking, retail banking, investment banking and other products and services we provide. Customer loyalty and retention can be influenced by a number of factors, including brand recognition, reputation, relative service levels, the prices and attributes of products and services, scope of distribution, credit ratings and actions taken by existing or new competitors (including non-bank or financial technology competitors). A decline in our competitive position as to one or more of these factors could adversely impact our ability to maintain or further increase our market share, which would adversely affect our results. Such competition is most pronounced in our more mature markets of the Netherlands, Belgium, the rest of Western Europe and Australia. In recent years, however, competition in emerging markets, such as Latin America, Asia and Central and Eastern Europe, has also increased as large financial services companies from more developed countries have sought to establish themselves in markets which are perceived to offer higher growth potential, and as local institutions have become more sophisticated and competitive and proceeded to form alliances, mergers or strategic relationships with our competitors. The Netherlands is our largest market. Our main competitors in the banking sector in the Netherlands are ABN AMRO Bank and Rabobank.

Competition could also increase due to new entrants (including non-bank and financial technology competitors) in the markets that may have new operating models that are not burdened by potentially costly legacy operations and that are subject to reduced regulation. New entrants may rely on new technologies, advanced data and analytic tools, lower cost to serve, reduced regulatory burden and/or faster processes in order to challenge traditional banks. Developments in technology has also accelerated the use of new business models, and ING may not be successful in adapting to this pace of change or may incur significant costs in adapting its business and operations to meet such changes. For example, new business models have been observed in retail payments, consumer and commercial lending (such as peer-to-peer lending), foreign exchange and low-cost investment advisory services. In particular, the emergence of disintermediation in the financial sector resulting from new banking, lending and payment solutions offered by rapidly evolving incumbents, challengers and new entrants, in particular with respect to payment services and products, and the introduction of disruptive technology may impede our ability to grow or retain our market share and impact our revenues and profitability.

Increasing competition in the markets in which we operate (including from non-banks and financial technology competitors) may significantly impact our results if we are unable to match the products and services offered by our competitors. Future economic turmoil may accelerate additional consolidation activity. Over time, certain sectors of the financial services industry have become more concentrated, as institutions involved in a broad range of financial services have been acquired by or merged into other firms or have declared bankruptcy. These developments could result in our competitors gaining greater access to capital and liquidity, expanding their ranges of products and services, or gaining geographic diversity. We may experience pricing pressures as a result of these factors in the event that some of our competitors seek to increase market share by reducing prices.

We may not always be able to protect our intellectual property developed in our products and services and may be subject to infringement claims, which could adversely impact our core business, inhibit efforts to monetize our internal innovations and restrict our ability to capitalize on future opportunities.

In the conduct of our business, we rely on a combination of contractual rights with third parties and copyright, trademark, trade name, patent and trade secret laws to establish and protect our intellectual property, which we develop in connection with our products and services. Third parties may infringe or misappropriate our intellectual property. We may have to litigate to enforce and protect our copyrights, trademarks, trade names, patents, trade secrets and know-how or to determine their scope, validity or enforceability. In that event, we may be required to incur significant costs, and our efforts may not prove successful. The inability to secure or protect our intellectual property assets could have an adverse effect on our core business and our ability to compete, including through the monetization of our internal innovations.

We may also be subject to claims made by third parties for (1) patent, trademark or copyright infringement, (2) breach of copyright, trademark or licence usage rights, or (3) misappropriation of trade secrets. Any such claims and any resulting litigation could result in significant expense and liability for damages. If we were found to have infringed or misappropriated a third-party patent or other intellectual property right, we could in some circumstances be enjoined from providing certain products or services to our customers or from utilizing and benefiting from certain methods, processes, copyrights, trademarks, trade secrets or licences. Alternatively, we could be required to enter into costly licensing arrangements with third parties or to implement a costly workaround. Any of these scenarios could have a material adverse effect on our business and results and could restrict our ability to pursue future business opportunities.

The inability of counterparties to meet their financial obligations or our inability to fully enforce our rights against counterparties could have a material adverse effect on our results.

Third parties that owe us money, securities or other assets may not pay or perform under their obligations. These parties include the issuers and guarantors (including sovereigns) of securities we hold, borrowers under loans originated, reinsurers, customers, trading counterparties, securities lending and repurchase counterparties, counterparties under swaps, credit default and other derivative contracts, clearing agents, exchanges, clearing houses and other financial intermediaries. Defaults by one or more of these parties on their obligations to us due to bankruptcy, lack of liquidity, downturns in the economy or real estate values, continuing low oil or other commodity prices, operational failure or other factors, or even rumours about potential defaults by one or more of these parties or regarding a severe distress of the financial services industry generally, could have a material adverse effect on our results, financial condition and liquidity. Given the high level of interdependence between financial institutions, we are and will continue to be subject to the risk of deterioration of the commercial and financial soundness, or perceived soundness, of sovereigns and other financial services institutions. This is particularly relevant to our franchise as an important and large counterparty in equity, fixed income and foreign exchange markets, including related derivatives.

We routinely execute a high volume of transactions, such as unsecured debt instruments, derivative transactions and equity investments with counterparties and customers in the financial services industry, including brokers and dealers, commercial and investment banks, mutual and hedge funds, insurance companies, institutional clients, futures clearing merchants, swap dealers, and other institutions, resulting in large periodic settlement amounts, which may result in our having significant credit exposure to one or more of such counterparties or customers. As a result, we could face concentration risk with respect to liabilities or amounts we expect to collect from specific counterparties and customers. We are exposed to increased counterparty risk as a result of recent financial institution failures and weakness and will continue to be exposed to the risk of loss if counterparty financial institutions fail or are otherwise unable to meet their obligations. A default by, or even concerns about the creditworthiness of, one or more of these counterparties or customers or other financial services institutions could therefore have an adverse effect on our results or liquidity.

With respect to secured transactions, our credit risk may be exacerbated when the collateral held by us cannot be or is liquidated at prices not sufficient to recover the full amount of the loan or derivative exposure due to us. We also have exposure to a number of financial institutions in the form of unsecured debt instruments, derivative transactions and equity investments. For example, we hold certain hybrid regulatory capital instruments issued by financial institutions which permit the issuer to cancel coupon payments on the occurrence of certain events or at their option. The EC has indicated that, in certain circumstances, it may require these financial institutions to cancel payment. If this were to happen, we expect that such instruments may experience ratings downgrades and/or a drop in value and we may have to treat them as impaired, which could result in significant losses. There is no assurance that losses on, or impairments to the carrying value of, these assets would not materially and adversely affect our business, results or financial condition.

In addition, we are subject to the risk that our rights against third parties may not be enforceable in all circumstances. The deterioration or perceived deterioration in the credit quality of third parties whose securities or obligations we hold could result in losses and/ or adversely affect our ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes. A significant downgrade in the credit ratings of our counterparties could also have a negative impact on our income and risk weighting, leading to increased capital requirements. While in many cases we are permitted to require additional collateral from counterparties that experience financial difficulty, disputes may arise as to the amount of collateral we are entitled to receive and the value of pledged assets. Also in this case, our credit risk may also be exacerbated when the collateral we hold cannot be liquidated at prices sufficient to recover the full amount of the loan or derivative exposure due to us, which is most likely to occur during periods of illiquidity and depressed asset valuations, such as those experienced during the financial crisis of 2008. The termination of contracts and the foreclosure on collateral may subject us to claims. Bankruptcies, downgrades and disputes with counterparties as to the valuation of collateral tend to increase in times of market stress and illiquidity. Any of these developments or losses could materially and adversely affect our business, results, financial condition, and/or prospects.

Ratings are important to our business for a number of reasons, and a downgrade or a potential downgrade in our credit ratings could have an adverse impact on our results and net results.

Credit ratings represent the opinions of rating agencies regarding an entity's ability to repay its indebtedness. Our credit ratings are important to our ability to raise capital and funding through the issuance of debt and to the cost of such financing. In the event of a downgrade, the cost of issuing debt will increase, having an adverse effect on our net results. Certain institutional investors may also be obliged to withdraw their deposits from ING following a downgrade, which could have an adverse effect on our liquidity. We have credit ratings from S&P, Moody's Investor Service and Fitch Ratings. Each of the rating agencies reviews its ratings and rating methodologies on a recurring basis and may decide on a downgrade at any time.

Furthermore, ING Bank's assets are risk-weighted. Downgrades of these assets could result in a higher risk-weighting, which may result in higher capital requirements. This may impact net earnings and the return on capital, and may have an adverse impact on our competitive position.

As rating agencies continue to evaluate the financial services industry, it is possible that rating agencies will heighten the level of scrutiny that they apply to financial institutions, increase the frequency and scope of their credit reviews, request additional information from the companies that they rate and potentially adjust upward the capital and other requirements employed in the rating agency models for maintenance of certain ratings levels. It is possible that the outcome of any such review of us would have additional adverse ratings consequences, which could have a material adverse effect on our results and financial condition. We may need to take actions in response to changing standards or capital requirements set by any of the rating agencies, which could cause our business and operations to suffer. We cannot predict what additional actions rating agencies may take, or what actions we may take in response to the actions of rating agencies.

We may be exposed to business, operational, regulatory, reputational and other risks in connection with climate change.

Climate change is an area of significant focus for governments and regulators, investors and ING's customers, and developments with respect to climate change topics may expose ING to significant risks. The perception of climate change as a risk by civil society, shareholders, governments and other stakeholders continues to increase, including in relation to the financial sector's operations and strategy, and international actions regulating or restricting CO2 emissions, such as the Paris agreement, may also result in financial institutions coming under increased pressure from such stakeholders regarding the management and disclosure of their climate risks and related lending and investment activities. For further information regarding the alignment of ING's lending portfolio with its climate-related goals, see "Item 4. – Information on the Company – Business Overview – Responsible finance" below. Additionally, rising climate change concerns may lead to additional regulation that could increase our operating costs or negatively impact the profitability of our investments and lending activities, including those involving the natural resources sector. ING may incur substantial costs in complying with current or future laws and regulations relating to climate change, including with respect to international actions regulating or restricting CO2 emissions or changes in capital requirements regulations in response to climate change. In addition, ING is exposed to transition risks related to climate change, which result from changes in the behaviour of economic and financial actors in response to the implementation of energy policies or technological changes. Any of these risks may result in changes in our business activities or other liabilities or costs, including exposure to reputational risks, any of which may have a material and adverse impact on our business, results or financial condition.

For a description of the physical risks to our business resulting from climate change, see "– Operational risks, such as systems disruptions or failures, breaches of security, cyber attacks, human error, changes in operational practices, inadequate controls including in respect of third parties with which we do business, natural disasters or outbreaks of communicable diseases may adversely impact our reputation, business and results" above.

An inability to retain or attract key personnel may affect our business and results.

ING Group relies to a considerable extent on the quality of its senior management, such as members of the executive committee, and management in the jurisdictions which are material to ING's business and operations. The success of ING Group's operations is dependent, among other things, on its ability to attract and retain highly qualified personnel. Competition for key personnel in most countries in which ING Group operates, and globally for senior management, is intense. ING Group's ability to attract and retain key personnel, in senior management and in particular areas such as technology and operational management, client relationship management, finance, risk and product development, is dependent on a number of factors, including prevailing market conditions and compensation packages offered by companies competing for the same talent.

The (increasing) restrictions on remuneration, plus the public and political scrutiny especially in the Netherlands, will continue to have an impact on existing ING Group remuneration policies and individual remuneration packages for personnel. For example, under the EU's amended Shareholder Rights Directive, known as 'SRD II', which came into effect on June 10, 2019, ING is required to hold a shareholder advisory vote on ING's remuneration policy for directors (including members of the executive board and the supervisory board) and on the annual remuneration report for such directors. This may restrict our ability to offer competitive compensation compared with companies (financial and/or non-financial) that are not subject to such restrictions and it could adversely affect ING Group's ability to retain or attract key personnel, which, in turn, may affect our business and results.

We may incur further liabilities in respect of our defined benefit retirement plans if the value of plan assets is not sufficient to cover potential obligations, including as a result of differences between results and underlying actuarial assumptions and models.

ING Group companies operate various defined benefit retirement plans covering a number of our employees. The liability recognised in our consolidated balance sheet in respect of our defined benefit plans is the present value of the defined benefit obligations at the balance sheet date, less the fair value of each plan's assets, together with adjustments for unrecognised actuarial gains and losses and unrecognised past service costs. We determine our defined benefit plan obligations based on internal and external actuarial models and calculations using the projected unit credit method. Inherent in these actuarial models are assumptions, including discount rates, rates of increase in future salary and benefit levels, mortality rates, trend rates in health care costs, consumer price index, and the expected return on plan assets. These assumptions are based on available market data and the historical performance of plan assets, and are updated annually. Nevertheless, the actuarial assumptions may differ significantly from actual results due to changes in market conditions, economic and mortality trends and other assumptions. Any changes in these assumptions could have a significant impact on our present and future liabilities to and costs associated with our defined benefit retirement plans.

Risks related to the Group's risk management practices

Risks relating to our use of quantitative models or assumptions to model client behaviour for the purposes of our market calculations may adversely impact our reputation or results.

We use quantitative methods, systems or approaches that apply statistical, economic financial, or mathematical theories, techniques and assumptions to process input data into quantitative estimates. Errors in the development, implementation, use or interpretation of such models, or from incomplete or incorrect data, can lead to inaccurate, noncompliant or misinterpreted model outputs, which may adversely impact our reputation and results. In addition, we use assumptions in order to model client behaviour for the risk calculations in our banking books. Assumptions are used to determine the interest rate risk profile of savings and current accounts and to estimate the embedded option risk in the mortgage and investment portfolios. Assumptions based on past client behaviour may not always be a reliable indicator of future behaviour. The realisation or use of different assumptions to determine client behaviour could have a material adverse effect on the calculated risk figures and, ultimately, our future results or reputation. Furthermore, we may be subject to risks related to changes in the laws and regulations governing the risk management practices of financial institutions. For further information, see "Risks related to the regulation and supervision of the Group – Changes in laws and/or regulations governing financial services or financial institutions or the application of such laws and/or regulations may increase our operating costs and limit our activities" above.

We may be unable to manage our risks successfully through derivatives.

We employ various economic hedging strategies with the objective of mitigating the market risks that are inherent in our business and operations. These risks include currency fluctuations, changes in the fair value of our investments, the impact of interest rates, equity markets and credit spread changes, the occurrence of credit defaults and changes in client behaviour. We seek to control these risks by, among other things, entering into a number of derivative instruments, such as swaps, options, futures and forward contracts, including, from time to time, macro hedges for parts of our business, either directly as a counterparty or as a credit support provider to affiliate counterparties. Developing an effective strategy for dealing with these risks is complex, and no strategy can completely insulate us from risks associated with those fluctuations. Our hedging strategies also rely on assumptions and projections regarding our assets, liabilities, general market factors and the creditworthiness of our counterparties that may prove to be incorrect or prove to be inadequate. Accordingly, our hedging activities may not have the desired beneficial impact on our results or financial condition. Poorly designed strategies or improperly executed transactions could actually increase our risks and losses. Hedging strategies involve transaction costs and other costs, and if we terminate a hedging arrangement, we may also be required to pay additional costs, such as transaction fees or breakage costs. There have been periods in the past, and it is likely that there will be periods in the future, during which we have incurred or may incur losses on transactions, possibly significant, after taking into account our hedging strategies. Further, the nature and timing of our hedging transactions could actually increase our risk and losses. Hedging instruments we use to manage product and other risks might not perform as intended or expected, which could result in higher (un)realised losses, such as credit value adjustment risks or unexpected P&L effects, and unanticipated cash needs to collateralise or settle such transactions. Adverse market conditions can limit the availability and increase the costs of hedging instruments, and such costs may not be recovered in the pricing of the underlying products being hedged. In addition, hedging counterparties may fail to perform their obligations, resulting in unhedged exposures and losses on positions that are not collateralised. As such, our hedging strategies and the derivatives that we use or may use may not adequately mitigate or offset the risks they intend to cover, and our hedging transactions may result in losses.

Our hedging strategy additionally relies on the assumption that hedging counterparties remain able and willing to provide the hedges required by our strategy. Increased regulation, market shocks, worsening market conditions (whether due to the ongoing euro crisis or otherwise), and/or other factors that affect or are perceived to affect the financial condition, liquidity and creditworthiness of ING may reduce the ability and/or willingness of such counterparties to engage in hedging contracts with us and/or other parties, affecting our overall ability to hedge our risks and adversely affecting our business, results and financial condition.

Our risk management policies and guidelines may prove inadequate for the risks we face.

[We have developed risk management policies and procedures and will continue to review and develop these in the future. Nonetheless, our policies and procedures to identify, monitor and manage risks may not be fully effective, particularly during extremely turbulent times. The methods we use to manage, estimate and measure risk are partly based on historic market behaviour. The methods may, therefore, prove to be inadequate for predicting future risk exposure, which may be different than suggested by historical experience. For instance, these methods may not predict the losses seen in the stressed conditions in recent periods, and may also not adequately allow prediction of circumstances arising due to government interventions and stimulus packages, which increase the difficulty of evaluating risks. Other methods for risk management are based on evaluation of information regarding markets, customers, catastrophic occurrence or other information that is publicly known or otherwise available to us. Such information may not always be accurate, complete, updated or properly evaluated. Management of operational, compliance, legal and regulatory risks requires, among other things, policies and procedures to record and verify large numbers of transactions and events. These policies and procedures may not be fully effective, resulting in a material and adverse impact on our competitive position, reputation, business, results and financial condition.

Risks related to the Group’s liquidity and financing activities

We depend on the capital and credit markets, as well as customer deposits, to provide the liquidity and capital required to fund our operations, and adverse conditions in the capital and credit markets, or significant withdrawals of customer deposits, may impact our liquidity, borrowing and capital positions, as well as the cost of liquidity, borrowings and capital.

Adverse capital market conditions have in the past affected, and may in the future affect, our cost of borrowed funds and our ability to borrow on a secured and unsecured basis, thereby impacting our ability to support and/or grow our businesses. Furthermore, although interest rates are at or near historically low levels, since the recent financial crisis, we have experienced increased funding costs due in part to the withdrawal of perceived government support of such institutions in the event of future financial crises. In addition, liquidity in the financial markets has also been negatively impacted as market participants and market practices and structures adjust to new regulations.

We need liquidity to pay our operating expenses, interest on our debt and dividends on our capital stock, maintain our securities lending activities and replace certain maturing liabilities. Without sufficient liquidity, we will be forced to curtail our operations and our business will suffer. The principal sources of our funding include a variety of short-and long-term instruments, including deposit fund, repurchase agreements, commercial paper, medium- and long-term debt, subordinated debt securities, capital securities and shareholders' equity.

In addition, because we rely on customer deposits to fund our business and operations, the confidence of customers in financial institutions may be tested in a manner that may adversely impact our liquidity and capital position. Consumer confidence in financial institutions may, for example, decrease due to our or our competitors' failure to communicate to customers the terms of, and the benefits to customers of, complex or high-fee financial products. Reduced confidence could have an adverse effect on our liquidity and capital position through withdrawal of deposits, in addition to our revenues and results. Because a significant percentage of our customer deposit base is originated via Internet banking, a loss of customer confidence may result in a rapid withdrawal of deposits over the Internet.

In the event that our current resources do not satisfy our needs, we may need to seek additional financing. The availability of additional financing will depend on a variety of factors, such as market conditions, the general availability of credit, the volume of trading activities, the overall availability of credit to the financial services industry, our credit ratings and credit capacity, as well as the possibility that customers or lenders could develop a negative perception of our long- or short-term financial prospects. Similarly, our access to funds may be limited if regulatory authorities or rating agencies take negative actions against us. If our internal sources of liquidity prove to be insufficient, there is a risk that we may not be able to successfully obtain additional financing on favourable terms, or at all. Any actions we might take to access financing may, in turn, cause rating agencies to re-evaluate our ratings.

Disruptions, uncertainty or volatility in the capital and credit markets may also limit our access to capital. Such market conditions may in the future limit our ability to raise additional capital to support business growth, or to counterbalance the consequences of losses or increased regulatory capital and rating agency capital requirements. This could force us to (i) delay raising capital, (ii) reduce, cancel or postpone payment of dividends on our shares, (iii) reduce, cancel or postpone interest payments on our other securities, (iv) issue capital of different types or under different terms than we would otherwise, or (v) incur a higher cost of capital than in a more stable market environment. This would have the potential to decrease both our profitability and our financial flexibility. Our results, financial condition, cash flows, regulatory capital and rating agency capital position could be materially adversely affected by disruptions in the financial markets.

Furthermore, regulatory liquidity requirements in certain jurisdictions in which we operate are becoming more stringent, undermining our efforts to maintain centralised management of our liquidity. These developments may cause trapped pools of liquidity and capital, resulting in inefficiencies in the cost of managing our liquidity and solvency, and hinder our efforts to integrate our balance sheet. An example of such trapped liquidity includes our operations in Germany where German regulations impose separate liquidity requirements that restrict ING's ability to move a liquidity surplus out of the German subsidiary.

As a holding company, ING Groep N.V. is dependent for liquidity on payments from its subsidiaries, many of which are subject to regulatory and other restrictions on their ability to transact with affiliates.

ING Groep N.V. is a holding company and, therefore, depends on dividends, distributions and other payments from its subsidiaries to fund dividend payments and to fund all payments on its obligations, including debt obligations. Many of our subsidiaries, including our bank subsidiaries, are subject to laws that restrict dividend payments or authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to ING Groep N.V.

In addition, our bank subsidiaries are subject to restrictions on their ability to lend or transact with affiliates and to minimum regulatory capital and other requirements, as well as restrictions on their ability to use client funds deposited with them to fund their businesses. Additional restrictions on related-party transactions, increased capital and liquidity requirements and additional limitations on the use of funds in client accounts, as well as lower earnings, can reduce the amount of funds available to meet the obligations of ING Groep N.V., and even require ING Groep N.V. to provide additional funding to such subsidiaries. Restrictions or regulatory action of that kind could impede access to funds that ING Groep N.V. needs to make payments on its obligations, including debt obligations, or dividend payments. In addition ING Groep N.V.'s right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's creditors.

There is a trend towards increased regulation and supervision of our subsidiaries by the governments and regulators in the countries in which those subsidiaries are located or do business. Concerns about protecting clients and creditors of financial institutions that are controlled by persons or entities located outside of the country in which such entities are located or do business have caused or may cause a number of governments and regulators to take additional steps to "ring fence" or maintain internal total loss-absorbing capacity at such entities in order to protect clients and creditors of such entities in the event of financial difficulties involving such entities. The result has been and may continue to be additional limitations on our ability to efficiently move capital and liquidity among our affiliated entities, thereby increasing the overall level of capital and liquidity required by ING on a consolidated basis.

Furthermore, ING Groep N.V. has in the past and may in the future guarantee the payment obligations of certain of its subsidiaries, including ING Bank N.V., subject to certain exceptions. Any such guarantee may require ING Groep N.V. to provide substantial funds or assets to its subsidiaries or their creditors or counterparties at a time when ING Groep N.V. or its subsidiaries are in need of liquidity to fund their own obligations.

The requirements for ING Groep N.V. to develop and submit recovery and resolution plans to regulators, and the incorporation of feedback received from regulators, may require us to increase capital or liquidity levels or issue additional long-term debt at ING Groep N.V. or particular subsidiaries or otherwise incur additional or duplicative operational or other costs at multiple entities, and may reduce our ability to provide ING Groep N.V. guarantees for the obligations of our subsidiaries or raise debt at ING Groep N.V. Resolution planning may also impair our ability to structure our intercompany and external activities in a manner that we may otherwise deem most operationally efficient. Furthermore, arrangements to facilitate our resolution planning may cause us to be subject to additional costs such as resolution planning related taxes and funds. Any such limitations or requirements would be in addition to the legal and regulatory restrictions described above on our ability to engage in capital actions or make intercompany dividends or payments.

Additional risks relating to ownership of ING shares

Holders of ING shares may experience dilution of their holdings.

ING's AT1 Securities may, under certain circumstances, convert into equity securities, and such conversion would dilute the ownership interests of existing holders of ING shares and such dilution could be substantial. Additionally, any conversion, or the anticipation of the possibility of a conversion, could depress the market price of ING shares. Furthermore, we may undertake future equity offerings with or without subscription rights. In case of equity offerings with subscription rights, holders of ING shares in certain jurisdictions, however, may not be entitled to exercise such rights unless the rights and the related shares are registered or qualified for sale under the relevant legislation or regulatory framework. Holders of ING shares in these jurisdictions may suffer dilution of their shareholding should they not be permitted to, or otherwise chose not to, participate in future equity offerings with subscription rights.

Because we are incorporated under the laws of the Netherlands and many of the members of our Supervisory and Executive Board and our officers reside outside of the United States, it may be difficult to enforce judgments against ING or the members of our Supervisory and Executive Boards or our officers.

Most of our Supervisory Board members, our Executive Board members and some of the experts named in this Annual Report, as well as many of our officers are persons who are not residents of the United States, and most of our and their assets are located outside the United States. As a result, investors may not be able to serve process on those persons within the United States or to enforce in the United States judgments obtained in US courts against us or those persons based on the civil liability provisions of the US securities laws.

Investors also may not be able to enforce judgments of US courts under the US federal securities laws in courts outside the United States, including the Netherlands. The United States and the Netherlands do not currently have a treaty providing for the reciprocal recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Therefore, we may not be able to enforce in the Netherlands a final judgment for the payment of money rendered by any US federal or state court based on civil liability, even if the judgment is not based only on the US federal securities laws, unless a competent court in the Netherlands gives binding effect to the judgment.

Therefore, a final judgment for the payment of money rendered by any federal or state court in the United States based on civil liability, whether or not predicated solely upon the U.S. federal securities laws, would not be enforceable in the Netherlands unless the underlying claim is re-litigated before a Dutch court. However, under current practice, the courts of the Netherlands may be expected to render a judgment in accordance with the judgment of the relevant U.S. court, provided that such judgment (i) is a final judgment and has been rendered by a court which has established its jurisdiction on the basis of internationally accepted grounds of jurisdictions, (ii) has not been rendered in violation of elementary principles of fair trial, (iii) is not contrary to the public policy of the Netherlands, and (iv) is not incompatible with (a) a prior judgment of a Netherlands court rendered in a dispute between the same parties, or (b) a prior judgment of a foreign court rendered in a dispute between the same parties, concerning the same subject matter and based on the same cause of action, provided that such prior judgment is not capable of being recognized in the Netherlands. It is uncertain whether this practice extends to default judgments as well.

Based on the foregoing, there can be no assurance that U.S. investors will be able to enforce against us or members of our board of directors, officers or certain experts named herein who are residents of the Netherlands or countries other than the United States any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the U.S. federal securities laws.

In addition, there is doubt as to whether a Dutch court would impose civil liability on us, the members of our board of directors, our officers or certain experts named herein in an original action predicated solely upon the U.S. federal securities laws brought in a court of competent jurisdiction in the Netherlands against us or such members, officers or experts, respectively.

Item 4. Information on the Company

A. History and development of the company

General

ING Groep N.V. was established as a Naamloze Vennootschap (a Dutch public limited liability company) on March 4, 1991. ING Groep N.V. is incorporated under the laws of the Netherlands. The corporate site of ING, www.ing.com, provides news, investor relations and general information about the company.

ING is required to file certain documents and information with the United States Securities and Exchange Commission (SEC). These filings relate primarily to periodic reporting requirements applicable to issuers of securities, as well as to beneficial ownership reporting requirements as a holder of securities. The most common filings we submit to the SEC are Forms 6-K and 20-F (periodic reporting requirements) and Schedules 13D and 13G (beneficial ownership requirements). The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at http://www.sec.gov. ING's electronic filings are available on the SEC's internet site under CIK ID 0001039765 (ING Groep N.V.).

The official address of ING Group is:	The name and address of ING Group's agent for service of process in the United States in connection with ING's registration statement on Form F-3 is:
ING Groep N.V. Bijlmerdreef 106 1102 CT Amsterdam P.O. Box 1800, 1000 BV Amsterdam The Netherlands Telephone +31 20 563 9111	ING Financial Holdings Corporation 1133 Avenue of the Americas New York, NY 10036 United States of America Telephone +1 646 424 6000

Changes in the composition of the Group

For information on changes in the composition of the Group, reference is made to Note 47 'Consolidated companies and businesses acquired and divested'.

Our strategy and how we create value

ING's Think Forward strategy continued to guide us during 2019. It was a year of rapid transformation in the competitive landscape, regulation, customer preferences and the economic context. It was marked as well by the growing threat of climate change. These developments present both challenges and opportunities.

There were numerous developments in 2019 with important implications for financial services providers and their future strategic direction. Digitalisation increased, with a growing percentage of customers doing their banking with mobile devices. Big Tech platforms continued to leverage their expertise in the digital customer experience to encroach on banks' market share by targeting lucrative parts of their traditional value chains, such as payments.

Competition was further spurred by implementation in 2019 of the EU's PSD2 directive opening the payments market to non-bank competitors. Persistently low interest rates in Europe edged still lower, pressuring banks' interest income and profits. And the growing threat of climate change intensified the debate about the role business can and should play to promote a sustainable future.

Think Forward

Our Think Forward strategy – with its purpose to empower people to stay a step ahead in life and in business – continued to guide our strategic response to the challenges and opportunities these developments present. Chief among these is how banks can master the digital customer experience and tap into its opportunities.

The strategic priorities that are the focus of the Think Forward strategy aim to create a differentiated customer experience. They do that by deepening the relationship with the customer, by providing us with tools to know our customers better and to anticipate their evolving needs, and by fostering an innovation culture that will ensure we are able to continuously adapt our offerings and business model to anticipate and meet those needs in future. And the Customer Promise – clear and easy, anytime anywhere, empower, and keep getting better – forms the basis of the customer experience we aim for.

In concrete terms, this translates into a focus on primary relationships. These are relationships where we serve multiple banking or other needs of retail customers and wholesale banking clients and which allow us to know these customers and their needs better so we can add value for them and grow the relationship. To do this, we aim to master data management and analytics skills, including artificial intelligence. To provide for future needs, we promote a culture of innovation within ING and partner with fintechs and other innovative partners to develop interesting propositions, both in financial services and beyond banking that can add value for our customers and others.

Platform approach

The competitive landscape that banks face is increasingly being shaped by Big Tech companies. They offer customers a superior digital experience through an open platform approach that delivers a range of their primary needs in a go-to digital ecosystem. This ability to provide for primary needs, with both proprietary and third-party offerings that are easily accessed through mobile devices, defines their success. Banking, by contrast, is a facilitator and not a primary need. The choice for banks is to challenge their existing business models, to disrupt themselves, or risk being disintermediated and relegated to a status of white label facilitators of others' platforms.

ING chooses to pursue its own platform approach. It aims to create a go-to financial services platform offering one customer experience wherever we operate and one that's mobile-first in keeping with ING's clear and easy, anytime anywhere Customer Promise. To support this ambition, we're evolving to a single global modular technological foundation that can be easily scaled up to accommodate growth, and one that's open so it's ready to connect to other platforms and offers users relevant third-party products and services.

Innovation and transformation

To pursue this aim, we are converging businesses with similar customer propositions. The Unite be+nl initiative is combining the Netherlands and Belgium. The Maggie (formerly Model Bank) transformation programme is standardising our approach in four European markets - Czech Republic, France, Italy and Spain - similar to our successful digital approach in Germany based on a standardised omnichannel customer experience across mobile devices and web. We pursue a plug-and-play approach to product development to ensure we can share innovations quickly across our businesses. Examples of this in practice include the One App now active in Belgium, Germany and the Netherlands, offering one mobile customer experience in those markets. And we're evolving toward a uniform approach to data and its management, to processes and to one way of working to support this transformation and accelerate innovation.

Increasing the pace of innovation is a strategic priority and core to ensuring we remain relevant to our customers and can live up to our purpose to empower people to stay a step ahead in life and in business. And it is a prerequisite for realising our platform ambitions. We do this by fostering an internal culture of innovation through customised methodologies and by providing resources to our business through the ING Innovation Fund. And we collaborate with a wide range of fintechs and other external parties to accelerate the development of innovative solutions for customers.

To spur this collaboration, ING in 2019 opened the Cumulus Park innovation district in Amsterdam Zuidoost, an initiative together with local government and educational institutions offering businesses, academics and innovators workspaces designed to co-create, learn, research and inspire in a collaborative atmosphere around the themes of urbanisation and digital identity.

And through ING Labs in Amsterdam, Brussels, London and Singapore we're also collaborating with fintechs and others on disruptive innovations in value spaces that best match the expertise and ecosystems in those locations.
Examples of collaborative innovations include beyond banking initiatives for retail customers. In 2019 we launched the first protection products as part of the global insurance partnership with AXA, distributed primarily through our mobile app. Examples in Wholesale Banking include Cobase, a platform that enables companies to manage accounts at multiple banks through one interface, and blockchain solutions in areas like trade finance that drastically reduce the time and complexity of trades.

In 2019, resources were devoted to improving our capabilities in the areas of know your customer and fighting financial economic crime, causing some reprioritisation related to the pace of implementation of innovation and transformation goals. However, our strategy and priorities in these areas remains unchanged.

Promoting a sustainable society

ING's empowerment purpose is not limited to our own customers. In striving to help people to stay a step ahead in life and in business, we see a key role for ING in promoting a sustainable society, as well as important opportunities both for us and our customers.
To promote people's financial health, we focus on giving them the knowledge and tools to make informed decisions, and we support initiatives that are developing awareness about the drivers behind how people arrive at financial decisions so better methods and tools can be developed in the future. And through our financing we seek to positively influence society's transition to a more sustainable, low-carbon economy. One of the important ways we do that is through our Terra approach to steer the impact of our lending portfolio to support the Paris Climate Agreement's goal to limit the rise of global temperatures to well below two degrees Celsius.

Elements of our strategy

Our Think Forward strategy was launched in 2014 and guides everything we do. It was visionary then and today is ever more relevant to our success. This section describes the strategy and includes references to examples and additional information on how our strategy links to the material topics identified by our stakeholders.

Strategic priorities

To deliver on our Customer Promise and create a differentiating customer experience, we have identified four strategic priorities:

1. Earn the primary relationship

Earning the primary relationship is a strategic priority for ING as it leads to deeper relationships, greater customer satisfaction and, ultimately, customers choosing us for more of their financial needs. In Retail Banking we define primary customers as those with multiple active ING products, at least one of which is a current account where they deposit a regular income such as a salary. For Wholesale Banking these are active clients with lending and daily banking products and at least one extra product generating recurring revenues over the last 12 months.

2. Develop data analytics

With the further digitalisation of banking, data is an important asset that helps us improve the customer experience and earn the strategically important primary relationship. We rely on data to understand what customers want and need. We use these insights to personalise our interactions with customers and empower them to make their own financial decisions. Data skills are also essential to know our customers from a regulatory and risk perspective, to prevent fraud, improve operational processes and generate services that go beyond traditional banking. At ING, we recognise that excelling at data management is a core competency if we are to realise our ambition to create a personal digital experience for customers. We are on course to implement one global approach to data management to ensure we maximise the potential of this key resource. Discussions in society about data privacy and the tightening of data privacy legislation and regulations, as embodied in the EU's General Data Protection Regulation (GDPR), are raising awareness of this important issue. At ING, we are committed to handling customer data safely and being open about how we use it.

3. Increase the pace of innovation to serve changing customer needs

Evolving customer expectations, new technologies and new competitors are transforming banking. Innovation is at the heart of the Think Forward strategy and essential to develop the beyond banking and disruptive products, services and experiences that support our platform ambitions. We promote innovation internally through ING's own PACE innovation methodology and by earmarking funds to support businesses with innovative initiatives. To speed up the pace of innovation, we also partner with outside parties, including fintechs.

4. Think beyond traditional banking to develop new services and business models

Persistent low interest rates and disruption from the rise of new non-bank entrants in the financial services sector are challenging banks' traditional business models. Thinking beyond traditional banking is crucial if we are to find new ways to be relevant to our customers. Here, open banking offers opportunities. By partnering with others or developing our own digital platforms, we can offer customers new and complementary services that go beyond banking – and create new revenue streams for ING.

Enablers

Four strategic enablers support the implementation of our strategy: simplifying and streamlining our organisation, operational excellence, enhancing our performance culture and diversifying our lending capabilities.

1. Simplify and streamline

Simplify and streamline refers to ING's aim to become a more effective, cost-efficient and agile organisation with the flexibility to respond to fast-changing customer needs and low-cost competitors. To support our ambition to evolve into one, scalable, mobile-first digital platform that offers a uniform and superior customer experience we are building a global foundation with the same approach to data, IT infrastructure, and processes. This will feature simplified and standardised products and systems and by modular architecture, integrated and scalable IT systems and shared services. We also apply one Way of Working (WoW), based on agile principles, across many areas of ING to speed up the pace of innovation and bring new customer solutions to market faster, as well as to enable global collaboration and knowledge sharing.

2. Operational excellence

Operational excellence requires continuous focus. We need to ensure that ING's operations provide a seamless and flawless customer experience and that our operations remain safe and secure so we can play our important role as gatekeepers to the financial system. We invest to provide stable IT systems and platforms so we are there for our customers when they need us and to provide them with the highest standards of data security. As part of our know your customer (KYC) enhancement programme we are developing a global approach to how we deal with customer due diligence and transaction monitoring, supported by standardised tools, a uniform approach to data and clear governance.

3. Performance culture

We believe there are strong links between employee engagement, customer engagement and business performance. We aim to continually improve our performance culture by creating a differentiating employee experience and enhancing the capabilities of our leaders. By focusing on delivering a great employee experience and by stepping up our leadership capabilities we develop our employees' engagement and ability to deliver on our purpose and strategy.

ING's Think Forward Leadership Programme (TFLP) aims to develop greater leaders and better managers who can engage staff and enhance team performance. Introduced for senior leaders in 2017, it was extended later that year to people managers globally as the TFL Experience (TFLE), a four-day programme with follow-up learning activities. The first phase of the programmes focused on the Orange Code, individual purpose and the Think Forward strategy. Phase 2, launched for TFLP in 2018, focused on high sustainable performance, talent management and performance transparency. It will be extended to the TFLE in 2020.

We expect every ING employee to ensure we are a bank people can trust and that we can be proud of. This starts at the top as leaders should create the right conditions for our employees to safeguard the bank and society from financial economic crime. In 2019, we developed a new global e-learning module that will be rolled out in early 2020 to all employees to enhance their KYC awareness. And a global code of conduct was rolled out in the first quarter of 2020 that builds on the Orange Code and gives employees worldwide concrete examples of how to put the ING values into practice.

We promote a more diverse and inclusive workforce by aiming for 'mixed teams'. We have adopted the 70 percent principle, which gives managers a basis for building mixed teams around appropriate dimensions of diversity (with a focus on gender, nationality and age group) and strives for a minimum 30 percent difference in team make-up. In 2019, we worked to further this aim by deep-diving into diversity dimensions ING-wide and setting up dashboards to help different areas of the business monitor their progress. Like many other financial organisations, getting the right mix of people remains a challenge in parts of the business and there is more to be done to redress imbalances that still exist.

4. Lending capabilities

Broadening and diversifying our lending capabilities to continue to grow client franchises is our fourth strategic enabler. To do so, we are seeking opportunities in Retail, SME and Consumer Lending segments, as well as focusing on Wholesale Banking lending growth in our businesses in Challengers & Growth (C&G) markets and in our sector lending franchises. ING is also considered one of the pioneers in sustainable finance, having introduced the first sustainability ESG-linked loan and a made-to-measure sustainability improvement loan. In 2019, ING continued to shape this sector and open up new markets by developing sustainability improvement concepts and financial products. In 2019, we continued to grow at resilient interest margins, with net core lending growth of €17.2 billion, or 2.9 percent, mainly realised in our Retail markets. Our ambition is to continue to grow profitably within our risk appetite, but given market dynamics we expect growth at Wholesale Banking to be slightly lower than in Retail Banking.

B. Business overview

Corporate Organisation

ING Group's segments are based on the internal reporting structure by lines of business. For more information see 'Item 5 Operating and Financial Review and Prospects".

Our business

We achieved good results in 2019 with solid profitability and healthy growth in both lending and deposits. Net core lending grew by €17.2 billion over the year, with net inflow of customer deposits growing by €23.4 billion. We added more than 830,000 primary customers, which shows that our customer experience continues to be differentiating and drives growth. With digital disruption changing customer expectations we're looking for new ways to stand out from the crowd.

Our markets

ING's retail business serves 38.8 million customers. In most of our retail markets we offer a full range of banking products and services, covering payments, savings, insurance, investments and secured and unsecured lending. Our wholesale banking business offers clients advisory value propositions such as specialised lending, tailored corporate finance and debt and equity-market solutions. Our clients range from large companies to multinational corporations and financial institutions.

Our **Market Leaders** are Belgium, the Netherlands and Luxembourg. These are mature businesses where we have strong positions in retail and wholesale banking. We're investing in digital leadership to deliver a uniform customer experience with one customer interaction platform and a harmonised business model.

In 2019 the Market leader highlights were the following:

- Launched Payconiq in the Netherlands: customers can pay with their smartphone in stores and online
- Apple Pay introduced for customers in the Netherlands
- Customers in Belgium can now use voice activated Google assistant to look up information on ING
- In Belgium, customers can now start the mortgage process online
- We offer large mid-corporates in the Netherlands a scalable self-service digital marketplace called Invoice Trader where they can trade their receivables to external investors

Our **Challengers** markets are Australia, Austria, Czech Republic, France, Germany, Italy and Spain. Here we're aiming for a full retail and wholesale relationship, digitally distributed through low-cost retail platforms. We also aim to use our direct-banking experience to grow consumer and SME lending, and our strong savings franchises to fund the expansion of wholesale banking in these markets.

In 2019 the highlights for the Challenger Markets were the following:

- In Austria, we expanded our product range to include mortgages in cooperation with ING owned mortgage broker Interhyp
- We help customers in Germany to better manage their money by notifying them of upcoming payments
- Introduced Apple Pay for customers in Spain. The use of mobile contactless payments in Germany rose after the launch of Google and Apple Pay in Germany
- Australia and Spain achieved #1 NPS rankings, demonstrating the value of our Think Forward strategy

Our **Growth Markets** are universal banks with a full range of retail and wholesale banking services in countries whose economies have high growth potential. These include Poland, Romania and Turkey. In these markets we're investing to achieve sustainable franchises and will focus on digital leadership by converging to a mobile-first model and prioritising innovation. Our newest Growth Market is ING in the Philippines, where we launched an all-digital retail bank in November 2018.

In 2019 the highlights for the Growth market were the following:

- Apple Pay introduced for customers in Romania
- In Poland, customers can add their Visa debit card to their Apple Wallet using the Moje ING app
- ING customers in Poland can now use voice-activated Google assistant - without logging in - to check their balances or to make transfers between accounts
- To help customers In Poland better manage their money we now offer features notifying them of upcoming payments
- In a first for ING countries business customers in Poland can use Garmin Pay and Apple Pay, contributing to a further increase in mobile contactless payments there
- In Turkey, we can see in real time when customers have a problem at our ATMs and proactively call them to try and solve it

Wholesale Banking is an important and integral contributor to ING's commercial performance. With a local presence in more than 40 countries, ours is a sector-focused client business providing corporate clients and financial institutions with advisory value propositions, such as specialised lending, tailored corporate finance and debt and equity market solutions. We also serve their daily banking needs with payments and cash management, trade and treasury services.

In 2019 the following highlights were achieved within Wholesale Banking:

- Supported 62 green, social and sustainability bonds and 61 sustainable improvement loans

- We issued the largest green Schuldschein to date with Porsche
- Blockchain-based trade finance platform Contour, co-founded by ING Ventures, launched into the $18 trillion global trade finance market
- We introduced the first sustainable improvement derivative to market
- We provided a centralized digital vault for corporate customers to store their KYC docs and enhanced transaction monitoring tooling for our KYC purposes
- PSD2 APIs live on the open banking Developer portal

Achieving our business goals

Banks are operating in a fast-changing environment marked by new competitors, new customer expectations, increased regulation and higher capital requirements. At the same time, persistently low interest rates put pressure on our savings business model. We are finding new ways to be relevant to our customers.

To achieve our business goal of creating a superior customer experience, we focus on four strategic priorities: earning the primary relationship; thinking beyond traditional banking to develop new services and business models; using our advanced data capabilities to understand our customers better and meet their changing needs, and innovating faster.

Earning the primary relationship

Earning the primary relationship is a strategic priority for ING as it leads to deeper relationships, greater customer satisfaction and ultimately customers choosing us for more of their banking needs.

We don’t only want our customers to do some of their banking with us, we want to be their first partner, where they deposit their salary, handle their payments and do most of their other banking business. At the moment, ING has 13.3 million primary relationships, and the target is to grow this to over 16.5 million by 2022.

In Retail Banking, we define primary customers as those with multiple active ING products, of which one is a current account where they deposit a regular income such as a salary. For Wholesale Banking, a primary client is an active client with lending and daily banking products, and at least one extra product generating recurring revenues over the last 12 months.

Customer numbers continued to grow in 2019. Primary customer growth across Retail segments in 2019 included 63,000 for the Benelux, 526,000 for the Challenger markets, and 242,000 for Growth Markets. In Wholesale Banking, the number of primary customers grew by three percent as we deepened our relationships, particularly in the daily banking space with existing lending-only clients in the US and EMEA.

Customer promise

Banking doesn’t have to be difficult and time consuming. Clear products, plain language, fair prices and simple processes save customers time and money. ING promises to make banking clear and easy, to provide services anytime anywhere, and to keep getting better.

We are driven by our purpose to empower people to stay a step ahead in life and in business. We do this by constantly innovating to deliver a differentiating customer experience that aims to be smart, personal and easy.

Across ING, digital channels are accounting for an increased number of contacts with Retail customers. For example, a growing share of retail customers only interacts with ING on their mobile device, up from 12 percent in 2016 to 37 percent in 2019. The number of interactions grew by 80 percent since 2016, reaching 4.5 bln interactions in 2019, with mobile interactions increasing to 82 percent in 2019, versus 52 percent in 2016.

Given the rise of digitalisation, and growing competition from disruptive newcomers to our sector, we want to do more than just live up to our Customer Promise. We want to surpass people's expectations.

We want to use the insights from our 4.5 billion customer interactions to offer a personalised and empowering experience, giving them even more reasons to interact with us. This is how we can differentiate ING from other banks and become an essential part of people's digital lives.

One of the ways we measure our progress is the Net Promoter Score (NPS), which measures customer satisfaction and loyalty (whether they would recommend ING to others). The score is calculated as the difference between the percentage of promoters (who rate ING as 9 or 10 out of 10) and detractors (those scoring ING below a 6). Our aim is to achieve a number one NPS ranking in all our retail markets, with a 10-point lead over our main competitors. Based on a rolling average of our NPS scores in 2019, ING ranked number one in seven out of our 14 Retail markets.

In Wholesale Banking, the overall NPS score improved by 11 percent year on year to 49.6 (on a scale of -100 to +100), outperforming the industry benchmark. This suggests clients appreciate our new approach (see 'Unleashing sector potential' below). The number of surveys sent increased by 28 percent year on year, and the response rate increased from 46.6 percent to 50.6 percent. The NPS growth for Platinum clients decreased year on year but the NPS of all the other segments increased. Overall level of satisfaction went up from 8.4 to 8.5. We now have NPS scores from WB clients generating 42 percent of our revenues.

We added a further five countries to the NPS programme in 2019, which is now running in 26 Wholesale Banking markets. In 2019, NPS played an even more prominent role in gauging client satisfaction in Wholesale Banking, with clearly defined KPIs applied across all parts of the business and a more active feedback process.

Unleashing sector potential

In 2019, we remained focused on servicing our corporate clients with relevant advice, data-driven insights and customised, integrated solutions that make their day-to-day banking more efficient and support their business ambitions.

This is in line with the revised Wholesale Banking strategy we introduced in 2018 to enable us to adapt to and overcome a challenging and complex market environment, as well as increased regulatory requirements, evolving technology, greater competition and our clients' changing needs.

We developed our sector strategy over the year, pairing local and global insight with sector knowledge and financial expertise. 'Commercial passports' give us insight into what services we provide to each client and the regions where we serve them, while our uniform client segmentation framework helps us tailor our daily banking and advisory value propositions to their specific needs.

Several deals in 2019 reflect this sector focus. In the telecom, media and technology space, ING acted as financial advisor for global asset management company DWS in the merger of leading Dutch data centres NLDC (DWS's infrastructure business acquired NLDC from Dutch telco KPN in 2019), and The Datacenter Group (TDCG) group. By advising DWS, ING enabled it to make its maiden investment in the telecom infrastructure sector and created the largest player in the Dutch market. In the food and agribusiness sector, ING coordinated the largest-ever sustainability improvement loan in commodity trading for China's multinational leading food and agri company, COFCO International. The $2.1 billion loan links COFCO International's interest rate to its sustainability performance and rating. And in the sustainable finance space, ING added another first to its growing sustainable finance deal portfolio in Asia/Pacific. We provided a subsidiary of Sunseap Group, a Singapore-based renewable energy company, with $37 million to build rooftop solar projects in Singapore.

In Transaction Services, we optimised our client-facing model, streamlining our products and services and increasing efficiency in sales support. We also brought together various client trading activities scattered across Financial Markets into one team and further embedded the FM business into our client organisation with a new sales model that is fully aligned with the rest of Wholesale Banking. This will help to maximise cross-buy opportunities and improve our client-service delivery with consistent products and a one-client approach everywhere.

Platform thinking

ING's purpose is to empower people to stay a step ahead in life and in business. To continue doing this in a world that is changing quicker than ever before, we need to be where our customers are – on digital platforms.

Thinking beyond traditional banking is crucial to find new ways to be relevant to customers. Here, open banking offers opportunities. By partnering with others or developing our own digital platforms, we can offer customers new and complementary services that go beyond banking – and create new revenue streams for ING.

Platforms empower customers by providing them with a range of primary needs in one place. Through frequent user interactions, platforms also generate large amounts of data. By mastering data skills, platforms get to know their customers and their needs increasingly well, enhancing the platform's value, and that of its users.

The other advantage with platforms is that they are scalable, open and borderless, offering their users the same experience everywhere. With little to differentiate one bank's products from another, we believe it is customer experience that will set ING apart.

ING has different faces in different markets and different banking interfaces, each with its own look and feel. By uniting our platforms, processes and products we can provide a consistent customer experience in every country. This is driven by a growing desire for similar online experiences in an increasingly digital world.

We are making progress in achieving this in a number of ways, including by working internally to establish a truly cross-border banking platform that aims to provide one unique, uniform customer experience that is best in class and leverages scale, and by pursuing strategic platform initiatives.

This was the year that Unite be+nl became a reality for our customers in the Netherlands and Belgium, with the introduction of common digital channels in these countries. Unite be+nl is one of several programmes we are rolling out to build 'one ING' and is an important step towards a global platform. Maggie (formerly Model Bank) is our transformation programme uniting our retail strategy and capabilities in Spain, Italy, France and the Czech Republic. Its emphasis is on increasing our digital interaction with customers, improving customer satisfaction and boosting sales.

Platform initiatives

Our Yolt aggregator app was named Personal Finance App of the Year at the 7th Annual Payments Awards in the UK. We extended the app with Yolt Pay, a new feature that enables users to move money between their accounts and make payments to friends and family from supported banks.

In 2019, we increased our stake in international payments platform Payvision to make it a wholly owned subsidiary. This is an important step towards becoming the preferred platform for business customers and strengthens ING's digital payments business, especially in e-commerce. Payvision facilitates more than 80 payment methods in 150 currencies. In 2019, Payvision and ING introduced the omnichannel (eCom + in-store) proposition for corporate clients. The ING and Payvision combined commerce solutions proposition helps merchants offer our clients' shoppers a seamless checkout experience across all channels.

Through ING Ventures, we are continuing to invest in fintechs, focusing on collaborations that support our strategy of creating a differentiating customer experience. In 2019, we made a further multi-million euro investment in Spanish-based fintech Fintonic. Fintonic is the leading finance app in Spain. It provides financing and savings solutions that help users manage their personal finances more effectively.

We've invested in Flowcast, a tool we hope to use to benefit Wholesale Banking clients The fintech start-up uses machine learning algorithms to improve the credit decision process. Its predictive models reduce risk and unlock credit to businesses. The investment is a boost to ING's AI capabilities.

We also invested in multibank platform Cobase, which makes it easier and more efficient for international corporate clients to work with multiple banks. As a cloud solution, Cobase minimises the IT effort for clients and does not require investments or long-term contracts for licences or hardware.

Beyond banking platforms

In 2019, we introduced the first products resulting from our collaboration with insurer AXA, offering customers personalised insurance services in a clear and easy way via the ING mobile app. Targeting six of our Challengers markets, the partnership aims to provide insurance products and related services through a central digital insurance platform. We launched seven products in four countries: Italy, Australia, Germany and France, and grew the team in our central Paris office, working closely with all our markets. The first product, instant travel insurance through a mobile phone, was launched in Italy. Geo-localised travel insurance can be activated with just a few clicks on a smartphone from the airport or country of destination.

In Australia, we widened our digital insurance portfolio by adding motor and travel insurance to our existing home insurance offer. The motor insurance coverage has been particularly successful with more than 1,000 new customers a week now covered following its launch in May 2019. And in Germany, ING customers can now secure the repayment of their mortgage in the event of death.

We built on our beyond banking proposition with third-party offerings such as ING+Deals in Belgium and ING Punten in the Netherlands. ING+Deals, launched in 4Q 2018, is a cashback platform for customers, made possible by exclusive deals ING has negotiated with various A-brands (40+ brands offering over 45 deals a month). It has 150,000 users who to date have received more than €400,000 cash back, generating €2 million for the participating brands. In addition, participating customers increased their interactions with ING's online channels by more than 20 percent. ING Punten, a shopping platform for customers in the Netherlands to increase loyalty and drive digital interactions, is also partnering with trusted A-brands. In 2019, 1.1 million products were sold, delivering a turnover of €31 million.

Following our 2018 acquisition of a 90 percent stake in Dutch digital real-estate platform Makelaarsland, which allows people to buy or sell homes online independently or with support of a local Makelaarsland agent, we achieved a number of milestones in 2019. These include successfully launching a home buying proposition, expanding the agent network to 20 agents – now covering half of the Netherlands – and creating strong links between ING's mortgage advisors and Makelaarsland's agents.

In the fourth quarter, ING launched real-estate marketplace Scoperty across Germany, a joint venture with Pricehubble and Sprengnetter, which aims to bring transparency to the German housing market. Based on high-quality data and machine learning, the Munich-based proptech company aims to show all 40 million properties in Germany and to connect potential buyers and sellers. Scoperty was initially piloted in Nuremberg with more than 100,000 properties, before expanding nationwide by the end of 2019. More transparency in the German residential housing market can mean a broader offering of properties for consumers. The team is working on pre-qualifying potential homeowners by aligning with Interhyp's mortgage process. Interhyp is ING's independent mortgage brokerage platform in Germany and Austria. For sellers and real-estate brokers this pre-qualification has important value in their choice of accepting offers from buyers. As part of the network effect, pre-qualified buyers may even benefit from three days access to new home listings. Interhyp, which offers access to 500 mortgage lenders, had a record year in 2019, with €24.5 billion in new residential mortgages, and 9.0 percent market share in Germany.

Differentiating customer experience

Understanding our customers better and meeting their changing needs is core to what we do. In 2019, we continued to innovate to improve the banking experience for our customers, while helping them transition to a more efficient and more sustainable economy. ING's ambition is to be a leader in terms of the digital banking experience, offering our customers everywhere the same empowering and differentiating experience and making banking frictionless. In addition to uniting several of our Retail businesses on digital platforms that will provide the same customer experience everywhere, for the first time we also have a shared brand direction and our first global tagline. The 'do your thing' tagline articulates ING's purpose and our customer promise. It encourages people to do more of the things that move them or their business. It's not about irresponsible behaviour, but about people being free to live the life they want to live, knowing they are making their world a little better for it.

Launched in the Netherlands in January 2020, the new brand direction and tagline will be rolled out across ING during the year and used in all our business units to bring our customer experience to life.

Our advanced data capabilities are an important asset in helping us improve the customer experience and earn the strategically important primary relationship. We rely on data to understand what customers want and need. We use these insights to personalise our interactions with customers and empower them to make their own financial decisions.

Our customer-facing platforms offer multiple touch points to interact with customers and collect data that we use to define customer journeys; for example when and where they choose to do their banking, the device they use and the services they prefer. We test these insights with feedback from customers to continuously improve our services.

One of the ways we're working to enhance the customer experience is through our transformation to a customer-focused organisation. The benefits of introducing one Way of Working (WoW) across ING include transparency, wider alignment, increased speed and predictability in product delivery and, most importantly, putting the customer first.

More examples of how we're providing a differentiating customer experience come from Poland, where Wholesale Banking clients can now sign credit documentation electronically, and Belgium, where customers are able to begin the mortgage process online.

In November 2019, we held our first global customer experience (CX) day. The focus was on making banking frictionless through many small improvements that make it more personal, easy and smart, and by working to eliminate or minimise any compromises to the experience resulting from backlogs or other priorities.

For example, in Poland one result of CX day was an improvement to Moje ING that improves the communication process for entrepreneurs applying for a loan, making it clearer and more timely. ING in Romania introduced biometrics to authorise customers to do payments. Colleagues in Spain found a better way to track their customers' experience and also developed functionality on their banking app to allow them to easily schedule branch appointments. In the Netherlands and Belgium, 2,000 participants made 565 improvements for our clients.

We're on the right track. Among other achievements, ING topped Forbes' inaugural World's Best Banks list in 2019. The survey asked 40,000 customers in almost 24 countries about their opinions on the banks they use. ING was placed among the best-performing banks for customer-centricity in Australia, Austria, Belgium, France, Germany, Italy, Poland, and Spain. And we topped the rankings on both trust and digital services.

In Australia, new research in 2019 found ING had the highest customer satisfaction among retail banks, scoring well above the industry average. The 2019 Australia Retail Banking Satisfaction study by JD Power measured the satisfaction of nearly 5,000 banking customers.

Know your customer

Just as we need to know our customers better to deliver better products and services, we also need this knowledge to ensure we do not accept people or institutions who misuse the financial system. We are making ongoing progress strengthening our global KYC organisation and activities throughout ING. We are using technology and our innovation skills to make improvements and rolling out global KYC solutions that all countries can connect to.

ING continues to work on the global KYC enhancement programme, which emphasises regulatory compliance as the key priority. This is a sizeable operation as we have activities in over 40 countries and have more than 38 million customers. The programme encompasses all client segments in all ING business units.

We are also working with local authorities, law enforcement agencies and other financial institutions to fight financial and economic crime. In 2019, ING was one of five banks in the Netherlands to join forces in the fight against money laundering. The ambition is to investigate the set-up of a cross-bank organisation that will monitor payment transactions: Transaction Monitoring Netherlands (TMNL). Together with the Dutch Banking Association (NVB), we are involved in a feasibility study into the technical and legal challenges involved. In the proposed new plans, we are collectively looking for cooperation with Dutch authorities, including the Financial Intelligence Unit (FIU), the Public Prosecution Service, Fiscal Information and Investigation Service (FIOD) and relevant ministries.

Continuing to innovate

In 2019, we continued to innovate to improve the banking experience for our customers, introducing several innovations that make banking faster and more secure for our clients.

Our cutting-edge AI tool Katana – named as an Innovator 2019 by Global Finance magazine – helps to improve decision-making in bond trading. In 4Q, Katana was spun out into an independent London-based company called Katana Labs, with backing from ING Ventures and other investors. This is in line with ING's strategy to create innovative fintech solutions and then support them in becoming independent companies.

The advanced analytics platform can aggregate vast amounts of data from multiple sources to predict the price and identify the most promising trades. The results show traders using Katana win 20 percent more trades and their prices are 20 percent sharper. At the same time, it helps investment managers to make faster, better informed, data-driven investment decisions.

We participated in the launch of instant payments in the Netherlands and Belgium by the Dutch Payments Association and the Belgian Banking Federation. Funds now get credited to the beneficiary account within five seconds, giving customers immediate access to their funds and helping them optimise cash flows. We will extend this to the rest of Europe from 2020.

Wholesale Banking clients were able to initiate and receive instant payments in Hungary as of July 2019. Instant payments are now processed within five seconds, with a maximum amount of HUF 10 million. Instant payments make it possible to make payments 24/7, 365 days a year. There is no difference between 'working days' and 'non-working days'.

In another exciting payments innovation, ING is collaborating with Dutch retailer Albert Heijn, which is piloting a fully digital supermarket. This physical store is packed with convenience-boosting and time-saving technological innovations. ING helped to develop these in our FABlab (fabrication laboratory), which focuses on cross-industry collaborative innovation. Shoppers use their bank cards to gain entry to the store. The items they select from the shelves are registered automatically. Payment, processed by ING, happens automatically when they leave.
We aim to 'wow' our customers with improvements to their service experience. In Turkey, we can now immediately identify when customers are having a problem at one of our ATMs; we call them at that moment to try and solve it. We also use our app to help customers in Turkey who are more than one kilometre away from an ING ATM by granting them the right to use other banks' ATMs free of charge.

Together with UniCredit, we invested in Axyon AI, an Italian company that helps banks offer better and faster advice to their clients by using artificial intelligence to, for example, identify investors most likely to participate in a syndicated loan.

Our open-source software 'FINN – Banking of Things' was created within ING Labs and enables smart devices to pay for their own usage, such as allowing a car to pay for the car wash. We offer this software to our business clients, who can use it to 'wow' their own customers.

In Wholesale Banking, highlights in innovation in the digitalisation space include two KYC initiatives: Domino and CoorpID. Using advanced algorithms, Domino collects and connects payments, lending and financing data to provide insights that would not normally be readily available. The platform is live in several departments and used by approximately 800 retail and WB colleagues, of which 50 serve around 20 percent of ING's Dutch corporate clients. CoorpID provides a centralised digital vault for corporate customers to store and share all their KYC documentation in a secure way. It enables clients to manage their own KYC data and easily share it with other banks, insurance companies, or auditors.

Blockchain and distributed ledger technology (DLT)

ING is considered an industry leader in the distributed ledger technology (DLT) space. In 2019, Forbes ranked us fifth among global listed companies with high blockchain potential, recognising the pioneering work we've done in this area to improve our product offering and make banking even easier for our clients.
This includes breakthroughs in improving data privacy within distributed or shared ledgers using our open-source zero-knowledge range proof codes. Bulletproofs builds on these earlier codes, making them even faster, safer and easier to use, while our zero-knowledge proof notary service improves the privacy and security of transactions on the Corda blockchain platform. It evaluates the validity of a blockchain transaction without revealing anything about it, except that it's valid – like a notary whose job is to witness the signing of documents to validate them.

Blockchain is reinventing commodity trading, making it quicker, easier and more efficient. ING's Easy Trading Connect platform was one of the first to digitalise commodity trade financing. Building on its success, we've tested a number of successful experiments on the platform. These include Vakt, announced in 2017, which manages physical energy transactions from trade entry to final settlement and Komgo, the blockchain-based platform that transmits commodity transactions in a secure environment. In August, we successfully executed our first oil trade on Komgo, which has evolved into a venture with 15 corporates and financial institutions. The deal was executed by the Commodity Trade Finance branch in Geneva with a letter of credit issued on behalf of Mercuria Energy Trading S.A.

We also teamed up with commodity companies and financial institutions to launch Forcefield, a blockchain-based inventory management system that makes post-trade commodity transaction processing cheaper, safer, and more efficient. It manages commodities throughout their entire supply chain life cycle and reduces the risks and costs of handling physical inventory.

And we joined forces with other global banks to create a digital coin that can be used to settle international money transfers instantly. This is a new step in the development of the Utility Settlement Coin (USC) project, set up in 2015 by Swiss bank UBS to develop a blockchain-powered payment mechanism to make transactions more efficient. A digital version of existing currencies, USC will cut out intermediaries, reduce exchange-rate risks, making the payments and settlements process faster and lowering transaction costs.

In Q4, blockchain-based trade finance platform Contour, co-founded by ING Ventures, launched in Singapore into the USD 18 trillion global trade finance market. Contour was co-created by ING and seven other banks in 2018 to simplify letters of credit, reducing the amount of time needed to process them from five to 10 days to under 24 hours. The launch follows a series of live pilots in 14 countries and a global trial with more than 50 banks and corporates. Ninety-six percent of participants said Contour would accelerate their letters of credit process, improve efficiencies and reduce costs.

Open banking

We strive at all times to protect customer data and privacy in line with the new European regulations. Customers' needs and expectations are changing rapidly and companies have no option but to embrace this shift and adapt. At the same time, open banking requires banks to rethink traditional products and services, and go beyond traditional banking territory in creating new customer experiences.

We've chosen a strategic approach towards the revised Payments Services Directive (PSD2) and open banking. We invest in building one global platform serving all of our 38 million Retail customers, and corporate and institutional clients, in more than 15 countries. This helps us to become a global platform bank, scalable, open and borderless, with one user experience, one API (application programming interface) solution and one developer portal to efficiently and seamlessly connect and interact with customers and partners.

Open Banking is a key enabler for new open business propositions and strategic platform strategies across all client segments. Since September 2019, all banks in Europe must implement PSD2. We have three PSD2 APIs available to external parties on our developer portal. These give customers the choice to use third-party apps to manage their money or make online payments. For business clients in the Netherlands we launched a payment request API that enables them to enhance their end-consumer experience by adding a convenient, simple payment functionality into their own app.

Partnerships are becoming more and more important to the delivery of optimal client experiences. APIs are essential for enabling digital businesses, as they are the de facto standard for integration and co-creation with our partners. With open banking, we are laying the foundation for the bank of the future. We provide the key capabilities that allow ING to open up by establishing secure, scalable, compliant and uniform connectivity with external parties via APIs.

Our digitalisation journey

Digital banking, innovation and transformation are in our DNA. ING's aim is to be the next generation digital bank, offering a single digital platform or 'ecosystem' where customers can find solutions to all of their financial and finance-related needs.

Digitalisation guides our investments and transformation efforts. Our ambition is to offer customers everywhere the same empowering and differentiating experience. We are going about this in several ways.

In 2019, we continued to innovate to improve the digital customer experience and to strengthen our mobile-first approach. The number of mobile card transactions increased six-fold in 2019 from 2018, boosted by the integration of third-party services like Apple Pay and Google Pay. The overall share of customers who only interact with us on their mobile device increased to 37 percent in 2019 from 26 percent in 2018. The adoption of mobile payments will grow exponentially in coming years, which is expected to boost mobile even further.

We are digitalising more processes to make them convenient and time-saving for customers. For example, in 2019, with Apple Pay, we enhanced the experience of our mobile app users in the Netherlands, Germany, Romania and Spain. In Germany and Poland, we now offer features that help customers to better manage their money by notifying them of upcoming payments, similar to the 'Kijk Vooruit' feature in the Netherlands. We also made Google Pay available in Germany and Poland.

Another highlight was the launch of our mobile-only bank offering in the Philippines. ING has been operating in the Philippines for nearly 30 years, but only moved into retail banking with the official launch of our first all-digital savings product in November 2018. It is the first bank savings product that allows transactions to be conducted solely on ING's mobile app. creating an account is free. Users only have to download the ING app and make sure they meet a number of requirements, including being at least 18 years old and having one of three government-issued IDs. Since the launch, there have been around one million app installations, we have signed up more than 100,000 customers and the app scores an average 4.2 rating.

In the Netherlands and Germany, Wholesale Banking clients can now easily open an account digitally and directly from their ERP via e-Bank Account Management, using a SWIFT standard. In developing this, we enable clients to standardise the process for account openings and later mandate changes to be able to create the basis for digital lifecycle management.

In 2019, we saw increased uptake of our Virtual Cash Management solution, enabling treasurers to manage their cash position via a single master account, while keeping local accounts across Europe for local operations without the burden of managing all those accounts individually.

Our digital portal, InsideBusiness, is a key enabler of our 'digital first' philosophy in Wholesale Banking. Our main interactive channel for business clients, it offers a single point of access to a growing range of corporate banking services, online and through a mobile app. It provides all the touch points that business clients need, through a single sign-on, giving them real-time insights and a single source to manage all their financial transactions at any time, and on any device. We launched InsideBusiness in 2015 and it now has around 18,000 companies using it, with 57,000 active users, 6,000 of whom use the mobile app. Large corporates make up 32 percent of users, with the rest being mid-corporates. Our goal is to have all our corporate clients using it – and we're gradually closing in on that target.

A recent improvement was the launch of Corporate Administrator. This allows clients to decide for themselves which employees can do certain things in their account. Clients can appoint one or two of their own corporate administrators who can grant access rights. Already, around 40 percent of our corporate clients are using Corporate Administrator, which is ahead of our targets.

Another enhancement is the addition of a breakthrough feature called M-Token. This addresses the priority we place on security combined with convenience. It replaces the previous card-and-reader access, which became increasingly inconvenient for our customers. M-Token, via the InsideBusiness app, makes access a lot easier. Now, to gain access, clients can simply launch the mobile app and scan a QR code on the login page.

New-look branches

While banking is becoming increasingly digital, our branches still have an important role to play in providing more complex, personal advice to customers.

This is driving ING to change its branches, making them even more personal, while equipping them to meet today's digital needs. The idea is to make customers feel at home. Some branches have a big table, where customers can settle down, have a cup of coffee or do some work. There are separate booths to get personal advice. There's also a kid's corner and a fully equipped 'digi-corner' for online banking or learn-how activities.

In time, all of ING's branches will adopt this new, home-like concept. Some have already opened in Turkey, Poland, Spain, Romania, Belgium, the Netherlands, Italy, Austria and Luxembourg.

SME & Mid-Corp

The SME & Mid-Corp segment aims to empower people to manage and accelerate their business. No matter how big or small, businesses everywhere are increasingly digitalised and expect their bank to be connected and integrated into their world. They want digital solutions that are smart, personal and easy. To meet these needs and deliver an exceptional experience for these customers, we're transforming our current service model and building digital capabilities to offer compelling end-to-end digital customer journeys supported by a common infrastructure.

This includes enabling merchants in Turkey to accept payments more easily via their smartphones rather than expensive point-of-sale terminals; an online banking platform that gives businesses a single access point to all their financial products and services; and instant loans for entrepreneurs in Germany through our acquisition of fintech Lendico. In November 2019, new loan utilisation increased from €1 million to €14.4 million.

In Poland, ING's online banking platform for business customers was named by Global Finance Magazine as the world's best Integrated Corporate Banking site for 2019. It currently provides around 65,000 SME and mid-corporate clients with a single access point for all their banking products and services and handles more than 70 million transfer orders a year. In Romania, the business platform processed its first one million payments in 3Q 2019.

Also in Poland, ING is the first bank to launch its own payment gateway – imoje – that provides merchants with a unique 'buy now, pay within 21 days' payment option. Co-created with Czech fintech Twisto, 1,500 shops are now using the payment gateway and 580,000 transactions have been carried out on imoje since April 2018.

Responsible finance

ING is committed to contributing to a low-carbon and financially healthy society, both through our own efforts and by helping our clients to be more sustainable. As a bank, we make the most impact through our financing, via the loans we provide to clients. This is why we announced in September last year that we would steer our €600 billion lending portfolio towards meeting the well-below two-degree goal of the Paris Climate Agreement. Our strategy to get there is called the Terra approach.

One year later, we published our first progress report on Terra, providing a status update on the alignment of our lending portfolio with the pathway to the goal. The report presented our climate alignment performance, targets, challenges and next steps for five of the nine sectors with the biggest influence on greenhouse gas emissions: power generation, automotive, commercial real estate, residential real estate and cement.

For the remaining four in scope, fossil fuels, shipping, aviation and steel, we provided an update on progress to date, initiatives and next steps. Quantitative results for these four sectors are expected to be disclosed in 2020.

The report's centrepiece, the Climate Alignment Dashboard (CAD), discloses quantitative results on the climate alignment of our lending portfolio. It shows the CO2e intensity per sector of our portfolio compared to the market and the relevant below two-degrees climate scenario. It also displays the climate alignment target per sector and ING's intended decarbonisation pathway per sector to converge towards the target.

While Terra is supporting our responsible finance business and will guide ING towards new opportunities to support our clients, Terra will also help us to build a more climate-resilient portfolio as it guides our strategies towards two-degree alignment. Terra, therefore, forms part of our alignment with the Taskforce for Climate-related Financial Disclosures (TCFD) recommendations.

As each sector requires a custom approach, Terra draws upon more than one methodology for target-setting. Currently, we focus on the Paris Alignment Capital Transition Assessment (PACTA) for corporate lending, and the Science Based Targets Initiative's Sectoral Decarbonisation Approach (SBTi SDA).

PACTA was co-developed with the 2˚ Investing Initiative (2˚ii), a global think-tank developing climate metrics in financial markets. It looks at the technology shift that's needed across certain sectors to slow global warming and then measures this against the actual technology clients are using – or plan on using in the future. The SBTi SDA sets out sector-specific decarbonisation pathways designed so as to be in line with the science-based scenarios using intensity metrics. Both methodologies use science-based scenarios developed by independent organisations like the International Energy Agency and inform us what needs to shift, by how much and by when. This is where financing comes in – and ING can have an impact.

The client data underlying the Terra approach is obtained from global databases that track public and private asset level and company data worldwide in the sectors in scope. This is easier for clients, as they are not required to provide any additional data themselves.

In December 2018, the global banks BBVA, BNP Paribas, Société Générale, and Standard Chartered joined ING in making the Katowice Commitment to align their loan portfolios with global climate goals using a similar approach. We have also personally and individually engaged with more than 40 banks interested in the work ING is doing and the positive results are visible.

Since its launch at ING's offices in London in February 2019, more than 17 systemically important banks, including ING, have joined the 2˚ii PACTA pilot for banks. ING was also among the first signatories of the UNEP-FI Principles for Responsible Banking (PRB). In addition, ING co-chaired the sub-group that developed the PRB Collective Commitment on Climate Action which took ING's Katowice Commitment initiative as its foundation.

The Terra approach is complemented by the other ways we work to drive sustainable business. We have committed to reducing our thermal coal exposure to close to zero by 2025 and support our clients globally to transition to a low-carbon and self-reliant society. We do this through various financial instruments, including green loans, sustainable improvement loans, bonds and advisory services.

We were well on track in 2019. Climate finance increased 13 percent to €18.7 billion, and lending to industry ESG leaders grew slightly by 0.1 percent to €7.1 billion. Although social impact financing decreased 3 percent to €750 million due to repayments, we remain committed by lending to projects that lead to, for example, basic infrastructure improvements, community development or essential services.

In addition to lending, we supported 62 mandates for clients through green, social and sustainability bonds. ING increased its bonds business by 68 percent year-on-year to €5.6 billion, outpacing the total euro denominated bond market growth.
ING is considered one of the pioneers in sustainable finance, having introduced the first sustainability ESG-linked loan and a made-to-measure sustainability improvement loan. In 2019, ING continued to shape this sector and open up new markets by developing sustainability improvement concepts and financial products.

In 2019, we introduced the first sustainability-linked Schuldschein, together with machinery and plant manufacturer Dürr. ING jointly arranged and structured the transaction.

In the second quarter, we announced the world's first sustainability improvement derivative (SID) provided to SBM Offshore, a global company that supplies floating production units to the offshore energy industry. The SID is an interest rate swap that hedges the interest rate risk of the construction of one of SBM Offshore's floating production, storage and offloading facilities. It's the world's first derivative with a price linked to the company's sustainability performance, as well as trading risk, capital requirements and profit. The credit spread of the SID can increase or decrease based on SBM Offshore's ESG performance, as scored by Sustainalytics, an independent provider of ESG research and ratings.

In October, we launched another product aimed at encouraging companies to get measured on ESG goals. Our sustainability improvement capital call facility for Singapore-based Quadria Capital Management is the first in the world to link the interest rate of the private equity fund to the sustainability performance of its portfolios. The USD 65 million three-year revolving capital call facility is the first of its kind in the global fund finance industry, which is currently worth USD 400 billion.

We continued to deepen our market credentials with sustainable finance products that support our corporate clients in achieving better sustainability performance.

We issued 61 sustainability improvement loans and supported 62 green loans and social and sustainability bonds in 2019. These include green finance frameworks and green loans for Italo, Europe's leading high-speed rail passenger operator, and Itochu, a Japanese trading company, as well as a sustainability-linked loan for Chinese-owned trading firm COFCO. ING also closed its first sustainability improvement loan in the US, structured by ING's sustainable finance Americas team.

Alongside the growing number of green loans and bonds, there were a number of sustainability firsts in 2019. ING issued the largest green Schuldschein with Porsche for €1 billion, and the first green bond framework in the telecom sector with UK telecoms company Vodafone. The Porsche transaction is also the first of its kind by a car manufacturer, and the huge demand resulted in the original order book volume having to be increased. ING acted as the green advisor on the project. ING also issued its first-ever green covered bond. In October, ING Bank Hipoteczny in Poland launched a PLN 400 million (USD 93 million) five-year green covered bond on the back of strong investor interest.

ING was also the sole green structuring advisor for the Norwegian bank SR-Boligkreditt's €500 million first green covered bond, helping to draft a green bond framework that stipulates investments in green buildings, renewable energy and clean transportation.

Almost half of our loan book consists of mortgages. Our ambition is to make our mortgage portfolio energy-positive by 2050. This means the homes in this portfolio will collectively produce more energy than they consume.

To this end, we are developing retail products, tools and services to help homeowners make their houses more sustainable. As houses generally account for about 20 percent of CO_2 emissions, we believe this could have a meaningful impact in the fight against climate change. At the same time it will help our customers to lower their CO_2 footprint and energy bill. We have already provided green mortgages in Germany through development bank KfW. Customers can use the new products to finance solar panels, for example, or insulate their homes. In the Netherlands and Belgium, we also offer a consumer loan with a reduced interest rate to help customers pay for green refurbishments.

Besides these financial solutions, we also help to raise awareness on the topic. Consumers in the Netherlands, for example, can check the energy profile of their homes on our website, as well as the options and financing available to improve in this area. We also provide Dutch homeowners who want to invest in upgrading their energy label with a free rating as we know how insights can help people to take the first steps towards a more sustainable home.

ING offers sustainable investment (SI) services to its retail banking customers in the Netherlands, Belgium, Luxembourg and Germany. In 2019, our retail customers in these countries invested a combined € 9.3 billion using ING's SI services, up from € 6.3 billion in 2018. SI services represented seven percent of ING's total retail banking customer investments in 2019. We have the ambition to grow our SI services.

To take sustainable finance further in the business we have set up regional sustainable finance teams in the Americas and Asia to support our clients in these regions.

Our efforts in this area are being recognised. In 2019, we were ranked as 'climate action leader' by the leading global environmental disclosure platform CDP for the fifth year.

Financial health

As a result of our financial empowerment activities, 25.9 million people (67 percent of our customer base) felt financially empowered in 2019. In 2018, this was 25 million or 65 percent. Our ambition for 2022 is for 32 million customers to feel financially empowered by ING.

Information

We believe that the right information at the right time can help people make better financial decisions. For example:

- In the Netherlands the **'Kijk Vooruit'** forecasting tool gives customers an overview of their planned and predicted transactions, allowing them to gain more control over their finances.
- Also in the Netherlands, we launched the **'Digitaal vooruit'** initiative where Digicoaches are available in pop-up stores at several locations to answer any digital questions people may have.
- In Austria and Romania, we offer customers access to **EmpowerCamp** – a five-week programme to help customers understand their financial profile and take steps to improve their finances.
- In Poland, our **YouTube videos** providing people with financial insights have had over 100 million views.

Innovation

Products and services are similar across banks. We differentiate ourselves by going a step further and innovating to create tools that help customers make better financial decisions. For example:

- In the Netherlands, we introduced our new **voice-activated ATMs** in branches of Albert Heijn and at Schiphol Airport. The speech function on the cash machines makes it easier for people who have difficulty reading or who are visually impaired to withdraw money themselves.
- In Australia, Everyday Roundup makes saving money and paying off your home loan easier and more convenient for customers in Australia. ING customers saved AUD 81 million via 70 million transactions by having ERU enabled on almost 300.000 accounts. The average saving was AUD 1.16 per transaction and AUD 284.41 per account in 2019.

- In Spain and France, our digital investment advisors **My Money Coach** and **Coach Epargne** continued to offer customers precise and intelligent investment solutions.
- We also partnered with others to accelerate innovation like **Minna**, which helps people keep track of and manage their subscriptions.

Involvement

Our involvement in both the communities we operate in and in developing countries also contributes to financial health. For example:

- Globally, we continued our Power for Youth partnership with UNICEF to empower adolescents with financial, entrepreneurial, and civic leadership skills. Since 2015 the partnership has directly empowered more than 500,000 adolescents, benefiting more than 11 million indirectly.
- Also globally, hundreds of ING colleagues took part in **Global Money Week**, volunteering in classrooms across the Netherlands, Spain, Czech Republic, Luxembourg, Philippines, and Turkey to teach young people about money management.
- In the Netherlands we support the **Youth Perspective Fund**, which helps young people aged 18 to 27 to manage their debts. The initiative supports around 150 youngsters a year.
- Also in the Netherlands we're a founding partner in the debt-prevention programme **Nederlandse Schuldhulproute**, along with several other banks and the Dutch Banking Association. This unique public-private collaboration aims to prevent and solve problematic debt.
- Lastly in the Netherlands, we offered more than 250,000 lessons on **digital skills for students** in collaboration with organisations such as Bomberbot and DesignWeek@School.
- In Romania, we supported **Banometru** to help adults with financial difficulties to access financial planning and counselling.

Competition

ING is a global financial institution with a strong European base, offering retail and wholesale banking services to customers around the globe. The purpose of ING is empowering people to stay a step ahead in life and in business.

ING's Retail business serves 38.8 million customers. In most of our Retail markets we offer a full range of banking products and services, covering payments, savings, insurance, investments and secured and unsecured lending. Our Wholesale Banking business offers clients advisory value propositions such as specialised lending, tailored corporate finance and debt and equity-market solutions. Our clients range from large companies to multinational corporations and financial institutions.

There is substantial competition in the Netherlands and the other countries in which we do business for the types of wholesale banking, retail banking, investment banking and other products and services we provide.

Such competition is most pronounced in our more mature markets of the Netherlands, Belgium, the rest of Western Europe and Australia. In recent years, however, competition in emerging markets, such as Latin America, Asia and Central and Eastern Europe, has also increased as large financial services companies from more developed countries have sought to establish themselves in markets which are perceived to offer higher growth potential, and as local institutions have become more sophisticated and competitive and proceeded to form alliances, mergers or strategic relationships with our competitors. The Netherlands is our largest market. Our main competitors in the banking sector in the Netherlands are ABN AMRO Bank and Rabobank.

Competition is coming from new market entrants (including non-bank and financial technology competitors) with new operating models that are not burdened by potentially costly legacy operations and that are subject to reduced regulation. New entrants rely on new technologies, advanced data and analytic tools, lower cost to serve, reduced regulatory burden and/or faster processes in order to challenge traditional banks.

The competitive landscape that banks face is increasingly being shaped by Big Tech companies. They offer customers a superior digital experience through an open platform approach that delivers a range of their primary needs in a go-to digital ecosystem. This ability to provide for primary needs, both with proprietary and third-party offerings that are easily accessed through mobile devices, defines their success. Banking, by contrast, is a facilitator and not a primary need. The choice for banks is to challenge their existing business models, to disrupt themselves, or risk being disintermediated and relegated to a status of white label facilitators of others' platforms.

The digital customer experience is now the key differentiator, and our main competitors are no longer just other banks. They are also Big Tech digital leaders like Apple, Google and Tencent who are increasingly moving into financial services. The content, offerings and digital savvy of these go-to platforms cater to a wide range of customers' primary needs with a personal, instant, relevant and seamless experience.

To compete in this new environment, banks have to think beyond banking and develop their own platforms. Winners will be those with a superior digital experience, a strong trusted brand, and the ability to leverage a large customer base to attract partners to their platforms. The successful platforms take the effort out of managing finances, offering personalised, real-time advice and a suite of products and services to cover all financial and other relevant needs.

Developments in technology have also accelerated the use of new business models. Examples are new business models in retail payments, consumer and commercial lending (such as peer-to-peer lending), foreign exchange and low-cost investment advisory services. A significant competitive development is the emergence of disintermediation in the financial sector resulting from new banking, lending and payment solutions offered by rapidly evolving incumbents, challengers and new entrants, especially with respect to payment services and products, and the introduction of disruptive technology.

An important example of this is the newly enacted PSD2 European directive opening the payments market to non-bank entrants. This is causing banks to face an unlevel playing field when competing with new, mainly less regulated, market entrants in a lucrative area that in the past was dominated by banks and other financial services providers.

Statements regarding ING's competitive position reflect the assessment of ING's management about the general competitive landscape in which ING operates.

Regulation and Supervision

The banking and broker-dealer businesses of ING are subject to detailed and comprehensive supervision in all of the jurisdictions in which ING conducts business.

Regulatory agencies and supervisors have broad administrative power and enforcement capabilities over many aspects of our business, which may include liquidity, capital adequacy, permitted investments, ethical issues, money laundering, anti-terrorism measures, privacy, recordkeeping, product and sale suitability, marketing and sales practices, remuneration policies, personal conduct and our own internal governance practices. Also, regulators and other supervisory authorities in the EU, the US and elsewhere continue to scrutinise payment processing and other transactions and activities of the financial services industry through laws and regulations governing such matters as money laundering, anti-terrorism financing, tax evasion, prohibited transactions with countries or persons subject to sanctions, and bribery or other anti-corruption measures.

As discussed under “Item 3. Key Information — Risk Factors”, as a large multinational financial institution we are subject to reputational and other risks in connection with regulatory and compliance matters involving these countries.

European Regulatory framework

In November 2014 the European Central Bank (ECB) assumed responsibility, conferred on it by the Single Supervisory Mechanism ("SSM"), for a significant part of the prudential supervision of euro area banking groups in the Eurozone, including ING Group and ING Bank. Now that the ECB assumed responsibility for the supervision of the banking groups in the Eurozone, it has become ING Group's and ING Bank's main supervisor. The ECB is amongst others responsible for tasks such as market access, compliance with capital and liquidity requirements and governance arrangements. National regulators, including the Dutch Central Bank for ING Group and ING Bank, remain responsible for supervision of tasks that have not been transferred to the ECB such as financial crime and payment supervision.

ING expects to benefit from the harmonization of supervision resulting from the SSM but at the same time does not expect such harmonization to be fully in place in the short to mid-term. ING expects that the Dutch Central bank will continue to play a significant role in the supervision of ING Group and ING Bank.

Another significant change in the regulatory environment is the setting up of the Single Resolution Mechanism ("SRM"), which comprises the Single Resolution Board ("SRB") and the national resolution authorities and is fully responsible for the resolution of banks within the Eurozone as of 1 January 2016. ING has been engaging already with the Dutch national resolution authorities and the SRB for a few years with the aim to support in the draw up a resolution plan for ING and will continue to collaborate with the resolution authorities. The rules underpinning the SRM could have a significant impact on business models and capital structure of financial groups in order to become resolvable but at this stage it is not fully clear what the impact on ING will be.

As a third pillar to the Banking Union, the EU aims at further harmonizing regulations for Deposit Guarantee Schemes (DGS). Main elements are the creation of ex-ante funded DGS funds, financed by risk-weighted contributions from banks. As a next step, the EU is discussing a pan-European (or pan-banking union) DGS (the European Deposit Insurance Scheme (EDIS)), (partly) replacing or complementing national compensation schemes. The progress on the EDIS proposal is slower than expected; this proposal as well as certain accompanying risk reduction measures are still being discussed in the European Parliament and in the Council.

Dutch Regulatory Framework

The Dutch regulatory system for financial supervision consists of prudential supervision – monitoring the soundness of financial institutions and the financial sector, and conduct-of-business supervision – regulating institutions' conduct in the markets. As far as prudential supervision has not been transferred to the ECB, it is exercised by the Dutch Central Bank (De Nederlandsche Bank or "DNB"), while conduct-of-business supervision is performed by the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten or "AFM"). DNB is in the lead with regard to macroprudential supervision.

Global Regulatory Environment

There is a variety of proposals for laws and regulations that could impact ING globally, in particular those made by the Financial Stability Board and the Basel Committee on Banking Supervision at the transnational level and an expanding series of supranational directives and national legislation in the European Union (see "Item 3. Key Information — Risk Factors — We operate in highly regulated industries. Changes in laws and/or regulations governing financial services or financial institutions or the application of such laws and/or regulations governing our business may reduce our profitability). The aggregated impact and possible interaction of all of these proposals are hard to determine, and it may be difficult to reconcile them where they are not aligned. The financial industry has also taken initiatives by means of guidelines and self-regulatory initiatives.

Dodd-Frank Act and other US Regulations

ING Bank has a limited direct presence in the United States through the ING Bank Representative Offices in New York and Dallas, Texas. Although the offices' activities are strictly limited to essentially that of a marketing agent of bank products and services and a facilitator (i.e. the offices may not take deposits or execute any transactions), the offices are subject to the regulation of the State of New York Department of Financial Services and the Texas Department of Banking, as well as the Federal Reserve. ING Bank also has a subsidiary in the United States, ING Financial Holdings Corporation, which through several operating subsidiaries (one of which is registered with the U.S. Commodity Futures Trading Commission as a swap dealer and another of which is registered with the U.S. Securities and Exchange Commission as a securities broker-dealer) offers various financial products, including lending, and financial markets products. These entities do not accept deposits in the United States on their own behalf or on behalf of ING Bank N.V.

The U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), which became law on 21 July 2010, represented a significant overhaul in the regulation of U.S. financial institutions and markets. The primary impact on ING is through the establishment of a regulatory regime for the off-exchange derivatives market, pursuant to Title VII of the Dodd-Frank Act.

Among other things, the Dodd-Frank Act and regulations enacted thereunder required swap dealers to register with the Commodity Futures Trading Commission (the "CFTC", the primary swaps regulator in the U.S.) as 'swap dealers' and be subject to CFTC regulation and oversight. The ING subsidiary, ING Capital Markets LLC, is registered as a swap dealer. As a registered entity, it is subject to business conduct, record-keeping and reporting requirements, as well as margin requirements and, once regulations are finalized, capital requirements. In addition to the obligations imposed on registrants, such as swap dealers, reporting, clearing, and on-facility trading requirements have been imposed for much of the off-exchange derivatives market. It is possible that registration, execution, clearing, margin and compliance requirements will increase the costs of and restrict participation in the derivative markets. These rules (as well as further regulations, some of which are not yet final) could therefore restrict trading activity, reducing trading opportunities and market liquidity, potentially increasing the cost of hedging transactions and the volatility of the relevant markets. This could adversely affect the business of ING in these markets.

The Dodd-Frank Act also impacts U.S. banks and non-U.S. banks with branches or agencies in the United States, primarily through the Volcker Rule and the enhanced prudential standards of Section 165 of the Dodd-Frank Act. Because ING Bank does not have a U.S. banking presence, these provisions do not currently apply to ING.

The Dodd-Frank Act also created a new agency, the Financial Stability Oversight Council ("FSOC"), an inter-agency body that is responsible for monitoring the activities of the U.S. financial system, designating systemically significant financial services firms and recommending a framework for substantially increased regulation of such firms, including systemically important non-bank financial companies that could consist of securities firms, insurance companies and other providers of financial services, including non-U.S. companies. ING has not been designated a systemically significant non-bank financial company by FSOC and such a designation currently is unlikely.

Although U.S. legislative and regulatory bodies have taken initial steps over the past year to tailor the regulatory regime created under Dodd-Frank, Dodd-Frank continues to impose significant requirements on us, some of which may have a material impact on our operations and results, as discussed further under "Item 3. Key Information — Risk Factors—We operate in highly regulated industries. Changes in laws and/or regulations governing financial services or financial institutions or the application of such laws and/or regulations governing our business may reduce our profitability".

Basel III and European Union Standards as currently applied by ING Bank

DNB, our home country supervisor until the ECB took over that position in November 2014, has given ING permission to use the most sophisticated approaches for solvency reporting under the Financial Supervision Act, the Dutch legislation reflecting the Basel II and Basel III Frameworks. DNB has shared information with host regulators of relevant jurisdictions to come to a joint decision. In all jurisdictions where the bank operates through a separate legal entity that is a credit institution, ING must meet local implementation of Basel requirements as well. ING uses the Advanced IRB Approach for credit risk, the Internal Model Approach for its trading book exposures and the

Advanced Measurement Approach for operational risk. A small number of portfolios are reported under the Standardized Approach.

In December 2010, the Basel Committee on Banking Supervision announced higher global minimum capital standards for banks, and has introduced a new global liquidity standard and a new leverage ratio. The Basel Committee's package of reforms, collectively referred to as the “Basel III” rules, has, among other requirements, increased the amount of common equity required to be held by subject banking institutions, has prescribed the amount of liquid assets and the long term funding a subject banking institution must hold at any given moment, and has limited leverage. Banks are required to hold a “capital conservation buffer” to withstand future periods of stress. Basel III has also introduced a “countercyclical buffer” as an extension of the capital conservation buffer, which permits national regulators to require banks to hold more capital during periods of high credit growth (to strengthen capital reserves and moderate the debt markets). Further, Basel III has strengthened the definition of capital that will have the effect of gradually disqualifying many hybrid securities during the years 2013-2022, including the hybrids that were issued by the Group, from inclusion in regulatory capital, as well as the higher capital requirements associated with certain business conditions (for example, for credit value adjustments (“CVAs”) and illiquid collateral) as part of a number of reforms to the Basel II framework. In addition, the Basel Committee and Financial Stability Board (“FSB”) published measures that have had the effect of requiring higher loss absorbency capacity, liquidity surcharges, exposure limits and special resolution regimes for, and instituting more intensive and effective supervision of, “systemically important financial institutions” (“SIFIs”), in addition to the Basel III requirements otherwise applicable to most financial institutions. One such measure, published by the FSB in November 2015, is the Final Total-Loss Absorbing Capacity (‘TLAC’) standard for G-SIFIs, which aims for G-SIFIs to have sufficient loss-absorbing and recapitalisation capacity available in resolution. ING Bank has been designated by the Basel Committee and FSB as a so-called “Global Systemically Important Bank” (“G-SIB”), since 2011, and by DNB and the Dutch Ministry of Finance as a “domestic SIB” (“D-SIB”) since 2011.

The Basel III proposals and their potential impact are monitored via semi-annual monitoring exercises in which ING Group participates. As a result of such monitoring exercises and ongoing discussions within the regulatory environment, revisions have been made to the original Basel III proposals as was the case with the revised Liquidity Coverage Ratio in January 2013 and the revised Net Stable Funding Ratio and Leverage Ratio in January 2014. In December 2017, revisions to Basel III were formally announced by the Basel Committee. These revisions to Basel III establish new prudential rules for banks, including a revision to the standardised approach to credit risk, the introduction of a capital floor based on standardised approaches, the use of internal models, limitation of options for modelling operating risks, and new rules for the establishment of risk-weighted items and unused credit lines at the banks. Such revisions have a long implementation phase and are yet to be fully transposed into EU regulation. The revisions are commonly referred to as "Basel III Reform" or "Basel IV.

For European banks the Basel III requirements have been implemented through the Capital Requirement Regulation (CRR) and the Capital Requirement Directive (“CRD IV”). The Dutch CRD IV Implementation Act has led to significant changes in the Dutch prudential law provisions, most notably with regard to higher capital and liquidity requirements for all banks. The CRD IV regime entered into effect in August 2014 in the Netherlands, but not all requirements are to be implemented all at once. Having started in 2014, the requirements have been gradually tightened, mostly before 2019, until the Basel III migration process is completed. While the full impact of the Basel III rules, and any additional requirements for G-SIBs if and as applicable to the Group, will depend on how they are implemented by national regulators, including the extent to which such regulators and supervisors can set more stringent limits and additional capital requirements or surcharges, as well as on the economic and financial environment at the time of implementation and beyond, we expect these rules to have a material impact on ING’s operations and financial condition and may require the Group to seek additional capital. DNB requires the largest Dutch banks, including ING Group, to hold a 3% Systemic Risk Buffer during 2016-2019 in addition to the capital conservation buffer and the countercyclical buffer described above, but this buffer then includes both the G-SIB and D-SIB buffers mentioned above.

CRD IV has not only resulted in new quantitative requirements but has also led to the setting of new standards and evolving regulatory and supervisory expectations in the area of governance, including with regard to topics like conduct and culture, strategy and business models, outsourcing and reporting accuracy. The European Banking Association (EBA) in particular has published new guidance such as the revised Guidelines on Internal Governance (2017), the Guidelines on the assessment of the suitability of members of the management body and key function holders (2017) and the revised Guidelines on the governance framework with regard to outsourcing arrangements (2019). These guidelines enhance the roles and responsibilities of the management body as well as those of the risk management function and put importance on the establishment of a sound risk culture and code of conduct, and managing conflicts of interest. ING's lead regulator the ECB increasingly puts emphasis on these new standards in its day to day supervision and incorporates the standards in the SREP methodology. Continuing initiatives by multiple regulators and supervisors on corporate governance may significantly impact how ING Bank designs and structures its governance.

Following the adoption of the CRR and CRD IV, regulators increasingly came to focus on the required capital calculations across banks. Since the start of the financial crisis there has been much debate on the risk-weighted capitalisation of banks, and specifically on whether internal models are appropriate for such purposes. These developments have suggested that stricter rules may be applied by a later framework. The Basel Committee released several consultative papers, containing proposals to change the methodologies for the calculation of capital requirements and is expected to issue further standards in this respect. In these proposals, the Basel Committee suggests methods to calculate RWA using more standardised or simpler methods in order to achieve greater comparability, transparency and consistency.

On 27 June 2019, a series of measures referred to as the Banking Reform Package (including certain amendments to CRR and CRDIV commonly referred to as 'CRR II' and CRR V') came into force, subject to various transitional and staged timetables. The adoption of the Banking Reform Package concluded a process that began in November 2016 and marks an important step toward the completion of the European post-crisis regulatory reforms, drawing on a number of international standards agreed by the Basel Committee, the Financial Stability Board and the G20. The Banking Reform Package updates the framework of harmonized rules established following the financial crisis and introduces changes to the CRR, CRDIV, the Bank Recovery and Resolution Directive (BRRD) and the Single Resolution Mechanism Regulation (SRMR). The Banking Reform Package covers multiple areas, including the Pillar 2 framework, the leverage ratio, mandatory restrictions on distributions, permission for reducing own funds and eligible liabilities, macroprudential tools, a new category of 'non-preferred' senior debt, the minimum requirement for own funds and eligible liabilities (MREL) and the integration of the TLAC standard into EU legislation.

Whilst the Banking Reform Package was being developed, the ECB introduced the Targeted Review of Internal Models (TRIM) in June 2017 to assess reliability and comparability between banks' models for calculating each bank's risk-weighted assets ('RWA') used for determining certain of such bank's capital requirements. The operating consequences of the TRIM exercise have been significant. The TRIM is expected to finalise in 2020, and could impact ING through more stringent regulation on internal models. There is also heightened supervisory attention for the credit quality of loans to corporates and/or households. These exercises could impact the RWA we recognise for certain assets.

Regulatory Developments

Basel IV

As of 1 January 2022, the first stage of Basel IV (revised Internal Rating-Based Approach) will probably come into effect conditional to the finalization of the legislative process in the EU. Based on the current estimates, without management actions this is expected to potentially increase RWA by roughly 15-18% on a fully loaded basis. While any BIV impact will not come in before 2022, other banking regulations and model reviews are expected to bring forward a significant part of this impact before BIV implementation date.

Requirement and guidance for 2020 Pillar 2 requirements

One specific element of Basel III is the possible restriction on distributable items. This limits the ability of the bank to pay dividends, hybrid coupons and/or management remuneration if its capital drops below the sum of its Pillar 1, Pillar 2 and combined buffer requirements, often referred to as the Maximum Distributable Amount (MDA) trigger. The Pillar 2 requirement in the supervisory review and evaluation process (SREP) 2019 decision is split into:

- Pillar 2 requirement (P2R), which is binding and therefore breaches have direct legal consequences.
- Pillar 2 guidance (P2G), which is not legally binding and therefore a breach does not automatically trigger regulatory action.

By providing guidelines regarding the SREP, the European Banking Authority (EBA) gives further direction for the internal capital adequacy assessment process (ICAAP) and enhancement of the capital management framework.

Bank recovery and resolution directive

Since its adoption by the European Parliament in 2014, the Bank recovery and resolution directive (BRRD) has become effective in all EU countries after transposition into national law, including in the Netherlands. The BRRD aims to safeguard financial stability and minimise the use of public funds in case banks face financial distress or fail to comply with the BRRD. Banks across the EU need to have recovery plans in place and need to cooperate with resolution authorities to determine, and make feasible, the preferred resolution strategy. The banking reform which came into force on 27 June 2019 includes changes to the minimum requirement for own funds and eligible liabilities (MREL) to ensure an effective bail in process. It also includes new competences for resolution authorities and requires G-SIBs to have more loss-absorbing and recapitalisation capacity.

ING has had a recovery plan in place since 2012. The plan includes information on crisis governance, recovery indicators, recovery options, and operational stability and communication measures. The plan enhances the bank's readiness and decisiveness in case of a financial crisis. The plan is updated annually to make sure it stays fit for purpose. The completeness, quality and credibility of the updated plan is assessed each year by ING's regulators.

The Single Resolution Board (SRB) confirmed to ING in 2017 that a single-point-of-entry (SPE) strategy is ING's preferred resolution strategy, with ING Groep N.V. as the resolution entity.

In 2018, ING Group received a formal notification from De Nederlandsche Bank (DNB) of its MREL. The MREL requirement has been established to ensure that banks in the European Union have sufficient own funds and eligible liabilities to absorb losses in the case of potential bank failure. The MREL requirement is set for ING Group at a consolidated level, as determined by the Single Resolution Board (SRB). This MREL requirement has been set at 10.89% of total liabilities and own funds.

ING has been replacing, and will continue to replace, maturing ING Bank N.V. debt with ING Groep N.V. instruments. In order to build up our MREL capacity, ING Groep N.V. issued multiple transactions. These transactions will not only allow us to support business growth, but will also help to meet future MREL and TLAC requirements with ING Groep N.V. instruments only.

CRR II implements the Financial Stability Board's total loss absorbing (TLAC) requirement for Global Systemically Important Institutions (G-SII), which is the EU equivalent of a G-SIB. The transitional requirement—the higher of 16 percent of the resolution group's Risk weighted assets (RWA) or six percent of the leverage ratio exposure measure—applies immediately. The higher requirement—18 and 6.75 percent, respectively—comes into effect as of January 1, 2022. As a G-SII ING is expected to meet the TLAC requirement alongside the other minimum regulatory requirements set out in EU regulation.

Stress testing

Stress testing is an integral component of our risk and capital management framework. It allows us to (i) assess potential vulnerabilities in our businesses, business model, and/or portfolios; (ii) understand the sensitivities of the core assumptions in our strategic and capital plans; and (iii) improve decision making through balancing risk and return.

In addition to running internal stress test scenarios to reflect the outcomes of the annual risk assessment, ING also participates in regulatory stress test exercises. ING participated in the 2018 EU-wide stress test conducted by the EBA in cooperation with the European Central Bank (ECB), the Dutch central bank (DNB), the European Commission and the European Systemic Risk Board (ESRB). The adverse stress test scenario was developed by the ECB and covers a three-year time horizon (2018-2020). The stress test was carried out applying a static balance sheet assumption as of December 2017, and therefore does not take into account current or future business strategies and management actions. The results also reflect the impact of IFRS 9 for determining loan loss provisions in adverse circumstances.

The results of the EBA stress test reaffirmed the resilience of our business model and the strength of ING’s capital base. Our commitment to maintain a robust, fully-loaded Group common equity Tier 1 (CET1) ratio in excess of prevailing requirements remain. Under the hypothetical baseline scenario and EBA’s methodological instructions, ING Group would have a fully loaded CET1 of 13.99% in 2020. Under the hypothetical adverse scenario and EBA’s methodological instructions, ING Group would have a fully loaded CET1 ratio of 10.70% in 2020 without management actions.

EBA will launch a new stress test exercise in January 2020 and is expected to publish the results by July 2020.

Deposit Schemes

In the Netherlands and other jurisdictions, deposit guarantee schemes and similar funds (‘Compensation Schemes’) have been implemented from which compensation may become payable to customers of financial services firms in the event the financial service firm is unable to pay, or unlikely to pay, claims against it. In many jurisdictions in which we operate, these Compensation Schemes are funded, directly or indirectly, by financial services firms which operate and/or are licensed in the relevant jurisdiction. ING Bank is a participant in the Dutch Deposit Guarantee Scheme (‘DGS’), which guarantees an amount of EUR 100,000 per person per bank (regardless of the number of accounts held). On the basis of the EU Directive on deposit guarantee schemes, ING pays quarterly risk-weighted contributions into a DGS-fund. The DGS-fund is to grow to a target size of 0.8% of all deposits guaranteed under the DGS, which is expected to be reached in July 2024. In case of failure of a Dutch bank, depositor compensation is paid from the DGS-fund. If the available financial means of the fund are insufficient, Dutch banks, including ING, may be required pay to extraordinary ex-post contributions not exceeding 0.5% of their covered deposits per calendar year. In exceptional circumstances and with the consent of the competent authority, higher contributions may be required. However, extraordinary ex-post contributions may be temporarily deferred if, and for so long as, they would jeopardise the solvency or liquidity of a bank.

Since 2015, the EU has been discussing the introduction of a pan-European deposit guarantee scheme (‘EDIS’), (partly) replacing or complementing national compensation schemes in two or three phases. Proposals contain elements of (re)insurance, mutual lending and mutualisation of funds. The new model is intended to be ‘overall cost-neutral’. Discussions have continued in 2019, but it remains uncertain when EDIS will be introduced.

Payment Services Directive 2 (PSD2)

PSD2 entered into force in January 2018 and responds to technical change and a variety of developments in the payments domain. It fosters innovation and competition by promoting non-discriminatory access to payment systems and accounts, including the newly introduced account information services and payment initiation services. Customers benefit from greater transparency of costs and charges, PSD2's extended geographical reach and being applicable to transactions in any currency, a reduction of the maximum liability for unauthorized transactions and a backstop date for complaint resolution. Finally, to combat cybercrime and online fraud, PSD2 continues the trend towards enhancing the security around the making of payments, e.g. by the introduction of strong customer authentication. It consists of two factor authentication, to be performed every time a payer accesses its payment account online or initiates electronic remote payment transactions. The Regulatory Technical Standards for strong customer authentication and common and secure communication provide further requirements to implement the strict security requirements for payment service providers in the EU.

Benchmark Regulation

The London Interbank Offered Rate ('LIBOR'), the Euro OverNight Index Average ('EONIA'), the Euro Interbank Offered Rate ('EURIBOR') and other interest rates or other types of rates and indices which are deemed to be 'benchmarks' are the subject of ongoing national and international regulatory reform. On 8 June 2016, the EU adopted a Regulation (the 'Benchmarks Regulation') on indices (such as LIBOR and EURIBOR) used in the EU as benchmarks in financial contracts. The Benchmarks Regulation became effective as of 1 January 2018. It provides that administrators of benchmarks used in the EU generally must be authorised by or registered with regulators no later than 1 January 2020, and that they must comply with a code of conduct designed primarily to ensure reliability of input data, governing issues such as conflicts of interest, internal controls and benchmark methodologies. Furthermore, on 27 July 2017 the FCA announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021. The announcement indicates that the continuation of the LIBOR on the current basis cannot and will not be guaranteed after 2021. In addition, as of October 2019, the new euro risk-free rate euro short-term rate (€STR) is being published and the EONIA benchmark was reformed, making it dependant to the €STR benchmark. The reformed EONIA benchmark will cease to exist by 1 January 2022 and therefore the European Money Markets Institute (EONIA's administrator) has indicated that EONIA cannot be used in any contracts that will be outstanding as of 1 January 2022. Public authorities have initiated industry working groups in various jurisdictions to search for and recommend alternative risk-free rates that could serve alternatives if current benchmarks like LIBOR and EONIA cease to exist or materially change. The work of these working groups is still ongoing, though certain of such organizations have advanced proposals for benchmark replacements. For example, the US Federal Reserve's Alternative Reference Rates Committee (commonly referred to as 'ARRC') has recommended adoption of the Secured Overnight Financing Rate (commonly referred to as 'SOFR') as an alternative to US dollar LIBOR.

Financial Transaction Taxes

In February 2013, the EC adopted a proposal setting out the details of a financial transaction tax ('FTT') under the enhanced cooperation procedure, to be levied on transactions in financial instruments by financial institutions if at least one of the parties to the transaction is established in the financial transaction tax zone ('FTT-Zone') or if the instrument which is the subject of the transaction is issued within the territory of a Member State in the FFT-Zone. 10 Member States have indicated they wish to participate in the FTT (Austria, Belgium, France, Germany, Greece, Italy, Portugal, Slovakia, Slovenia and Spain). The initial proposal contemplated that the FTT would enter into effect on 1 January 2014, which would have then required us to pay a tax on transactions in financial instruments with parties (including Group affiliates) located in such FTT-zone. However, the FTT remains subject to negotiation between the participating Member States and currently it is uncertain whether and in what form and by which Member States the FTT will be adopted. The implementation date of any FTT will thus depend on the future approval by participating Member States in the Council, consultation of other EU institutions, and the subsequent transposition into local law.

For additional information regarding regulatory developments, including with respect to the 5th AML Directive, FATCA, CRS, DAC6 and MIFID II, see also this Form 20F 2019, under "Additional Information – ING Group Risk Management- Compliance Risk- Regulatory Developments".

Know your customer (KYC)

ING is committed to the preservation of its reputation and integrity through compliance with applicable laws, regulations and ethical standards in each of the markets in which it operates. All employees are expected to adhere to these laws, regulations and ethical standards, and management is responsible for ensuring such compliance. Compliance is therefore an essential ingredient of good corporate governance. As gatekeepers of the financial system we have obligations to safeguard trust in that system and prevent misuse. However, money laundering is not contained within a single country or jurisdiction, it is a global challenge that impacts the entire financial system. ING, like all other participants in the financial services industry, has an important role to play in helping to combat financial economic crime. We contribute knowledge and capacity to various public-private partnerships fighting financial crime. We believe we can be even more effective in safeguarding the financial system if we join forces and work with other banks and with national and European authorities and law enforcement to identify and manage the financial economic crime risks better, taking all relevant laws and regulations into account. Improving the way we manage compliance risk, especially when it comes to preventing criminals from misusing the financial system, is a key priority for ING.

KYC policy framework

The know your customer (KYC) policy and related control standards ('KYC policy framework') sets the minimum requirements and control objectives for all ING entities to guard against involvement in financial crime activity. The KYC policy framework reflects relevant national and international laws, regulations and industry standards related to financial economic crime (money laundering, terrorist financing), export trade controls, proliferation financing, sanctions (economic, financial and trade), countries designated by ING as ultra high risk countries (UHRC), CTI, FATCA, CRS, and (parts of) ESR. The KYC policy framework is mandatory and applies to all ING entities, majority-owned ING business, businesses under management control, staff departments, product lines and to all customer engagements and transactions. The KYC Policy Framework reflects relevant national and international laws, regulations and industry standards related to business partners and overarching requirements with regards to record retention, training and awareness. The management of ING entities also includes local procedures aimed at enabling them to comply with local laws and regulations and the KYC Policy Framework. Where local laws and regulations are more stringent, these more stringent local laws and regulations are applied.

As a result of frequent evaluation of the businesses from economic, strategic and risk perspective ING continues to believe that for business reasons doing business involving certain specified countries should be discontinued. In that respect, ING has a policy not to enter into new relationships with clients from these countries and processes remain in place to discontinue existing relationships involving these countries. At present these countries are Cuba, Iran, North Korea, Sudan and Syria.
In addition to addressing financial economic crime-related requirements, the KYC policy framework also reflects KYC-related requirements of the FATCA/CRS policy, as well as certain elements of the Environmental Social Risk policy.

KYC enhancement programme

In 2017, ING began implementation of its KYC enhancement programme across all customer segments and in all ING business units. The KYC enhancement programme consists of, among other things:

- Enhancing selected customer due diligence files to improve customer documentation, customer data and identity verification;
- Working on structural solutions to become sustainably better in the execution of our KYC policies, tooling, monitoring, governance and knowledge and behaviour; and
- Assessing selected past transactions and follows the applicable reporting process should any unusual transactions be identified.

In September 2018, ING announced that it had reached a settlement agreement with the Dutch Public Prosecutor related to an investigation that found serious shortcomings in the execution of customer due diligence and transaction monitoring requirements related to fighting financial economic crime, and announced steps to further enhance its management of compliance risks and embed stronger awareness across the whole organisation as part of the KYC enhancement programme.

In 2019, we continued the implementation of the KYC enhancement programme, and had more than 4,000 FTEs working on KYC-related activities globally. In March 2019, ING in Italy took steps to improve its KYC processes and compliance risks in line with the global KYC enhancement programme after the Italian central bank identified shortcomings in anti-money laundering processes. This was based on an inspection conducted from October 2018 to January 2019. In consultation with the Banca d'Italia, ING agreed to refrain from taking on new customers in Italy while further discussions on the enhancement plans took place. ING continued to fully serve existing clients in Italy while working to address the shortcomings and resolve the issues identified. Please refer to Note 46 'Legal proceedings' to the consolidated financial statements for more information.

In 2019, as part of our commitment to enhance the way we manage compliance risks and embed stronger awareness across the whole organisation, we also took the following steps across our five KYC pillars:

- **Policies and risk**: This pillar focuses on the development and roll out of a global KYC policy, a global KYC risk appetite statements and KYC risk assessments on customers, capability structure and maturity assessments.

- In 2019, we updated the new KYC policy, which integrated all existing policies related to anti-money laundering, financial economic crime and customer due diligence. It came into effect in July. (See section 'KYC policy framework' above).
- The global KYC policy may be stricter than local requirements, in which case the global risk appetite statement is used as the starting point to execute a uniform risk assessment and to determine the local KYC-related risk appetite.
- As part of our due diligence process we updated the environmental and social risk (ESR) framework, which helps us make transparent choices about who and what we finance. All customers undergo an initial ESR check as part of the onboarding process. (See 'Environmental and social risk framework' in the credit risk chapter for more information)
- We implemented a systematic integrated risk approach (SIRA) in all business lines globally. Driven by data, the SIRA provides guidance on KYC integrity risks and helps determine which customers to accept/continue and the type and frequency of monitoring. It takes into account elements such as where the customer is located and the type of product and sector they are active in. The KYC integrity risks are reviewed each year.

- **Tooling**: This pillar aims to improve processes and tooling around customer due diligence, screening and monitoring. This entails rolling out a bank-wide KYC digital service and fulfilling client acceptance and maintenance life cycle on one global digital platform. In addition, all required screening components (name screening, pre-transaction screening, adverse media screening) are incorporated into the client acceptance due diligence process. Once a customer is onboarded, ongoing screening and monitoring of transactions can then be activated. Steps taken in 2019 included:

- Developed new customer due diligence case management modules for Private Banking clients in Luxembourg, and mid-corporates in Poland, which is to be rolled out in other countries with similar client segments.
- The target adverse media screening tool was rolled out in most locations
- Innovating to automate and improve KYC processes. In 2019, we developed a 'smurfing' tool, which uses artificial intelligence to detect instances of smurfing when large fraudulent transactions are broken up into smaller transactions that will not be flagged by conventional monitoring systems. And we are developing a virtual alerts handler that uses artificial intelligence to reduce the number of false positives, freeing up KYC staff to concentrate on those alerts that do require attention.
- In September 2019, an anomaly detection tool went live to monitor the payment flow of ING's correspondent banking clients. Developed by ING, the tool uses advanced analytics to detect changes in behaviour that could indicate money laundering or other financial economic crime. The approach for innovations is per country and business line and based on success will be scaled up and rolled out in other locations.

- **Monitoring and screening**: This pillar entails translating risk assessment outcomes into scenarios and alert definitions that can be applied in transaction monitoring. This includes the design and definitions of the applicable financial economic crime and client activity monitoring scenarios tailored to the entity yet based on a global set, building alert definitions (including data feeds) and validating and testing the approach from risks to alerts.

- In 2019, we introduced the new standard transaction monitoring tooling in the first countries. This includes risk-based scenarios, with follow-up for handling alerts and reporting suspicious activity.
- In May 2019, the first version of the global transaction monitoring (TM) control guidance came into effect. It outlines the adoption of a uniform TM methodology framework to mitigate financial economic crime risks.
- In September 2019, ING partnered with four other Dutch banks to explore options to jointly monitor payment transactions. Transaction Monitoring Netherlands (TMNL) is part of a broader cooperation with the private sector, government agencies, regulators and law enforcement to harmonise efforts to fight financial crime and strengthen the resilience of the financial system as a whole, both on a national and European level. We also work with the Dutch central bank and are a member of the public-private partnership council of the Dutch Financial Expertise Centre (FEC-RAAD PPS).
- The increased focus on KYC and our efforts to streamline our operations led to an increased number of accounts being closed. This includes inactive accounts and accounts of customers who do not respond adequately to our requests for information. We are also re-evaluating certain client and business relationships.

- **Governance**: Under this pillar we are setting up a global KYC governance to ensure decision making on standards, operations, customer acceptance and continuous improvements. This started with the appointment of a global head of KYC at the end of 2018 and a global Centre of Expertise, as well as a Delivery Tribe, who together with the business lines and the second line of defence (Risk and Compliance functions) are responsible for implementing KYC across the organisation.

- In 2019, local KYC Committees were established in the countries/regions and business lines to manage and steer all KYC-related activities. These committees are overseen by the global KYC Committee, which drives improvements and ensures alignment between KYC-related projects and activities. It also monitors all KYC-related costs, helps prioritise activities and steers decisions on KYC-related issues and developments.
- Client Integrity Risk Committees (CIRCs) were set up in the retail business lines and Wholesale Banking to steer decisions around client acceptance and exits, based on compliance criteria and risk appetite. The committee members represent both the first and second lines of defence to ensure proper decision-making is adhered to.

- **Knowledge and behaviour**: This pillar focuses on increasing knowledge about KYC, providing training and carrying out behavioural risk assessments to detect high-risk behaviours, intervening where necessary.

- Internal communication in 2019 reiterated the importance of non-financial risk and compliance.
- We set up a global KYC Academy to coordinate a global learning curriculum and provide expert training for specialist KYC staff and new joiners as well as awareness training for all ING employees. A new KYC awareness module for all staff is due to be rolled out in 1Q 2020.
- The first behavioural risk assessments in KYC were carried out in the Netherlands, the Philippines and the US by ING's team of behavioural experts. The outcomes were discussed by senior management at ING's leadership days in March, as well as with the management teams of the countries involved and in Wholesale Banking with the intention of changing behaviours to enhance KYC, starting from the top.

Following on from that, workstreams were set up with senior managers and a number of interventions were initiated with the aim of changing high-risk behavioural patterns. Another behavioural risk assessment was conducted at ING in Belgium in the fourth quarter of 2019. We will start a dialogue in 2020 to dive into the outcomes and root causes of the behavioural patterns observed.

Regulatory developments KYC

Compliance with applicable laws and regulations is resource-intensive. Banks continue to be faced with new and increasingly onerous regulatory requirements. Generally, we expect the scope and extent of regulations in the jurisdictions in which we operate to continue to increase.

Regulation is becoming more extensive and complex. An example is the implementation of DAC6 which like FATCA and CRS requires financial institutions to report detailed client-related information to the competent authorities. Customer due diligence (CDD), (sanctions) screening and transaction monitoring impose requirements on financial institutions to maintain appropriate policies, procedures and controls to detect, prevent and report to the competent authorities on e.g. money laundering and terrorist financing.

The increasing regulatory scrutiny drives the need to continuous change in the various processes, procedures and IT systems. In some situations the applicable laws and regulations, at local and/or at global level, seem to be conflicting with each other, which imposes a significant challenge on banks as part of the implementation of requirements. In addition, the timeline for implementation of those new/changed requirements is sometimes very short, which is challenging in general, yet especially in IT development. Obviously ING will continuously work on embedding the processes and procedures reflecting the applicable requirements in our IT systems and data sources, driving a business environment which is compliant by desire and design, and will execute ongoing training and awareness to develop its people to have the right knowledge and skills.

That also accounts for risks deriving from new technologies. As an innovative bank, ING continuously monitors regulatory developments to make risk assessments and define the banks risk appetite. Regulations on distributed ledger technology and business developments in this area are as rapid and impactful as the accompanying risks.

5th AML Directive

In addition, the 5th AML Directive will be implemented in the Netherlands. The 5th AML Directive was originally adopted by the EU Council in June 2018, with the aim of addressing means of terrorist financing, increasing transparency to combat money laundering and helping to strengthen the fight against tax avoidance. The most important aspects of the 5th AML Directive involve the (anti money-laundering) risks relating to the use of virtual currencies, the improvement of information exchange between supervising authorities, and the introduction of beneficial ownership registers for corporate and other legal entities.

ING expects to revise the KYC policy framework to reflect the requirements of the 5th AML Directive. Prior to the adoption of the 5th AML Directive, European supervisory authorities (ESAs) had previously issued their final guidelines on risk factors, which came into force in June 2018. These guidelines promote a common understanding of the risk-based approach to anti-money laundering/combatting terrorist financing (AML/CFT) and set out how it should be applied in the context of the 4th AML Directive. These guidelines are currently in the process of being updated, in order to support firms' AML/CFT compliance efforts and enhance the ability of the EU's financial sector to effectively deter and detect money laundering/terrorist financing. The ESAs published a consultation version of the updated guidelines on 5 February 2020. The final updated guidelines are expected to come into force in the course of 2020. Furthermore, in September 2017, the ESAs issued their final guidelines to prevent the abuse of funds transfers for terrorist financing and money laundering purposes. These guidelines came into force in June 2018.

Policy with respect to certain countries

As a result of frequent evaluation of all businesses from economic, strategic and risk perspective ING continues to believe that for business reasons doing business involving certain specified countries should be discontinued. In that respect, ING has a policy not to enter into new relationships with clients from these countries and processes remain in place to discontinue existing relationships involving these countries. At present these countries are Cuba, Iran, North Korea, Sudan and Syria.

ING Bank maintains a limited legacy portfolio of guarantees, accounts, and loans that involve various entities with a connection to Iran. These positions remain on the books but certain accounts related thereto are 'frozen' where prescribed by applicable laws and procedures and in all cases subject to increased scrutiny within ING Bank. Specifically, ING Bank has controls in place to monitor transactions related to these accounts. ING Bank may receive loan repayments, duly authorised by the relevant competent authorities where prescribed by applicable laws. For the calendar year 2019, ING Group had revenues of approximately USD 276.774. ING Group estimates that it had a net profit of approximately USD 16.599.

Sanctions developments

The Ukraine-/Russia-related sanctions imposed by both the US and the EU remained in force. In 2019 the US added sanctions regarding the Nordstream 2 pipeline.
The US also added sanctions against Venezuela in 2019, aimed amongst others at assets from the government of Venezuela.

With respect to Cuba, the US lifted in 2019 the suspension of the private right of action under Title III of the Helms-Burton Act. This allows former owners of properties expropriated by the Cuban government to bring claims before the U.S. courts against foreign companies alleged to have "trafficked" with those properties.

In 2020, the US imposed new sanctions on Iran. The EU blocking regulation remained in force. The EU revised this regulation in 2018 in response to the U.S. withdrawal from the Joint Comprehensive Plan of Action. The regulation aims to shield EU companies from U.S. sanctions on Iran, in part by prohibiting European companies from complying with the sanctions the EU considers to be "extraterritorial" in nature.

With a view to these ongoing developments ING continuously evaluates its sanctions compliance controls to respond to risks of new or expanding sanctions regimes.

C. Organizational structure

General

ING Groep N.V., a publicly-listed company, is the parent of one main legal entity: ING Bank N.V. (ING Bank). ING Bank is the parent company of various Dutch and foreign banks.

Principal Group Companies

Reference is made to Exhibit 8 "List of subsidiaries of ING Groep N.V."

D. Property, plants and equipment

ING predominantly leases the land and buildings used in the normal course of its business. In addition, ING has invested in land and buildings. Management believes that ING's facilities are adequate for its present needs in all material respects.

For information on property, plants and equipment, reference is made to Note 9 'Property and equipment', for information on lease liabilities reference is made to Note 17 'Other liabilities' and for information on investment properties reference is made to Note 11 ' Other assets' in the consolidated financial statements.

Item 4A. Unresolved Staff comments

Not applicable.

Item 5. Operating and financial review and prospects

The following operating and financial review and prospects should be read in conjunction with the consolidated financial statements and the related Notes thereto included elsewhere herein. The consolidated financial statements have been prepared in accordance with IFRS-IASB. Unless otherwise indicated, financial information for ING Group included herein is presented on a consolidated basis under IFRS-IASB.

A. Operating results

Factors affecting results of operations

ING Group's results of operations are affected by demographics, regulations and by a variety of market conditions, including economic cycles, banking industry cycles and fluctuations in stock markets, interest and foreign exchange rates, political developments and client behavior changes. For further information on regulations reference is made to "Item 4. Information on the Company – Regulation and Supervision". For further information on other factors that can impact ING Group's results of operations, reference is made to "Item 3. Key information - Risk Factors" for more factors that can impact ING Group's results of operations.

Financial environment

Global economic developments

Being a global financial services company, ING's revenues and earnings are affected by the volatility and strength of the economic, business, liquidity, funding and capital markets environments specific to the geographic regions in which we do business. This includes operations in both advanced economies, as well as emerging economies.

Against a backdrop of continuing US-China trade tensions, prolonged uncertainty on Brexit and reduced US fiscal stimulus, global economic growth weakened throughout 2019. The global economic growth rate fell to its lowest level in a decade.

In addition, the first months of 2020 were marked by the spread of corona (COVID-19) virus-linked infections in and beyond China, negatively affecting Chinese manufacturing and trade, and posing the threat of significant disruption to global supply chains, global manufacturing, travel and tourism, investment and consumer spending.

Advanced economies

Global economic growth slowed in 2019, with a decline in trade and industrial output as well as a weakening in the services sector. In the US, economic momentum slowed as the positive effects of 2018's fiscal stimulus ebbed away and confidence slipped against the background of increased trade tariffs. Economic growth in Netherlands, Belgium and Luxembourg remained strong despite the weak global trade environment and remains above the eurozone average. In Germany, economic growth came to a near standstill during the year due to several factors combined with weak external demand. In Italy, economic growth was minimal as an uncertain fiscal outlook took its toll on domestic demand. Consistent with slowing economic growth, inflation slowed or remained low in major advanced economies.

Deteriorating economic sentiment and expectations about monetary policy easing drove bond yields down in most advanced economies. Yields on 10-year US government bonds fell to the lowest level since July 2016, and the yield on 10-year German government bonds reached a record low of -0.73 percent in August. As a result, sovereign yield curves were partially inverted in most advanced economies.

Both the level of interest rates and the difference between short and long-term rates (the 'slope' of the yield curve) impact our net interest income. Given our geographical footprint, eurozone rate developments are more important for us than US ones.

Prospects for weaker economic growth and lower inflation induced both the US Federal Reserve and the ECB to loosen monetary policy.

The historically low, and even negative, interest rates in the eurozone make it challenging for banks to maintain positive income in the form of a margin between traditional saving and lending activities.

Emerging economies

Central banks in some of the main emerging market economies eased policy to pre-empt a further deterioration of economic circumstances. Brazil, India, Korea and Mexico, among others, lowered their policy rate.

Economic growth in Asia was negatively impacted by the imposition of import tariffs and related uncertainty about global trade. In China, already in the midst of a structural slowdown, economic growth slowed to its lowest rate in 29 years. To address this adverse external environment, both fiscal and monetary stimuli were introduced.

Poland continued to be resilient to slowing growth in the eurozone and the economic slowdown in Turkey found a floor. Falling inflation and a return of investor confidence in Turkey contributed to a general decline in interest rates.

How exchange rates responded

Exchange rate fluctuations have an influence on the business of a globally operating bank like ING, including in the areas of profitability and funding. Several factors in the course of the year contributed to the exchange rate of the euro weakening against the dollar. These included yields in the euro area persistently being below those of the US, uncertainty around the possibility of a broadening of the US trade dispute from China to Europe, and the negative fall-out on economic activity of a possible no-deal Brexit.

During the year, the British pound’s performance against the euro was erratic, mostly driven by changing market expectations about the possibility of the UK leaving the EU with or without a withdrawal agreement.

Brexit factor

Brexit continued to dominate 2019, with the UK finally leaving the EU on 31 January 2020. Milestones in the year included British Prime Minister Theresa May making way for Boris Johnson, several extensions to withdrawal dates, and a snap general election, which the Conservatives won by a landslide in December.

In 2019, the financial sector, regulators and banks alike put tremendous effort into preparing for all Brexit scenarios, with the aim of ensuring the resilience of the banking sector even in the face of a no-deal scenario. For banks, the implementation of their contingency planning was a key priority. On the legislative side, EU and UK regulators took the necessary steps ensuring operational continuity.

ING took several steps to prepare for Brexit, making various adaptations to ensure a smooth transition. Following Brexit, the European Central Bank (ECB) was set to classify the UK as a non-EU or third country. As a consequence, ING has made the decision to move a number of EU-related trading operations to a location within the EU. Brussels was chosen due to its existing infrastructure.

The proposed changes by no means dilute the importance of the UK as one of ING’s major Wholesale Banking hubs. The UK centres of expertise, including Financial Markets, support ING’s clients and its teams in other countries and regions across the globe. The UK team will continue to be an important pillar for ING.

Fluctuations in equity markets

Our banking operations are exposed to fluctuations in equity markets. ING maintains an internationally diversified and mainly client-related trading portfolio. Accordingly, market downturns are likely to lead to declines in securities trading and brokerage activities which we execute for customers and therefore to a decline in related commissions and trading results. In addition to this, ING also maintains equity investments in its own non-trading books. Fluctuations in equity markets may affect the value of these investments.

Fluctuations in interest rates

Our banking operations are exposed to fluctuations in interest rates. Mismatches in the interest re-pricing and maturity profile of assets and liabilities in our balance sheet can affect the future interest earnings and economic value of the bank's underlying banking operations. In addition, changing interest rates may impact the (assumed) behavior of our customers, impacting the interest rate exposure, interest hedge positions and future interest earnings, solvency and economic value of the bank's underlying banking operations. In the current low (and in some cases negative) interest rate environment in the Eurozone, the stability of future interest earnings and margin also depends on the ability to actively manage pricing of customer assets and liabilities. Especially, the pricing of customer savings portfolios in relation to re-pricing customer assets and other investments in our balance sheet is a key factor in the management of the bank's interest earnings.

Fluctuations in exchange rates

ING Group is exposed to fluctuations in exchange rates. Our management of exchange rate sensitivity affects the results of our operations through the trading activities and because we prepare and publish our consolidated financial statements in euros. Because a substantial portion of our income, expenses and foreign investments is denominated in currencies other than euros, fluctuations in the exchange rates used to translate foreign currencies, particularly the U.S. Dollar, Pound Sterling, Turkish Lira, Chinese Renminbi, Australian Dollar, Japanese Yen, Polish Zloty, Korean Won, the Indian Rupee, Brazilian Real, Singapore Dollar, Thai Baht and Russian Ruble into euros can impact our reported results of operations, cash flows and reserves from year to year. Fluctuations in exchange rates will also impact the value (denominated in euro) of our investments in our non-euro reporting subsidiaries. The impact of these fluctuations in exchange rates is mitigated to some extent by the fact that income and related expenses, as well as assets and liabilities, of each of our non-euro reporting subsidiaries are generally denominated in the same currencies. FX translation risk is managed by taking into account the effect of translation results on the Core Equity Tier 1 ratio (CET1).

Critical Accounting Policies

A number of new or amended standards became applicable for the current reporting period. ING Group changed its accounting policies in 2019 as a result of adopting IFRS 16 'Leases'

The other changes in standards and amendments did not have a significant impact on ING Group's accounting policies.

For detailed information regarding ING's accounting policies, including changes in accounting policies, reference is made to Note 1 'Accounting Policies' to the consolidated financial statements.

Consolidated result of operations

ING Group's management evaluates the results of ING Group's banking segments using a non-IFRS financial performance measure called underlying result. To give an overview of the underlying result measure, we also present consolidated underlying result before tax and underlying net result. Underlying figures are derived from figures determined in accordance with IFRS-IASB by excluding the impact of special items, adjustment of the EU 'IAS 39 carve-out' and Insurance Other. Special items consist of items of income or expense that are significant and arise from events or transactions that are clearly distinct from ordinary operating activities. The adjustment of the EU 'IAS 39 carve-out' refers to the fact that ING Group applies fair value hedge accounting for portfolio hedges of interest rate risk (fair value macro hedges) in accordance with the EU "carve-out" version of IAS 39. No hedge accounting is applied to these derivatives under IFRS-IASB. Insurance Other reflects (former) insurance related activities that are not part of the discontinued operations.

While items excluded from underlying result are significant components in understanding and assessing the Group's consolidated financial performance, ING Group believes that the presentation of underlying net result is relevant and useful for investors because it allows investors to understand the primary method used by management to evaluate the Group's operating performance and make decisions about allocating resources. In addition, ING Group believes that the presentation of underlying net result helps investors compare its segment performance on a meaningful basis by highlighting result before tax attributable to ongoing operations and the underlying profitability of the segment businesses. For example, ING believes that trends in the underlying profitability of its segments can be more clearly identified by disregarding the effects of special items and the impact of the IAS39 carve-out adjustment. ING Group believes that the most directly comparable GAAP financial measure to underlying net result is net result. However, underlying net result should not be regarded as a substitute for net result as determined in accordance with IFRS-IASB. Because underlying net result is not determined in accordance with IFRS-IASB, underlying net result as presented by ING may not be comparable to other similarly titled measures of performance of other companies. In addition, ING Group's definition of underlying net result may change over time.

The section Segment Reporting Banking Operations on the next pages presents the segment results on the basis of the performance measure underlying result.

For further information on underlying result for the Banking activities, as well as the reconciliation of our segment underlying result before tax to our net result, see Note 34 'Segments' in the consolidated financial statements.

Group Overview

The following table sets forth the consolidated results of ING Group in accordance with IFRS-IASB for the years ended 31 December 2019, 2018 and 2017:

IFRS-IASB Consolidated Income Statement

Amounts in millions of euros	2019	2018	2017
Continuing operations			
Interest income	28,163	28,129	43,890
Interest expense	14,353	14,169	30,243
Net interest income	13,811	13,960	13,647
Net fee and commission income	2,868	2,798	2,710
Investment and Other income	446	1,566	2,233
Total income	**17,125**	**18,324**	**18,590**
Operating expenses	10,353	10,682	9,829
Addition to loan loss provisions	1,120	656	676
Total expenditure	**11,472**	**11,338**	**10,505**
Result before tax	**5,653**	**6,986**	**8,085**
Taxation	1,652	2,116	2,539
Net result from continuing operations	4,001	4,869	5,546
Non-controlling interests from continuing operations	99	108	82
Net result IFRS-IASB	**3,903**	**4,761**	**5,464**

Reconciliation from IFRS-IASB to ING Group's underlying results

Amounts in millions of euros	2019	2018	2017
Net result IFRS-IASB	**3,903**	**4,761**	**5,464**
-/- Special items [1]		-775	0
-/- Adjustment of the EU 'IAS 39 carve-out'	-878	58	559
-/- Insurance Other		90	-52
Underlying net result	**4,781**	**5,389**	**4,957**

1. Special items: settlement agreement with the Dutch authorities on regulatory issues as announced on 4 September 2018 (EUR -775 million, 2018); tax charge of EUR 121 million at ING Australia Holdings Ltd related to the years 2013-2017, for which a full reimbursement is expected to be received from NN Group (impact on net result EUR 0 million, 2017).

Year ended 31 December 2019 compared to year ended 31 December 2018

In 2019, ING showed solid commercial performance despite the challenging rate environment, geopolitical uncertainties and demanding regulatory environment. However, the net result declined 18.0% to EUR 3,903 million in 2019 from EUR 4,761 million in 2018, which has been negatively affected by the EUR 775 million settlement agreement with the Dutch authorities on regulatory issues that was recorded as a special item. The net result in 2019 also included EUR 878 million drop in fair value changes on derivatives related to asset-liability-management activities (including a negative impact under interest income of ending some hedge relationships), with the EU carve-out version of IAS 39 applied. In 2019, there were no results from Insurance Other as ING sold its last warrants related to its previous Insurance activities in November 2018. The net result in 2018 included EUR 90 million from Insurance Other, reflecting the net result on the warrants on Voya Financial and NN Group shares.

Underlying net result for 2019 was EUR 4,781 million, a decrease of 11.3% from EUR 5,389 million in 2018. Underlying net result is derived from total net result by excluding the impact from special items and adjustment of the EU ‘IAS 39’ carve-out and Insurance Other.

Year ended 31 December 2018 compared to year ended 31 December 2017

ING posted strong commercial results in 2018, but they were negatively affected by the EUR 775 million settlement agreement with the Dutch authorities on regulatory issues. The net result dropped to EUR 4,761 million from EUR 5,464 million in 2017, primarily due to the settlement agreement which was recorded as a special item. In 2017, there was a special item related to a EUR 121 million tax charge at ING Australia Holdings Ltd, for which a full reimbursement will be received from NN Group. Although the bottom-line impact for ING Bank was nil, it affected both the tax and 'other income' lines. The net result in 2018 also included EUR 58 million increase in fair value changes on derivatives (including a negative impact under net interest income of ending some hedge relationships) related to asset-liability-management activities for the mortgage and savings portfolios in Benelux, Germany and Czech Republic, with the EU carve-out version of IAS 39 applied, while these fair value changes were EUR 559 million in 2017. Insurance Other added EUR 90 million to the net result, compared with a EUR 52 million loss in 2017. Insurance Other mainly comprised the net result on the warrants on Voya Financial and NN Group shares. ING sold its remaining part of warrants on the shares of Voya Financial in March 2018, while the warrant agreement between NN Group and ING was terminated in November 2018.

Underlying net result for 2018 was EUR 5,389 million, an increase of 8.7% from EUR 4,957 million in 2017. Underlying net result is derived from total net result by excluding the impact of special items, adjustment of the ‘EU IAS 39 carve-out’ and Insurance Other.

Segment Reporting

ING Group evaluates the results of its banking segments using a non-IFRS financial performance measure called underlying result. Underlying result is derived from result determined in accordance with IFRS-IASB by excluding the impact of special items, adjustment of the 'EU IAS 39 carve-out' and Insurance Other.

Because underlying result is not determined in accordance with IFRS-IASB, underlying result as presented by ING may not be comparable to other similarly titled measures of performance of other companies. The underlying result of ING's segments is reconciled to the Net result as reported in the IFRS-IASB Consolidated profit or loss account.

The published 2019 Annual Accounts of ING Group includes financial information in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU). The segment reporting in the annual report on Form 20-F has been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS-IASB) for consistency with the other financial information contained in this report. The difference between the accounting standards is reflected in the Wholesale segment, and in the geographical segments the Netherlands, Belgium, Germany and Other Challengers. Reference is made to Note 1 'Accounting Policies' for a reconciliation between IFRS-EU and IFRS-IASB.

The information presented in this section is in line with the information presented to the Executive Board and Management Board Banking.

For further information on underlying result for the Banking activities, as well as the reconciliation of our segment underlying result before tax to our net result, see Note 34 'Segments' in the consolidated financial statements.

ING Group's segments are based on the internal reporting structures. The following table specifies the segments by line of business and the main sources of income of each of the segments:

Retail Netherlands *(Market Leaders)*
Income from retail and private banking activities in the Netherlands, including the SME and mid-corporate segments and the Real Estate Finance portfolio related to Dutch domestic mid-corporates. The main products offered are current and savings accounts, business lending, mortgages and other consumer lending in the Netherlands.

Retail Belgium *(Market Leaders)*
Income from retail and private banking activities in Belgium (including Luxembourg), including the SME and mid-corporate segments. The main products offered are similar to those in the Netherlands.

Retail Germany *(Challengers and Growth Markets)*
Income from retail and private banking activities in Germany (including Austria). The main products offered are current and savings accounts, mortgages and other customer lending.

Retail Other *(Challengers and Growth Markets)*
Income from retail banking activities in the rest of the world, including the SME and mid-corporate segments in specific countries. The main products offered are similar to those in the Netherlands.

Wholesale Banking
Income from wholesale banking activities. The main products are: lending, debt capital markets, working capital solutions, export finance, daily banking solutions, treasury and risk solutions, and corporate finance.

The accounting policies of the segments are the same as those described in Note 1 'Accounting policies' in the consolidated financial statements. Transfer prices for inter-segment transactions are set at arm's length. Corporate expenses are allocated to business lines based on time spent by head office personnel, the relative number of staff, or on the basis of income, expenses and/or assets of the segment.

As of 1 January 2019, the Real Estate Finance portfolio related to Dutch domestic mid-corporates, which was included under Wholesale Banking, has been transferred to Retail Netherlands in order to define clearer roles and responsibilities. The presentation of previously reported underlying profit and loss amounts has been adjusted to reflect this change.

Corporate Line Banking

In addition to these segments, ING Group reconciles the total segment results to the total result of Banking using Corporate Line Banking. The Corporate Line Banking is a reflection of capital management activities and certain income and expense items that are not allocated to the banking businesses, including a higher VAT refund in 2019 as well as a EUR 119 million gain from the release of a currency translation reserve following the sale of ING's stake in Kotak Mahindra Bank and the recognition of a EUR 79 million receivable related to the insolvency of a financial institution (both recorded under income). Furthermore, the Corporate Line Banking includes the isolated legacy costs (mainly negative interest results) caused by the replacement of short-term funding with long-term funding during 2013 and 2014. ING Group applies a system of capital charging for its banking operations in order to create a comparable basis for the results of business units globally, irrespective of the business units' book equity and the currency they operate in.

Banking Operations

The following table sets forth the contribution of ING's banking business lines and the corporate line banking to the underlying net result for each of the years 2019, 2018 and 2017.

1 January to 31 December 2019 **Amounts in millions of euros**	**Retail Banking Netherlands**	**Retail Banking Belgium**	**Retail Banking Germany**	**Retail Other**	**Wholesale Banking**	**Corporate Line Banking**	**Total**
Underlying income:							
- Net interest income	3,541	1,907	1,579	2,787	3,794	470	14,079
- Net fee and commission income	674	374	268	423	1,135	-6	2,868
- Total investment and other income	290	161	138	298	369	103	1,360
Total underlying income	**4,505**	**2,442**	**1,985**	**3,509**	**5,298**	**568**	**18,306**
Underlying expenditure:							
- Underlying operating expenses	2,210	1,609	1,080	2,210	2,937	307	10,353
- Additions to loan loss provision	91	186	-53	364	532	0	1,120
Total underlying expenditure	**2,301**	**1,794**	**1,027**	**2,574**	**3,469**	**307**	**11,472**
Underlying result before taxation	**2,204**	**647**	**957**	**935**	**1,830**	**261**	**6,834**
Taxation	558	192	328	234	464	179	1,955
Non-controlling interests	0	0	3	82	14	0	99
Underlying net result	**1,646**	**455**	**627**	**619**	**1,352**	**82**	**4,781**
Special items							
Adjustment of the EU 'IAS 39 carve-out'					-878		-878
Net result Banking	**1,646**	**455**	**627**	**619**	**474**	**82**	**3,903**
Net result Insurance Other							
Net result from continuing operations							**3,903**
Net result IFRS-IASB							**3,903**

1 January to 31 December 2018 Amounts in millions of euros	Retail Banking Netherlands [1]	Retail Banking Belgium	Retail Banking Germany	Retail Other	Wholesale Banking[1]	Corporate Line Banking	Total
Underlying income:							
- Net interest income	3,749	1,830	1,671	2,690	3,686	290	13,916
- Net fee and commission income	664	371	225	395	1,152	–4	2,803
- Total investment and other income	335	169	76	230	673	–113	1,369
Total underlying income	**4,747**	**2,369**	**1,972**	**3,315**	**5,510**	**173**	**18,088**
Underlying expenditure:							
- Underlying operating expenses	2,220	1,610	1,027	2,033	2,771	247	9,907
- Additions to loan loss provision	–41	164	–27	350	210	–1	656
Total underlying expenditure	**2,179**	**1,774**	**1,000**	**2,383**	**2,981**	**246**	**10,563**
Underlying result before taxation	**2,568**	**595**	**972**	**932**	**2,529**	**–72**	**7,524**
Taxation	626	199	324	200	633	47	2,028
Non-controlling interests	0	6	3	80	19	0	108
Underlying net result	**1,942**	**390**	**646**	**652**	**1,877**	**–119**	**5,389**
Special items						–775	–775
Adjustment of the EU 'IAS 39 carve-out'					58		58
Net result Banking	**1,942**	**390**	**646**	**652**	**1,935**	**–894**	**4,672**
Net result Insurance Other							90
Net result from continuing operations							**4,761**
Net result IFRS-IASB							**4,761**

1 In 2019, the Dutch domestic midcorporates real estate finance portfolio transferred from Wholesale Banking to Retail Banking Netherlands. Comparative figures have been adjusted.

1 January to 31 December 2017 Amounts in millions of euros	Retail Banking Netherlands	Retail Banking Belgium	Retail Banking Germany	Retail Other	Wholesale Banking	Corporate Line Banking	Total
Underlying income:							
- Net interest income	3,866	1,842	1,704	2,437	3,639	226	13,714
- Net fee and commission income	607	408	215	384	1,102	–3	2,714
- Total investment and other income	256	224	–28	207	919	–301	1,277
Total underlying income	**4,730**	**2,473**	**1,891**	**3,028**	**5,660**	**–78**	**17,704**
Underlying expenditure:							
- Underlying operating expenses	2,260	1,584	1,032	1,919	2,744	290	9,829
- Additions to loan loss provision	15	104	–10	284	282	1	676
Total underlying expenditure	**2,275**	**1,688**	**1,022**	**2,203**	**3,026**	**291**	**10,505**
Underlying result before taxation	**2,455**	**785**	**869**	**825**	**2,634**	**–369**	**7,199**
Taxation	615	296	241	188	832	–13	2,160
Non-controlling interests	0	–2	2	67	15	0	82
Underlying net result	**1,839**	**491**	**625**	**569**	**1,788**	**–356**	**4,957**
Special items						0	0
Adjustment of the EU 'IAS 39 carve-out'					559		559
Net result Banking	**1,839**	**491**	**625**	**569**	**2,347**	**–356**	**5,516**
Net result Insurance Other							–52
Net result from continuing operations							**5,464**
Net result IFRS-IASB							**5,464**

Year ended 31 December 2019 compared to year ended 31 December 2018

In 2019, ING's banking operations showed solid commercial performance despite the challenging rate environment, geopolitical uncertainties and demanding regulatory environment. The net result Banking (including the impact of special items and adjustment of the EU 'IAS 39 carve-out') declined 16.5% to EUR 3,903 million in 2019 from EUR 4,672 million in 2018, which has been negatively affected by the EUR 775 million settlement agreement with the Dutch authorities on regulatory issues that was recorded as a special item. The net result was affected by a EUR 936 million negative swing in net contribution of fair value changes on derivatives related to asset-liability-management activities for the mortgage and savings portfolios in the Benelux, Germany, France and Czech Republic. These fair value changes are mainly caused by changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

The underlying net result dropped 11.3% to EUR 4,781 million from EUR 5,389 million. This was in part due to an increased underlying effective tax rate of 28.6% from 27.0% in 2018, mainly reflecting higher non-deductible costs, including the cancellation of tax deductibility of interest expenses on additional Tier 1 instruments in the Netherlands as from 2019. Underlying net result is derived from total net result by excluding the impact from special items and adjustment of the EU 'IAS 39' carve-out.

The underlying result before tax declined 9.2% to EUR 6,834 million in 2019 from EUR 7,524 million in 2018, primarily due to increased operating expenses and higher risk costs. Commercial momentum remained solid, albeit at a slower pace than previous year. ING grew net core lending (adjusted for currency impacts, and excluding Treasury and the run-off portfolios) by EUR 17.2 billion, or 2.9%, and net customer deposits rose by EUR 23.4 billion in 2019. The global retail customer base grew to 38.8 million at year-end, and the number of primary customers rose during the year by 0.8 million to 13.3 million.

The underlying income increased 1.2% to EUR 18,306 million from EUR 18,088 million in 2018, driven by Corporate Line (predominantly one-offs) and Retail Banking, while income in Wholesale Banking (mainly in Financial Markets and Lending) declined. Net interest income rose 1.2% to EUR 14,079 million. The increase was driven by higher interest results on customer lending mainly supported by volume growth, partly offset by lower margins on savings and current accounts. The total lending margin was slightly up compared with 2018, as the impact of improved interest margins on mortgages was largely offset by lower margins on other customer lending. ING's overall net interest margin remained at 1.54% in 2019.

Net fee and commission income rose 2.3% to EUR 2,868 million. The increase was driven by Retail Banking with increases in most countries, partly offset by a small decline in Wholesale Banking. Investment and other income slightly decreased to EUR 1,360 million from EUR 1,369 million in 2018, with a decline in Wholesale Banking, mainly due to negative valuation adjustments in Financial Markets, and some one-offs. The decline was largely offset by increases in Retail Banking and Corporate Line. The latter was supported by a EUR 119 million gain from the release of a currency translation reserve following the sale of ING's stake in Kotak Mahindra Bank and the recognition of a EUR 79 million receivable related to the insolvency of a financial institution.

Underlying operating expenses increased 4.5% to EUR 10,353 million from EUR 9,907 million in 2018. The increase was visible in all segments, except for Retail Netherlands and Retail Belgium. Regulatory expenses rose to EUR 1,021 million from EUR 947 million in previous year. Excluding regulatory costs, expenses were up 4.2%, mainly due to higher KYC-related costs, increased staff costs and continued investments in business growth, partly offset by costs savings and one-offs (including a higher VAT refund, recorded in Corporate Line). The cost/income ratio was 56.6% versus 54.8% in 2018.

The net addition to the provision for loan losses rose to EUR 1,120 million from EUR 656 million in 2018. This increase was mainly caused by a number of large individual files in Wholesale Banking and higher, but still relatively low risk costs in Retail Netherlands. Risk costs rose to 18 basis points of average customer lending in 2019, remaining below ING Bank's through-the-cycle average of approximately 25 basis points, compared with 11 basis points of average customer lending in 2018.

Year ended 31 December 2018 compared to year ended 31 December 2017

ING's banking operations posted strong commercial results in 2018, but they were negatively affected by the EUR 775 million settlement agreement with the Dutch authorities on regulatory issues. The net result Banking (including the impact of special items and adjustment of the EU 'IAS 39 carve-out') dropped to EUR 4,672 million from EUR 5,516 million in 2017, primarily due to the settlement agreement which was recorded as a special item. In 2017, there was a special item related to a EUR 121 million tax charge at ING Australia Holdings Ltd, for which a full reimbursement will be received from NN Group. Although the bottom-line impact for ING was nil, it affected both the tax and 'other income' lines. The result was negatively affected by a EUR 501 million lower net contribution of fair value changes on derivatives related to asset-liability-management activities for the mortgage and savings portfolios in the Benelux, Germany and Czech Republic. These fair value changes are mainly caused by changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

The underlying net result rose 8.7% to EUR 5,389 million in 2018 from EUR 4,957 million in 2017; this was partly caused by a lower underlying effective tax rate supported by the tax reforms in Belgium and the US. Underlying net result is derived from total net result by excluding the impact from special items and adjustment of the EU 'IAS 39 carve-out'.

The underlying result before tax rose 4.5% to EUR 7,524 million in 2018 from EUR 7,199 million in 2017, primarily driven by continued business growth at resilient interest margins, higher net fee and commission income, and slightly lower risk costs. Commercial performance was strong in 2018. ING grew net core lending (adjusted for currency impacts, and excluding Bank Treasury and the run-off portfolios) by EUR 36.6 billion, or 6.4%, and net customer deposits rose by EUR 19.3 billion in 2018. The global retail customer base grew by one million customers to reach 38.4 million over the year, and the number of primary customers rose by 1.1 million to 12.5 million.

Total underlying income increased 2.2% to EUR 18,088 million from EUR 17,704 million in 2017. Net interest income rose 1.5% to EUR 13,916 million, due to an increase of the average balance sheet total, partly offset by a narrowing of the net interest margin to 1.53% from 1.54% in 2017. The increase of the average balance sheet was mainly driven by the continued growth in net core lending and customer deposits. The interest result on customer lending activities increased driven by higher volumes at stable margins. The interest result on customer deposits slightly declined, as the impact of volume growth was more than offset by margin pressure on current accounts (due to lower reinvestment yields); the interest margin on savings stabilized, mainly due to a further lowering of client savings rates in several countries. Net interest income was furthermore negatively affected by a decline in the volatile interest results of Financial Markets. Net fee and commission income rose 3.3% to EUR 2,803 million. The increase was mainly in Wholesale Banking (supported by the inclusion of Payvision as from the second quarter of 2018) and most of the Retail Banking countries, except for Belgium and Turkey. Investment and other income rose to EUR 1,369 million from EUR 1,277 million in 2017, mainly caused by higher valuation results and net trading income, including improved hedge ineffectiveness results, and one-off results. The increase was primarily visible in Retail Banking (excluding Belgium) and the Corporate Line. In Wholesale Banking, investment and other income declined, mainly due to a loss recorded on the intended sale of an Italian lease run-off portfolio in 2018, while 2017 included a gain on the sale of an equity stake in the real estate run-off portfolio.

Underlying operating expenses increased 0.8% to EUR 9,907 million from EUR 9,829 million in 2017. In 2018, expenses included EUR 947 million of regulatory expenses up from EUR 901 million in the previous year. Excluding regulatory costs, expenses were up 0.4%, as higher costs for strategic projects and to support business growth, were largely offset by lower performance-related expenses and strict cost management. The underlying cost/income ratio improved to 54.8% from 55.5% in 2017.

The net addition to the provision for loan losses declined 3.0% to EUR 656 million from EUR 676 million in 2017. Risk costs were 11 basis points of average customer lending compared with 12 basis points in 2017.

RETAIL NETHERLANDS

Amounts in millions of euros	2019	2018[1]	2017
Underlying income:			
Net interest income	3,541	3,749	3,866
Net fee and commission income	674	664	607
Investment income and other income	290	335	256
Total underlying income	**4,505**	**4,747**	**4,730**
Underlying expenditure:			
Underlying operating expenses	2,210	2,220	2,260
Additions to the provision for loan losses	91	–41	15
Total underlying expenditure	**2,301**	**2,179**	**2,275**
Underlying result before tax	**2,204**	**2,568**	**2,455**
Taxation	558	626	615
Non-controlling interests	0	0	0
Underlying net result	**1,646**	**1,942**	**1,839**
Net result	**1,646**	**1,942**	**1,839**

1 As from 2019, Retail Netherlands includes the real estate finance portfolio to Dutch domestic mid-corporates. This portfolio was transferred from Wholesale Banking to Retail Netherlands in order to define clearer roles and responsibilities. All comparative figures have been adjusted.

Year ended 31 December 2019 compared to year ended 31 December 2018

Both net result and underlying net result of Retail Netherlands decreased by EUR 296 million, or 15.2%, to EUR 1,646 million in 2019 from EUR 1,942 million in 2018. There were no special items in 2019 and 2018.

The underlying result before tax of Retail Netherlands decreased 14.2% to EUR 2,204 million from EUR 2,568 million in 2018. This was mainly due to lower income, mainly reflecting lower margins on customer deposits and lower revenues from Treasury, combined with higher risk costs. Operating expenses declined slightly.

Underlying income fell 5.1% to EUR 4,505 million from EUR 4,747 million previous year. The interest result was 5.5% lower, reflecting margin pressure on savings and current accounts due to lower re-investment yields and lower revenues from Treasury. This was partly compensated by improved margins on mortgages. Net core lending (excluding the WUB run-off portfolio and Treasury-related products) grew by EUR 2.0 billion in 2019, equally divided over mortgages and other lending. Net growth in customer deposits (excluding Treasury) was EUR 8.4 billion in 2019. Net fee and commission income rose by EUR 10 million, or 1.5%, primarily due to higher daily banking fees. Investment and other income declined by EUR 45 million, mainly attributable to lower results from financial markets-related products.

Underlying operating expenses declined 0.5% on 2018, this was mainly due to lower regulatory costs, benefits from the ongoing cost-saving initiatives and some positive one-offs, partly offset by increased salaries as well as higher KYC and IT-related expenses.

Risk costs in 2019 increased to a relatively low EUR 91 million, or 6 basis points of average customer lending, partly caused by a change in the house price index that is used for Dutch mortgages. This compared with a net release of EUR 41 million 2018, which included releases in both mortgages and business lending.

Year ended 31 December 2018 compared to year ended 31 December 2017

Both net result and underlying net result of Retail Netherlands increased by EUR 103 million, or 5.6%, to EUR 1,942 million in 2018 from EUR 1,839 million in 2017. There were no special items in 2018 and 2017.

The underlying result before tax of Retail Netherlands rose 4.6% to EUR 2,568 million from EUR 2,455 million in 2017. This was mainly due to lower risk costs and benefits from the ongoing cost-saving programmes.

Underlying income rose 0.4% to EUR 4,747 million. The interest result was 3.0% lower, mainly caused by margin pressure on savings and current accounts, and a decline in the average lending volumes, partly offset by higher margins on mortgages. Net core lending (excluding the WUB run-off portfolio and Bank Treasury-related products) grew by EUR 1.5 billion as from 1 January 2018, of which EUR 0.8 billion in mortgages and EUR 0.7 billion in other lending. Net growth in customer deposits (excluding Bank Treasury) was EUR 3.5 billion in 2018. Net fee and commission income rose by EUR 57 million, or 9.4%, primarily due to higher daily banking fees. Investment and other income rose by EUR 79 million, mainly attributable to higher allocated Bank Treasury revenues.

Underlying operating expenses declined 1.8% on 2017, mainly driven by the benefits from the ongoing cost-saving initiatives and lower expenses for legal claims.

Risk costs turned to a net release of EUR 41 million, or -3 basis points of average customer lending, from a net addition of EUR 15 million in 2017, reflecting the continued positive macroeconomic conditions in the Netherlands.

RETAIL BELGIUM

Amounts in millions of euros	**2019**	**2018**	**2017**
Underlying income:			
Net interest income	1,907	1,830	1,842
Net fee and commission income	374	371	408
Investment income and other income	161	169	224
Total underlying income	**2,442**	**2,369**	**2,473**
Underlying expenditure:			
Underlying operating expenses	1,609	1,610	1,584
Additions to the provision for loan losses	186	164	104
Total underlying expenditure	**1,794**	**1,774**	**1,688**
Underlying result before tax	**647**	**595**	**785**
Taxation	192	199	296
Non-controlling interests	0	6	–2
Underlying net result	**455**	**390**	**491**
Net result	**455**	**390**	**491**

Year ended 31 December 2019 compared to year ended 31 December 2018

Both net result and underlying net result of Retail Belgium (including ING in Luxembourg) increased by EUR 65 million, or 16.7%, to EUR 455 million in 2019 from EUR 390 million in 2018. There were no special items in 2019 and 2018.

The underlying result before tax of Retail Belgium rose 8.7% to EUR 647 million in 2019, compared with EUR 595 million in 2018. The increase reflects higher income and stable expenses, only partly offset by an increase in risk costs.

Underlying income increased to EUR 2,442 million from EUR 2,369 million in 2018. The interest result was 4.2% up to EUR 1,907 million, mainly due to volume growth, increased margins on mortgages, and supported by higher net interest income from Treasury-related products. This was in part offset by lower net interest income from savings and current accounts, reflecting the low interest rate environment, and some margin pressure on non-mortgage lending. The net growth in customer lending (excluding Treasury) was EUR 3.3 billion, of which EUR 1.2 billion was in residential mortgages and EUR 2.1 billion in other lending. The net inflow in customer deposits (excluding Treasury) was EUR 4.1 billion in 2019. Net fee and commission income increased 0.8% to EUR 374 million. Investment and other income was EUR 8 million lower, mainly due to lower Treasury-related revenues.

Operating expenses declined 0.1% to EUR 1,609 million, mainly due to lower staff-related expenses stemming from the transformation programmes, partly offset by higher regulatory costs and KYC-related expenses.

Risk costs increased by EUR 22 million to EUR 186 million, or 21 basis points of average customer lending, from EUR 164 million, or 19 basis points, in 2018. The increase was mainly caused by additional provisioning on individual mid-corporates files and higher collective provisions for consumer lending.

Year ended 31 December 2018 compared to year ended 31 December 2017

Both net result and underlying net result of Retail Belgium (including ING in Luxembourg) declined by EUR 101 million, or 20.6%, to EUR 390 million in 2018 from EUR 491 million in 2017. The decrease was partly mitigated by a lower underlying effective tax rate, because 2017 included the impact of a tax reform in Belgium, which resulted in a tax charge to record a reduction in deferred tax assets. There were no special items in 2018 and 2017.

The underlying result before tax of Retail Belgium fell 24.2% to EUR 595 million in 2018, compared with EUR 785 million in 2017. The decline reflects lower income, higher expenses and an increase in risk costs.

Underlying income decreased to EUR 2,369 million from EUR 2,473 million in 2017. The interest result declined 0.7% to EUR 1,830 million, mainly due to margin pressure on most products, in part offset by volume growth in the lending portfolio as well as current accounts. The net production in customer lending (excluding Bank Treasury and the sale of a mortgage portfolio) was EUR 6.1 billion, of which EUR 2.2 billion was in mortgages and EUR 3.9 billion in other lending. The net inflow in customer deposits was EUR 3.0 billion in 2018. Net fee and commission income decreased 9.1%, mainly due to lower fee income on investment products. Investment and other income fell by EUR 55 million, mainly due to lower income from financial markets products.

Operating expenses rose by EUR 26 million, or 1.6%, to EUR 1,610 million, mainly due to higher external staff expenses related to the transformation programmes and the successful integration of Record Bank into ING Belgium. Risk costs increased by EUR 60 million to EUR 164 million, or 19 basis points of average customer lending, from EUR 104 million, or 13 basis points of average customer lending, in 2017. The increase was primarily in business lending.

RETAIL GERMANY

Amounts in millions of euros	**2019**	**2018**	**2017**
Underlying income:			
Net interest income	1,579	1,671	1,704
Net fee and commission income	268	225	215
Investment income and other income	138	76	–28
Total underlying income	**1,985**	**1,972**	**1,891**
Underlying expenditure:			
Underlying operating expenses	1,080	1,027	1,032
Additions to the provision for loan losses	–53	–27	–10
Total underlying expenditure	**1,027**	**1,000**	**1,022**
Underlying result before tax	**957**	**972**	**869**
Taxation	328	324	241
Non-controlling interests	3	3	2
Underlying net result	**627**	**646**	**625**
Net result	**627**	**646**	**625**

Year ended 31 December 2019 compared to year ended 31 December 2018

Both net result and underlying net result of Retail Germany (including ING in Austria) decreased by EUR 19 million, or 2.9%, to EUR 627 million in 2019 from EUR 646 million in 2018. There were no special items in 2019 and 2018.

The underlying result before tax declined 1.5% to EUR 957 million, compared with EUR 972 million in 2018, mainly due to higher expenses, partly offset by slightly increased income and a higher net release in risk costs.

Underlying income increased 0.7% to EUR 1,985 million in 2019 from EUR 1,972 million a year ago. Net interest income declined 5.5%, mainly due to lower Treasury-related interest results (with a partial offset in other income). Excluding Treasury, net interest income rose marginally, mainly reflecting volume growth in most products and improved margins on mortgages, offset by lower interest results on savings and deposits due to margin pressure. The net growth in core lending (excluding Treasury) was EUR 3.0 billion in 2019, of which EUR 2.4 billion in mortgages and EUR 0.6 billion in consumer lending. Net inflow in customer deposits (excluding Treasury) was EUR 0.8 billion. Net fee and commission income rose 19.1% to EUR 268 million, due to higher fees on mortgages and daily banking. Investment and other income rose by EUR 62 million to EUR 138 million, largely due to the aforementioned accounting asymmetry in Treasury revenues.

Operating expenses rose 5.2% to EUR 1,080 million from EUR 1,027 million in 2018. The increase was mainly due to a restructuring provision related to the completion of ING's Agile transformation in Germany, higher KYC-related expenses, investments to accelerate the acquisition of primary customers, and the launch of Interhyp in Austria.

Risk costs were EUR -53 million, or -6 basis points of average customer lending, compared with EUR -27 million in 2018. The net release in 2019 mainly related to model updates for mortgages, while the net release in 2018 included a significant release in the consumer lending portfolio.

Year ended 31 December 2018 compared to year ended 31 December 2017

Both net result and underlying net result of Retail Germany (including ING in Austria) increased by EUR 21 million, or 3.4%, to EUR 646 million in 2018 from EUR 625 million in 2017.

The underlying result before tax increased 11.9% to EUR 972 million, compared with EUR 869 million in 2017, mainly due to higher income and a net release in risk costs.

Underlying income increased 4.3% to EUR 1,972 million in 2018 from EUR 1,891 million a year ago. Net interest income declined 1.9% reflecting margin compression on mortgages and current accounts, and lower Bank Treasury-related interest income. This was only partly offset by higher margins on savings and deposits and volume growth in most products. Net core lending growth, which excludes Bank Treasury products, was EUR 4.4 billion in 2018, of which EUR 3.6 billion was in mortgages and EUR 0.8 billion in consumer lending. Net inflow in customer deposits (excluding Bank Treasury) was EUR 5.0 billion, mainly driven by a promotional savings campaign in the fourth quarter of 2018. Net fee and commission income rose 4.7%, due to higher fee income on investment products and an improvement in fees on current accounts. Investment and other income rose to EUR 76 million, mainly due to improved hedge ineffectiveness results from Bank Treasury.

Operating expenses declined 0.5% to EUR 1,027 million from EUR 1,032 million in 2017. This decrease was mainly caused by lower regulatory costs and a decline in marketing expenses, partly offset by higher costs to support business growth and a restructuring provision in 2018. Risk costs were EUR -27 million in 2018, compared with EUR -10 million in 2017, reflecting a benign credit environment in the German market and a review of the consumer lending portfolio.

RETAIL OTHER

Amounts in millions of euros	**2019**	**2018**	**2017**
Underlying income:			
Net interest income	2,787	2,690	2,437
Net fee and commission income	423	395	384
Investment income and other income	298	230	207
Total underlying income	**3,509**	**3,315**	**3,028**
Underlying expenditure:			
Underlying operating expenses	2,210	2,033	1,919
Additions to the provision for loan losses	364	350	284
Total underlying expenditure	**2,574**	**2,383**	**2,203**
Underlying result before tax	**935**	**932**	**825**
Taxation	234	200	188
Non-controlling interests	82	80	67
Underlying net result	**619**	**652**	**569**
Net result	**619**	**652**	**569**

Year ended 31 December 2019 compared to year ended 31 December 2018

Retail Other consists of the Other Challengers & Growth Markets, including the bank stakes in Asia. Both net result and underlying net result of Retail Other decreased by EUR 33 million, or 5.1%, to

EUR 619 million in 2019 from EUR 652 million in 2018. There were no special items in 2019 and 2018.

Retail Other's underlying result before tax increased 0.3% to EUR 935 million in 2019, from EUR 932 million in 2018. This was mainly due to higher income, partly offset by increased expenses and higher risk costs.

Total underlying income rose by EUR 194 million, or 5.9%, to EUR 3,509 million. This increase was driven by strong results across most of the countries, whereas 2018 included a higher profit from ING Bank's stake in TMB due to one-offs. Net interest income rose 3.6% to EUR 2,787 million, reflecting volume growth in lending and customer deposits, and a stable total interest margin. This increase was offset by accounting asymmetry in Treasury with an offset in other income. The net production in customer lending (excluding currency effects and Treasury) was EUR 7.8 billion, with increases mainly in Spain, Poland and Australia, while Turkey and Italy declined. Net customer deposits grew by EUR 6.9 billion in 2019, with the largest increases in Poland, Spain and Australia. Net commission and fee income increased 7.1% to EUR 423 million driven by increases in most countries, but declined in Spain and Turkey. Investment and other income rose by EUR 68 million, mainly due to the aforementioned accounting asymmetry in Treasury and a higher dividend from Bank of Beijing, partly offset by a lower profit from TMB.

Operating expenses increased by EUR 177 million, or 8.7%, to EUR 2,210 million. This increase was in addition to higher regulatory costs and legal provisions, mainly due to higher expenses to support business growth and the implementation of bank-wide regulatory programmes, including KYC.

Risk costs were EUR 364 million, or 38 basis points of average customer lending, compared with EUR 350 million, or 40 basis points, in 2018. The increase was mainly attributable to higher risk costs in Spain and Poland, while risk costs in Turkey and Italy declined.

Year ended 31 December 2018 compared to year ended 31 December 2017

Retail Other consists of the Other Challengers & Growth Markets, including the stakes in Asia. Both net result and underlying net result of Retail Other increased by EUR 83 million, or 14.6%, to EUR 652 million in 2018 from EUR 569 million in 2017. There were no special items in 2018 and 2017.

Retail Other's underlying result before tax increased 13.0% to EUR 932 million in 2018, from EUR 825 million in 2017. This was mainly due to higher income, partly offset by increased expenses and higher risk costs.

Total underlying income rose by EUR 287 million, or 9.5%, to EUR 3,315 million. This increase was driven by continued strong commercial results across most countries, reflecting customer growth and higher volumes. Net interest income rose 10.4% to EUR 2,690 million, reflecting sustainable growth in lending and customer deposits volumes and an improved total interest margin. The net production (excluding currency effects and Bank Treasury) in customer lending was EUR 9.6 billion, of which EUR 6.4 billion was in mortgages and EUR 3.2 billion in other lending (mainly consumer loans). Net customer deposits grew by EUR 8.6 billion in 2018. Net fee and commission income rose 2.9% driven by increases in most countries, partly offset by a decline in Turkey. Investment and other income increased by EUR 23 million, mainly due to a higher dividend from Bank of Beijing and a higher profit contribution from ING Bank's 25% stake in TMB (which was mainly driven by one-offs), while previous year included a gain on the sale of MasterCard shares in Turkey.

Operating expenses increased by EUR 114 million, or 5.9%, to EUR 2,033 million. This increase was, next to higher regulatory costs, mainly due to higher staff expenses in most counties to support commercial growth and higher investments in strategic projects. Risk costs were EUR 350 million, or 40 basis points of average customer lending, compared with EUR 284 million, or 34 basis points, in 2017. The increase was mainly attributable to higher risk costs in Italy, Romania and Poland, while risk costs in Turkey remained on the same high level as in 2017.

WHOLESALE BANKING

Amounts in millions of euros	2019	2018[1]	2017
Underlying income:			
Net interest income	3,794	3,686	3,639
Net fee and commission income	1,135	1,152	1,102
Investment income and other income	369	673	919
Total underlying income	**5,298**	**5,510**	**5,660**
Underlying expenditure:			
Underlying operating expenses	2,937	2,771	2,744
Additions to the provision for loan losses	532	210	282
Total underlying expenditure	**3,469**	**2,981**	**3,026**
Underlying result before tax	**1,830**	**2,529**	**2,634**
Taxation	464	633	832
Non-controlling interests	14	19	15
Underlying net result	**1,352**	**1,877**	**1,788**
Adjustment of the EU 'IAS 39 carve-out'	–878	58	559
Net result	**474**	**1,935**	**2,347**

1 In 2019, the Dutch domestic midcorporates real estate finance portfolio transferred from Wholesale Banking to Retail Banking Netherlands. Comparative figures have been adjusted.

Year ended 31 December 2019 compared to year ended 31 December 2018

The net result of Wholesale Banking declined to EUR 474 million in 2019 compared with EUR 1,935 million in 2018. The adjustment of the EU 'IAS 39 carve-out', included in the net result, turned to a loss of EUR 878 million in 2019, from EUR 58 million in 2018, due to fair value changes on derivatives related to asset-liability-management activities for the mortgage and savings portfolios in the Benelux, Germany, France and Czech Republic. These fair value changes are mainly a result of changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB. The underlying net result, which excludes the adjustment of the EU 'IAS 39 carve-out', declined to EUR 1,352 million from EUR 1,877 million in 2018. There were no special items in 2018 and 2017.

The full-year 2019 results for Wholesale Banking show that conditions were challenging in our markets. The underlying result before tax dropped 27.6% to EUR 1,830 million, down from EUR 2,529 million in 2018. The decline reflects elevated risk costs (compared with a relatively low level a year ago), lower revenues in mainly Financial Markets and Lending, as well as higher expenses.

Lending posted an underlying result before tax of EUR 1,597 million, down 20.4% compared with 2018. The decline reflects lower income combined with higher expenses (including increased regulatory costs and KYC-related expenses) and higher risk costs due to a number of large individual files. Despite higher average volumes, Lending income declined, mainly due to some pressure on margins and the EUR 66 million gain related to an equity-linked bond in Belgium recorded in 2018. The underlying result before tax from Daily Banking & Trade Finance declined 24.3% to EUR 476 million from EUR 629 million in 2018. A modest increase in income, reflecting improved margins at lower average volumes, could not compensate for higher expenses and elevated risk costs. The increased expenses reflect higher regulatory costs and KYC-related expenses as well as investments in Payvision and regulatory changes (including PSD2). Risk costs in 2019 included a sizeable provision for a suspected external fraud case.

Financial Markets recorded an underlying result before tax of EUR -121 million, compared with EUR -36 million in 2018. The drop was predominantly due to lower income, which was impacted by EUR 228 million of negative valuation adjustments versus EUR -1 million in 2018, in part offset by lower expenses on the back of ongoing cost efficiency measures. Excluding valuation adjustments, pre-tax result rose by EUR 142 million compared with 2018, driven by higher client income. The underlying result before tax of Treasury & Other was EUR -123 million compared with EUR -70 million in 2018. This decline was mainly due to lower results from Treasury-related activities and Corporate Investments, whereas the result of the run-off businesses improved after the EUR 123 million loss on the intended sale of an Italian Lease run-off portfolio recorded in 2018. Expenses increased mainly due to investments in KYC enhancement and innovation, while 2018 included a release from a legal provision.

Total underlying income of Wholesale Banking fell 3.8% to EUR 5,298 million compared with 2018, mainly reflecting lower revenues in Financial Markets, Lending and Treasury-related revenues, while 2018 included the aforementioned loss on the intended sale of an Italian lease run-off portfolio. In 2019, the net core lending book (adjusted for currency impacts and excluding Treasury and the Lease run-off portfolio) grew by EUR 1.1 billion. The inflow in net customer deposits (excluding currency impacts and Treasury) was EUR 3.1 billion. Net interest income increased 2.9%, mainly driven by volume growth in Lending at lower margins and higher interest results in Daily Banking & Trade Finance, especially in Bank Mendes Gans and Payments & Cash Management. Net fee and commission income declined 1.5%. Investment and other income fell by EUR 304 million, mainly due to lower valuation results in Financial Markets, while previous year included a gain on a bond transaction in Belgium and a loss on the intended sale of an Italian lease run-off portfolio.

Underlying operating expenses rose 6.0% to EUR 2,937 million, in part due to higher regulatory costs. Excluding regulatory costs, expenses rose 4.7%, mainly attributable to higher KYC, IT and staff-related expenses, partly offset by continued cost-efficiency savings. The underlying cost/income ratio increased to 55.4%, from 50.3% in 2017.

Risk costs increased to EUR 532 million, or 29 basis points of average customer lending, from a relatively low EUR 210 million, or 12 basis points of average customer lending, in previous year. The increase was mainly attributable to a number of large individual files, including a sizeable provision for a suspected external fraud case.

Year ended 31 December 2018 compared to year ended 31 December 2017

The net result of Wholesale Banking declined to EUR 1,935 million in 2018 compared with EUR 2,347 million in 2017. The adjustment of the EU 'IAS 39 carve-out', included in the net result, decreased to EUR 58 million in 2018, from EUR 559 million in 2017, due to fair value changes on derivatives related to asset-liability-management activities for the mortgage and savings portfolios in the Benelux, Germany and Czech Republic. These fair value changes are mainly a result of changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB. The underlying net result, which excludes the adjustment of the EU 'IAS 39 carve-out', rose to EUR 1,877 million from EUR 1,788 million in 2017. This increase was primarily due to a lower effective tax rate supported by the impact of the corporate tax reforms in Belgium and the US. There were no special items in 2018 and 2017.

The underlying result before tax was EUR 2,529 million, down 4.0% from 2017, as higher results in Daily Banking & Trade Finance as well as Lending were more than offset by lower results in Financial Markets and Treasury & Other.

Lending posted an underlying result before tax of EUR 2,006 million, up 2.0% compared with 2017. Higher income, mainly due to improved margins and a EUR 66 million gain related to an equity-linked bond in Belgium in 2018, was largely offset by increased expenses (in part due to higher regulatory costs) and higher risk costs. The underlying result before tax from Daily Banking & Trade Finance rose to EUR 629 million from EUR 542 million in 2017. Higher income, supported by volume growth and the inclusion of Payvision as from the second quarter of 2018, more than outpaced a slight increase in expenses (due to payment innovation initiatives and higher regulatory costs, largely offset by strict cost control), whereas risk costs remained low.

Financial Markets recorded an underlying result before tax of EUR -36 million compared with EUR 68 million in 2017. The drop in result was caused by lower income, which was impacted by lower client activity and challenging global market conditions, partly offset by a modest decline in expenses. The underlying result before tax of Treasury & Other fell to a loss of EUR 70 million compared with a gain of EUR 58 million in 2017. This was mainly due to lower results in the run-off businesses (including a EUR 123 million loss recorded in the fourth quarter of 2018 on the intended sale of an Italian lease run-off portfolio, while 2017 included a EUR 97 million gain on the sale of an equity stake in the real estate run-off portfolio), partly offset by lower expenses for litigation issues.

Total underlying income of Wholesale Banking fell 2.7% to EUR 5,510 million compared with 2017, mainly reflecting lower revenues in Financial Markets and the loss on the intended sale of an Italian lease run-off portfolio. Wholesale Banking's net core lending book (adjusted for currency impacts, and excluding Bank Treasury and the Lease run-off portfolio) grew by EUR 14.9 billion in 2018. Net customer deposits (excluding currency impacts and Bank Treasury) shrank by EUR 0.8 billion. The interest result rose 1.3% on 2017, whereas net fee and commission income increased 4.5% (supported by the inclusion of Payvision). Investment and other income fell by EUR 246 million; this was almost fully attributable to the aforementioned one-off results in the lease and real estate run-off businesses.

Underlying operating expenses increased 1.0% to EUR 2,771 million due to higher regulatory costs. Expenses excluding regulatory costs were 0.4% lower, mainly reflecting lower performance-related expenses and strict cost control, and despite the inclusion of Payvision. The underlying cost/income ratio increased to 50.3% from 48.5% in 2017. Risk costs declined to EUR 210 million, or 12 basis points of average customer lending, from EUR 282 million, or 18 basis points in 2017. The relatively low risk costs in 2018 were supported by several larger net releases for clients and only a few larger new additions. On top of that, risk costs for the Italian lease run-off portfolio were significantly lower than in the previous year.

B. Liquidity and capital resources

Consolidated assets and liabilities

The following table sets forth ING Group's condensed consolidated assets and liabilities as of 31 December 2019 and 31 December 2018. Reference is made to the consolidated statement of financial position for the complete overview of consolidated assets and liabilities of ING Group.

Amounts in billions of euros	**2019**	**2018**
Cash and balances with central banks	53.2	50.0
Loans and advances to banks	35.1	30.4
Financial assets as at fair value through profit or loss	96.2	120.5
Financial assets at fair value through other comprehensive income	34.5	31.2
Securities at amortised cost	46.1	47.3
Loans and advances to customers	608.0	589.7
Other assets	15.4	14.3
Assets held for sale		1.3
Total assets	**888.5**	**884.6**
Deposits from banks	34.8	37.3
Customer deposits	574.4	555.7
Financial liabilities at fair value through profit or loss	77.9	92.7
Other liabilities	14.4	15.5
Debt securities in issue/subordinated loans	135.1	133.5
Total liabilities	**836.6**	**834.8**
Shareholders' equity	51.0	49.0
Non-controlling interests	0.9	0.8
Total equity	**51.9**	**49.9**
Total liabilities and equity	**888.5**	**884.6**
Shareholders' equity per Ordinary Share (in EUR)	13.09	12.61

Year ended 31 December 2019 compared to year ended 31 December 2018

ING Group increased its total assets by EUR 4 billion, or 0.4%, to EUR 889 billion at year-end 2019 from EUR 885 billion on 31 December 2018. Made comparable for EUR 3 billion of positive currency impacts, (increasing the 31 December 2018 amount due to a relative rise of other currencies versus the euro) total assets were EUR 1 billion higher.

The balance sheet growth was mainly due to EUR 18 billion higher loans and advances to customers. Also loans and advances to banks (EUR 5 billion), financial assets through other comprehensive income (OCI) and cash and balances with central banks (EUR 3 billion each) were up. These increases were largely offset by EUR 24 billion lower financial assets at fair value through profit or loss (predominantly financial assets mandatorily at fair value through profit or loss due to a reduction in demand for repo loans structures). Assets held for sale declined by EUR 1 billion to nil, reflecting the sale of an Italian lease run-off portfolio, which was completed on 1 July 2019.

The higher loans and advances to customers was due to EUR 17 billion of growth in net core customer lending and an increase in non-core customer lending of EUR 1 billion. The increase in non-core customer lending included EUR 2 billion of positive FX impacts, a limited increase in Treasury lending and a EUR 1 billion decline of the WUB and Lease run-off portfolios.

ING Group increased its subordinated loans by EUR 3 billion. Debt securities in issue were down by EUR 1 billion as certificates of deposit and commercial paper were EUR 4 billion lower (related to liquidity management and the facilitation of short-term commercial activities), while other debt securities, mainly long-term debt, increased by EUR 3 billion. Customer deposits increased by EUR 19 billion. Excluding currency impacts and a EUR 5 billion decline in Treasury, net customer deposits growth was EUR 23 billion. Financial liabilities at fair value through profit or loss were EUR 15 billion lower, due to EUR 11 billion lower financial liabilities designated at FV PL and EUR 3 billion less trading liabilities.

Shareholders' equity increased by EUR 1.9 billion to EUR 51.0 billion at the end of 2019, from EUR 49.0 billion on 31 December 2018. The increase was mainly due to the net result for the year 2019 of EUR 3.9 billion, which was partly offset by EUR 2.6 billion of dividend paid in 2019.

Capital Management

Risk and capital management remain central to the entrepreneurship of the bank. Maintaining our risk profile within our risk appetite and strengthening our capital base is how we grow a sustainable business and achieve our strategic objectives.
Our overall approach to capital management is to ensure we have enough capital to cover our (economic) risks at all levels and comply with local and global regulations, while delivering a return for our shareholders and investing in innovation.

We believe that our working capital is sufficient for our present requirements.
In 2019, our capital position remained strong, despite higher capital requirements and additional risk-weighted asset growth from model impacts. ING's CET1 ratio was 14.6% at the end of 2019, which was well above our CET1 ratio ambition of around 13.5%. The CET1 ratio at the end of the year improved as risk-weighted assets increased due to volume growth and model impacts, effects that were offset by profit retention and positive risk migration.
In 2019, we issued €2.4 billion and redeemed €0.9 billion additional Tier 1 instruments. Furthermore, a total of €1.0 billion of Tier 2 bonds were issued whereas no Tier 2 instruments were redeemed in 2019. In addition to these instruments, to build up our MREL capacity, we issued multiple transactions in 2019 for a total amount of €6.3 billion.
ING's profit generating capacity remained strong and after dividend reserves we included €2.1 billion of capital to our capital base.
ING's dividend policy aims to pay a progressive dividend that will reflect considerations including expected future capital requirements, growth opportunities available, net earnings, and regulatory developments. The Executive Board proposes to pay a total cash dividend of €2,689 million, or €0.69 per ordinary share, over the financial year 2019. This is subject to the approval of shareholders at the Annual General Meeting in April 2020.

For further information regarding capital management, reference is made to Note 52 " Capital Management" to the consolidated financial statements. In addition to the restrictions in respect of minimum capital and capital base requirements that are imposed by banking and other regulators in the countries in which ING Groep N.V.'s subsidiaries operate, other limitations exist in certain countries. For further information, reference is made to Item 3. Key Information - Risk Factors" and "Item 4. Information on the Company – Regulation and Supervision."

Funding and liquidity

The main objective of ING's funding and liquidity risk management is to maintain sufficient liquidity to fund the commercial activities of ING both in normal and stressed market circumstances across various geographies, currencies and tenors. This requires a diversified funding structure considering relevant opportunities and constraints.

ING has a Funding & Liquidity (F&L) Framework which aims to maintain sufficient liquidity under normal, adverse and stressed market circumstances. In general, ING considers the adequacy of its F&L position through three main lenses: (i) Stress; (ii) Sustainability and (iii) Regulatory. For each lens, ING has a set of risk appetite statements that underscore the bank's risk appetite profile commensurate with the principles for liquidity adequacy. These risk appetite statements are subsequently translated into a number of metrics with appropriate boundaries and instruments to measure and manage ING's F&L adequacy.

ING's funding consists mainly of retail and corporate deposits contributing 51% and 21% of the total funding respectively. These funding sources provide a relatively stable funding base. The remainder of the required funding is attracted primarily through a combination of long-term and short-term professional funding. Group Treasury manages the professional funding in line with the F&L risk appetite to ensure a sufficiently diversified and stable funding base.

The Loan-to-deposit ratio remained stable at the level of 1.06.
ING's long-term professional funding is well diversified across maturities and currencies. The main part of it is EUR and USD denominated which is in line with the currency composition of customer lending.

For further information regarding funding and liquidity, see "Additional information – ING Group Risk Management".

At 31 December 2019, 2018 and 2017, ING Groep N.V. had EUR nil, EUR nil and EUR nil of cash, respectively. Dividends paid to the Company by its subsidiaries amounted to EUR 2,848 million in 2019, EUR 2,517 million in 2018 and EUR 3,182 million in 2017, respectively, in each case representing dividends paid with respect to the reporting calendar year and the prior calendar year. The amounts paid to ING Groep N.V. were received from ING Bank, EUR 2,848 million in 2019, EUR 2,517 million in 2018 and EUR 3,176 million in 2017, from ING Support Holding, EUR nil in 2019, EUR Nil million in 2018 and 6 million in 2017.

As a holding company, ING Groep N.V.'s total debt and capital securities outstanding to third parties at 31 December 2019 was EUR 37,403 million, 31 December 2018 was EUR 27,901 million and at 31 December 2017 was EUR 14,187 million. The EUR 27,901 million of debt and capital securities outstanding at 31 December 2019 consisted of subordinated loans of EUR 13,113 million and debenture loans of EUR 24,290 million, both specified below:

Subordinated loans

Amounts in millions of euros			Statement of financial position value
Interest rate	Year of issue	Due date	2019
1.00%	2019	13 November 2030	996
5.75%	2019	Perpetual	1,336
6.75%	2019	Perpetual	1,121
4.70%	2018	22 March 2028	1,124
2.00%	2018	22 March 2030	759
1.63%	2017	26 September 2029	997
4.00%	2017	14 September 2032	90
4.25%	2017	23 June 2032	146
1.15%	2017	14 June 2029	98
1.10%	2017	31 May 2027	82
3.00%	2017	11 April 2028	1,058
2.50%	2017	15 February 2029	764
6.88%	2016	Perpetual	900
6.50%	2015	Perpetual	1,123
6.00%	2015	Perpetual	901
9.00%	2008	Perpetual	10
6.13%	2005	Perpetual	631
Variable	2004	Perpetual	556
Variable	2003	Perpetual	421
			13,113

At 31 December 2019 and 2018, ING Groep N.V. also owed EUR 145 million and EUR 136 million, respectively, to ING Group companies pursuant to intercompany lending arrangements. At 31 December 2019 ING Group Companies owed ING Group N.V. EUR 44,478 million (2018: EUR 34,902), as a result of normal intercompany transactions.

On the maturity profile of borrowings and a further description of the borrowings reference is made to Notes 18 'Debt securities in issue' and 19 'Subordinated Loans' in the consolidated financial statements. The use of financial instruments for hedging purposes is described in Note 39 'Derivatives and hedge accounting' in the consolidated financial statements.

Debenture loans

Amounts in millions of euros

Interest rate	Year of Issue	Due date	2019
2.755%	2019	3 September 2031	102
0.100%	2019	3 September 2025	998
4.050%	2019	9 April 2029	896
3.550%	2019	9 April 2031	894
1.625%	2019	21 March 2029	139
1.998%	2019	19 March 2029	46
1.074%	2019	21 February 2029	173
0.810%	2019	21 February 2024	729
3.000%	2019	18 February 2026	1197
5.000%	2019	31 January 2031	85
3.920%	2019	23 January 2029	79
2.125%	2019	10 January 2026	1018
3.399%	2018	28 December 2030	71
1.169%	2018	13 December 2028	157
0.848%	2018	13 December 2023	880
3.790%	2018	13 December 2030	152
5.000%	2018	5 June 2029	110
variable	2018	5 December 2022	250
2.500%	2018	15 November 2030	1,503
4.625%	2018	6 January 2026	1,134
4.100%	2018	2 October 2023	1,347
4.550%	2018	2 October 2028	1,120
variable	2018	2 October 2023	448
2.000%	2018	20 September 2028	1,502
variable	2018	20 September 2023	999
1.000%	2018	20 September 2023	998
1.125%	2018	14 February 2025	1,006
3.950%	2017	29 March 2027	1,344
3.150%	2017	29 March 2022	1,343
variable	2017	29 March 2022	889
0.750%	2017	9 March 2022	1,506
1.375%	2017	11 January 2028	1,011
4.699%	2007	1 June 2035	164
			24,290

ING Group Consolidated Cash Flows

Year ended 31 December 2019 compared to year ended 31 December 2018

Net cash flow from operating activities amounts to EUR 13,055 million for the year-end 2019, compared to EUR 6,915 million at 31 December 2018. The increase in cash flow from operating activities of EUR 6,140 million is explained by lower cash outflows from Loans and advances to customer (increase of EUR 14,669 million to EUR - 16,687 million in 2019), an increase in other (increase of EUR 7,685 million to EUR + 11,752 million in 2019) mainly relating to assets mandatorily at fair value through profit or loss and other financial liabilities at fair value through profit and loss. The increases are offset by a cash outflow of trading assets and liabilities (decrease of EUR 12,478 million to EUR – 2,568 million) and a cash outflow in loans and advances to banks (decrease of EUR 3,700 million to EUR – 3,911 million).

Net cash flow from investing activities amounts EUR – 2,495 million compared to EUR + 5,451 million in 2018 the net cash flow from investing activities decreased by EUR 7,946 million. The movement is explained by a decrease in financial assets at fair value through other comprehensive income in investments and advances of EUR 5,753 million to EUR – 16,270 million and securities at amortised costs (decreased by EUR 5,708 million to EUR + 13,001 million). Moreover, financial assets at fair value through other comprehensive income decreased by EUR 2,267 million to EUR + 13,390 in disposals and redemptions. These movements are offset by an increase in securities at amortised costs of investments and advances (increase of EUR 5,717 million to EUR – 12,268 million).

Net cash flow from financing activities amounts EUR – 4,154 million in 2019, compared to EUR 15,983 million in 2018. The decrease of EUR 20,137 million is explained by a decrease of EUR - 61,750 million to EUR + 90,793 million in proceeds from debt securities and offset by an increase of EUR 36,673 million to EUR – 94,497 million in repayments of debt securities.

The operating, investing and financing activities described above result in an increase of EUR 6,406 million in cash and cash equivalents to EUR 54,031 at year end 2019.

Specification of cash position:

Amounts in millions of euros	**2019**	**2018**
Treasury bills and other eligible bills	43	159
Amounts due from/to banks	786	–2,617
Cash and balances with central banks	53,202	49,987
Cash and cash equivalents at end of year	**54,031**	**47,529**

Year ended 31 December 2018 compared to year ended 31 December 2017

Net cash flow from operating activities amounted to EUR 6,915 million for the year ended 31 December 2018, compared to EUR -5,253 million at year-end 2017. The increase in cash flow from operating activities of EUR 12,168 million was due to higher cash inflows from net trading balances, EUR 21,097 million (2018; EUR 9,910 million, 2017 EUR –11,187 million), higher cash inflows from Customer deposits EUR 1,418 million (2018 EUR 19,709 million, 2017 EUR 18,291 million) and a higher cash inflow from Other EUR 6,521 million (2018 EUR 4,067 million, 2017 EUR -1,751). These higher cash inflows were partly offset by an increase in cash outflows from loans and advances of EUR 9,966 (2018 EUR -31,356 million, 2017 EUR -21,390).

Net cash flow from operating activities was largely affected by the cash inflow from a decrease of the trading assets. The cash inflow was due to lower trading balances consisting of equity securities, debt securities, trading derivatives and loans and receivables. In 2017 the cash outflow to trading assets was due to higher trading balances consisting of loans and receivables and equity shares. The cash inflows related to increased customer deposits and were mainly due to increased savings individuals and credit balances on customer accounts, this net cash inflow was in line with 2017. Newly issued mortgage loans, corporate lending and personal lending led to a cash outflow which was partly offset by a decrease in loans to public authorities.

Net cash flow from investing activities amounted to EUR 5,451 million, from EUR 11,754 million in 2017. Investments and advances in financial assets at fair value through other comprehensive income and securities at amortised cost amounted to EUR -10,517 million and EUR -17,985 million respectively as in 2017 the investments in available-for-sale securities and Held-to-maturity investments amounted to EUR -21,601 and EUR -3,609 million respectively. Disposals and redemptions of financial assets at fair value through other comprehensive income and securities at amortised cost amounted to EUR 15,657 million and EUR 18,709 million respectively as in 2017 the Disposals and redemptions of in available-for-sale securities Held-to-maturity investments amounted to EUR 32,788 million and EUR 2,675 million respectively.

Net cash flow from financing activities amounted to EUR 15,983 million in 2018, compared to EUR -3,948 million in 2017. The increase of EUR 19,931 million in net cash flow was mainly due higher proceeds of debt securities.

The operating, investing and financing activities described above resulted in an increase of EUR 28,552 million in cash and cash equivalents from EUR 18,977 million at year-end 2017 to EUR 47,529 million at year end 2018.

Specification of cash position:

Amounts in millions of euros	**2018**	**2017**
Treasury bills and other eligible bills	159	391
Amounts due from/to banks	–2,617	–3,403
Cash and balances with central banks	49,987	21,989
Cash and cash equivalents at end of year	**47,529**	**18,977**

Sovereign Debt Exposures

For information regarding certain sovereign debt exposures, see Note 5 "Financial assets at fair value through other comprehensive income" in the financial statements and "Additional information ING Group Risk Management".

C. Research and development, patents and licenses, etc.

Not applicable.

D. Trend information

For information regarding trend information, see Item 5.A of this Form 20-F.

E. Off-balance sheet arrangements

For information regarding off-balance sheet arrangements, see Note 45 'Contingent liabilities and commitments' in the financial statements and see "Risk Management" to the "Additional information- ING Group Risk Management".

F. Tabular disclosure of contractual obligations

For information about future payments in relation to pension benefit liabilities reference is made to Note 37 'Pension and other post-employment benefits' in the consolidated financial statements. For information about coupon interest due on financial liabilities by maturity bucket reference is made to Note 41 'Liabilities by maturity' in the consolidated financial statements.

Contractual obligations

		Payment due by period		
Amounts in millions of euros	Total	Less than one year	1-5 years	More than 5 years
2019				
Lease liabilities[2]	1,528	217	668	643
Subordinated loans	16,177	0	1,780	14,396 [1]
Debt securities in issue	115,297	51,810	36,895	26,592
Total	**133,001**	**52,026**	**39,342**	**41,632**
2018				
Operating lease obligations	1,376	259	719	398
Subordinated loans	13,549		1,713	11,836 [1]
Debt securities in issue	117,790	55,309	41,068	21,413
Total	**132,715**	**55,568**	**43,500**	**33,647**

[1] The maturity bucket ' more than 5 years' includes subordinated loans of EUR 6,941 million (2018: EUR 5,339) with no maturity date (perpetual).

[2] The lease liabilities for the period ended December 2019 has been prepared in accordance with IFRS 16.

Item 6. Directors, Senior Management and Employees

A. Directors and senior management

Supervisory Board

Appointment, suspension and dismissal

Members of the Supervisory Board are appointed, suspended and dismissed by the General Meeting. For the appointment of Supervisory Board members, the Supervisory Board may draw up a binding list, which may be rendered non-binding by the General Meeting.

A resolution of the General Meeting to render this list non-binding, or to suspend or dismiss Supervisory Board members without this being proposed by the Supervisory Board, requires an absolute majority of the votes cast. Additionally, this majority must represent more than half of the issued share capital. The Articles of Association exclude the waiver of the latter requirement in a second General Meeting. This ensures that significant proposals of shareholders cannot be adopted in a General Meeting with a low attendance rate and can only be adopted with substantial support of ING Group's shareholders.

Candidates for appointment to the Supervisory Board are subject to a suitability and reliability assessment by DNB and ECB and must continue to meet these while in function.

Function of the Supervisory Board

The function of the Supervisory Board is to supervise the policy of the Executive Board and the general course of affairs of ING Group and its business, as well as to provide advice to the Executive Board.

In line with Dutch company law, the Articles of Association, the Dutch Corporate Governance Code as well as the Charter of the Supervisory Board, all members of the Supervisory Board are required to:

- act in accordance with the interests of ING Group and the business connected with it, taking into account the relevant interests of all stakeholders of ING Group;
- perform their duties without mandate and independent of any interest in the business of ING Group; and
- refrain from supporting one interest without regard to the other interests involved.

According to the Banker's Oath that was taken by the members of the Supervisory Board, they must carefully consider the interests of all stakeholders of ING. In that consideration they must put the customer's interests at the centre of all their activities. Certain resolutions of the Executive Board, specified in the Articles of Association, in the Charter of the Management Board and in Charter of the Supervisory Board, are subject to approval of the Supervisory Board.

Pursuant to the Articles of Association ING Group indemnifies the members of the Supervisory Board as far as legally permitted against direct financial losses in connection with claims from third parties lodged or threatened to be lodged against them by virtue of their service as a member of the Supervisory Board.

Profile of members of the Supervisory Board

The Supervisory Board has drawn up a profile to be used as a basis for its composition. It is available on the website of ING Group (www.ing.com).

In view of their experience and the valuable contribution that former members of the Executive Board can make to the Supervisory Board, it has been decided, taking into account the size of the Supervisory Board and ING's wide range of activities that such individuals may become members of the Supervisory Board of ING Group. Former Executive Board members must wait at least one year before becoming eligible for appointment to the Supervisory Board.

Former members of the Executive Board are not eligible for appointment to the position of chairman or vice-chairman of the Supervisory Board.

After a former member of the Executive Board has been appointed to the Supervisory Board, this member may also be appointed to one of the Supervisory Board's committees. However, appointment to the Audit Committee is only possible if the individual in question resigned from the Executive Board at least three years prior to such appointment.

The Supervisory Board of ING shall consist of a mix of persons with executive experience, preferably gained in the banking sector, experience in corporate governance of large stock-listed companies and experience in the political and social environment in which such companies operate. In the selection of Supervisory Board members, ING is striving for a balance in nationality, gender, age, and educational and work background. In addition, there should be a balance in the experience and affinity with the nature and culture of the business of ING and its subsidiaries. More specifically ING strives to have at least 30 percent of the seats held by women, and at least 30 percent of the seats by men. These guidelines that relate to the composition of the Supervisory Board, are laid down in the Supervisory Board Profile. Based on this profile, the Supervisory Board is responsible for selecting and nominating candidates for appointment or reappointment to the Supervisory Board.

With respect to gender diversity, three female members currently serve on the Supervisory Board: Mariana Gheorghe, Margarete Haase and Herna verhagen, the latter appointed on 23 April 2019, with her membership becoming effective per 1 October 2019. With the appointment of Herna Verhagen in 2019 the Supervisory Board has met its 30 percent gender diversity target.

We believe that the Supervisory Board, diversity wise, is well balanced in terms of other relevant diversity aspects. Overall, the preferred emphasis on members with a financial or banking background has been maintained. In terms of nationality, the ratio between Dutch and non-Dutch nationalities in 2019 was 44 percent - 56 percent.

Term of appointment of members of the Supervisory Board

As a general rule, Supervisory Board members step down from the Supervisory Board in the fourth, eighth, 10^{th} and 12^{th} year after their initial appointment. They are eligible for re-appointment in the fourth year after their initial appointment and, with explanation, also in the eighth and 10th year.

Under special circumstances the Supervisory Board may, with explanation, deviate from this general rule, for instance to maintain a balanced composition of the Supervisory Board and/or to preserve valuable expertise and experience. The retirement schedule is available on the website of ING Group (www.ing.com).

Ancillary positions/conflicting interests

Members of the Supervisory Board may hold other positions, including directorships, either paid or unpaid.

CRD IV restricts the total number of supervisory board positions or non-executive directorships with commercial organisations that may be held by a Supervisory Board member to four, or to two, if the Supervisory Board member also has an executive board position. The European Central Bank may, under special circumstances, permit a Supervisory Board member to fulfil an additional supervisory board position or non-executive directorship. Positions with, inter alia, subsidiaries or qualified holdings are not taken into account in the application of these restrictions. Such positions may not conflict with the interests of ING Group. It is the responsibility of the individual member of the Supervisory Board and the Supervisory Board collectively to ensure that the directorship duties are performed properly and are not affected by any other positions that the individual may hold outside ING Group.

Members of the Supervisory Board are to disclose material conflicts of interest (including potential conflicts of interest) and to provide all relevant information relating to them. The Supervisory Board – without the member concerned taking part – then decides whether a conflict of interest exists.

In case of a conflict of interest, the relevant member of the Supervisory Board abstains from discussions and decision-making on the topic or the transaction in relation to which he or she has a conflict of interest with ING Group.

Transactions involving actual or potential conflicts of interest

In accordance with the Dutch Corporate Governance Code, transactions involving members of the Supervisory Board in which there are material conflicting interests are disclosed in the Annual Report.

Any relation that a member of the Supervisory Board may have with ING Group subsidiaries as an ordinary, private individual is not considered a significant conflict of interest. Such relationships are not reported, with the exception of any loans that may have been granted.

Independence

The members of the Supervisory Board are requested to assess annually whether the criteria of dependence set out in the Dutch Corporate Governance Code do not apply to them and to confirm this in writing. On the basis of these criteria, all members of the Supervisory Board, with the exception of Eric Boyer de la Giroday, are to be regarded as independent on 31 December 2019. Eric Boyer de la Giroday is not considered independent because of his former position as Chairman of the Board of Directors of ING Belgium SA/NV and his former positions as member of the Executive Board of ING Group and vice-chairman of the Management Board Banking of ING Bank N.V. On the basis of the NYSE listing standards, all members of the Supervisory Board are independent.

Permanent committees of the Supervisory Board

On 31 December 2019, the Supervisory Board had four permanent committees: the Risk Committee, the Audit Committee, the Nomination and Corporate Governance Committee and the Remuneration Committee. An organisational chart of the four permanent committees of the Supervisory Board can be found above.

The organisation, powers and conduct of the Supervisory Board are detailed in the Supervisory Board Charter that can be found on www.ing.com.

Separate charters have been drawn up for the Risk Committee, the Audit Committee, the Nomination and Corporate Governance Committee and the Remuneration Committee. These charters are available on the website of ING Group (www.ing.com). A short description of the duties of the four permanent committees follows below.

The Risk Committee assists and advises the Supervisory Board in monitoring the risk profile of ING as a whole as well as on the structure and operation of the internal risk management and control systems. On 31 December 2019, the members of the Risk Committee were: Robert Reibestein (chairman), Jan Peter Balkenende, Eric Boyer de la Giroday, Mariana Gheorghe, Hermann-Josef Lamberti and Mike Rees.

The Audit Committee assists and advises the Supervisory Board in monitoring the integrity of the financial statements of ING Group and ING Bank N.V., in monitoring compliance with legal and regulatory requirements and in monitoring the independence and performance of ING Group's internal and external auditors. On 31 December 2019, the members of the Audit Committee were: Hermann-Josef Lamberti (chairman), Eric Boyer de la Giroday, Margarete Haase, Robert Reibestein and Hans Wijers.

The appointment of Margarete Haase as supervisory board member became effective as per 1 May 2018 (as decided by the Supervisory Board in January 2018) and per that date Margarete Haase is considered a financial expert as defined by the SEC in its final rules implementing Section 407 of the

Sarbanes-Oxley Act of 2002. Eric Boyer de la Giroday is a financial expert as defined in the Dutch Corporate Governance Code considering his academic background as well as his knowledge and experience in his previous role as board member and vice-chairman of ING Groep N.V. and ING Bank N.V.

The Nomination and Corporate Governance Committee's tasks include advising the Supervisory Board on the composition of the Executive Board and Supervisory Board and assisting the Supervisory Board in monitoring and evaluating the corporate governance of ING as a whole and the reporting thereon in the Annual Report and to the General Meeting, and advising the Supervisory Board on improvements. On 31 December 2019, the members of the Nomination and Corporate Governance Committee were: Hans Wijers (chairman), Mariana Gheorghe and Herna Verhagen.

The Remuneration Committee's tasks include advising the Supervisory Board on the terms and conditions of employment (including remuneration) of the members of the Executive Board and on the policies and general principles on which the terms and conditions of employment of the members of the Executive Board and of senior managers of ING Group and its subsidiaries are based. On 31 December 2019 the members of the Remuneration Committee were: Mariana Gheorghe (chairman until 1 October 2019), Herna Verhagen (chairman from 1 October 2019), Robert Reibestein and Hans Wijers.
The composition of the Supervisory Board Committees can be found on ING Group's website www.ing.com.

Remuneration and share ownership

Remuneration of the members of the Supervisory Board is determined by the General Meeting and is not dependent on the results of ING Group. Details of remuneration are provided in the Remuneration report. Members of the Supervisory Board are permitted to hold shares in the share capital of ING Group for long-term investment purposes. Transactions by members of the Supervisory Board in these shares are subject to the ING regulations for insiders.

ING regulations regarding insiders are available on www.ing.com.

Information on members of the Supervisory Board

G.J. (Hans) Wijers (Chairman)

(Born 1951, Dutch nationality, male; appointed in 2017, term expires in 2021)
Former position: chief executive officer and member of the Executive Board of AkzoNobel N.V.

Relevant positions pursuant to CRD IV

Chairman of the Supervisory Board of ING Groep N.V./ING Bank N.V. and member of the Supervisory Board of Hal Holding N.V.

Other relevant ancillary positions

Chairman of the Supervisory Board of Het Concertgebouw N.V. and member of the Temasek European Advisory Panel of Temasek Holdings Private Limited.

H.J.M. (Hermann-Josef) Lamberti (Vice-Chairman)

(Born 1956, German nationality, male; appointed in 2013, term expires in 2021)
Former position: chief operating officer of Deutsche Bank AG.

Relevant positions pursuant to CRD IV

Vice-chairman of the Supervisory Board of ING Groep N.V./ING Bank N.V., non-executive member of the Board of Directors of Airbus Group N.V., chairman of the Supervisory Board of Addiko Bank (including senior business adviser of Advent International GmBH) and director of Frankfurt Technology Management GmbH. The ECB has authorised Hermann-Josef Lamberti to hold a third non-executive position i.e. in deviation of the maximum of two provided for in section 91 of CRD IV.

J.P. (Jan Peter) Balkenende

(Born 1956, Dutch nationality, male; appointed in 2017, term expires in 2021)
Former position: partner EY (on corporate responsibility).

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V.

Other relevant ancillary positions

Professor of governance, institutions and internationalisation at Erasmus University Rotterdam (the Netherlands), external senior adviser to EY, member of the Supervisory Board of Goldschmeding Foundation, chairman of the Board of Maatschappelijke Alliantie (the Netherlands) and chairman of the Board of Noaber Foundation.

E.F.C.B. (Eric) Boyer de la Giroday

(Born 1952, Belgian nationality, male: appointed in 2014, term expires in 2022)
Former position: member of the Executive Board of ING Groep N.V. and ING Bank N.V.

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. and non-executive chairman of the Board of Directors of ING Belgium SA/NV.

Other relevant ancillary position

Non-executive director of the Board of Directors of the Instituts Internationaux de Physique et de Chimie fondés par Ernest Solvay, asbl.

M. (Mariana) Gheorghe

(Born 1956, Romanian nationality, female, appointed in 2015, term expires in 2023)
Former position: CEO of OMV Petrom SA.

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. and non-executive director of ContourGlobal Plc.

Other relevant ancillary position

Member of the Advisory Council of the Bucharest Academy of Economic Studies, Romania.

M. (Margarete) Haase

(Born 1953, Austrian nationality, female; appointed in 2017, term expires in 2021)
Former position: CFO of Deutz AG.

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. (effective per 1 May 2018), member of the Supervisory Board and chairwoman of the Audit Committee of Fraport AG, member of the Supervisory Board and chairwoman of the Audit Committee of Osram Licht AG and member of the Supervisory Board and chairwoman of the Audit Committee of Marquard & Bahls AG.

Other relevant ancillary positions

Chairwoman of the Employers Association of Kölnmetall and member of the German Corporate Governance Commission.

A.M.G. (Mike) Rees

(Born 1956, British nationality, male; appointed in 2019, term expires in 2023)
Former position: Deputy CEO of Standard Chartered Bank PLC.

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V., founder and consultant of Strategic Vitality Ltd and non-executive chairman of Athla Capital Management Ltd.

Other relevant ancillary position
Non-executive director Mauritius Africa FinTech Hub.

R.W.P. (Robert) Reibestein
(Born 1956, Dutch nationality, male; appointed in 2012 as an observer, full member as of 2013, stepped down per 1 January 2020)
Former position: senior partner of McKinsey & Company.

Relevant positions pursuant to CRD IV
Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. and member of the Supervisory Board of IMC B.V.

Other relevant ancillary positions
Member of the Supervisory Board of Stichting World Wildlife Fund (the Netherlands) and member of the advisory committee of Forward.one.

H.W.P.M.A. (Herna) Verhagen
(Born 1966, Dutch nationality, female; appointed in 2019, term expires in 2023)
Former position: member of the Supervisory Board of SNS Reaal N.V. (now: SRH N.V.).

Relevant positions pursuant to CRD IV
Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. (per 1 October 2019), CEO of PostNL N.V. and non-executive Board member and chairwoman of the Nomination Committee of Rexel SA.

Other relevant ancillary positions
Member of the Supervisory Board, nomination committee and sponsering committee of Het Concertgebouw N.V., member of the advisory council of Goldschmeding Foundation and member of the Board of VNO-NCW (inherent to her position at Post NL N.V.).

Other relevant ancillary positions
Member of the Supervisory Board, nomination committee and sponsering committee of Het Concertgebouw N.V., member of the advisory council of Goldschmeding Foundation and member of the Board of VNO-NCW (inherent to her position at Post NL N.V.).

Company secretary
The Supervisory Board and Executive Board are assisted by the company secretary Cindy van Eldert-Klep.

Changes in the composition

Mike Rees and Herna Verhagen were appointed during the Annual General Meeting of 23 April 2019. Henk Breukink retired from the Supervisory Board as per the end of the Annual General Meeting of 2019. Robert Reibestein stepped down from the Supervisory Board as per 1 January 2020.

Appointment, suspension and dismissal
Members of the Executive Board are appointed, suspended and dismissed by the General Meeting. For the appointment of Executive Board members, the Supervisory Board may draw up a binding list, which may be rendered non-binding by the General Meeting. A resolution of the General Meeting to render this list non-binding, or to suspend or dismiss Executive Board members without this being proposed by the Supervisory Board, requires an absolute majority of the votes cast. Additionally, this majority must represent more than half of the issued share capital. The Articles of Association exclude the waiver of the latter requirement in a second General Meeting. This ensures that significant proposals of shareholders cannot be adopted in a General Meeting with a low attendance rate and can only be adopted with substantial support of ING Group's shareholders.

Candidates for appointment to the Executive Board are subject to a suitability and reliability assessment by DNB and ECB and must continue to meet these while in function.

Function of the Executive Board

The Executive Board is charged with the management of ING Group. This includes responsibility for setting and achieving ING Group's strategy, objectives and policies, as well as the ensuing delivery of results. It also includes the day-to-day management of ING Group. The Executive Board is accountable for the performance of these duties to the Supervisory Board and the General Meeting. The responsibility for the management of ING Group is vested in the Executive Board collectively. The organisation, powers and modus operandi of the Executive Board are detailed in the Charter of the Management Board.

The Charter of the Management Board is available at www.ing.com.

According to the Banker's Oath that is taken by the members of the Executive Board, they must carefully consider the interests of all stakeholders of ING. In that consideration they must put the customer's interests at the centre of all their activities.
ING Group indemnifies the members of the Executive Board against direct financial losses in connection with claims from third parties, as far as permitted by law, on the conditions laid down in the Articles of Association and their commission contract. ING Group has taken out liability insurance for the members of the Executive Board.

Profile of members of the Executive Board

ING Group aims to have an adequate and balanced composition of its Executive Board. The Supervisory Board annually assesses the composition of the Executive Board on a continuous basis.

The Supervisory Board has drawn up a profile to be used as a basis for selecting members of the Executive Board. It is available on the website of ING Group (www.ing.com).

ING aims for the Executive Board of ING to consist of a diverse selection of persons with executive experience, preferably gained in the banking sector, experience in corporate governance of large stock-listed companies and experience in the political and social environment in which such companies operate. In addition, there should be a good balance in the experience and affinity with the desired nature and culture of the business of ING. ING strives to have at least 30 percent of the seats held by women, and at least 30 percent of the seats by men.

In 2018, ING introduced a new principle in a bid to bolster diversity within our organisation. The 70 percent principle gives managers a basis for building mixed teams around appropriate dimensions of diversity (with a focus on gender, nationality and age group) and strives for a 30 percent difference in team make-up. It is our ambition to adhere to this principle across the organisation within both local and global teams. This principle is incorporated into succession planning for the Executive Board.

Diversity and succession planning

The guidelines that relate to the composition of the Executive Board, are laid down in the Executive Board Profile. Based on this profile, the Supervisory Board is responsible for selecting and nominating candidates for appointment or reappointment to the Executive Board.

Finding suitable candidates remains challenging, as there are numerous requirements to take into account, including gender to enhance the composition of the Executive Board and specific criteria for each function, including regulatory requirements.

As an example to demonstrate the aforementioned: with the unexpected departure of the previous CFO Koos Timmermans, in early 2018, the Supervisory Board was faced with the challenge of appointing a successor as soon as possible. For the succession of the CFO position we reviewed a number of suitable candidates from diverse backgrounds. When searching new Executive Board members, the Supervisory Board looks broadly at diversity – considering all aspects as well as primarily looking to ensure ING has the best candidate for the job.

Succession planning

Currently, there are no female members of the Executive Board, although our ambition of gender diversity remains unchanged. The succession planning for Executive Board-positions is continually worked on, balancing the career advancement of (female) senior managers, considering female candidates fit for the role and bringing in talents from outside the bank. In view of the appointment terms of the current Executive Board members (every four years) ING considers it likely that the preferred gender balance will not be achieved in the short term as replacements are not currently envisaged. We are therefore unable to set a clear deadline to reach this gender balance.

We are also looking long term and taking steps to improve the appointment of women in senior positions throughout the bank in line with our recently adopted diversity and inclusion principle.

Remuneration and share ownership

Members of the Executive Board are permitted to hold shares in the share capital of ING Group for long-term investment purposes. Transactions by members of the Executive Board in these shares are subject to the ING regulations for insiders. These regulations are available on the website of ING Group (www.ing.com).

Details of the remuneration of members of the Executive Board, including shares granted to them, together with additional information, are provided in the 'Remuneration report' chapter.

Ancillary positions/conflicting interests

No member of the Executive Board has corporate directorships at listed companies outside ING.

Transactions involving actual or potential conflicts of interest

In accordance with the Dutch Corporate Governance Code, transactions with members of the Executive Board in which there are significant conflicts of interest will be disclosed in the Annual Report.

Significant conflicting interests are considered to be absent and are not reported if a member of the Executive Board obtains financial products and services, other than loans, which are provided by ING Group subsidiaries in the ordinary course of their business on terms that apply to all employees. In connection with the aforementioned, the term loans does not include financial products in which the granting of credit is of a subordinated nature, e.g. credit cards and overdrafts in current account, because of a lack of materiality.

For an overview of loans granted to members of the Executive Board, see the 'Remuneration report' chapter.

Information on members of the Executive Board

R.A.J.G. (Ralph) Hamers, chief executive officer ('CEO')

(Born 1966, Dutch nationality, male; appointed in 2013, will step down as of 30 June 2020)

Ralph Hamers has been a member of the Executive Board of ING Group since 13 May 2013 and was appointed CEO and chairman of the Executive Board and the Managing Board Banking on 1 October 2013. He is responsible for the proper functioning of the Executive Board, the Management Board Banking and its committees, formulating and implementing ING's strategy and acting as main contact for the Supervisory Board. He is also responsible for the following departments: Innovation, Legal, Corporate Strategy, Corporate HR, CoE Comms & Brand Experience and Corporate Audit Services. He joined ING in 1991 and has held various positions including global head Wholesale Banking Network from 2007 to 2010, head of Network Management for Retail Banking Direct & International from 2010 to 2011, and CEO of ING Belgium and Luxembourg from 2011 to 2013. Due to the resignation of the head of Market Leaders in July 2019, he has taken up this role on an interim basis until a replacement is found. In this interim role he is also responsible for ING Bank's operations in the Benelux. He holds a Master of Science degree in Business Econometrics/Operations Research from Tilburg University, the Netherlands.
As announced on 20 February 2020, Ralph Hamers will step down from his position and leave ING as of 30 June 2020. He will join UBS on 1 September 2020 and will become group chief executive officer per 1 November 2020. He will remain in his role as chief executive officer of ING Groep N.V. and ING Bank N.V. until 30 June 2020 continuing to run the daily business and working with the

Executive Board and the Management Board Banking to ensure a smooth transition of leadership. Further announcements on the succession process will be made if and when appropriate.

Relevant positions pursuant to CRD IV[1]

Chairman and CEO of the Executive Board of ING Groep N.V. and of the Management Board Banking of ING Bank N.V.

Other relevant ancillary positions

Member of the Management Board of the Nederlandse Vereniging van Banken (NVB), member of the Board of Directors of the Institute of International Finance, Inc., non-executive member of the board Concertgebouw orkest and member of UNICEF's Global Board of the Young People's Agenda.

T. (Tanate) Phutrakul, chief financial officer ('CFO')

(Born 1965, Thai nationality, male; appointed in 2019, term expires in 2023)

Tanate Phutrakul was appointed as chief financial officer of ING Groep N.V. and ING Bank N.V. and member of the Management Board Banking of ING Bank on 7 February 2019. Subsequently, he was appointed as a member of the Executive Board of ING Groep N.V. at the Annual General Meeting on 23 April 2019.
Tanate Phutrakul is responsible for ING's financial departments, Group Treasury (including capital management activities), Investor Relations, Group Research and Regulatory & International Affairs. Before his appointment to the Executive Board, he was ING Group controller in Amsterdam and between 2015-2018 he was the CFO of ING in Belgium.

He holds a master's degree in Engineering from Imperial College, University of London, and an MBA from Harvard Business School.

Relevant positions pursuant to CRD IV

Member and CFO of the Executive Board of ING Groep N.V., member and CFO of the Management Board Banking of ING Bank N.V., and Non-executive member of the board of ING Belgium N.V./S.A.

S.J.A. (Steven) van Rijswijk, chief risk officer ('CRO')

(Born 1970, Dutch nationality, male; appointed in 2017, term expires in 2021)

Steven van Rijswijk has been a member of the Executive Board since 8 May 2017. He was appointed CRO on 1 August 2017. He is also a member and CRO of the Management Board Banking. Before becoming a member of the Executive Board, he was global head of Client Coverage within ING Wholesale Banking. Steven van Rijswijk joined ING in 1995 in the Corporate Finance team holding various positions in the areas of Mergers & Acquisitions and Equity Markets. He holds a master's degree in business economics from Erasmus University Rotterdam (the Netherlands).

Relevant positions pursuant to CRD IV

Member and CRO of the Executive Board of ING Groep N.V. and member and CRO of the Management Board Banking of ING Bank N.V.

Changes in the composition

Tanate Phutrakul was appointed as a member of the Executive Board of ING Groep N.V. at the Annual General Meeting on 23 April 2019. As announced on 20 February 2020, Ralph Hamers will step down as chief executive officer of ING Groep N.V. and ING Bank N.V. as of 30 June 2020. He will join UBS on 1 September 2020 and will become group chief executive officer per 1 November 2020. Further announcements on the succession process will be made if and when appropriate.

[1] The fourth EU Capital Requirements Directive 2013/36/EU

B. Compensation

Remuneration report

Our view on remuneration

FOR INFORMATION ONLY

ING's remuneration approach is designed to attract, motivate and retain leaders and qualified staff who have the skills, abilities, values and behaviours needed to achieve our strategy. It aims to ensure we offer well-balanced remuneration within our risk appetite, promoting effective risk management. At the same time, we take into account our responsibility to our customers, society and other stakeholders, whose trust – quite simply – is our licence to operate.

ING's remuneration principles are important to achieve the bank's strategy, its purpose – to empower people to stay a step ahead in life and in business – and its risk profile. These principles apply to all employees, including members of the Executive Board (hereafter 'EB'). They aim to maintain a balance between short-term and long-term value creation for all stakeholders while being responsible and fair. Ultimately, it's about making sure we are able to effectively reward success and avoid rewarding for failure.

In this report we look back on the year 2019. We report on ING's performance and how 2019 events have impacted remuneration. We outline the current Executive Board and Supervisory Board remuneration policies and share details of remuneration awarded in 2019 to the Executive Board, including variable remuneration, and to the Supervisory Board.

Thereafter, we set out the remuneration approach that applies to all employees and explain more about how total direct compensation and variable remuneration work within ING. We also explain the performance management process and its link to remuneration, and we provide more information on the measures we have in place to mitigate risk.

Overall, the Supervisory Board has concluded that the Executive Board members did well to deliver our results in 2019. Although the underlying result before tax and underlying return on equity decreased compared to 2018, good progress was made in the execution of the Think Forward strategy. This is shown by the continued growth of primary customers, ongoing execution of the KYC enhancement programme with strong governance from top management and further progress in sustainability.

Looking ahead, there is an additional section in this year's report outlining the Supervisory Board's proposal for remuneration policies for the Executive Board and the Supervisory Board for the coming years.

This 2019 remuneration report is our first under the requirements of the Dutch Act implementing the Shareholder Rights Directive II (SRD II). This report is also drafted in the spirit of the European Commission's non-binding draft guidelines for disclosure. We intend to update our 2020 remuneration report to reflect the final guidelines, which we expect will have been published by then, also taking into account the advisory vote of shareholders regarding this 2019 remuneration report.

Our starting point

The Supervisory Board acknowledges that in the past it has not always got its stance on remuneration right. This was especially apparent in 2018, when a proposal to amend the remuneration policy of the Executive Board elicited much criticism. It was subsequently withdrawn and the Supervisory Board promised to carry out an extensive review of the remuneration policy.

We did this review in 2019, in consultation with advisory bodies and a broad range of stakeholders, holding meaningful discussions to make sure our remuneration approach and subsequent proposal achieves the right balance among the various viewpoints and interests.

Stakeholder engagement

A long list of stakeholders participated in these discussions, including our Dutch Central Works Council, representatives of Dutch trade unions, the Advisory Council of ING Netherlands, trade bodies and regulatory and governmental authorities such as the Dutch central bank and the European Central Bank. A number of institutional shareholders together holding approximately 24% of ING's share capital were also consulted, as well as proxy advisory firms and Dutch shareholder advocacy groups. A specialised market research firm elicited qualitative feedback from customers, and we asked current members of the Executive Board for their views, in line with the Dutch Corporate Governance Code.

In these dialogues the most contentious point was the level of total direct compensation. Some investors were concerned about ING's ability to attract the relevant talent. Other stakeholders were more critical about the general remuneration level. There was also criticism that the EURO STOXX 50 peer group, which ING uses as a benchmark for remuneration, includes too many companies that are not sufficiently comparable.

On the subject of variable remuneration, stakeholders understood and supported the continuation of this within the limits of Dutch legislation (i.e. a maximum of 20% of base salary). There was a clear ask for more transparency about the metrics used to determine variable remuneration and how these are applied for the performance year.

The insights gained from the stakeholder engagement process have significantly contributed to the quality of the remuneration policy that we intend to propose to shareholders at the next Annual General Meeting (hereafter 'AGM') in April 2020. Both myself and my colleagues on the Supervisory Board highly appreciate the participation of stakeholders and the meaningful insights they provided.

Proposed way forward

Based on the various viewpoints, interests, remarks and concerns, going forward we are proposing a moderate annual base salary increase linked to an external indexation reference point such as a consumer price index and ING's CLA increases.

To increase the relevancy of our peer group, the Supervisory Board is proposing to use a smaller one based on geography, relevant talent market, size and governance framework. We intend to include a balancing factor to ensure we also consider relevant peer companies that may not fulfil the other criteria. The proposed benchmark consists of eight comparable Dutch companies and eight relevant European financial services providers.

Among other things it aims to provide more clarity on the performance metrics to be used for awarding variable remuneration, how targets are set and how achievements are measured, as well as reflecting ING's risk culture and compliance initiatives.

Subject to approval by shareholders at the next AGM, the new remuneration policies for Executive Board and Supervisory Board members will become effective retroactively from 1 January 2020.

As the discussions with stakeholders last year showed, remuneration is an important topic for many stakeholder groups, who raised varying viewpoints on the topic. Myself and my colleagues on the Supervisory Board are fully committed to making sure we get our approach to remuneration right – for now and in the future. It's about achieving a balance that is right for ING, for customers, shareholders, other stakeholders and society at large.

Herna Verhagen
Chairman of the Supervisory Board Remuneration Committee

Remuneration Report Executive Board and Supervisory Board

FOR ADVISORY VOTE AT 2020 AGM

This part of the Remuneration Report explains how the 2019 EB Remuneration Policy and the current SB Remuneration was implemented during 2019. This part is the Remuneration Report as referred to in the Dutch Act implementing Shareholder Rights Directive II (SRD II). This Remuneration Report will be presented to the 2020 AGM for an advisory vote. In the Remuneration Report 2020 an explanation will be included on how the result thereof has been taken into account. Also the requirements for the report prepared by the Supervisory Board as stated in the Dutch Corporate Governance Code are taken into account.

This 2019 Remuneration Report is our first under the requirements of the Dutch Act implementing Shareholder Rights Directive II (SRD II). This report is also drafted in the spirit of the draft (non-binding) guidelines for disclosure from the European Commission. As such, 2019 should be considered a transitional year. In 2020, we aim to disclose fully in line with these final guidelines.

Business events 2019

In February 2019, Tanate Phutrakul was appointed as ING's chief financial officer and a member of the Management Board Banking. He was subsequently appointed to the Executive Board at the AGM on 23 April 2019. Tanate Phutrakul succeeded Koos Timmermans who, in consultation with the Supervisory Board, stepped down from his position as chief financial officer and member of the Executive Board of ING Group on 7 February 2019.

At the 2019 AGM shareholders approved the reappointment of Mariana Gheorghe and the appointment of Mike Rees and Herna Verhagen to the Supervisory Board.
Supervisory Board member Robert Reibestein, announced his early resignation effective 1 January 2020 because of persistent personal health issues.

After the very challenging year 2018, a majority of shareholders at the AGM in April 2019 voted against discharge of the Executive Board and Supervisory Board members from their potential liability against the company for their duties performed in 2018. The Supervisory Board and Executive Board fully understand and share the underlying disappointment, especially regarding the shortcomings in the prevention of financial and economic crime, which was also expressed by shareholders in the many direct contacts during the year. Both boards have taken the vote as a clear signal and firm encouragement to continue with the enhancement programme announced in September 2018 and ensure we make structural improvements to bring our gatekeeping function in the area of customer due diligence and anti-money laundering to the appropriate level.

Executive Board remuneration policy

The current Executive Board remuneration policy (hereafter called the 2019 EB Remuneration Policy) complies with applicable laws and regulations and is in line with the remuneration principles that apply to all employees.

The current remuneration policy for the Executive Board was adopted by shareholders at the AGM on 27 April 2010. Subsequent amendments to this policy were adopted at AGMs on:

- 9 May 2011 in response to new regulatory requirements
- 12 May 2014 with respect to pensions for the Executive Board
- 11 May 2015 to lower the maximum variable remuneration in line with legal requirements and specify that variable remuneration for the Executive Board be paid fully in shares
- 8 May 2017 to extend the deferral period of the variable remuneration from three to five years.

For 2019, the remuneration policy for the Executive Board remained unchanged. Shareholders will be asked to vote on a revised Executive Board remuneration policy at the 2020 AGM, which is a binding vote. For further information on the revised policy, we refer to the Chairman's letter.

Total direct compensation

Total direct compensation for the Executive Board is determined and reviewed periodically by the Supervisory Board. In line with the 2019 Executive Board Remuneration Policy, the Executive Board's total direct compensation for 2019 was compared to a peer group EURO STOXX 50 companies. The total direct compensation under the 2019 Executive Board Remuneration Policy is below the median of the EURO STOXX 50. This approach is in line with the requirements laid down in the Dutch Banking Code.

Variable remuneration

Variable remuneration for Executive Board members is limited to a maximum of 20% of base salary. At least 50% of this is based on non-financial performance criteria. The 2019 EB Remuneration Policy provides for an at-target variable remuneration of 16% of base salary. If performance criteria are exceeded, the Supervisory Board can increase the variable component to the maximum. If performance is below target, the variable component will be decreased, potentially to zero.

The Supervisory Board pre-determines the performance criteria for the Executive Board each year to ensure alignment between ING's strategy and performance objectives.

Variable remuneration is paid fully in shares. Forty percent of the variable remuneration is paid upfront and 60% is deferred. For all shares awarded to Executive Board members (in their capacity as board members) there is a minimum retention period of five years from the date of conditional grant and one year from the vesting date. Vesting of any deferred variable remuneration is not subject to performance and can only be adjusted in case of an ex-post risk measure as described in the Risk adjustments paragraph or if an Executive Board member leaves ING. This award approach aligns remuneration with creating long-term value for ING.

Pension

Since 1 January 2015, all members of the Executive Board have participated in the Collective Defined Contribution (CDC) pension plan with respect to their annual salary-up to €107,593 for 2019. This is similar to all employees working in the Netherlands without a supplementary pension scheme. Above this amount, members of the Executive Board are compensated for the lack of pension accrual by means of a savings allowance (see Benefits), to be annually determined, on the same terms that apply to other participants in the Dutch pension scheme.

Benefits

Executive Board members are eligible for additional benefits (all within benchmarks), such as:
- costs associated with the use of a company car;
- contributions to company savings plans;
- expatriate allowances (if applicable);
- banking and insurance benefits from ING (on the same terms as for other employees of ING in the Netherlands);
- tax and financial planning services to ensure compliance with the relevant legislative requirements.

Tenure

Members of the Executive Board are appointed by shareholders at the AGM for a maximum period of four years. They may be reappointed by the AGM in line with applicable rules and regulations. Executive Board members have a commission contract for an indefinite period. ING has the option to terminate if they are not reappointed by shareholders at the AGM or if their membership of the board is terminated. There is a three-month notice period for individual board members and a six-month period for ING. During this time the board member continues to work and remains eligible for all agreed remuneration components.

In the event of an involuntary exit, Executive Board members are eligible for an exit arrangement. If termination of the contract is based on mutual agreement, the Executive Board member is also eligible for a severance payment. These arrangements are subject to specific requirements (e.g. limited to a maximum of one year of fixed base salary, under the condition that there should be no reward for failure).

Periodic review of the remuneration policy and the remuneration paid

In accordance with the 2019 EB Remuneration Policy, the Supervisory Board annually determines the actual remuneration for members of the Executive Board, based on the advice given by the Remuneration Committee of the Supervisory Board.

The Remuneration Committee's responsibilities include preparing the Supervisory Board for decisions regarding the remuneration of individual members of the Executive Board. Remuneration proposals for individual Executive Board members are drawn up in accordance with the 2019 EB Remuneration Policy and cover the following aspects: remuneration structure, the amount of the fixed and variable remuneration components, the performance criteria used, scenario analyses that are carried out and, if and when considered appropriate, the pay ratios within the company and its affiliated enterprises. The Remuneration Committee takes note of the views of individual Executive Board members with regard to the amount and structure of their own remuneration, including the aspects mentioned above.

Special employment conditions

Special employment conditions, for example to secure the recruitment of new executives, may be used in exceptional circumstances subject to approval by the Supervisory Board. In 2019, there were none.

2019 Remuneration Executive Board

This section includes remuneration details for current and former Executive Board members relating to the period that they served on the Executive Board during 2019.[1]

In line with the Dutch Corporate Governance Code, ING determines the internal ratio of remuneration for Executive Board members and a representative reference group. Deemed most relevant for this ratio is the total direct compensation of the CEO compared to the average total direct compensation of all ING employees. On this basis, the internal ratio in 2019 was 1:31. For the sake of transparency we also calculated the ratio of the total direct compensation of the other Executive Board members compared to the average total direct compensation of all ING employees. On that basis the internal ratio in 2019 was 1:21.[2] The higher ratios compared to 2018, is due to fact that no variable remuneration was granted over performance year 2018.[3]

As disclosed in the Annual Report 2018, in consultation with the Supervisory Board, chief financial officer Koos Timmermans stepped down from his position as chief financial officer and as a member of the Executive Board on 7 February 2019. To facilitate an orderly transition and fulfil ING's contractual notice period of six months, he continued to advise the company until 31 August 2019. In line with applicable regulations a severance payment was granted. Although entitled to a maximum severance payment of one year's fixed annual pay, the Supervisory Board at its discretion set the severance pay at a level of 50% of fixed annual pay (€601,800).

1 Koos Timmermans was an EB member until 6 February 2019; Steven van Rijswijk was appointed to the EB on 8 May 2017; Tanate Phutrakul was appointed to the EB immediately following the 23 April 2019 AGM. As Ralph Hamers has been an EB member for the full years 2017-2019, the full remuneration is presented and no pro-rata method has been applied.

2 Total direct compensation comprises fixed base salary and variable remuneration, excluding benefits such as pension arrangements, and allowances.

3 The internal ratio in 2018 for the CEO was 1:29, for the other Executive Board members this amounted to 1:20. In 2017, the internal ratio for the CEO was 1:33 and for the other Executive Board members this amounted to 1:23.

Remuneration versus company performance and average employee remuneration

The table below shows the link between directors' remuneration, company performance and the average remuneration of an ING employee. This is done by presenting the relative development of the remuneration for the Executive Board and Supervisory Board members over the last five years. With respect to the remuneration of the Supervisory Board, note that there is no link to company performance to emphasise their independent role.

Furthermore, the relative performance of the company is presented on three different metrics over the last five years. The metrics consist of:
- Retail primary customers
- Profit before tax ING Group
- Underlying Return on Equity

Finally, we present the development of the remuneration on average (per employee). For this number the same data has been used as to determine the internal ratio. Since the internal ratio was disclosed by ING as of 2017, we only have three years of data available.

Due to the strict regulations on variable remuneration in the Netherlands (e.g. 20% bonus cap) and due to the fact that Executive Board members did not receive any variable remuneration over performance year 2018, the link between remuneration and company performance is relative. Furthermore variable remuneration must be based on at least 50% non-financial targets.

Development of directors' remuneration, company performance and employee remuneration

	FY 2019	FY 2019 vs FY 2018	FY 2018 vs FY 2017 [4]	FY 2017 vs FY 2016	FY 2016 vs FY 2015	FY 2015 vs FY 2014
Directors remuneration (Executive Board)[1, 2, 3, 5]						
Ralph Hamers	2,016	15.2%	-12.8%	1.4%	2.9%	51.4%
Tanate Phutrakul	973	-	-	-	-	-
Koos Timmermans	818		-11.8%			
Steven van Rijswijk	1,399	16.2%	-11.8%	-	-	-
Directors remuneration (Supervisory Board) [6]						
Hans Wijers	202	9.2%	340.5%	-	-	-
Hermann-Josef Lamberti	141	1.4%	-1.4%	-5.4%	34.2%	37%
Jan-Peter Balkenende	99	0%	200%	-	-	-
Henk Breukink	40	-68.3%	-0.8%	-8.6%	39%	8.7%
Mariana Gheorghe	118	12.4%	11.7%	-4.1%	145%	-
Eric Boyer de la Giroday	108	0%	1.9%	-7%	23.9%	73.6%
Margarate Haase	98	55.6%	-	-	-	-
Mike Rees	73	-	-	-	-	-
Robert Reibestein	136	-1.4%	1.5%	-1.4%	50%	-2.1%
Herna Verhagen	30	-	-	-	-	-
Company's performance[5, 6]				-		
Retail primary relationships (in mln)	13.3	7%	10%	9%	14%	9%
Profit before Tax ING Group (continuing operations) (in mln)	6,834	0%	-6%	23%	-4%	66%
Underlying Return on Equity	9.4%	-2%	1%	0%	2%	1%
Average employee remuneration						
Average fixed and annual variable remuneration	65	7%	-1.1%	-	-	-

1 The remuneration of the Executive Board consist of base salary and variable remuneration (total direct compensation).
2 Variable remuneration of the Executive Board is included in the year in which the performance has been delivered. Thus prior to the year in which it has been paid out.
3 The fixed remuneration for the Executive Board has not changed over 2019. Hence, the relative total compensation increase from 2018 to 2019 is fully attributed to the fact that no variable remuneration was awarded over performance year 2018. In addition, since Tanate Phutrakul has not been an Executive Board member for the full year and since Koos Timmermans left ING during the year, the comparison between 2018 and 2019 could not be made.
4 The decrease in 2018 versus 2017 comparison for the CFO and CRO is fully attributed to the fact that for performance year 2018 no variable remuneration has been awarded while over performance year 2017 variable remuneration was awarded. For the CEO the impact is less due to the fact that his fixed remuneration was increased by 2.2% in 2018 compared to 2017. The fixed remuneration for the CFO and CRO remained the same.
5 Fixed remuneration for Executive Board members within ING is not linked to company performance but is based on a benchmark exercise and total direct compensation of Executive Board members should stay below the median of the benchmark based on the Dutch Banking Code. This has a mitigating effect on the correlation with the company performance.
6 Supervisory Board members do not receive any variable remuneration. Their remuneration is based on fixed fees related to their role and amount of meetings. The high fluctuations are caused by joining and leaving the Supervisory Board during the year, change of roles during the year and the difference in the amount of meetings. Hence there is no correlation between the SB remuneration and the company performance.

2019 Executive Board base salary

As announced in our 2018 Annual Report, the base salary of all Executive Board members remained the same in 2019 as it was in 2018.

2019 performance indicators Executive Board

As indicated in the remuneration policy, the performance of the Executive Board is assessed on non-financial and financial indicators. The performance indicators assessed for 2019 included the following (overview of combined performance indicators of the Executive Board members):

Financial performance indicators

- Underlying result before tax
- Net core lending
- Underlying return on equity (IFRS-EU) → hurdle for variable pay
- Underlying cost/income ratio
- Common Equity Tier 1 ratio (SREP) → hurdle for variable pay

Non-financial performance indicators

- Customer: ensuring growth of retail primary customers.
- Operational control: ensuring ING is a safe and compliant bank now and in the future, in line with regulations.
- Think Forward Strategy: ensuring intended outcomes of key strategic initiatives are executed and result in improved customer experience and commercial growth.
- People: driving initiatives to continue to be a healthy organisation and great place to work.
- Sustainability: increasing ING's social and environmental impact through our sustainability activities

2019 Executive Board performance evaluation

The table below highlights key achievements, collectively accomplished by the Executive Board in 2019 in the areas mentioned. It reflects both ING's overall ambitions and the specific performance priorities agreed with the Supervisory Board at the beginning of 2019.

Financial performance	Achieved underlying **result before tax** of €6,834 million down 9.2% from 2018, reflecting a well-diversified loan book with resilient margins, despite margin pressure on customer deposits. The net profit is €4,781 million, up 1.7% from 2018. Grew net core lending by €17.2 billion (+2.9%); increased customer deposits by €23.4 billion (+4.2%). Realised underlying **return on equity** (IFRS-EU) for ING Group of 9.4%, down from 11.2% in 2018. The underlying cost/income ratio decreased to 56.6% from 54.5% in 2018 driven by higher KYC, staff and regulatory costs (51% excluding regulatory costs).
Customer	Increased the number of **primary customers** by more than 830,000 to 13.3 million in 2019 (+6.7%). The total retail customer base reaches 38.8 million. Ranked number one in Net Promotor Score relative to competitors in six of the 14 retail markets. A growing share of Retail customers only interacts with ING on their mobile device, up from 26% in 2018 to 37% in 2019. Increase in conversion of customer interactions into sale, with seven times higher mobile sales in 2019 than in 2016.

Operational Control	In 2019 countering financial and economic crime remained a priority: ▪ The number of FTEs working globally on know your customer (KYC) related activities has increased to ~4,000. ▪ The increased focus on KYC and efforts to streamline operations are leading to an increased number of accounts being closed, including inactive accounts or accounts of which the customers were insufficiently responsive to information requests. ▪ Further progress was made in strengthening the global KYC organisation and governance structure throughout ING. ▪ Further progress was made in the global roll-out of KYC tools to enable the onboarding of customers and monitor their transactions across ING's global network in a more effective and consistent way. ▪ The implementation of a systematic integrity risk analysis in all business lines and regions was completed, contributing to consistent KYC risk assessments across the bank. ING keeps investing in regulatory compliance, developing promising tools to increase accuracy and efficiency in KYC operations: ▪ A virtual alert handler using artificial intelligence (AI) to sort "false positives" from the alerts that need more investigation, so far reducing "false positives" by half. ▪ A tool to detect instances of fraudulent transactions related to "smurfing"; the practice of breaking up transactions into smaller amounts to evade conventional rule-based monitoring systems. ▪ An advanced AI-based anomaly detection model to automatically analyse and detect new potentially suspicious behaviour in foreign currency clearing and settlement that ING executes on behalf of others.
	▪ Development of SparQ, a global platform that uses AI to automate the process of turning regulation into policy. It gives insight into applicable regulations, identifies changes, helps analyse documents and can link regulation directly to our policies. ING is committed to periodically providing the Dutch central bank (DNB) with regular updates on the progress made.
Execution Think Forward Strategy	Important steps taken in the ***major digital transformation programmes***: ▪ **Unite be+nl:** Reduced the branch footprint and introduced two common digital channels across Belgium and Netherlands (OneApp and OneWeb) that have been piloted with customers. Introduction of one platform for all customer-facing collegues to allow supporting customers faster and in a more uniform way. ▪ **Maggie (former Model Bank):** The digital platform has now over 450,000 active customers and the platform is ready to onboard customers from Italy, Spain and France in the coming years. ▪ **Welcome:** ING in Germany completed the programme early 2019 after introducing a new mobile app (One App) and a Go2Place platform including e-signature, multi-banking account overview, forecasting, third-party services and end-to-end digital process for account opening, consumer loans and mortgages. ▪ **Wholesale TOM:** Improved the experience of the ING's Wholesale Banking customers through the implementation of target solutions in Financial Markets, Lending and Transaction Services, setting up a pan-European Daily banking Desk and by expanding our client platform InsideBusiness, which is used by more than 18,000 international clients. New initiatives developed and aligned with partners to improve the customer experience being:

	▪ ING's partnership with **AXA** reached another milestone in 2019 by going live with its global platform, which will provide home, mobility and health insurance services in six markets via the mobile app. The first product launched on the platform is home insurance, delivered by the ING mobile app in Italy. This is in addition to the six products launched outside the platform in 2019. ▪ **Yolt**, ING's personal finance aggregator, reached over one million users and was chosen as the best personal finance app at the International Payments Awards 2019. ▪ The launch of **instant payments** in Netherlands and Belgium, enabling money to be available in five seconds to the beneficiary every moment of the day all year round. ▪ Introduction of **ApplePay** to enhanced the experience of our mobile app users. ▪ In order to improve the credit decision process for Wholesale Banking clients, ING has invested in **Flowcast**. This is a start-up that uses machine learning algorithms to create predictive models that reduce risk and unlock credit to businesses. Major milestone achieved in the ***blockchain area***: ▪ ING joined a consortium with MineHub to develop a blockchain-based platform that would help ING clients in the metals and mining sector to lower costs, increase transparency and contribute to sustainable production and trading. ▪ First client transaction completed on Komgo, a platform that digitalises and streamlines trade and commodity finance.
People	The Organisation Health Index (OHI) survey carried out 2019 showed room for improvement. The overall health score is a performance indicator measuring organisational health relative to a global benchmark of 1,900 companies.

	Although ING continues to outperform our peers in most areas, there was a decline in the 2019 results.
Sustainability	In September ING published the first progress report on **Terra**, ING's approach to steer its €600 billion lending book in line with the goals of the Paris Agreement to keep global warming to well-below two degrees. The disclosure addresses developments and climate alignment for the sectors: power generation, fossil fuels, automotive, shipping, aviation, steel, cement, residential mortgages and commercial real estate. These are the sectors in ING's portfolio that are most responsible for greenhouse gas emissions. In a Climate Alignment Dashboard (CAD) the report presents which sectors are on track for climate alignment and where work is still in progress. This climate change disclosure is a first for banks. ING is recognised as an ***A-list company for leadership on climate action*** for the fifth year in a row by CDP, the leading global environmental disclosure platform. In 2019 ING reinforced the commitment to help customers reach their sustainability goals by closing more than twice the amount of sustainable finance deals compared to 2018.

Variable remuneration outcome

Based on these achievements, the Supervisory Board has concluded that the Executive Board members did well overall to deliver these results. This was despite a challenging rate environment and increase in costs related to the KYC enhancement programme. Although the underlying result before tax and underlying return on equity decreased compared to 2018, good progress was made in the execution of the Think Forward Strategy. This is shown by the continued growth of the primary customer base and the increase in mobile interactions by retail customers. Risk costs remained below the through-the-cycle average. ING also continued executing the KYC enhancement programme, with strong governance from top management, more FTEs working in

KYC and the roll out of global KYC tools. In sustainability ING remains a leading company, making further progress with the Terra approach by partnering with 30 other banks to steer the lending portfolio towards the climate goals of the Paris Agreement. Overall this has resulted in a variable remuneration for the Executive Board members of between 15 and 16%.

2019 Executive Board remuneration

The tables below (i.e. total direct compensation, pension costs and other emoluments) show the remuneration awarded to individual Executive Board members with respect to the performance years 2019, 2018 and 2017. The 2019 figures reflect a partial year as Executive Board members for Tanate Phutrakul and Koos Timmermans. The 2018 figures reflect an entire year for all three active members of the Executive Board. The 2017 figures reflect a partial year as Executive Board members for Koos Timmermans and Steven van Rijswijk.

All remuneration of the Executive Board is paid directly by ING, in other words no payments have been made by any of our subsidiaries.

Total direct compensation for individual Executive Board members

	2019		2018		2017	
Amounts in euros (rounded figures)	Amount	Number of shares	Amount	Number of shares	Amount	Number of shares
Ralph Hamers (CEO)						
Base salary	1,750,000		1,750,000		1,713,000	
Variable remuneration (fully in shares)[1]	266,000	25,726			293,000	18,547
Tanate Phutrakul (CFO)[2]						
Base salary	831,100					
Variable remuneration (fully in shares)[1]	141,400	13,675				
Koos Timmermans (CFO)[3]						
Base salary	802,400		1,203,600		781,000	
Variable remuneration (fully in shares)[1]	16,000	1,553			104,000	6,612
Steven van Rijswijk (CRO)						
Base salary	1,203,600		1,203,600		781,000	
Variable remuneration (fully in shares)[1]	195,000	18,858			104,000	6,584
Total aggregated base salary	4,587,100		4,157,200		3,275,000	
Total aggregated variable remuneration	618,400				501,000	
Total aggregated number of shares		59,812				31,743

1 The number of shares is based on the average ING share price (€10,34) on the day on which the year-end results were published.
2 Tanate Phutrakul was appointed to the Executive Board immediately following the 23 April 2018 AGM. This amount of variable remuneration reflects his period as an Executive Board member. Thus, for the period from 23 April 2019 – 31 December 2019.
3 Koos Timmermans left ING per 7 February 2019 as an Executive Board member. Until 31 August 2019 he received an advisor fee for the period in which he transferred his activities to his successor. Thus the base salary reflects the payments from 1 January 2019 – 31 August 2019. The amount of variable remuneration however, only reflects his period as an Executive Board member. Thus, for the period from 1 January 2019 – 7 February 2019.

Pension costs

Members of the Executive Board participate in the Collective Defined Contribution (CDC) pension plan. In 2019, pension accrual only applied to salary up to an amount of €107,593. The table below shows the pension costs of the individual members of the Executive Board in 2019, 2018 and 2017.

Pension costs for individual Executive Board members

Amounts in euros (rounded figures)[1]	2019	2018	2017
Ralph Hamers	23,000	26,000	30,000
Tanate Phutrakul[2]	16,000	–	–
Koos Timmermans[3]	15,000	26,000	19,000
Steven van Rijswijk	23,000	26,000	19,000

1 Pension accrual only applies to salary up to an annually set amount (i.e. €103,317 for 2017, €105,075 for 2018 and €107,593 for 2019).
2 Tanate Phutrakul was appointed to the Executive Board immediately following the 23 April 2018 AGM. Thus, the figures reflect a partial year as an Executive Board member.
3 Koos Timmermans left ING per 7 February 2019 as an Executive Board member. Until 31 August 2019 he received an advisor fee for the period in which he transferred his activities to this successor. Thus the pension costs reflect the period from 1 January 2019 – 31 August 2019.

Benefits

The individual members of the Executive Board receive other emoluments, including savings allowances to compensate for the loss of pension benefits on salary above €107,593 for 2019, employer contributions to savings schemes, reimbursement of costs related to home/work commute, costs associated with a company car and for expats, the costs associated with housing and schooling.

The other emoluments amounted in 2019, 2018 and 2017 to the following costs.

Other emoluments

Amounts in euros (rounded figures)	2019[1]	2018	2017[2]
Ralph Hamers	521,000	561,000	624,000
Tanate Phutrakul	235,000	–	–
Koos Timmermans[3]	231,000	408,000	290,000
Steven van Rijswijk	367,000	369,000	274,000

1 The 2019 emoluments reflect the partial year as an Executive Board member for Tanate Phutrakul.
2 The 2017 emoluments for Koos Timmermans and Steven van Rijswijk reflect the partial year as an Executive Board member.
3 Koos Timmermans left ING per 7 February 2019 as an Executive Board member. Until 31 August 2019 he received an advisor fee for the period in which he transferred his activities to his successor. Thus the emoluments reflect the period from 1 January 2019 – 31 August 2019.

Other emoluments in more detail 2019				
Amounts in euros (rounded figures)	Ralph Hamers	Tanate Phutrakul [2]	Koos Timmermans [3]	Steven van Rijswijk
Contribution individual savings	61,000	29,000	28,000	42,000
Individual savings allowance	391,000	179,000	175,000	261,000
Travel and accident insurance	18,000	13,000	2,000	18,000
Other amounts[1]	50,000	15,000	26,000	46,000

1 Other amounts contains the following elements: personnel facility (mortgage), tax and financial planning, one-off compensation for Steven van Rijswijk for retroactive tax impact of use of company car and temporary housing for Tanate Phutrakul.
2 The 2019 emoluments reflect the partial year as an Executive Board member for Tanate Phutrakul.
3 Koos Timmermans left ING per 7 February 2019 as an Executive Board member. Until 31 August 2019 he received an advisor fee for the period in which he transferred his activities to his successor. Thus the emoluments reflect the period from 1 January 2019 – 31 August 2019.

Total remuneration

The table below contains the total remuneration of the Executive Board members over 2019.

Total remuneration						
Amounts in euros (rounded figures)	Base salary	Variable remuneration	Total direct compensation	Pension	Emoluments	Total remuneration
Ralph Hamers	1,750,000	266,000	2,016,000	23,000	521,000	2,560,000
Tanate Phutrakul	831,100	141,400	972,500	16,000	235,000	1,223,500
Koos Timmermans	802,400	16,000	818,400	15,000	231,000	1,064,400
Steven van Rijswijk	1,203,600	195,000	1,398,600	23,000	367,000	1,788,600

As recognised in the profit or loss statement of 2019, the expenses for each member of the Executive Board (active on 31 December 2019), while serving on the Executive Board, amount to €2.4 million for the CEO, €1.1 million for the CFO and €1.7 million for the CRO.

Long-term incentives awarded in previous years

Long-term incentives to the Executive Board members in previous years are disclosed in the table ING shares held by Executive Board members.

Employee stock options

The table below contains information on the outstanding employee stock options and the movements during the financial year of employee stock options held by the members of the Executive Board on 31 December 2019 including those awarded prior to their appointment to the Executive Board.

Options held by Executive Board members

Number of options	Outstanding on 31 December 2019	Exercised in 2019	Waived or expired in 2019	Outstanding on 31 December 2019	Grant price in euros	Grant date	Vesting date	Expiry date
Ralph Hamers	19,985	19,985			2.90	19 March 2009	19 March 2012	19 March 2019
	22,124			22,124	7.35	17 March 2010	17 March 2013	17 March 2020
Tanate Phutrakul	4,163	4,163			2.90	19 March 2009	19 March 2012	19 March 2019
	11,062			11,062	7.35	17 March 2010	17 March 2013	17 March 2020
Steven van Rijswijk	1,688	1,688			2.90	19 March 2009	19 March 2012	18 March 2019
	11,658	11,658			2.90	19 March 2009	19 March 2012	18 March 2019
	2,318			2,318	7.35	17 March 2010	17 March 2013	16 March 2020
	10,694			10,694	7.35	17 March 2010	17 March 2013	17 March 2020

Shares

Deferred shares are shares conditionally granted subject to a tiered vesting over a period of five years (for awards in 2019 and before), with the ultimate value of each deferred share based on ING's share price on the vesting date. This is all conditional on there being no holdback.

Shares vested for Executive Board members during 2019

Number of shares	Shares [2]	Grant date	Vesting date	End date of retention period	No. of shares granted[5]	No. of shares vested	Vesting price in euros	No. of unvested shares remaining [6]
Ralph Hamers	LSPP	11 May 2016	11 May 2019	11 May 2021	28,404	5,682	10.44	0
	LSPP	11 May 2017	11 May 2019	11 May 2022	23,092	4,618	10.44	4,619
	LSPP	10 May 2018	11 May 2019	10 May 2023	18,547	2,225	10.44	8,903
Tanate Phutrakul[1]	LSPP Units [3]	27 March 2015	27 March 2019	N/A	6,915	922	10.55	0
	LSPP Units [3]	25 March 2016	27 March 2019	N/A	7,987	1,065	10.55	1,065
	LSPP Units [3]	27 March 2017	27 March 2019	N/A	6,032	482	10.55	1,931
	LSPP Units [3]	27 March 2018	27 March 2019	N/A	4,972	2,983	10.55	1,989
	LSPP	27 March 2019	27 March 2019	27 March 2020	2,837	1,702	10.55	1,135
Koos Timmermans	LSPP[4]	11 May 2016	11 May 2019	11 May 2021	18,278	0	-	0
	LSPP[4]	11 May 2017	11 May 2019	11 May 2022	15,838	1,465	10.44	3,169
	LSPP	10 May 2018	11 May 2019	10 May 2023	10,139	1,216	10.44	4,867
Steven van Rijswijk[1]	LSPP	25 March 2016	27 March 2019	27 March 2020	19,362	3,227	10.55	0
	LSPP	27 March 2017	27 March 2019	27 March 2020	13,890	2,315	10.55	2,315
	LSPP	27 March 2018	27 March 2019	27 March 2020	3,460	346	10.55	1,384
	LSPP	10 May 2018	11 May 2019	10 May 2023	6,584	790	10.44	3,160

1 Shares granted to Tanate Phutrakul (March 2015 to March 2019) and Steven van Rijswijk (March 2016 to March 2018) were awarded for their performance in positions prior to their Executive Board appointment.
2 All current Executive Board members participate in ING Group Long Term Sustainable Performance Plan (LSPP) under which plan rules they receive their shares.
3 Deferred share units of Tanate Phutrakul are cash settled instruments. The value of these are based on ING Group's share price at the vesting date. No retention period applies.
4 The (partial) holdback (3,657 and 1,702) of the outstanding deferred variable remuneration, is effectuated on these grants.
5 Number of shares granted includes both deferred and upfront part awarded at the granting date.
6 The balance of unvested shares post holdback, where applicable.

Total value of vested and unvested shares of Executive Board members - 2019

Amounts in euros (rounded figures)	Vested shares	Unvested shares	Share price in euros[1]	Total value
Ralph Hamers	12,525	13,522	10.68	278,000
Tanate Phutrakul	7,154	6,120	10.68	142,000
Steven van Rijswijk	6,678	6,859	10.68	145,000

1 The opening stock price on 31 December 2019.

Loans and advances to Executive Board members

The table below presents the loans and advances provided to Executive Board members that were outstanding on 31 December 2019, 2018 and 2017. These loans were provided on market conditions with due observance of the applicable policies within ING.

Loans and advances to individual Executive Board members - 2019

Amount in thousands of euros	Amount outstanding 31 December	Average interest rate	Repayments
Ralph Hamers	2,402	1.4%	97
Tanate Phutrakul	-	-	-
Steven van Rijswijk	-	-	-

Loans and advances to individual Executive Board members - 2018

Amount in thousands of euros	Amount outstanding 31 December	Average interest rate	Repayments
Ralph Hamers	2,499	1.4%	-
Koos Timmermans	182	6.2%	-
Steven van Rijswijk	-	-	-

Loans and advances to individual Executive Board members - 2017

Amount in thousands of euros	Amount outstanding 31 December	Average interest rate	Repayments
Ralph Hamers	2,499	1.4%	-
Koos Timmermans	182	6.2%	-
Steven van Rijswijk	-	-	-

ING shares held by Executive Board members

Executive Board members are encouraged to hold ING shares as a long-term investment to maintain alignment with ING. The table below shows an overview of the shares held by members of the Executive Board on 31 December 2019, 2018 and 2017.

ING shares held by Executive Board members

Numbers of shares	2019	2018	2017
Ralph Hamers	93,833	67,392	58,094
Tanate Phutrakul	9,200	-	-
Steven van Rijswijk	69,490	66,153	59,914

2020 Executive Board remuneration

The Supervisory Board decided to increase the base salary of the Executive Board members by 1.5% as of 1 January 2020. This decision was based on reliable indexation reference points, including the Consumer Prices Index 2020 (forecast) in line with the proposed Executive Board Remuneration Policy 2020. This increase is below the CLA increase in the Netherlands.[4]

For 2020 the following target areas will be taken into account.

Financial
- Profit before tax
- Return on equity

Non-financial
- Customer – Retail primary customers
- People – Organisational Health Index
- Strategy – executing Think Forward Strategy
- Sustainability – Terra
- Regulatory – deliver commitments to regulators (CRO)
- Manage financial and non-financial risk within Board approved risk appetite (CRO)

Remuneration Supervisory Board

Supervisory Board remuneration policy

The current remuneration policy for the Supervisory Board, as approved at the AGM on 25 April 2016, aims to:
- Provide a simple and transparent structure
- Bring remuneration levels in line with peers and with levels adequate to attract qualified (international) Supervisory Board members
- Align remuneration with increased responsibilities and time spent.

The Supervisory Board remuneration levels for 2019, similar to 2018, are shown below:

Supervisory Board remuneration structure

Annual fees in euros	2019
Chairman Supervisory Board	125,000
Vice chairman Supervisory Board	95,000
Supervisory Board member	70,000
Committee fees (annual amounts)	
Chairman committee	20,000
Member committee	10,000
Attendance fees (per event)	
Attendance fee outside country of residence	2,000
Attendance fee outside continent of residence	7,500

The remuneration of Supervisory Board members is not paid out in equity (i.e. solely cash). Furthermore, Supervisory Board members are not eligible for any variable remuneration. In addition, members of the Supervisory Board are reimbursed for their travel and ING-related business expenses.

4 The collective salary increase based on the Collective Labour Agreement in the Netherlands (agreed for the period from 1 January 2019 – 31 December 2020), per 1 September 2019 was 3% for all employees in the Netherlands. In addition, per 1 September 2020 another collective salary increase of 3% will take place.

2019 Remuneration Supervisory Board

The table below shows the remuneration, including attendance fees per Supervisory Board member.

All fees for the Supervisory Board are paid directly by ING, in other words no payments have been made by any of our subsidiaries.

2019 Remuneration Supervisory Board

	2019		2018		2017	
Amount in euros (rounded figures)	Remuneration	VAT	Remuneration	VAT	Remuneration	VAT
Hans Wijers (chairman)	167,000	35,000	153,000	32,000	35,000	7,000
Hermann-Josef Lamberti (vice-chairman)	141,000		139,000		141,000	
Jan Peter Balkenende	82,000	17,000	82,000	17,000	27,000	6,000
Henk Breukink[1]	33,000	7,000	104,000	22,000	105,000	22,000
Mariana Gheorghe	119,000		105,000		94,000	
Eric Boyer de la Giroday	108,000		108,000		106,000	
Margarete Haase	98,000		63,000			
Mike Rees[2]	73,000					
Robert Reibestein	112,000	24,000	114,000	24,000	112,000	24,000
Herna Verhagen[3]	25,000	5,000				

1 Henk Breukink stepped down as of 23 April 2019. The remuneration figures for 2019 reflect a partial year as a member of the Supervisory Board.
2 Mike Rees was appointed to the Supervisory Board by the 23 April 2019 AGM. His appointment became effective as of the end of the AGM. The remuneration figures for 2019 reflect a partial year as a member of the Supervisory Board.
3 Herna Verhagen was appointed to the Supervisory Board by the 23 April 2019 AGM. Her appointment became effective as of 1 October 2019. The remuneration figures for 2019 reflect a partial year as a member of the Supervisory Board.

Compensation of former members of the Supervisory Board who are not included in the table above amounted to nil in 2019, €69,000 in 2018 and €344,000 in 2017.

Loans and advances to Supervisory Board members

Supervisory Board members may obtain banking and insurance services from ING Group and its subsidiaries in the ordinary course of their business and on terms that are customary in the sector. The Supervisory Board members do not receive privileged financial services. On 31 December 2019, there were no loans and advances outstanding to Supervisory Board members.

ING shares and employee stock options held by Supervisory Board members

Supervisory Board members are permitted to hold ING shares as a long-term investment. The table below shows the holdings by members of the Supervisory Board on 31 December 2019, 2018 and 2017.

ING shares held by Supervisory Board members

Numbers of shares	2019	2018	2017
Hermann-Josef Lamberti	5,700	5,700	5,700
Eric Boyer de la Giroday	47,565	47,565	47,565
Margarete Haase	800	800	

The following table contains information on employee stock options outstanding and awards vested for Supervisory Board members.

Employee stock options on ING Groep N.V. shares held by members of the Supervisory Board on 31 December 2019

Number of stock options	Outstanding on 31 December 2019	Expired in 2019	Outstanding on 31 December 2018	Expired in 2018	Outstanding on 31 December 2017	Expired in 2017
Eric Boyer de la Giroday	-	-	-	113,479	113,479	113,479

2020 Remuneration Supervisory Board

The Supervisory Board decided not to change the metrics for 2020.

General information for all staff

FOR INFORMATION ONLY

The primary objective of ING's remuneration principles is to enable ING to attract, motivate and retain qualified and expert leaders as well as senior staff (including Executive Board members) and other highly qualified employees. Our remuneration principles apply to all employees, including Executive Board members. The approach did not change in 2019.

The principles are an integral part of ING's corporate strategy and risk profile. They maintain a sustainable balance between short and long-term value creation and build on ING's long-term responsibility towards customers, society and other stakeholders.

ING's remuneration principles apply to all staff and are embedded in ING's Remuneration Regulations Framework (IRRF). The IRRF complies with relevant international and local legislation and regulations.

Our remuneration principles

Our remuneration principles apply to all employees and comprise the following:

Aligned with business strategy
ING's remuneration principles are aligned with the business strategy and company goals.

Creates long-term value
ING's remuneration principles contribute to long-term value creation and support a focus on the long-term interests of its stakeholders, including employees, customers and shareholders.

Responsible and fair
In line with our Orange Code values and behaviours, ING acts responsibly and treats staff fairly across the globe.

Mitigates risk and optimises controls
Risk management is an enabler of long-term value creation. ING ensures its remuneration principles are properly correlated with its risk profile and stakeholder interests.

Performance driven
ING operates a robust performance management process linked to remuneration to steer and motivate all employees to deliver on its strategic goals, aiming to reward success and prevent rewarding for failure.

Sustainable
ING supports the sustainable recruitment, engagement and retention of all employees.

Performance management

We aim to reward for success and avoid rewarding for failure. That is why ING's remuneration approach is strongly linked to a comprehensive performance management process. Outcomes of performance evaluations provide direct input for remuneration. This does not necessarily mean that performance is directly linked to variable remuneration since within ING not all employees are eligible for variable remuneration. In the Netherlands, for example the vast majority of the employees do not receive any variable remuneration.

Step Up Performance Management is our global performance management approach applicable to the majority of employees. It aims to improve people's individual performance and thereby their team performance and ultimately ING's performance. Step Up Performance Management is one of our people practices that help to increase focus, alignment and transparency. We do this through continuous conversations between managers, employees and teams. To support these conversations, there are three formal moments to discuss performance during the year: target setting, mid-year review and year-end evaluation.

The Step Up Performance Management approach consists of three dimensions:
- Job: the impact employees have in their daily work on an individual and team level, based on factors such as qualitative job description, dynamic planning and specific selected quantitative priorities.
- Orange Code behaviours: how employees do their work and how effective their behaviour is as a professional and colleague. We expect all employees to act in line with ING's Orange Code.
- Stretch Ambitions: at ING, we believe high performance requires stretch and investment (to achieve the stretch). Therefore we ask people to set ambitions beyond their day-to-day role and connect their personal passion, expertise or interest with the long-term success of ING.

All targets are agreed between the employee and their manager, as well as within management teams, to ensure consistency across the bank. ING uses three labels to evaluate performance: excellent, well done and improvement required.

Step Up Performance Management does not prescribe the targets employees should set. However, the following regulatory requirements apply to specific groups:
- For employees eligible for variable remuneration, a minimum of 50% non-financial priorities.
- For all employees in control functions (Legal, Risk, Finance, Compliance, Audit and HR), no individual financial KPIs are allowed, unless required by local law.
- For identified risk takers, risk mitigation measures may lead to a downwards adjustment of the performance outcome and negatively affect variable remuneration (a risk modifier can be applied).

Total direct compensation

Total direct compensation is the total of fixed and variable remuneration, excluding benefits such as pension and allowances.

ING aims to provide total direct compensation levels for expected business and individual performance which, on average, are at the median of the markets in which we operate, benchmarked against relevant peer groups. In line with the Dutch Banking Code, for the Executive Board and the Management Board Banking we aim for a level below the median. To ensure we adhere to this policy, we regularly monitor and benchmark salary levels across ING.

Fixed remuneration represents a sufficiently high proportion, in line with the level of expertise and skills, and allows a fully flexible variable remuneration award. In case no variable remuneration is awarded, the compensation level is still sufficient for a decent standard of living. Variable remuneration is performance driven, subject to regulatory caps and prevents excessive risk taking, where applicable.

The comprehensive process around variable remuneration

The awarding of variable remuneration, where applicable, is based on individual, business line and bank-wide performance criteria unless local legislation prescribes otherwise. In all ING countries, we adhere to the applicable variable remuneration caps. In the Netherlands, for example, we apply a variable remuneration cap of 20% with limited exceptions in line with the Dutch Remuneration Policy for Financial Enterprises Act (Wet Beloningsbeleid Financiële Ondernemingen, hereafter 'WBFO').

For Identified Staff (i.e. staff considered to have a material impact on ING's risk profile), at least 40% of variable remuneration is deferred over a period of three to five years with a tiered vesting schedule. Furthermore, at least 50% of variable remuneration is awarded in equity (linked instruments).

Performance and risk assessment

ING applies measures to mitigate risk relating to variable remuneration. Our global remuneration policy takes into consideration risk, capital, liquidity and the likelihood and timing of earnings. Measures include pre-award and post-award risk assessments of variable remuneration.

In 2019, the Management Board Banking and the Supervisory Board approved the Variable Remuneration Accrual Model (VRAM) set-up and approach for determining the 2019 variable remuneration pool based on the new VRAM formally approved in 2018.

The VRAM takes a holistic view of the overall performance of ING across three key dimensions:

(i) financial,
(ii) non-financial, and
(iii) risk.

Within each of these three elements specific criteria are used to measure performance (e.g. customer, people, strategy, operational excellence, financial and non-financial risk).

The proposal for the variable remuneration pool is prepared by Human Resources, Risk and Finance, and in line with the VRAM principles. The Management Board Banking then proposes the amount of the overall variable remuneration pool to the Supervisory Board, taking into account the advice of the Risk and the Remuneration committees.

The variable remuneration pool (for both individual and collective variable remuneration), encompasses all employees eligible for variable remuneration globally, including Identified Staff. ING takes a multi-step approach to determine whether to award variable remuneration in a given performance year and the maximum amount of the pool. Within this process, a range of risk elements is assessed at various levels and, where appropriate, risk adjustments are made to the variable remuneration pools at both a group and business line level.

Risk and performance hurdles

To unlock the variable remuneration pools, regulatory and performance hurdles must be met. These are:

- The Common Equity Tier 1 (CET1) ratio must be at or above the threshold established by applicable regulations;
- The Return on Equity (RoE – IFRS-EU) is equal to or higher than the percentage determined at the beginning of each performance year by the Management Board Banking and the Supervisory Board;
- If both the CET1 ratio and RoE are met, the maximum variable remuneration pool is unlocked, as accrued in line with the VRAM; and
- If only one (or none) of the two tests is met, in principle, no bank-wide variable remuneration pool is released.

A variable remuneration pool is also separately accrued for staff in control functions and support functions and for those employees subject to a collective variable remuneration plan. The amount is defined by the Management Board Banking and approved by the Supervisory Board.

Risk adjustments

In determining the overall size of the variable remuneration pool, a multi-layered, consistent and bank-wide approach to risk tests and adjustments is applied to the process, based on an assessment by the chief risk officer.

To establish appropriate ex ante risk adjustments, there are measures to assess the bank's current and future risks and whether performance sufficiently aligns with risk appetite levels. The risk adjustment assessment includes measurements on 'forward looking' capital, liquidity and non-financial risk, where adjustments are made on deviation from risk appetite.

In addition, ex post risk adjustments are a key element in the process of determining both final variable remuneration pools and individual awards. Here, the chief risk officer may provide additional input at a more granular level to risk adjust (downwards) ING's overall or business line and/or country variable remuneration pools in circumstances where a business line or a specific unit is not performing in line with desired risk parameters or based on events that have a material impact on ING's financial results or reputation.

The ex ante and/or ex post risk adjustments require Supervisory Board approval, taking into account the input of the Risk and Finance functions and the advice of the Risk and Remuneration Committees.

The final risk adjustment measure lies in the individual performance assessment itself. An employee's performance is extensively assessed before variable remuneration is proposed and awarded. Every manager carefully assesses the performance delivered by their individual team members on the basis of pre-agreed performance priorities and in line with the Step Up Performance Management framework. In addition, managers have the discretionary power to lower the proposed variable remuneration if risk taking is perceived as inappropriate. In this way, variable remuneration is aligned with any additional risks identified during the performance year on an individual basis.

Additional risk requirements apply to Identified Staff who are considered risk takers in accordance with CRD IV. These risk requirements set the minimum standards to be met during the performance year. Deviation from these standards may lead to downward adjustment of the variable remuneration, a so-called risk modifier. This process is run independently by the Risk function for which the chief risk officer is ultimately responsible. The Supervisory Board, advised by its Risk Committee, is responsible for Risk Takers within the Management Board Banking.

Finally, a post-award risk assessment can be applied. This assessment analyses whether any events or findings occurred that should lead to a downward adjustment of variable remuneration of previous years by applying a holdback (i.e., forfeiture of up to 100% of the awarded, but unvested, variable remuneration) or clawback (surrender of up to 100% of the paid or vested variable remuneration).

Shareholders' mandate to exceed 100% variable remuneration cap

ING's remuneration policies comply with international and local legislation and regulations. Under the WBFO (which sets various requirements on remuneration), financial institutions are permitted to set a variable remuneration cap higher than 100% of fixed remuneration for employees outside of the European Economic Area (EEA), provided that the higher cap is approved by shareholders and does not conflict with ING's capital adequacy requirements.

At the 2017 AGM, shareholders approved to apply an increased maximum percentage of up to 200% for employees outside the EEA for a period of five performance years, from 2017 up to and including 2021. ING uses this facility very rarely. In 2019, it was applied to no employees worldwide.

2019 specifics

The total amount of variable remuneration awarded to all eligible employees (worldwide) for 2019 was €378 million, compared to total employee costs of €5,755 million. For 2018, the total amount was €303 million and €403 million for 2017. In comparison, the total employee costs in 2018 were €5,420 million and €5,202 million in 2017. Variable remuneration includes both individual and collective variable remuneration such as profit sharing arrangements.

In 2019, eight employees in the Corporate staff, Wholesale Banking and Retail Banking business lines - excluding members of the Management Board Banking - were awarded total annual remuneration (including employer pension contributions and severance payments made) of €1 million or more. In comparison, in 2018 seven employees were awarded total annual remuneration of €1 million or more and 14 employees in 2017.

Summary and further explanation of the proposed new remuneration policy for the Executive Board and Supervisory Board from 2020

FOR INFORMATION ONLY

Executive Board: proposed remuneration policy 2020

ING's 2019 EB Remuneration Policy has been in place since 2010, with legal amendments adopted in 2011, 2014, 2015 and 2017, as described above. In line with the Dutch Act on Implementation of SRD II, the Supervisory Board will propose a new Executive Board remuneration policy to shareholders at the 2020 AGM, where it will be subject to a binding approval vote. The full proposal will be provided to our shareholders.

Once adopted by the AGM, the new Executive Board remuneration policy will be effective retroactively from 1 January 2020 until the 2024 AGM at the latest. The remuneration policy is available in full on ING's corporate website https://www.ing.com/remuneration. In case of any differences between this summary and the published Executive Board remuneration policy, the latter is leading. In the event of proposed changes to the new Executive Board remuneration policy, it will be subject to AGM approval.

The objective of ING's new Executive Board remuneration policy is to enable ING to attract, motivate and retain leaders with the ability, experience, skills, values and behaviours to meet ING's strategic priorities and its stakeholder interests. In designing the new Executive Board remuneration policy, many factors were taken into account, such as the amount of fixed and variable remuneration, the performance measures used and, ING’s risk appetite and scenario analyses (taking into account internal pay ratios and stakeholder support).

ING recognises that remuneration is an area of particular interest to stakeholders including shareholders, employees and customers. The Supervisory Board actively engages with stakeholders and takes into account their views as well as ING’s need to attract, motivate and retain leaders with the ability, experience, skills, values and behaviours to meet its strategic priorities and its stakeholder interests.

In line with various regulations, in the course of formulating this policy, the Supervisory Board consulted various stakeholders in meetings, conference calls and through online surveys. Such stakeholders included Retail and Wholesale Banking customers, investors, analysts, rating agencies, shareholder advisory firms, trade unions, employee representatives, regulators, politicians and the current members of the Executive Board.
The Supervisory Board notes that stakeholder views, especially on remuneration, can vary. However, the Supervisory Board values the insight and engagement that these interactions provide, including the expression of different views. This engagement is meaningful and helpful to the Supervisory Board and contributes directly to the advice made by its Remuneration Committee. The feedback received from stakeholders was taken into account when drafting this proposed remuneration policy.

Governance

The Supervisory Board and the Remuneration Committee are responsible for reviewing the Executive Board remuneration policy at least annually, taking into account regulatory requirements, stakeholder views, ING's benchmark position, internal pay ratios and whether policy incentives take into consideration risk, capital, liquidity and the likelihood and timing of earnings. Following the periodic reviews, the Supervisory Board can propose amendments to the Executive Board remuneration policy. The amended Executive Board remuneration policy will be submitted to shareholders at the AGM for binding approval. In case of no amendments the policy will be submitted to the AGM for approval every four years.
The Risk Committee will, at least, annually review the remuneration policy and may recommend actions to be taken by the Supervisory Board regarding the establishment of a sound Executive Board remuneration policy without prejudice to the tasks of the Remuneration Committee.

Remuneration components

The individual base salaries are set according to the role, responsibilities and experience of each Executive Board member with reference to market practice. The below factors are given consideration in determining base salaries:

- the individual's level of skill and performance;
- ING's business performance, and market conditions;
- internal pay ratios and salary increases for other ING employees within the wider ING group;
- remuneration level within the external peer group;
- public indexation reference points (e.g. consumer price index);
- stakeholder views.

The Remuneration Committee reviews the individual base salaries of the Executive Board members each year and advises the Supervisory Board on this. Potential future salary increases take into account the factors highlighted above. The Supervisory Board will pro-actively report the base salary development in the Annual Report. If any significant changes to Executive Board base salaries are to be proposed, a stakeholder consultation will be carried out.

In line with the Dutch Banking Code, ING aims for the total direct remuneration of members of the Executive Board to be below the median when benchmarked against comparable positions inside and outside the financial industry, taking into account the relevant international context. In recent years stakeholders have expressed discontent with the use of the EURO STOXX 50 index, which ING has used as a peer group since 2010. This type of benchmark is also unusual compared to the approach taken by peers. As a result, the Supervisory Board has chosen to change the benchmark for ING's proposed new Executive Board remuneration policy to a smaller peer group based on five guiding principles: (i) geography, (ii) relevant talent market, (iii) size, (iv) governance framework and (v) a balancing factor.

The new benchmark is more fitting to ING, incorporating relevant companies rather than an index proxy. Rules and regulations prescribe a mix of comparable relevant Dutch and relevant European financial and non-financial institutions. Given the very different pay structures in the UK and Switzerland we have excluded those institutions from our benchmark. Smaller companies and financial institutions active only in one or two countries were also excluded as they are not comparable in terms of scope and complexity.

With regards to the relevant market for talent, ING increasingly competes with players across sectors and industries. Therefore not only traditional banking competitors are included in the benchmark, but also companies from other industries. This also aligns with the stipulation in the Banking Code.

Size is a significant factor in the dynamics and complexity of a company. Therefore it is important to include companies in the peer group that are broadly comparable in terms of size and complexity. For this, potential peer group companies were assessed on the metrics of market capitalisation (where applicable), number of employees and revenue, with companies considered in the range of one quarter up to four times the size of ING. For general industry peers and for Western-European financial services peers, this ranges from one third up to three times the size of ING.

The applicable governance framework for the company is also seen as a relevant factor. ING is a stock listed company subject to the Dutch financial services regulatory framework, operating within the Dutch stakeholder environment. Therefore the peer group selection is aligned with the Dutch stakeholder environment and/or a financial services regulatory framework.

As a final factor, the Supervisory Board looks at the balance of the peer group, ensuring it keeps sight of relevant peer companies that do not sufficiently match other criteria. This resulted in the inclusion of a number of relevant Dutch peer companies.
The Supervisory Board intends to keep the peer group as stable as possible. Each year the appropriateness of the selected companies will be assessed against the guiding principles, which will not change. The peer group constituents will be reported in the Annual Report.[5]

5 For more information on the peer group composition in 2020, we refer to the additional information on the next page.

To drive and reward performance the Executive Board is eligible for annual variable remuneration, in accordance with the applicable regulatory requirements. The amount of variable remuneration is based on actual performance as measured against agreed financial (50%), non-financial (50%) and risk objectives that are consistent with ING's strategy and align with the long-term interests of stakeholders. For the CEO and CFO the applicable performance measures are based on group performance. Under ING's proposed Executive Board remuneration policy, the CRO's performance will be assessed predominantly based on individual functional objectives.

Any variable remuneration awarded to the Executive Board members is fully paid in ING shares. In combination with long-term deferral and holding requirements this ensures alignment with ING's strategy, long-term performance and sustainability goals and with long-term stakeholder interests. For this reason ING does not operate separate short- and long-term incentive plans but rather one plan that has many characteristics of a long-term incentive plan. The amount of variable remuneration awarded to the Executive Board members can range from 0% to 20% of annual base salary.

To mitigate risk relating to variable remuneration, the Risk Committee carries out pre-award and post-award risk assessments of variable remuneration, which may result in a downward adjustment of the variable remuneration at the discretion of the Supervisory Board.

After the performance year, the Supervisory Board reviews performance on the applicable criteria and determines the appropriate variable remuneration amount to be awarded. It uses input and support from the other Supervisory Board committees, such as the Risk Committee and the Audit Committee. The outcomes for each quantitative performance measure are assessed on a linear scale ranging from threshold, target to maximum. The outcomes for qualitative performance measures are assessed using a standard 1-3 rating scale.

The actual individual performance measures and the actual outcome of the review of the performance measures are disclosed retrospectively in the Remuneration Report. The Supervisory Board is of the opinion that the performance measures for the variable remuneration are commercially sensitive and that it would be detrimental to ING to disclose target details at the start of the relevant performance year. We will disclose according to the SRD disclosure requirements.

With respect to pension, Executive Board members participate in ING's general Collective Defined Contribution (CDC) pension plan in the same way as all employees working in the Netherlands without a supplementary pension scheme. Furthermore, Executive Board members are eligible for benefits at a level that the Supervisory Board considers appropriate in the context of the executive's role, specific individual circumstances and benefits offered to the wider workforce and at comparable roles in ING's peer group.

Contractual arrangements

Members of the Executive Board are appointed by the shareholders at the Annual General Meeting (AGM) for a maximum period of four years. The appointment may be renewed subject to re-election by shareholders (and in line with ING's Articles of Association and applicable rules and regulations).

In principle, in the event of an involuntary exit, the Executive Board member is eligible for a severance payment. If termination of the contract is based on mutual agreement, the Executive Board member is also eligible for severance payment. The arrangements are subject to legal requirements, including being limited to a maximum of one year of fixed base salary and under the condition that there should be no reward for failure.

Additional information not included in the Executive Board remuneration policy

Based on these five guiding principles, the selected peer group for 2020 consists of the following 16 companies. Note the guiding principles are part of the remuneration policy. (The list below only relates to 2020):

ABN AMRO	Ahold Delhaize	BBVA	Deutsche Bank
Aegon	ASML	Banco Santander	Intesa Sanpaolo
NN Group	Heineken	BNP Paribas	Société Générale
Rabobank	Philips	Crédit Agricole	UniCredit

Based on compensation data for 2018, compared to the peer group, total direct compensation levels for the CEO amount to approximately 57% of the median (43% compared to the median of the EURO STOXX 50). Total direct compensation levels of the CRO and CFO amount to approximately 81% of the median (63% compared to the median of the EURO STOXX 50).

Supervisory Board: proposed remuneration policy 2020

The Supervisory Board will propose a Supervisory Board remuneration policy to shareholders at the 2020 AGM, where it will be subject to a binding approval vote. Compared to the existing policy, which was approved at the AGM on 25 April 2016, there are no significant changes other than that the Supervisory Board remuneration will be benchmarked against a new reference market and that the policy is extended to include all relevant requirements of the Dutch Act implementing SRD II. Once adopted, the new Supervisory Board remuneration policy will be effective retroactively from 1 January 2020 until the 2024 AGM at the latest. The remuneration policy is available in full on ING's corporate website https://www.ing.com/remuneration. In case of any differences between this summary and the published Supervisory Board remuneration policy, the latter is leading. If any changes are proposed, the revised Supervisory Board remuneration policy will be subject to AGM approval before becoming effective.

It is important that ING is able to attract members for its Supervisory Board who have the ability, experience, skills, values and behaviours to deliver on the company strategy and goals and support ING's purpose. The Supervisory Board strives to have a diverse composition with regards to gender, ethnicity, nationality and generation. The Supervisory Board remuneration policy therefore aims to (i) be clear and easy, (ii) have remuneration levels in line with peers, (iii) enable ING to attract qualified (international) Supervisory Board members and (iv) align remuneration with responsibilities and time spent.

Governance

The Remuneration Committee is responsible for annually reviewing the Supervisory Board remuneration policy and making recommendations to the Supervisory Board on amendments. The review takes into account at least the following: (i) ING's benchmark position, (ii) stakeholders' views on remuneration and (iii) regulatory requirements. Following the periodic review, the Supervisory Board can propose amendments to the Supervisory Board remuneration policy to the General Meeting for adoption. In the event of no amendments the policy will be submitted to the General Meeting for adoption every four years.

Remuneration components

As often as appropriate, but at least every four years, the total fees for Supervisory Board members are reviewed against comparable positions in the market. Under the proposed new Supervisory Board remuneration policy, the Supervisory Board will use an updated benchmark, similar to the benchmark proposed for the Executive Board. This benchmark is periodically determined by the Supervisory Board and based on the following peer group guiding principles: (i) geography, (ii) relevant talent market, (iii) size, (iv) governance framework and (v) a balancing factor. In the benchmark exercise ING’s position is for Supervisory Board member’s fees to be below the median. The peer group will be disclosed annually in our Annual Report.

The remuneration structure of the Supervisory Board members reflects the roles and responsibilities of individual Supervisory Board members. All fees for Supervisory Board members are paid out fully in cash. No variable remuneration is provided to ensure that the Supervisory Board members can maintain independence. Additionally, the Supervisory Board members are not eligible for retirement benefits nor for any other benefits in relation to their position on the Supervisory Board.

C. Board practices

For information regarding board practices, see Item 6.A

Severance payments to members of the Executive Board

The contracts entered into with the members of the Executive Board provide for severance payments that become due upon termination of the applicable Executive Board member's contract, including if termination occurs in connection with a public bid as defined in section 5:70 of the Dutch Financial Supervision Act. For purposes of calculating the amounts due, it is not relevant whether or not termination of the employment or commission contract is related to a public bid. Severance payments to the members of the Executive Board are limited to a maximum of one year's fixed salary, in line with the Dutch Financial Supervision Act and the Corporate Governance Code

D. Employees

The average number of employees at a full time equivalent basis was 53,431 at the end of 2019, of which 14,415 or 27%, were employed in the Netherlands. Substantially all of the Group's Dutch employees are subject to a collective labor agreement covering ING in the Netherlands.

The distribution of employees with respect to the Group's continuing operations for the years 2019, 2018 and 2017 were as follows:

Average number of employees at full time equivalent basis

	Netherlands			International			Total		
	2019	**2018**	**2017**	**2019**	**2018**	**2017**	**2019**	**2018**	**2017**
Total average number of employees at full time equivalent basis	**14,415**	**13,600**	**13,141**	**39,016**	**38,633**	**38,363**	**53,431**	**52,233**	**51,504**

The Group employs a significant numbers of temporary employees. The average number of temporary employees, not included in the table above, at a full time equivalent basis was 7,394 at the end of 2019.

E. Share ownership

For information regarding share ownership, see Item 6.B of this Form 20-F and Note 27 'Staff expenses' to the consolidated financial statements.

Item 7. Major shareholders and related party transactions

A. Major shareholders

ING Group ordinary shares are listed on the stock exchanges of Amsterdam (Euronext Amsterdam) and Brussels (Euronext Brussels). ING Group American Depositary Shares (“ADSs”) are listed on the New York Stock Exchange (NYSE). Options on ING Group ordinary shares or in the form of American depository receipts (ADRs) are traded on the Euronext Amsterdam Derivative Markets and the Chicago Board Options Exchange.

Holders of ordinary shares or American Depositary Shares with a stake of 3% or more

To the best of our knowledge, as of 31 December 2019, no holder of ordinary shares or ADSs, other than BlackRock Inc. and Artisan Investments GP LLC held 3% or more of ING Group’s issued share capital. Artisan Investments GP LLC has since notified the AFM that, as of January 17, 2020 its beneficial ownership of ING’s issued share capital had dropped to 2.96%. Artisan Investments GP LLC has since notified the AFM that, as of February 28, 2020, its beneficial ownership of ING’s issued share capital had increased to 3.06%.

On 30 January 2018, BlackRock, Inc. disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 304,505,468 ordinary shares of ING Group as of 31 December 2017, representing 7.8% of ING Group’s issued share capital. On 4 February 2019, BlackRock, Inc. disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 233,492,874 ordinary shares of ING Group as of 31 December 2018, representing 6.0% of ING Group’s issued share capital. On 5 February 2020, BlackRock, Inc. disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 259,231,767 ordinary shares of ING Group as of 31 December 2019, representing 6.7% of ING Group’s issued share capital.

On 31 December 2019, ING Groep N.V. and its subsidiaries held 919,387 ordinary shares or ADSs, representing 0.02% of ING Group’s issued share capital. ING Groep N.V. does not have voting rights in respect of shares and ADSs it holds or which are held by its subsidiaries.

Pursuant to section 5.3 of the Dutch Financial Supervision Act (“Major Holdings Rules”), shareholders and holders of ADSs are only required to provide updated information on their holdings once their interest reaches, exceeds or falls below threshold levels of 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%. As a result, other than based on information available from public filings available under the applicable laws of any other jurisdiction, ING Groep N.V. is not aware of any changes in the ownership of ordinary shares or ADSs between the thresholds levels mentioned in the previous sentence.

On 31 December 2019, no person is known to ING Groep N.V. to be the owner of more than 10% of the ordinary shares or ADSs. As of 31 December 2019, members of the Supervisory Board and their related third parties held 54,065 Ordinary Shares. Members of the Supervisory Board do not hold ING options.

As of 31 December 2019, members of the Executive Board and their related third parties held 172,523 ordinary shares of which 35,905 are restricted by a retention period.

As of 31 December 2019 ING Groep N.V. was not a party to any material agreement that becomes effective, or is required to be amended or terminated in case of a change of control of ING Groep N.V. following a public bid as defined in the Dutch Financial Supervision Act. ING Groep N.V.’s subsidiaries may have customary change of control arrangements included in agreements related to various business activities, such as joint venture agreements, letters of credit and other credit facilities, ISDA-agreements, hybrid capital and debt instruments, reinsurance contracts and futures and option trading agreements. Following a change of control of ING Groep N.V. (as the result of a public bid or otherwise), such agreements may be amended or terminated, leading, for example, to an obligatory transfer of the interest in the joint venture, early repayment of amounts due, loss of credit facilities or reinsurance cover and liquidation of outstanding futures and option trading positions.

As of 31 December 2019 ING Groep N.V. was not aware of any arrangements the operation of which may result in a change of control of ING Groep N.V.

B. Related Party Transactions

In the normal course of business, ING Group enters into various transactions with related parties. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operating decisions. Related parties of ING Group include, among others, its subsidiaries, associates, joint ventures, key management personnel, and various defined benefit and contribution plans. Transactions between related parties include rendering or receiving of services, leases, transfers under finance arrangements and provisions of guarantees or collateral. There are no significant provisions for doubtful debts or individually significant bad debt expenses recognised on outstanding balances with related parties.

As of 31 December 2019, there was no amount outstanding in respect of loans and advances, including mortgages, made to members of the Supervisory Board. The amount outstanding in respect of loans and advances, mostly mortgages, to members of the Executive Board was EUR 2.402 million at an average interest rate of 1.49%. The largest aggregate amount of loans and advances outstanding to the members of the Executive Board during 2019 was EUR 2.681 million.

The loans and advances mentioned in the preceding paragraph (1) were made in the ordinary course of business, (2) were granted on conditions that are comparable to those of loans and advances granted to all employees and (3) did not involve more than the normal risk of collectability or present other unfavorable features. Loans and advances to members of the Executive Board are compliant with the standards set out in the DNB guidelines for loans to officers and directors of a regulated entity, such as ING.

As described under “Item 6. Directors, Senior Management and Employees”, some members of the Supervisory Board are current or former senior executives of leading multi-national corporations based primarily in the Netherlands. ING Group may at any time have lending, investment banking or other financial relationships with one or more of these corporations in the ordinary course of business on terms which we believe are no less favorable to ING than those reached with unaffiliated parties of comparable creditworthiness.

In addition, ING Group has entered into various transactions with related parties. For more information, reference is made to Note 50 “Related parties” in the consolidated financial statements.

C. Interests of experts and counsel

This item does not apply to annual reports on Form 20-F.

Item 8. Financial information

A. Consolidated statements and other financial information

Consolidated statements

For information regarding consolidated statements and other financial information, see Item 18 of this Form 20-F.

Legal Proceedings

For a description of ING's legal proceedings, see Note 46 'Legal proceedings' in the consolidated financial statements.

Policy on dividend distribution

ING Group's dividend policy aims to pay a progressive dividend that will reflect considerations including expected future capital requirements, growth opportunities available to the Group, net earnings, and regulatory developments.

The Executive Board proposes to pay a total cash dividend of EUR 2,689 million, or EUR 0.69 per ordinary share, over the financial year 2019. This is subject to the approval of shareholders at the Annual General Meeting in April 2020.

Taking into account the interim dividend of EUR 0.24 per ordinary share paid in August 2019, the final dividend will amount to EUR 0.45 per ordinary share and will be paid fully in cash. These payments per share represent gross amounts which are subject to Dutch dividend withholding tax.

Cash distributions on ING Groups ordinary shares are generally paid in Euros. However, the Executive Board may decide, with the approval of the Supervisory Board, to declare dividends in the currency of a country other than the Netherlands in which the shares are traded. Amounts payable to holders of ADSs that are paid to the Depositary in a currency other than dollars will be converted to dollars and subjected to a charge by the Depositary for any expenses incurred by it in such conversion.

If the Executive Board has been designated as a body authorised to resolve to issue shares, it may decide, with the approval of the Supervisory Board, that a distribution on ordinary shares shall be made in the form of ordinary shares instead of cash or to determine that the holders of ordinary shares shall be given the choice of receiving the distribution in cash or in the form of ordinary shares on such terms as the Executive Board, with the approval of the Supervisory Board, may decide.

The right to dividends and distributions in respect of the ordinary shares will lapse if such dividends or distributions are not claimed within five years following the day after the date on which they were made available.

There are no legislative or other legal provisions currently in force in the Netherlands or arising under ING Groups' Articles of Association restricting the remittance of dividends to holders of ordinary shares, or ADSs not resident in the Netherlands. Insofar as the laws of the Netherlands are concerned, cash dividends paid in Euro may be transferred from the Netherlands and converted into any other currency, except that for statistical purposes such payments and transactions must be reported by ING Group to DNB and, further, no payments, including dividend payments, may be made to jurisdictions or persons, that are subject to certain sanctions, adopted by the Government of the Netherlands, implementing resolutions of the Security Council of the United Nations, or adopted by the European Union.

Dividends are subject to withholding taxes in the Netherlands as described under Item 10, "Additional Information - Taxation - Netherlands Taxation".

B. Significant changes

For information on subsequent events reference is made to Note 51 'Subsequent events' of the consolidated financial statements.

Since 31 December 2019, until the filing of this report, no other significant changes have occurred in the financial statements of the Group included in "Item 18 Consolidated Financial Statements" of this document.

Item 9. The offer and listing

A. Offer and listing details

Ordinary Shares (nominal value EUR 0.01 per share) are traded on Euronext Amsterdam, the principal trading market for the Ordinary Shares, under the symbol “INGA”. The Ordinary Shares are also listed on the stock exchange of Euronext Brussels, under the symbol “INGA”. ADSs, representing an equal number of Ordinary Shares, are traded on the New York Stock Exchange under the symbol “ING”.

B. Plan of distribution

This item does not apply to annual reports on Form 20-F.

C. Markets

For information regarding markets, see Item 9.A of this Form 20-F.

D. Selling shareholders

This item does not apply to annual reports on Form 20-F.

E. Dilution

This item does not apply to annual reports on Form 20-F.

F. Expenses of the issue

This item does not apply to annual reports on Form 20-F.

Item 10. Additional information

A. Share capital

This item does not apply to annual reports on Form 20-F.

B. Memorandum and articles of association

For a description of ING's memorandum and articles of association, please see Exhibit 2.1 "Description of Securities Registered under Section 12 of the Exchange Act", which is incorporated by reference herein.

C. Material contracts

Except for the settlement of ING Bank N.V. with the Dutch Public Prosecution Service (DPPS) in 2018 on regulatory issues in the ING Netherlands business that resulted in penalties totalling EUR 775 million, there have been no material contracts outside the ordinary course of business to which ING Groep N.V. or any of its subsidiaries is a party in the last two years.

D. Exchange controls

Cash distributions, if any, payable in Euros on Ordinary Shares and ADSs may be officially transferred from the Netherlands and converted into any other currency without violating Dutch law, except that for statistical purposes such payments and transactions must be reported by ING Groep N.V. to the Dutch Central Bank and, further, no payments, including dividend payments, may be made to jurisdictions or persons subject to certain sanctions, adopted by the government of the Netherlands or the European Union.

E. Taxation

The following is a summary of certain Netherlands tax consequences, and the United States federal income tax consequences, of the ownership of our Ordinary Shares or American Depositary Shares ("ADSs") by U.S. Shareholders (as defined below) who hold Ordinary Shares or ADSs as capital assets.

For the purposes of this summary, a "U.S. Shareholder" is a beneficial owner of Ordinary Shares or ADSs that is:

- an individual citizen or resident of the United States,
- a corporation organized under the laws of the United States or of any state of the United States, or any entity taxable as United States corporation,
- an estate, the income of which is subject to United States federal income tax without regard to its source, or
- a trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust.

Further, this summary is limited to U.S. Shareholders who are not, and are not deemed to be, a resident of the Netherlands for Dutch tax purposes.

This summary is based on the United States Internal Revenue Code of 1986 and the laws of the Netherlands, each as amended, their legislative history, existing and proposed regulations, published rulings and court decisions, and the tax treaty between the United States and the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income ("Treaty"), all as of the date hereof. These laws are subject to change, possibly on a retroactive basis. The information provided below is neither intended as tax advice nor purports to describe all of the tax considerations that may be relevant to investors and prospective investors. It should not be read as extending to matters not specifically discussed, and investors should consult their own advisors as to the tax consequences of their ownership and disposal of Ordinary Shares or ADSs. In particular, the summary does not take into account the specific circumstances of particular investors (such as tax-exempt organizations, banks, insurance companies, dealers in securities, traders in securities that elect to mark-to-market their securities holdings, investors liable for alternative minimum tax, investors whose functional currency is not the U.S. dollar, investors that actually or constructively own 10% or more of the combined voting power of the voting stock or of the total value of ING Groep N.V., investors that hold Ordinary Shares or ADSs as part of a straddle or a hedging or conversion transaction, investors that acquired or dispose of Ordinary Shares or ADSs as part of a wash sale, or investors that own Ordinary Shares or ADSs through a partnership), some of which may be subject to special rules.

Moreover, this summary does not discuss the Dutch tax treatment of a holder of Ordinary Shares or ADSs that is an individual who receives income or capital gains derived from the Ordinary Shares and ADSs and this income received or capital gains derived are attributable to the past, present or future employment activities of such holder.

The summary is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms. In general, for United States federal income tax and Netherlands tax purposes, holders of ADSs will be treated as the owners of the Ordinary Shares underlying the ADSs, and exchanges of Ordinary Shares for ADSs, and exchanges of ADSs for Ordinary Shares, will not be subject to United States federal income tax or Netherlands income tax. References to Ordinary Shares in this section include references to ADSs.

It is assumed, for purposes of this summary, that a U.S. Shareholder is eligible for the benefits of the Treaty and that a U.S. Shareholder's eligibility is not limited by the limitation on benefits provisions of the Treaty.

Netherlands Taxation

Withholding tax on dividends

The Netherlands imposes a withholding tax on a distribution of a dividend at the statutory rate of 15%. Dividends include:

i. dividends paid in cash and in kind;
ii. deemed and constructive dividends;
iii. the consideration for the repurchase or redemption of shares in excess of the qualifying average paid-in capital unless such repurchase is made for temporary investment purposes or is exempt by law;
iv. any (partial) repayment of paid-in capital not qualifying as capital for Dutch dividend withholding tax purposes;
v. liquidation proceeds in excess of the qualifying average paid-in capital for Dutch dividend withholding tax purposes; and
vi. stock dividends up to their nominal value (unless distributed out of ING Groep N.V.'s qualifying paid-in capital).

Reduction of Dutch dividend withholding tax based on Dutch law

Under certain circumstances, a reduction of Dutch dividend withholding tax can be obtained based on Dutch law:

i. An exemption at source is available if the Dutch participation exemption applies and the Ordinary Shares or ADSs are attributable to a business carried out in the Netherlands. To qualify for the Dutch participation exemption, the U.S. Shareholder must generally hold at least 5.0 percent of our nominal paid-in capital and meet certain other requirements.

ii. An exemption at source is available for dividend distributions to certain qualifying corporate U.S. Shareholders owning our Ordinary Shares or ADSs if such shareholder would have been able to apply the Dutch participation exemption if it would have been resident of the Netherlands, unless such shareholder holds the Ordinary Shares or ADSs with the primary aim or one of the primary aims to avoid the levy of Dutch dividend withholding tax at the level of another person and the Ordinary Shares or ADSs are not held for valid commercial reasons that reflect economic reality.

iii. Certain tax exempt organizations (e.g. pension funds and excluding collective investment vehicles) may be eligible for a refund of Dutch dividend withholding tax upon their request. Based on domestic law not yet entered into force, in those circumstances, an exemption at source may also become available upon request.

iv. Upon request and under certain conditions, certain qualifying individual and corporate U.S Shareholders of Ordinary Shares or ADSs which are not subject to personal or corporate income tax in the Netherlands may request a refund of Dutch dividend withholding tax insofar the withholding tax withheld on the gross dividend is higher than the personal or corporate income tax which would have been due on the net dividend if they were resident or established in the Netherlands. This refund is however not applicable when, based on the Treaty, the Dutch dividend withholding tax can be fully credited in the United States by the U.S. Shareholder. However, it is unclear whether (i) which (financing) costs can be taken into account when determining the hypothetical personal or corporate income tax due on the net income (ii) or how the Netherlands would determine whether, based on the double taxation convention, a full credit is available in the country of residence of the holder for purposes of this refund. See “United States Taxation—Taxes on dividends” for more information. The provision in essence is intended to be a codification of certain judgments by both the European Free Trade Association Court of Justice and the European Court of Justice that already indicated that in certain circumstances a refund should be available prior to the introduction of the provision in Dutch law. It is possible that this provision is an insufficient codification of these judgments and that based on EU law a larger refund should be provided.

Reduction of Dutch dividend withholding tax based on the Treaty

Pursuant to the provisions of the Treaty, certain corporate U.S. Shareholders owning directly at least 10% of our voting power are eligible for a reduction to 5% Dutch dividend withholding tax provided that the U.S. Shareholder is the beneficial owner of the dividends received and does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or permanent representative in the Netherlands to which the dividends are attributable. The Treaty also provides for a dividend withholding tax exemption on dividends, but only for a shareholder owning directly at least 80.0 percent of our voting power and meeting all other requirements.

Provided that certain conditions are met, under the Treaty dividends paid to qualifying exempt pension trusts and other qualifying exempt organizations, as defined in the Treaty, are exempt from Dutch dividend withholding tax. To obtain a refund of the tax withheld such qualifying exempt pension trusts are required to file a request. Only if certain conditions are fulfilled, such qualifying exempt pension trusts may be eligible for relief at source upon payment of the dividend. Qualifying exempt organizations (other than qualifying exempt pension trusts) can only file for a refund of the tax withheld.

Anti-dividend stripping rules

Pursuant to the Dutch anti-dividend stripping rules, in the case of dividend-stripping, the 15% dividend withholding tax cannot be reduced or refunded. Dividend-stripping is deemed to be present if the recipient of a dividend is, different from what has been assumed above, not the beneficial owner thereof and is entitled to a larger credit, reduction or refund of dividend withholding tax than the beneficial owner of the dividends. Under these rules, a recipient of dividends will not be considered the beneficial owner thereof if as a consequence of a combination of transactions a person other than the recipient wholly or partly benefits from the dividends, whereby such person retains, whether directly or indirectly, an interest similar to the shares on which the dividends were paid.

Credit for ING Groep N.V.

ING Groep N.V. may, with respect to certain dividends received from qualifying non-Netherlands subsidiaries, credit taxes withheld from those dividends against the Netherlands withholding tax imposed on certain qualifying dividends that are redistributed by ING Groep N.V., up to a maximum of the lesser of:

- 3% of the amount of qualifying dividends redistributed by ING Groep N.V.; and
- 3% of the gross amount of certain qualifying dividends received by ING Groep N.V.

The reduction is applied to the Dutch dividend withholding tax that ING Groep N.V. must pay to the Dutch tax authorities and not to the Dutch dividend withholding tax that ING Groep N.V. must withhold.

Taxes on income and capital gains

Income and capital gains

Income and capital gains derived from the Ordinary Shares or ADSs by an individual or corporate U.S. Shareholder are generally not subject to Netherlands income tax or corporation tax, unless:

i. such income and gains are attributable to a (deemed) permanent establishment or (deemed) permanent representative in the Netherlands of the U.S. Shareholder; or
ii. the shareholder is entitled to a share in the profits of an enterprise or (in case of a non-Dutch resident corporate shareholder only) a co-entitlement to the net worth of an enterprise, that is effectively managed in the Netherlands (other than by way of securities) and to which enterprise the Ordinary Shares or ADSs are attributable; or
iii. such income and capital gains are derived from a direct, indirect or deemed substantial interest in the share capital of ING Groep N.V. (such substantial interest not being a business asset), and in the case of a non-Dutch resident corporate shareholder only, that substantial interest is being held with the primary aim or one of the primary aims to avoid the levy of income tax from another person and is put in place without valid economic reasons that reflect economic reality;
iv. in case of a non-Dutch resident corporate shareholder, such shareholder is a resident of Aruba, Curacao or Saint Martin with a permanent establishment or permanent representative in Bonaire, Eustatius or Saba to which the Ordinary Shares or ADS are attributable, while the profits of such shareholder are taxable in the Netherlands pursuant to Article 17(3)(c) of the Dutch Corporate Tax Act 1969; or
v. in case of a non-Dutch resident individual, such individual derives income or capital gains from the Ordinary Shares or ADSs that are taxable as benefits from ‘miscellaneous activities’ in the Netherlands (‘resultaat uit overige werkzaamheden’, as defined in the Dutch Income Tax Act 2001), which includes the performance of activities with respect to the Ordinary Shares or ADSs that exceed regular portfolio management.

Substantial interest

Generally speaking, for Dutch tax purposes, an interest in the share capital of ING Groep N.V., should not be considered a substantial interest if the holder of such interest, and, in case of an individual, his or her spouse, registered partner, certain other relatives or certain persons sharing the holder’s household, alone or together, does or do not hold, either directly or indirectly, the ownership of, or certain rights over, shares or rights resembling shares representing 5% or more of the total issued and outstanding capital, or the issued and outstanding capital of any class of shares, of ING Groep N.V.

Gift or inheritance tax

No Netherlands gift or inheritance tax will be imposed on the transfer or deemed transfer of the Ordinary Shares or ADSs by way of a gift by or on the death of a U.S. Shareholder if, at the time of the gift or the death of that shareholder, such shareholder is not a (deemed) resident of the Netherlands.

Netherlands inheritance or gift taxes (as the case may be) are due, however, if the transfer of the bearer receipts or ADSs are construed as an inheritance or as a gift made by or on behalf of a person who, at the time of the gift or death, is deemed to be a resident of the Netherlands. For the purposes of Netherlands gift or inheritance tax, an individual of Dutch nationality is deemed to be a resident of the Netherlands if he or she has been a resident thereof at any time during the ten years preceding the time of the gift or death. For the purposes of Netherlands gift tax, any person is deemed to be a resident of the Netherlands if he or she has resided therein at any time in the twelve months preceding the gift.

United States Taxation

Taxes on dividends

The tax treatment of owning Ordinary shares will depend in part on whether or not ING Groep N.V. is classified as a passive foreign investment company, or PFIC, for United States federal income tax purposes. Except as discussed below under "-PFIC Rules", this discussion assumes that we are not classified as a PFIC for United States federal income tax purposes.

Under the United States federal income tax laws, a U.S. Shareholder will be required to include in gross income the full amount of a cash dividend (including any Netherlands withholding tax withheld) as ordinary income when the dividend is actually or constructively received by the U.S. Shareholder. For this purpose, a "dividend" will include any distribution paid by ING Groep N.V. with respect to the Ordinary Shares, but only to the extent such distribution is not in excess of ING Groep N.V.'s current and accumulated earnings and profits as determined for United States federal income tax purposes. Distributions in excess of current and accumulated earnings and profits, as determined for United States federal income tax purposes, will be treated as a non-taxable return of capital to the extent of a U.S. Shareholder's basis in the Ordinary Shares and thereafter as capital gain. Because ING Groep N.V. does not keep account of its earnings and profits, as determined for United States federal income tax purposes, U.S. Shareholders should generally expect to treat any distribution as a dividend for U.S. federal income tax purposes.

For foreign tax credit purposes, dividends will generally be income from sources outside the United States and will, depending on the circumstances of the U.S. Shareholder, generally be "passive" income for purposes of computing the foreign tax credit allowable to the shareholder. A dividend will not be eligible for the dividends received deduction generally allowed to U.S. corporations in respect of dividends received from other U.S. corporations. Dividends paid to a non-corporate U.S. Shareholder that are considered qualified dividend income will be taxable to the shareholder at preferential rates applicable to long-term capital gains provided that the shareholder holds the Ordinary Shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and meets other holding period requirements. Dividends paid by ING Groep N.V. with respect to the Ordinary Shares generally will be qualified dividend income.

Subject to certain limitations, a U.S. Shareholder may generally deduct from income, or credit against its United States federal income tax liability, the amount of any Netherlands withholding taxes under the Treaty. The Netherlands withholding tax will likely not be creditable against the U.S. Shareholder's United States tax liability, however, to the extent that ING Groep N.V. is allowed to reduce the amount of dividend withholding tax paid over to the Netherlands Tax Administration by crediting withholding tax imposed on certain dividends paid to ING Groep N.V. In addition, special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to preferential rates. To the extent a reduction or refund of the tax withheld is available to you under Dutch law or under the Treaty, the amount of tax withheld that could have been reduced or is refundable will not be eligible for credit against your United States federal income tax liability. In addition, to the extent an amount of Dutch tax withheld is contingent on the availability of a credit against the amount of income tax owed to another country, that amount of Dutch tax withheld will not be eligible for a credit against your United States federal income tax liability. It is unclear whether or how the Netherlands would apply this rule in determining whether, based on the Treaty, a credit is available in the United States for purposes of the dividend withholding tax refund provision described in Section IV under “Netherlands Taxation—Withholding tax on dividends—Reduction of Dutch dividend withholding tax based on Dutch law”.

Since payments of dividends with respect to Ordinary Shares will be made in Euros, a U.S. Shareholder will generally be required to determine the amount of dividend income by translating the Euro into United States dollars at the “spot rate” on the date the dividend distribution is includable in the income of the U.S. Shareholder. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend distribution is includable in the income of the U.S. Shareholder to the date such payment is converted into U.S. dollars will be treated as ordinary income or loss and will not be eligible for the special tax rate applicable to qualified dividend income. Such gain or loss will generally be income or loss from sources within the United States for foreign tax credit limitation purposes.

Taxes on capital gains

Gain or loss on a sale or exchange of Ordinary Shares by a U.S. Shareholder will generally be a capital gain or loss for United States federal income tax purposes. If such U.S. Shareholder has held the Ordinary Shares for more than one year, such gain or loss will generally be long-term capital gain or loss. Long-term capital gain of a non-corporate U.S. Shareholder is generally taxed at preferential rates. In general, gain or loss from a sale or exchange of Ordinary Shares by a U.S. Shareholder will be treated as income or loss from sources within the United States for foreign tax credit limitation purposes.

PFIC rules

ING Groep N.V. believes it is not a PFIC for United States federal income tax purposes, and it does not expect to become a PFIC in the foreseeable future. However, this conclusion is a factual determination that must be made annually and thus may be subject to change. It is therefore possible that we could become a PFIC in a future taxable year

If ING Groep N.V. were to be treated as a PFIC, unless a U.S. Shareholder made an effective election to be taxed annually on a mark-to-market basis with respect to the Ordinary Shares, any gain from the sale or disposition of Ordinary Shares by a U.S. Shareholder would be allocated ratably to each year in the holder’s holding period and would be treated as ordinary income. Tax would be imposed on the amount allocated to each year prior to the year of disposition at the highest rate in effect for that year, and interest would be charged at the rate applicable to underpayments on the tax payable in respect of the amount so allocated. The same rules would apply to “excess distributions”, defined generally as distributions in a single taxable year exceeding 125% of the average annual distribution made by ING Groep N.V. over the shorter of the holder’s holding period or the three preceding years. Dividends received by a U.S. Shareholder will not be eligible for the special tax rates applicable to qualified dividend income if ING Groep N.V. were to be treated as a PFIC with respect to the shareholder either in the taxable year of the distribution or the preceding taxable year, but instead will be taxable at rates applicable to ordinary income.

A U.S. Shareholder who owns Ordinary Shares during any year that ING Groep N.V. is a PFIC may be required to file Internal Revenue Service Form 8621.

F. Dividends and paying agents

This item does not apply to annual reports on Form 20-F.

G. Statement by experts

This item does not apply to annual reports on Form 20-F.

H. Documents on display

ING Groep N.V. is subject to the informational requirements of the Securities Exchange Act of 1934, as amended. In accordance with these requirements, ING Groep N.V. files reports and other information with the Securities and Exchange Commission (”SEC”). These materials, including this Annual Report and its exhibits, may be inspected and copied on the SEC’s website at www.sec.gov.

You may also inspect ING Groep N.V.'s SEC reports and other information on the website of ING Groep N.V. (www.ing.com).

I. Subsidiary information

This item does not apply to annual reports on Form 20-F.

Item 11. Quantitative and Qualitative Disclosure of Market Risk

See “Item 5. Operating and Financial Review and Prospects – Factors Affecting Results of Operations” and “Additional information - ING Group Risk Management” for these disclosures, including disclosures relating to operational, compliance and other non-market-related risks.

Item 12. Description of Securities Other Than Equity Securities

A. Debt securities

This item does not apply to annual reports on Form 20-F.

B. Warrants and rights

This item does not apply to annual reports on Form 20-F.

C. Other securities

This item does not apply to annual reports on Form 20-F.

D. American depositary shares

Fees and Charges Payable by a Holder of ADSs

JPMorgan Chase Bank, N.A., as ADR depositary, may collect fees for, among other things, the delivery and surrender of ADSs directly from investors, or from intermediaries acting for them, depositing Ordinary Shares or surrendering ADSs for the purpose of withdrawal.

The charges of the ADR depositary payable which may be payable by investors are as follows:

Type of Service	ADR Depositary Actions	Fee Payable
Depositing or substituting the underlying Ordinary Shares	Issuance of ADSs against the deposit of Ordinary Shares, including deposits and issuances in respect of: · share distributions, rights and other distributions. · a stock dividend or stock split. · a merger, exchange of securities or other transactions or events affecting the ADSs or the underlying Ordinary Shares.	$5.00 for each 100 ADSs (or portion thereof) issued, delivered or upon which a share distributive or elective distribution is made or offered. The ADR depositary may sell sufficient securities or property received in respect of share distributions, rights and other distributions prior to such deposit to pay such charge.
Receiving or distributing cash dividends	Distribution of cash dividends or other cash distributions, or offering of elective cash/stock dividends.	$0.05 or less per ADS held.
Selling or exercising rights	· additional ADRs resulting from a dividend or free distribution consisting of Ordinary Shares, or U.S dollars resulting from sales of Ordinary Shares received in a distribution. · Instruments representing rights to acquire additional ADRs as a result of distribution on Ordinary Shares, or U.S dollars resulting from sales of such rights. · other securities available to the ADR depositary resulting from any distribution on the deposited Ordinary Shares, or U.S dollars resulting from sales of such other securities.	An amount equal to the fee for the execution and delivery of ADSs which would have been charged as a result of the deposit of such securities.

Withdrawing an underlying Ordinary Share	Acceptance of ADSs surrendered for withdrawal of deposited Ordinary Shares	$5.00 for each 100 ADSs (or portion thereof) reduced, cancelled or surrendered.
Type of Service	**ADR Depositary Actions**	**Fee Payable**
Transferring, splitting or grouping of ADRs	Registration, registration of transfer, combination and split-up of ADRs in the ADR register as evidenced by the ADRs surrendered or upon delivery of proper instruments of transfer	$1.50 per ADR.
General depositary services, particularly those charged on an annual basis	Other services performed by the ADR depositary in administering the ADR program	$0.05 per ADS per calendar year (or portion thereof), which may be charged on a periodic basis during each calendar year against holders of the record date(s) set by the ADR depositary and shall be payable at the sole discretion of the ADR depositary by billing such holders or deducting such charge from one or more cash distributions.
Reimbursement of fees, charges and expenses of the ADR depositary	The ADR depositary and/or any of its agents may incur fees, charges and expenses (including expenses incurred on behalf of holders of ADRs in connection with compliance with foreign exchange control regulations or any law or regulation relating to foreign investment) in connection with the servicing of the underlying Ordinary Shares or other deposited securities, the sale of securities (including, without limitation, deposited securities), the delivery of deposited securities or otherwise in connection with the ADR depositary's compliance with applicable law, rule or regulation.	Fees and charges shall be assessed on a proportionate basis against holders of ADRs as of the record date or dates set by the ADR depositary and shall be payable at the sole discretion of the ADR depositary by billing such holders of ADRs or by deducting such charge from one or more cash dividends or other cash distributions.
Type of Service	**ADR Depositary Actions**	**Fee Payable**
Other charges and expenses of the ADR depositary	The ADR depositary may incur charges and expenses on behalf of holders in connection with: · stock transfer or other taxes and other governmental charges. · SWIFT, cable, telex and facsimile transmission and delivery charges incurred at the request of persons depositing, or holders of ADRs delivering underlying Ordinary Shares, ADRs or deposited securities. · transfer or registration fees for the registration or transfer of deposited securities. · fees, expenses and other charges of the ADR depositary or its agent in connection with the conversion of foreign currency into U.S. dollars.	Payable by holders or persons depositing Ordinary Shares. Payable by persons depositing, or holders of ADRs delivering underlying Ordinary Shares, Ads or deposited securities. Payable by persons depositing or withdrawing deposited securities. Payable by persons receiving such foreign currency, as the ADR depositary will deduct any fees, expenses and other charges prior to distributing such foreign currency.

Fees and Payments made by the ADR depositary to ING

In consideration for acting as depositary, the ADR depositary has agreed to provide ING with certain amounts on an annual basis. In the year ended 31 December 2019, the ADR depositary paid aggregate fees and made other direct and indirect payments to ING in an amount of USD 6,807,428.

Under certain circumstances, including removal of the ADR depositary or termination of the ADR program by ING, ING is required to repay the ADR depositary certain amounts reimbursed and/or expenses paid to or on behalf of ING.

PART II.

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Controls and Procedures

Internal control over financial reporting

Due to the listing of ING shares on the New York Stock Exchange, ING Group is required to comply with the SEC regulations adopted pursuant to Section 404 of the Sarbanes-Oxley Act (SOX 404). These regulations require that the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO") of ING Group report and certify on an annual basis on the effectiveness of ING Group's internal controls over financial reporting. Furthermore, the external auditors are required to provide an opinion on the effectiveness of ING Group's internal controls over financial reporting.

SOX 404 activities are organized along the lines of the governance structure, and involve the participation of senior management across ING. Following the SOX 404 process, ING is in the position to publish an unqualified statement that the Company's internal control over financial reporting was effective as of 31 December 2019. The SOX 404 statement by the Executive Board is included on this page, followed by the report of the external auditor as issued on Form 20-F.

Disclosure Controls and Procedures

The Company's management under the supervision and with the participation of the CEO and CFO, has performed an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on that evaluation, the Company's management concluded that the Company's disclosure controls and procedures were effective as of December 31, 2019, the end of the period covered by the 2019 Form 20-F.

Report of the Executive Board on Internal Control Over Financial Reporting

The Executive Board is responsible for establishing and maintaining adequate internal control over financial reporting. ING's internal control over financial reporting is a process designed under the supervision of our principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Our internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of assets of ING;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorisations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Executive Board assessed the effectiveness of internal control over financial reporting as of 31 December 2019. In making this assessment, the Executive Board performed tests based on the criteria of the Committee of Sponsoring Organisations of the Treadway Commission ("COSO") in Internal Reporting – Integrated Framework (2013 Framework). Based on the Executive Board's assessment and those criteria, the Executive Board concluded that the Company's internal control over disclosure and financial reporting was effective as of 31 December 2019.

Attestation Report of the Registered Public Accounting Firm

Our independent registered public accounting firm has audited and issued their report on ING's internal control over financial reporting, which appears on the page below.

Changes in Internal Controls over Financial Reporting

There have been no changes in the Company's internal controls over financial reporting during the period covered by this Annual Report that have materially affected or are reasonably likely to materially affect, our internal controls over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Supervisory Board
ING Groep N.V.:

Opinion on Internal Control Over Financial Reporting

We have audited ING Groep N.V. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated statements of financial position of the Company as of December 31, 2019 and 2018, the related consolidated statements of profit or loss, comprehensive income, changes in equity, and cash flows for each of the years in the three year period ended December 31, 2019, and the related notes and specific disclosures described in Note 1 of the consolidated financial statements as being part of the consolidated statements (collectively, the consolidated financial statements), and our report dated March 2, 2020 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of the Executive Board on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG Accountants N.V.

Amstelveen, The Netherlands
March 2, 2020

Item 16A. Audit Committee Financial Expert

The Supervisory Board has determined that Margarete Haase, who is a member of the Supervisory Board, qualifies as an "audit committee financial expert" as defined by the SEC pursuant to section 407 of the Sarbanes-Oxley Act of 2002. The Supervisory Board has further determined that Margarete Haase is "independent", as defined in Rule 10A-3 under the U.S. Securities Exchange Act of 1934. She was appointed as a member of the Supervisory Board at the General Meeting in May 2017 and her appointment became effective as per 1 May 2018, as decided by the Supervisory Board in January 2018.

Item 16B. Code of Ethics

How we work

Creating a differentiating employee experience starts with ING's distinctive culture: entrepreneurial, open, collaborative, innovative and energetic. Who we are and how we work are set out in the Orange Code, our internal Code of Ethics. Putting **'integrity above all'**, it comprises:

▪ **Our values.** The non-negotiable promises we make to the world no matter what.
- We are honest.
- We are responsible.
- We are prudent.

▪ **Our behaviours.** The commitments we make to each other and the standards by which we measure each other's performance:
- You take it on and make it happen.
- You help others to be successful.
- You are always a step ahead.

The Orange Code is supported by a compliments tool, kudos, that allows employees to give each other compliments based on Orange Code behaviours. Employees are introduced to the Orange

Code early with new joiners invited to complete a global online e-learning introduction module that explains more about ING's culture, how we work and what we expect from employees. In 2019, ING also developed a global code of conduct that builds on the Orange Code and sets the standards we expect our people to uphold. This ING Global Code of Conduct was launched in February 2020.

Our Orange Code behaviours are included within the performance management process and discussed throughout the year. They are also linked to our Employee Value Proposition, which forms the basis of all people-related programmes. Through these activities, our aim is to develop a culture that is focused on long- term value creation.

The Orange Code applies to all employees worldwide, including the principal executive, financial and accounting officers. The values and behaviours of the Orange Code are available on the ING website at https://www.ing.jobs/Global/Careers/Orange-code.htm.
In 2019, there were no amendments to the Orange Code. ING did not grant any waivers (including implicit waivers) under the Orange Code to the principal executive, financial or accounting officers in 2019.
Regarding the management of actual or potential conflicts of interest, ING maintains a Policy on Information Barriers and Conflicts of Interest which applies to all employees worldwide, including the principal executive, financial and accounting officers. A description of the Policy on Information Barriers and Conflicts of Interest is available to view on the ING website at https://www.ing.com/About-us/Compliance/Information-Barriers-Conflicts-of-Interest.htm.
The relevant principle as defined in the Conflict of Interest Policy is:
'Any person not being a third party working for or on behalf of ING Bank, on contract or temporary, including Senior Management and members of the Executive Board, Management Board Banking and the Supervisory Board must not put themselves in a position in which their personal, financial or otherwise, might influence or give the foreseeable appearance of influencing any action they take, judgment they make, or advice they give on behalf of ING'.

In 2019, there were no amendments to the Policy on Information Barriers and Conflicts of Interest. ING did not grant any waivers (including implicit waivers) under the Policy on Information Barriers and Conflicts of Interest to the principal executive, financial or accounting officers in 2019.

Regarding reporting of breaches of the Orange Code and raising concerns about suspected or actual criminal conduct, unethical conduct or other misconduct by or within ING, ING maintains a Whistleblower Policy next to the standard reporting and escalation lines. This requires prompt internal reporting of violations of the Orange Code and applies to all employees worldwide, including the principal executive, financial and accounting officers. A description of the Whistleblower Policy is available on the ING website at www.ing.com/About-us/Compliance/ING-Group-Whistleblower-Policy.
ING did not grant any waivers (including implicit waivers) under the Whistleblower Policy to the principal executive, financial or accounting officers in 2019.

Banker's Oath

All employees working for ING in the Netherlands (including ING's principal executive, financial or accounting officers) take the Banker's Oath. The oath contains a set of principles affirming the banking industry's commitment to maintain high standards of ethical behaviour. Accountability and a disciplinary sanction mechanism are linked to breaches of these principles.
Compliance is trained to support employees in dealing with dilemmas via workshops and dialogue sessions, using the Orange Code dilemma model (a so-called "four-step approach" weighing the rights and interest of stakeholders involved).
In 2019, there were no amendments to the Banker's Oath. ING did not grant any waivers under the Banker's Oath to principal executive, financial or accounting officers in 2019. The text of the Banker's oath can be found here: https://www.ing.com/About-us/Corporate-governance/Dutch-Banking-Code.htm

Item 16C. Principal Accountant Fees and Services

At the Annual General Meeting held on 11 May 2015, KPMG was appointed as the external audit firm for ING Group for the financial years 2016 through 2019. This appointment includes the responsibility to provide an audit opinion on the financial statements and internal control over financial reporting on 31 December 2019 and to report on the outcome of these audits to the Executive Board and the Supervisory Board.

The external auditor may be questioned at the Annual General Meeting in relation to its audit opinion on the financial statements. The external auditor will therefore attend and be entitled to addresses this meeting. The external auditor attended the meetings of the Risk Committee and of the Audit Committee and attended and addressed the 2019 Annual General Meeting, at which the external auditor was questioned its audit opinion.

The external auditor may only provide services to ING Group and its subsidiaries with the permission of the Audit Committee, in line with the ING Group Policy on External Auditor Independence. All services were pre-approved by the Audit Committee and the exception procedure was not applied to any engagement.

Following the advice of the Supervisory Board, in 2019 the General Meeting of Shareholders reappointed KPMG as external auditor for the fiscal years 2020 up and until 2023. More information on ING Group's policy on External Auditor Independence is available on the website of ING Group www.ing.com.

Audit fees

Audit fees were paid for professional services rendered by the auditors for the audit of the consolidated financial statements of ING Group and statutory financial statements of ING's subsidiaries or services provided in connection with the audit of Form 20-F and other filings for regulatory and supervisory purposes as well as the review on interim financial statements and work performed relating to comfort letters issued in connection with prospectuses and reviews of SEC product filings.

Audit-related fees

Audit-related fees were paid for assurance and related services that are reasonably related to the performance of the audit or review of the consolidated financial statements and are not reported under the audit fee item above. These services consisted primarily of specific agreed-upon procedure engagements and assurance engagements.

Tax fees

Over 2019 no tax fees were paid. Under the current ING Policy on External Auditor Independence most tax services are prohibited and some tax services are only allowed after specific approval under an 'exception procedure'.

Reference is made to Note 28 in the consolidated financial statements for audit, audit-related, tax and all other fees paid to the external auditors in 2019, 2018 and 2017.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

There were no purchases by us or any of our affiliated purchasers of any of our equity securities registered pursuant to Section 12 of the U.S. Securities Exchange Act of 1934 during the fiscal years ended December 31, 2019 and 2018.

Item 16F. Changes in Registrant's Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

This chapter reports on the application of the Dutch Corporate Governance Code effective as from 1 January 2017, by ING Groep N.V. ('ING Group'), including information on ING's share capital, control, Executive Board, Supervisory Board and external auditor.

Dutch Corporate Governance Code

Compliance with the Dutch Corporate Governance Code

ING Group uses the Dutch Corporate Governance Code as reference for its corporate governance structure and practices.

The Dutch Corporate Governance Code can be downloaded from the website of the Dutch Corporate Governance Code Monitoring Committee www.commissiecorporategovernance.nl.

ING's application of the Dutch Corporate Governance Code is described in the 2019 publication ING's application of the Dutch Corporate Governance Code, available on the website of ING Group www.ing.com. This is to be read in conjunction with this chapter and is deemed to be incorporated into this chapter.

Dutch Banking Code

The Dutch Banking Code ('Banking Code'), a revised version of which was adopted by the Dutch Banking Association in 2014, is applicable only to ING Bank N.V. and not to ING Group. The Banking Code can be downloaded from the website of the Dutch Banking Association (www.nvb.nl). Its application by ING Bank is described in 'Application of the Dutch Banking Code by ING Bank N.V.', available on ING Group's website (www.ing.com). ING Group voluntarily applies the principles of the Banking Code regarding remuneration of the members of its Executive Board. ING Group's remuneration policy for the Executive Board and senior management is compliant with the Banking Code principles.

Differences between Dutch and US corporate governance practices

ING Groep N.V. is a public limited liability company (*naamloze vennootschap*) organised under the laws of the Netherlands and qualifies as a foreign private issuer under SEC rules and for the purposes of the New York Stock Exchange ('NYSE') listing standards. Under NYSE listing standards, listed companies that are foreign private issuers are permitted to follow home-country practice in some circumstances in lieu of the provisions of the corporate governance rules contained in Section 303A of the NYSE Listed Company Manual that are applicable to US listed companies. In accordance with the requirements of the SEC and NYSE, ING Group must disclose in its Annual Report on Form 20-F any significant differences between its corporate governance practices and those applicable to US companies under NYSE listing standards. ING Group believes the following to be the significant differences between its corporate governance practices and the NYSE corporate governance rules applicable to US companies:

- ING Group has a two-tier board structure, in contrast to the one-tier board structure used by most US companies. In the Netherlands, a public limited liability company with a two-tier board structure has an executive board as its management body and a supervisory board that advises and supervises the executive board. Supervisory board members are often former state or business leaders and sometimes former members of the executive board. A member of the executive board or other officer or employee of the company cannot simultaneously be a member of the supervisory board. The supervisory board must approve specified decisions of the executive board.

- NYSE listing standards generally require that a majority of board members be ‘independent’ as determined under the NYSE listing standards. Under the Corporate Governance Code, all members of the supervisory board, with the exception of not more than one person, should be ‘independent’ as determined under the Corporate Governance Code. However, the definition of ‘independent’ under the Corporate Governance Code differs in its details from the definition of ‘independent’ under the NYSE listing standards. In some cases, Dutch requirements are stricter; in other cases the NYSE listing standards are stricter. All members of the Supervisory Board, other than Eric Boyer de la Giroday, are independent as determined under the Corporate Governance Code.

- NYSE listing standards require a US company to have a compensation committee and a nominating/corporate governance committee, each composed entirely of independent directors. The Nomination and Corporate Governance Committee and Remuneration Committee are composed entirely of members of the Supervisory Board who are independent as determined under the Corporate Governance Code.

- NYSE listing standards require that, when a member of the audit committee of a US company serves on four or more audit committees of public companies, the company should disclose (either on its website or in its annual proxy statement or annual report filed with the SEC) that the board of directors has determined that this simultaneous service would not impair the director’s service to the company. Dutch law does not require the Supervisory Board to make such a determination.

- In contrast to the NYSE listing standards, the Corporate Governance Code contains an ‘apply-or explain’ principle, offering the possibility of deviating from the Corporate Governance Code. For any deviations by ING Group, please refer to the paragraph ‘Compliance with the Dutch Corporate Governance Code’

- NYSE listing standards applicable to US companies require that external auditors be appointed by the audit committee. By contrast, Dutch law requires that ING Group’s external auditors be appointed by the General Meeting and not by the Audit Committee. The Audit Committee is responsible for preparing the Supervisory Board’s nomination to the General Meeting for the appointment and remuneration of the Group’s external auditor, and annually evaluates the independence and functioning of, and the developments in the relationship with, the Group’s external auditor and informs the Supervisory Board of its findings and proposed measures.

The Articles of Association provide that there are no quorum requirements to hold a General Meeting, although certain shareholder actions and certain resolutions may require a quorum.

- Under NYSE listing standards, shareholders of US companies must be given the opportunity to vote on all equity compensation plans and to approve material revisions to those plans, with limited exceptions set forth in the NYSE rules. The NYSE rules require a shareholder vote on all equity compensation plans applicable to any employee, director or other service provider of a company. The results of such votes are advisory in nature rather than binding. Under Dutch law and the Corporate Governance Code, binding shareholder approval is only required for equity compensation plans (or changes thereto) for members of the executive board and supervisory board, and not for equity compensation plans for other groups of employees.

- NYSE listing standards applicable to US companies require that external auditors be appointed by the audit committee. By contrast, Dutch law requires that ING Group’s external auditors be appointed by the General Meeting and not by the Audit Committee. The Audit Committee is responsible for preparing the Supervisory Board’s nomination to the General Meeting for the appointment and remuneration of the Group’s external auditor, and annually evaluates the independence and functioning of, and the developments in the relationship with, the Group’s external auditor and informs the Supervisory Board of its findings and proposed measures.

- The Articles of Association provide that there are no quorum requirements to hold a General Meeting, although certain shareholder actions and certain resolutions may require a quorum.

- Under NYSE listing standards, shareholders of US companies must be given the opportunity to vote on all equity compensation plans and to approve material revisions to those plans, with limited exceptions set forth in the NYSE rules. The NYSE rules require a shareholder vote on all equity compensation plans applicable to any employee, director or other service provider of a company. The results of such votes are advisory in nature rather than binding. Under Dutch law and the Corporate Governance Code, binding shareholder approval is only required for equity compensation plans (or changes thereto) for members of the executive board and supervisory board, and not for equity compensation plans for other groups of employees.

Item 16H. Mine Safety Disclosure

Not applicable.

PART III.

Item 17. Consolidated Financial Statements

Not applicable.

Item 18. Consolidated Financial Statements

Reference is made to the Consolidated financial statements of ING Group starting on page F-1.

Item 19. Exhibits

The following exhibits are filed as part of this Annual Report:

Exhibit 1.1	Amended and Restated Articles of Association of ING Groep N.V., dated 26 July 2016 (incorporated by reference to ING Groep N.V.'s Report on Form 6-K furnished on 6 January 2017)
Exhibit 2.1	Description of Securities Registered under Section 12 of the Exchange Act
Exhibit 2.2	Subordinated Indenture, dated 18 July 2002, between the Company and The Bank of New York, (incorporated by reference to Exhibit 2.1 of ING Groep N.V.'s Annual Report on Form 20-F for the year ended 31 December 2002, File No. 1-14642 filed on 27 March 2003)
Exhibit 2.3	Third Supplemental Indenture, dated 28 October 2003, between the Company and The Bank of New York (incorporated by reference to Exhibit 2.4 of ING Groep N.V.'s Annual Report on Form 20-F for the year ended 31 December 2003, File No. 1-14642 filed on 30 March 2004)
Exhibit 2.4	Fourth Supplemental Indenture, dated 26 September 2005, between the Company and The Bank of New York (incorporated by reference to Exhibit 4.2 of ING Groep N.V.'s Report on Form 6-K filed on 23 September 2005)
Exhibit 2.5	Sixth Supplemental Indenture, dated 13 June 2007, between the Company and The Bank of New York (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 12 June 2007)
Exhibit 2.6	First Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 16 April 2015, in respect of 6.000% Perpetual Additional Tier 1 Contingent Convertible Capital Securities (incorporated by reference to Exhibit 4.2 of ING Groep N.V.'s Report on Form 6-K filed on 16 April 2015)
Exhibit 2.7	Second Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 16 April 2015, in respect of 6.500% Perpetual Additional Tier 1 Contingent Convertible Capital Securities (incorporated by reference to Exhibit 4.3 of ING Groep N.V.'s Report on Form 6-K filed on 16 April 2015)
Exhibit 2.8	Senior Debt Securities Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as Trustee, dated 29 March 2017 (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 29 March 2017)

Exhibit 2.9	First Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 29 March 2017, in respect of 3.150% Fixed Rate Senior Notes due 2022, 3.950% Fixed Rate Senior Notes due 2027 and Floating Rate Senior Notes due 2022 (incorporated by reference to Exhibit 4.2 of ING Groep N.V.'s Report on Form 6-K filed on 29 March 2017)
Exhibit 2.10	Third Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 9 April 2019, in respect of 3.550% Fixed Rate Senior Notes due 2024 and 4.050% Fixed Rate Senior Notes due 2029 (incorporated by reference to Exhibit 4.1 of ING Groep N.V's Report on Form 6-K filed on 9 April 2019)
Exhibit 2.11	Third Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 10 September 2019, in respect of 5.750% Perpetual Additional Tier 1 Contingent Convertible Capital Securities (incorporated by reference to Exhibit 4.1 of ING Groep N.V's Report on Form 6-K filed on 10 September 2019)
Exhibit 8	List of Subsidiaries of ING Groep N.V.
Exhibit 12.1	Certification of the Registrant's Chief Executive Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002
Exhibit 12.2	Certification of the Registrant's Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
Exhibit 13.1	Certification of the Registrant's Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 13.2	Certification of the Registrant's Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
Exhibit 15.1	Consent of KPMG Accountants
Exhibit 101	eXtensible Business Reporting Language (XBRL)

SIGNATURES

The registrant hereby certifies that it meets all the requirements for filing on Form 20-F and that it has duly caused and authorised the undersigned to sign this annual report on its behalf.

ING Groep N.V.
(Registrant)

By:/s/T. Phutrakul
T. Phutrakul
Chief Financial Officer

Date: March 2, 2020

Additional information

ING Group Risk Management

As a global financial institution with a strong European base, offering banking services, ING is exposed to a variety of risks. We manage these risks through a comprehensive risk management framework that integrates risk management into daily business activities and strategic planning. This safeguards ING Group's financial strength by promoting the identification, measurement and control of risks at all levels of the organisation. Taking measured risks is the core of ING's business.

The risk management function supports the Executive Board in formulating the risk appetite, strategies, policies and limits. It provides review, oversight and support functions throughout ING on risk-related items. ING's main financial risks exposures are to credit risk (including transfer risk), market risk (including interest rate, equity, real estate, credit spread, and foreign exchange risks), funding & liquidity risk and business risk. ING Group is also exposed to non-financial risks, including operational, IT and compliance risks, as well as to model risks. The ING Group Chief Risk Officer (CRO) is also the CRO of ING Bank.

This section sets out how ING manages its risks on a day-to-day basis. It explains how the risk management function is embedded within the organisation based on the 'three lines of defence'. It describes the key risks that arise from ING's business model and how these are managed by dedicated risk management departments, with various specific areas of expertise. The section provides qualitative and quantitative disclosures about credit, market, funding & liquidity, business, operational, IT, compliance and model risks.

Basis of disclosures

The risk management section contains information relating to the nature and the extent of the risks of financial instruments as required by International Financial Reporting Standards (IFRS) 7 'Financial Instruments: Disclosures'. These disclosures are an integral part of ING Group Consolidated financial statements and are indicated by the symbol (*). Chapters, paragraphs, graphs or tables within the risk management section that are indicated with this symbol in the respective headings or table header are considered to be an integral part of the consolidated financial statements.

This risk management section also includes additional disclosures beyond those required by IFRS-IASB standards, such as certain legal and regulatory disclosures. Not all information in this section can be reconciled back to the primary financial statements and corresponding notes, as it has been prepared using risk data that differs to the accounting basis of measurement. Examples of such differences include the exclusion of accrued interest and certain costs and fees from risk data, and timing differences in exposure values (IFRS 9 models report expected credit loss on underlying exposures). Disclosures in accordance with Part Eight of the CRR and CRD IV, and as required by the supervisory authority, are published in our 'Additional Pillar III Report', which can be found on our corporate website ing.com.

Risk governance (*)

Effective risk management requires firm-wide risk governance. ING's risk and control structure is based on the 'three lines of defence' governance model, whereby each line has a specific role and defined responsibilities in such a way that the execution of tasks is separated from the control of these same tasks. At the same time, they have to work closely together to identify, assess, and mitigate risks. This governance framework is designed such that risk is managed in line with the risk appetite as approved by the Management Board Banking (MBB), the Executive Board (EB) and the Supervisory Board (SB), and is cascaded throughout ING. The MBB is composed of the Executive Board of ING Group, the heads of the business lines and the chief operating officer.

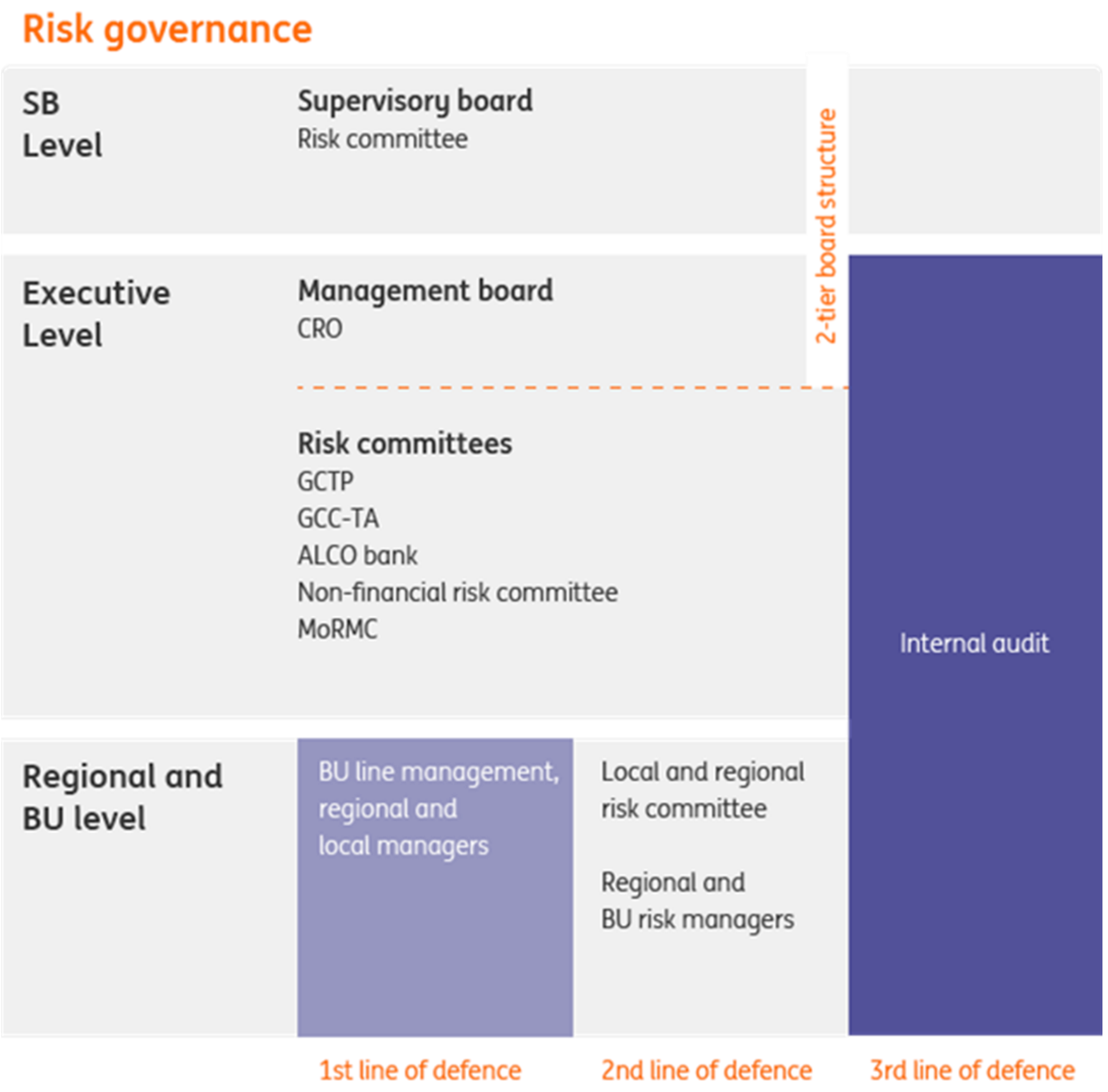
The heads of ING's banking business & support functions and the heads of the country units, or their delegates, are the first line of defence. They have the primary ownership, accountability and responsibility for assessing, controlling and mitigating all financial and non-financial risks affecting their businesses, and, for the completeness and accuracy of the financial statements and risk reports with respect to their responsible areas. The COO is responsible and accountable for proper security and controls on global applications and IT platforms servicing the Bank and implementing proper processes.

The second line of defence consists of oversight and specialised functions in risk management and compliance, and includes at least the control functions Risk and Compliance. They (i) have co-responsibility for risk management, through articulating and translating the risk appetite into methodologies and policies to support and monitor business management's control of risk, (ii) objectively challenge risk management execution and control processes and coordinate the reporting of risks and controls by the first line of defence, (iii) advise management on risk management and compliance and have decision-making power in relation to business activities that are judged to present unacceptable risks to ING and (iv) can set minimum requirements in terms of quality and quantity of global resourcing in the risk management and compliance functions.

The internal audit function forms the third line of defence. It provides an independent assessment of the effectiveness of internal controls over the risks to ING's business processes and assets, including risk management activities performed in both the first and second lines of defence. To protect its independent nature, decisions regarding the appointment, re-appointment or dismissal from office as well as the remuneration package of the head of the internal audit function require supervisory board approval.

The next graph illustrates the different key senior management level committees in place in the risk governance structure.

(*)



Board level risk oversight (*)

ING has a two-tier board structure consisting of a management board (EB for ING Group and MBB for ING Bank) and the SB; both tiers play an important role in managing and monitoring the risk management framework.

- The SB is responsible for supervising EB and MBB policy, the general course of affairs of ING Group, ING Bank and its business (including its financial policies and corporate structure). For risk management purposes the SB is advised mainly by the Risk Committee, which assists and advises in monitoring the risk profile and approving the overarching risk appetite of the company as well as the structure and effective operation of the internal risk management and control systems.
- The EB is responsible for managing risks associated with all activities of ING Group, whereas the MBB is responsible for managing risks associated with all activities of ING Bank. The EB and MBB responsibilities include ensuring that internal risk management and control systems are effective and that ING Group and ING Bank comply with relevant legislation and regulations. On a regular basis, the EB and MBB report on these issues and discuss the internal risk management and control systems with the SB. On a quarterly basis, the EB and MBB report on ING's risk profile versus its risk appetite to the Risk Committee, explaining changes in the risk profile.

As a member of the EB and the MBB, the CRO is responsible for ensuring that risk management issues are heard and discussed at the highest level. The CRO steers a risk organisation both at head-office and business-unit levels, which participates in commercial decision-making, bringing countervailing power to keep the agreed risk profile within the risk tolerance. The CRO reports to the SB committees on ING's risk appetite levels and on ING's risk profile at least quarterly. In addition, the CRO briefs them on developments in internal and external risk-related issues and seeks to ensure they understand specific risk concepts.

Executive level (*)

The key risk committees described below act within the overall risk policy and delegated authorities granted by the MBB:

- Global Credit & Trading Policy Committee (GCTP) discusses and approves policies, methodologies, and procedures related to credit, trading, country, and reputation (i.e. environmental and social risk or ESR) risks. The GCTP meets on a monthly basis. After the MBB and the GCTP, the Credit & Trading Risk Committee (CTRC) is the highest level body authorised to discuss and approve policies, methodologies, and procedures related to credit risk;
- Global Credit Committee – Transaction Approval (GCC(TA)) discusses and approves transactions that entail taking credit risk (including investment risk), country, legal, and ESR risk. The GCC(TA) meets twice a week;
- Asset and Liability Committee Bank (ALCO Bank) discusses and steers, on a monthly basis, the overall risk profile of all ING Bank's balance sheet and capital management risks. ALCO Bank discusses and approves policies, methodologies and procedures regarding solvency, market risk in the banking book and funding and liquidity risks;
- Non-Financial Risk Committee Bank (NFRC Bank) is accountable for the design and maintenance of the Non-Financial Risk Management Framework including Operational Risk Management, Compliance and Legal policies, minimum standards, procedures and guidelines, development of tools, methods, and key parameters (including major changes) for risk identification, measurement, mitigating and monitoring/ reporting. NFRC Bank meetings are at least quarterly; and
- The Model Risk Management Committee (MoRMC) aims to align overall model strategy, model risk appetite, supporting model frameworks, policies and methodologies.

Regional and business unit level (*)

ING's regional and/or business unit management have primary responsibility for the management of risks (credit, market, funding and liquidity, operational, IT and compliance risks) that arise in their daily operations. They are accountable for the implementation and execution of appropriate risk frameworks affecting their businesses in order to comply with procedures and processes at the corporate level. Where necessary, the implementation is adapted to local requirements. The regional and/or business unit CROs are involved in these activities. The local (regional and BU) CRO is responsible for the analysis, control and management of risks across the whole value chain (from front to back office). The local risks are discussed in local risk committees that roll up to the key risk committees at executive level. Local Client Integrity Risk Committees (CIRCs) assess client integrity risk and they have a final decision on client acceptance or client off-boarding, from a risk-based perspective, in the areas of Financial Economic Crime (FEC), Foreign Account Tax Compliance Act (FATCA), Common Reporting Standards (CRS) and ESR.

Risk management function (*)

Organisational structure (*)

Over the past years, banks have been faced with regulatory and public pressure with regard to their risk management policies, processes, and systems. A raft of new requirements and regulations has been introduced and implemented. To address these internal and external (market and regulatory) developments and challenges effectively, ING regularly reviews the set-up of its risk-management organisation. This allows for better support of the Bank's Think Forward strategy and enhances the interconnectedness of the risk oversight responsibilities in business units with global risk functions. The organisation chart illustrates the reporting lines in 2019 for the risk organisation:

Risk policies, procedures and standards (*)

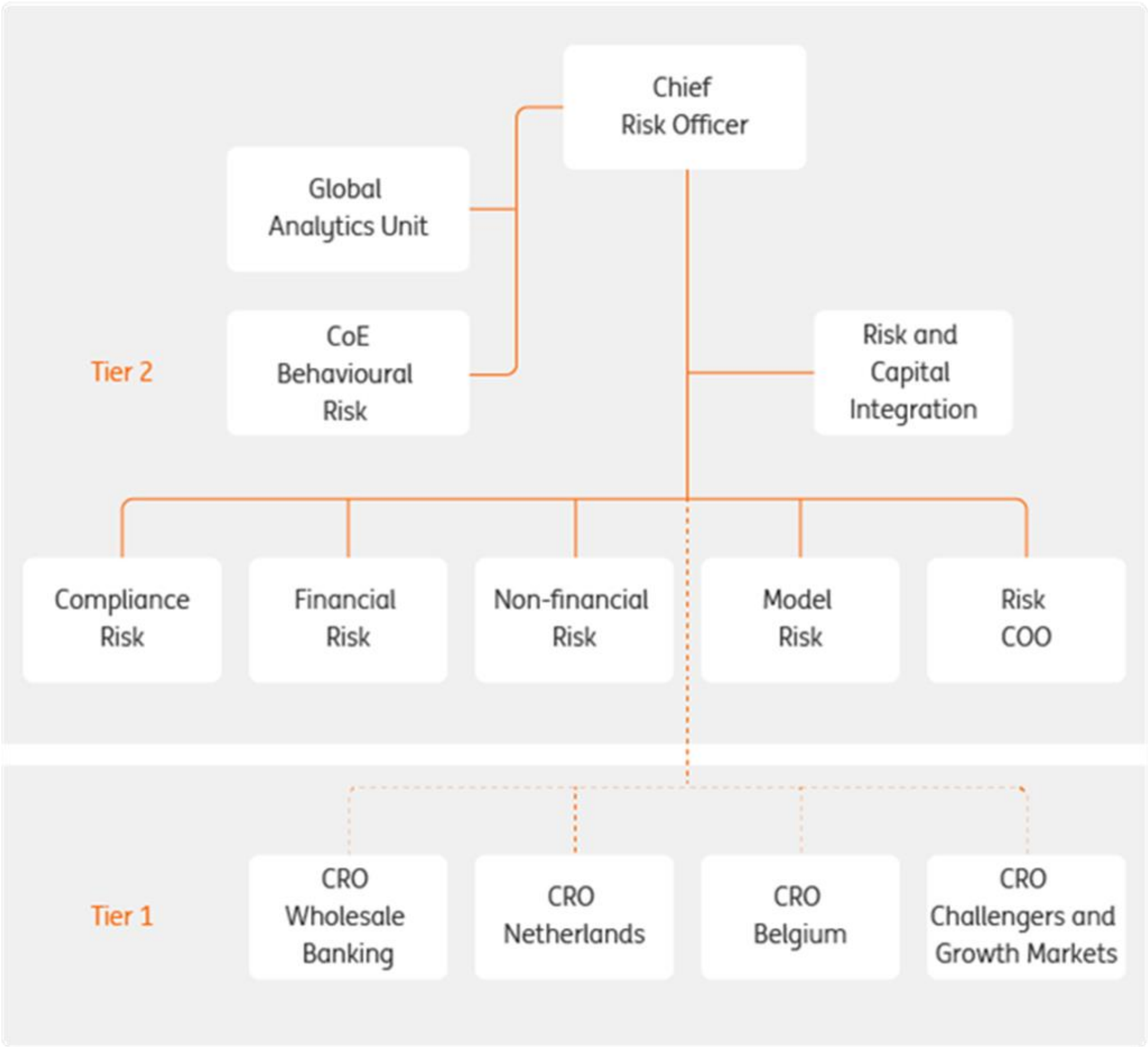
ING has a framework of risk management policies, procedures, and minimum standards in place to create consistency throughout the organisation, and to define requirements that are binding to all business units. The goal of the governance framework of the local business units is to align with ING's framework and to meet local (regulatory) requirements. Senior management is responsible for the implementation and adherence to policies, procedures and standards. Policies, procedures, and standards are regularly reviewed and updated via the relevant risk committees to reflect changes in requirements, markets, products and practices.

Internal Control Framework

ING has organised its Internal Control Framework (ICF) with the objective to translate policies and control objectives into consistent standards and controls in the business lines and as such support and promote an effective risk and control environment. The framework includes binding principles,

(*)

Risk function



definitions, process steps and roles and responsibilities to create consistent bank-wide policies and standards.

The scope of the ICF is the development and maintenance or update of global internal control documents: policies, minimum standards, product control frameworks, support control frameworks and process-related control standards. These global documents are designed by head office functions and are to be adhered to by entities and support functions. Domain ownership of policies and minimum standards is with the 2nd Line of Defence, whereas product and support control frameworks are owned by the 1st Line of Defence and are approved by 2nd line of Defence. Process control standards can be owned by both 1st and 2nd Line of Defence, related to the underlying processes involved.

Domain owners are responsible for a specific risk domain and aim that their internal policies and standards do not overlap with other documents. The ICF aims for single testing for multiple purposes meaning that the same control should not have to be tested more than once for different functions. This means that the test results of one control can be used for more than one sign-off.

The principal role of the independent ICF gatekeeper function is that of a quality assurance role and to provide advice for approval to the SB, EB, MBB and NFRC Bank. The ICF gatekeeper challenges the alignment of the internal control documents with the agreed methodology and taxonomy and verifies that the process of development and communication of internal control documents is executed in adherence to the process as described below. The ICF gatekeeper is the guardian of the ICF binding principles.

The process of developing internal control documents is standardised for each type of internal control document. Domain owners should adhere to the standardised process that includes the following steps: domain owner identification, risk-based approach, impact assessment, approval body and involvement of local entities for sounding on key and expected controls. The gatekeeper oversees the steps above.

All policies, procedures and control standards are published on ING's intranet and new and updated documents are periodically communicated by means of a policy update to all country senior managers and heads of business departments.

Risk model governance and validation (*)

Risk models are built according to ING's internal risk modelling methodology standards and model life cycle. After the review and documentation of each model by the Model Development (MD) and Model Risk Management (MoRM) departments, dedicated risk committees approve new and changed models. After approval by the applicable risk committee, and where necessary by the regulator, the risk model is implemented. MoRM re-validates models on a regular basis. Validation results and capital impacts are reported on a quarterly basis to senior management, the risk committees and the supervisor.

The MoRM department is one of the cornerstones of ING's risk model governance. The department sets and maintains a model risk framework containing (1) the governance setting out the responsibilities; (2) the model risk appetite; (3) model risk management policies and standards; and (4) the model management inventory and tooling. MoRM monitors global model risk and model performance.

The validation teams provide independent model validation, which starts with the determination that a model is appropriate for its intended use. This is followed by an on going process whereby the reliability of the model is verified at different stages during its lifecycle: at conception, before approval, periodically after implementation and when significant changes to the model are made. The validation process contains a mix of developmental evidence assessment, process verification and outcome analysis. When model validation identifies model risks, it provides recommendations to address those.

Risk culture

The reputation and integrity of ING's organisation are core elements to operate successfully in the financial world. ING's risk culture promotes awareness of collectively shared values, ideas and goals, but also of potential threats and aligns the individual performance objectives with the short- and long-term strategy. ING therefore aims to make risk responsibilities transparent within the different levels of the organisation and to hold every employee accountable for his/her actions.

Orange code

Commonly seen as norms and traditions of behaviour of individuals and of groups within an organisation, risk culture determines the way in which employees identify, understand, discuss, and act on the risks the organisation is confronted with and the risks it takes. This is a continuous long-term commitment and journey. In this respect, The Orange Code is a declaration of who we are. It describes what we can expect from each other when we turn up to work each day. It is a set of standards that we collectively value, strive to live up to, and invite others to measure us by.

The Orange Code is the sum of two parts, the ING values and ING behaviours, with integrity being the overarching principle. The ING values (being honest, prudent and responsible) are designed to be non-negotiable promises we make to the world, principles we seek to stick to, no matter what.

The ING behaviours (take it on and make it happen, help others to be successful, and always be a step ahead) represent our way to differentiate ourselves. The Orange Code is embedded in commitments we make to each other and the standards by which we will measure each other's performance.

Risk awareness is about being alert to potential threats that can occur during day-to-day business, which can be specific to the sector, the region or the clients ING is doing business with. To support the further embedding of risk culture into business practices, ING has initiated different programmes and issued several guidelines.

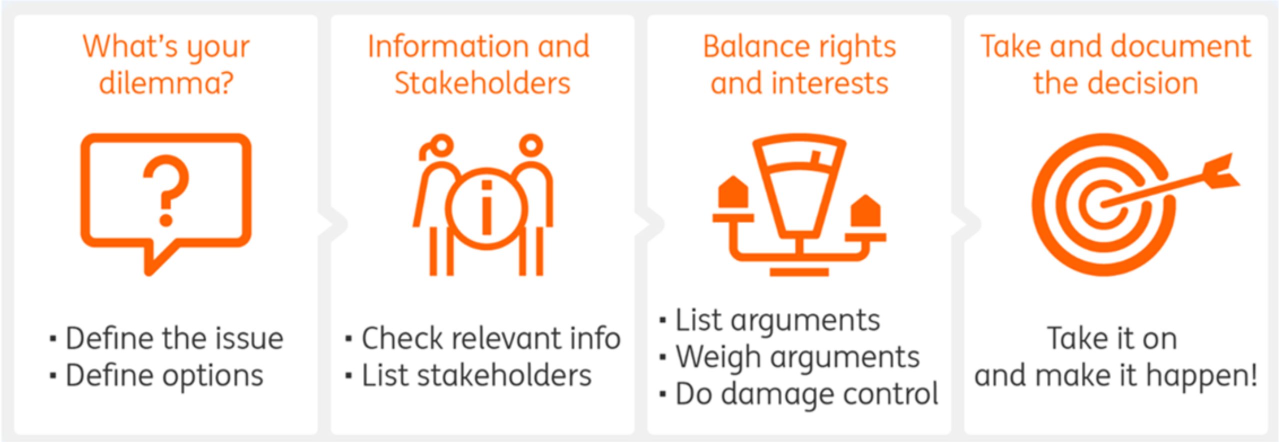
To reinforce the values and behaviours in our Orange Code, which puts integrity above all, we invite all employees to participate in e-learnings that aim to equip them to make the right decisions when faced with a dilemma or issue. In 2019, we commenced the creation of new e-learnings on anti-competitive conduct, anti-bribery and corruption and data protection for launch early 2020.

We also developed a global code of conduct that builds on the Orange Code and sets the standards we expect our people to uphold. This global code of conduct was launched during 1Q 2020.

Orange code dilemma dialogue

To enhance risk awareness we continued to support the business in the area of risk culture and monitor compliance risk. This included training by compliance and data experts to enhance balanced decision-making in line with the Orange Code dilemma model (introduced in 2017) to support well-balanced and integrity-led decision-making. This four-step model helps to delay judgment and aims to find out where the moral weight lies for a potential decision.

The model is already embedded in some decision-making processes (such as the data ethics governance process) and we are exploring how to embed it in other decisive governance processes within the bank. During early 2019 around 30 compliance officers were trained globally to support the organisation in properly applying the model in practice in their respective countries.



Global data ethics and the I-for-integrity programme

Other initiatives such Global Data Ethics and the I-for-integrity programme within the Netherlands and Belgium are continuing. In addition, new employees undergo a series of e-learnings on topics such as KYC, compliance, dealing with dilemmas, data risk and integrity in practice.

We also introduced a new global learning model in 2019 to further professionalise Compliance, KYC and risk training. It introduces governance, a board to approve trainings based on business needs, global planning and greater cooperation between content owners, learning experts and corporate communications teams to ensure the best fit for the training need. In addition, a Risk Academy was set up for people working in risk, with the aim of eventually bringing Risk training to a broader audience if necessary.

Banker's Oath

In the Netherlands, employees of all financial institutions – and that includes ING – are required to take the Banker's Oath. This requirement came into force on 1 April 2015 as part of the joint approach from all banks, known as 'Future-oriented Banking.' The introduction of social regulations, the revision of the Dutch Banking Code, and the implementation of a Banker's Oath (with the associated rules of conduct and disciplinary law), are a way for Dutch banks to show society what they stand for and are accountable for, as both individual banks and as a sector.

Remuneration

ING aims to align its remuneration policy with its risk profile and the interests of all stakeholders. For more information on ING's compensation and benefits policies and its relation to the risk taken, please refer to the "Capital Requirements Regulation (CRR) Remuneration disclosure" published on the corporate website ing.com. https://www.ing.com/About-us/Annual-reporting-suite.htm

Centre of Expertise on Behavioural Risk

Behavioural Risk Management (BRM) is a new expertise that has been added to ING's global Risk organisation. Behavioural risk is an increasingly important risk area for ING and across the financial industry. It arises when behavioural patterns are at the root of financial and non-financial risks in the organisation.

The complexity of this type of risk is less tangible compared to other risk areas. It is about how decisions are made, how people communicate and whether they can take ownership. Behaviour is motivated by formal and informal drivers. Examples of formal drivers are the processes ING applies and how its governance is structured. Informal drivers are less tangible, such as group dynamics or underlying beliefs that influence behaviour.

At ING, BRM is positioned in the second line of defence, reporting directly to the chief risk officer. The global BRM Centre of Expertise, set up in 2018, not only assesses behavioural risk in the organisation, but also has the mandate to direct, challenge and support business owners to intervene on high-risk behaviours and their underlying drivers.

Behavioural risk assessments

Behavioural risk assessments identify, analyse and mitigate high-risk behaviours within ING and provide management with specific direction on how to change these behaviours. They focus on the effectiveness of groups rather than individuals, the role of leadership and on less visible aspects such as team dynamics and unwritten social norms. The goal is to understand and systematically assess what drives undesired habits at ING. The BRM model of behavioural risk will be used as the standard across ING to signal behavioural risks going forward.

In 2019, the outcomes of the first behavioural risk assessments were shared with senior leaders at ING's International Conference in March and with the relevant departments. These were primarily teams involved in Know Your Customer activities in the Netherlands, US and Philippines. Based on these outcomes, a number of interventions have been implemented with the goal to change high-risk behavioural patterns.

Behavioural risk assessments were also carried out in Belgium and the interventions based on these outcomes will be implemented in 2020. The BRM team will continue to assess behavioural risk, focusing predominantly on KYC.

Behavioural risk interventions

Effective mitigation requires a deep understanding of what drives undesired behaviours. Theory and evidence-based techniques and tools developed in behavioural science play an important role in designing and evaluating interventions. These interventions impact all levels of the organisation.

Employees are invited to participate in 'nudge labs' where they work together to identify small behavioural changes that can have a positive impact on processes and collaboration.

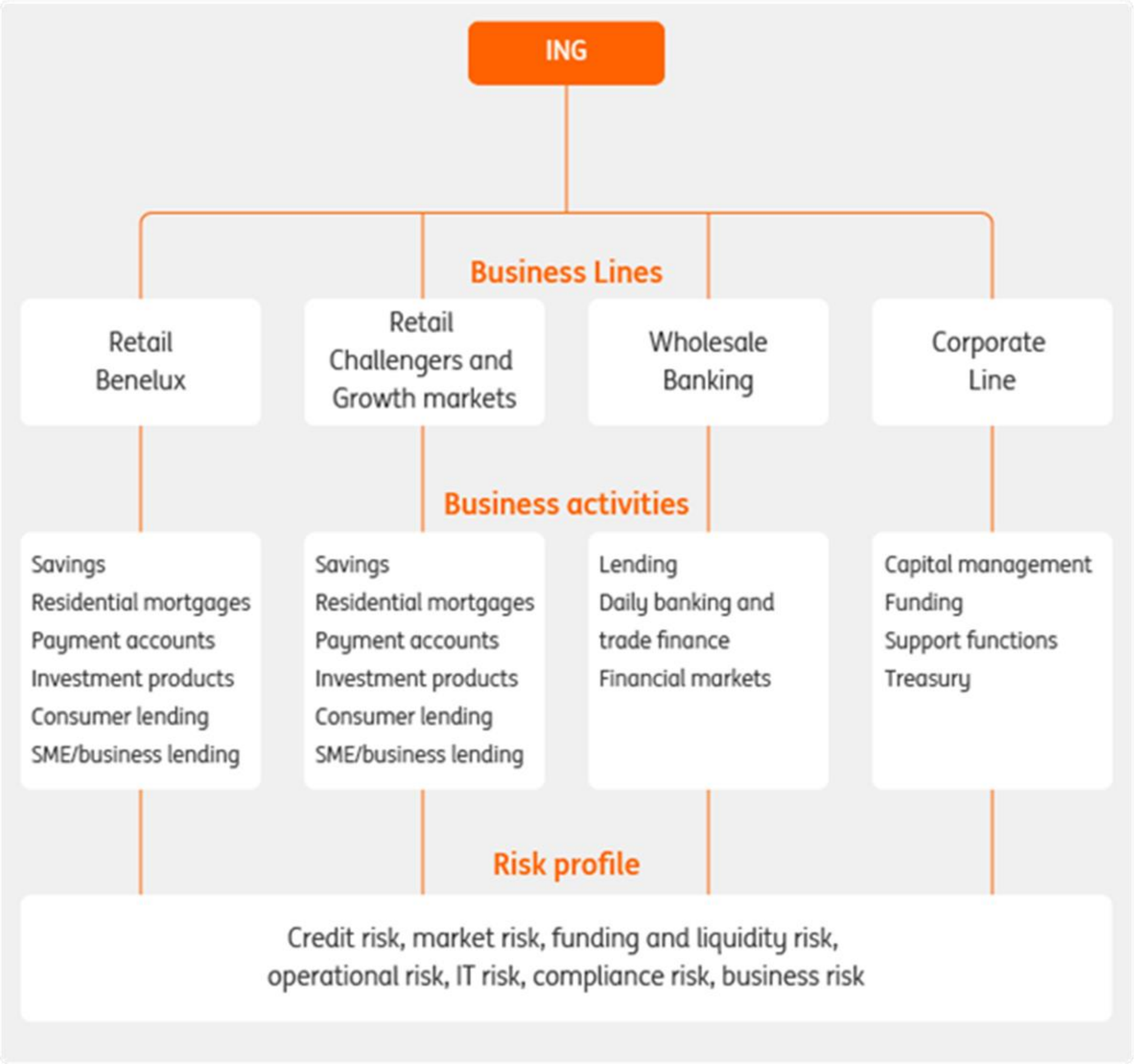
Given the crucial role of leaders in creating the right conditions for employees, interventions are first initiated at leadership level. These include leadership labs, which address topics such as 'governance and ownership' and 'alignment and trust', as well as bringing together the 'whole system in the room'. Here senior leaders delve into the outcomes of the assessments, identifying deeply rooted and often complex issues for improvement.

The BRM team works closely with the business units and departments such as HR, Audit, and Compliance to align on and embed desired leadership and risk behaviours (i.e. speak up, psychological safety, communication, guiding leadership).

Risk profile

This chart provides high level information on the risks arising from ING's business activities:

Risk profile



Risk cycle process

ING uses a step-by-step risk management approach to monitor, manage and mitigate its financial and non-financial risks. The approach consists of a cycle of five recurrent activities: risk identification, risk assessment, risk control, risk monitoring, and risk reporting. In short, this implies: determining what the risks are, assessing which of those risks can really do harm, taking mitigating measures to control these risks, monitoring the development of the risk to see if the measures taken are effective, and reporting the findings to management at all relevant levels to enable them to take action when needed.

The recurrence is twofold. Firstly, the identification, assessment, review, and update of mitigating measures are done periodically. Secondly, the periodic monitoring exercise may indicate emerging risks, known risks that are changing, risk levels that are changing, or current control measures that are not effective enough. Further analyses of these findings may result in renewed and more frequent risk identification, and/or assessment, and/or change of mitigating measures.

Risk identification

Risk identification is a joint effort of the business and the risk management functions. Its goal is to detect potential new risks and determine changes in known risks. Regular risk identification is essential for effective risk management. Potential risks that are not identified, will not be controlled and monitored and may lead to surprises later. Known risks may have changed over time and as a consequence the existing mitigating measures and monitoring may be inadequate or obsolete.

Risk identification is performed periodically. In case of material internal or external change, additional ad-hoc risk identification can be performed.

Risk assessment

Each identified risk is assessed to determine its importance. This enables ING to decide which of the identified risks need control measures and how strict or tolerant these measures should be. Known risks are re-assessed to detect any change in the risk level.

The importance of a risk is based on the likelihood that the risk materialises and the subsequent financial or reputational impact that may occur should the risk arise. Unlikely risks with a potentially high impact need to be controlled. A risk that is likely to happen regularly but expected to have a modest financial impact may not need to be mitigated if the consequences are accepted by management.

Risk control

Risks can be controlled by mitigating measures that lower the likelihood the risk occurs, lower the impact when it occurs or both. The ultimate measure to lower a risk is to stop the activity or service that causes the risk (risk avoidance). Risk control and mitigation measures are defined and maintained at both the bank-wide and local level.

Monitoring and reporting

ING monitors the risk control measures by checking if they are executed, complied with and have the expected mitigating effects and by following the development of the risks and their risk levels. Risk reporting provides senior and local management with information needed to manage risks.

Risk Appetite Framework

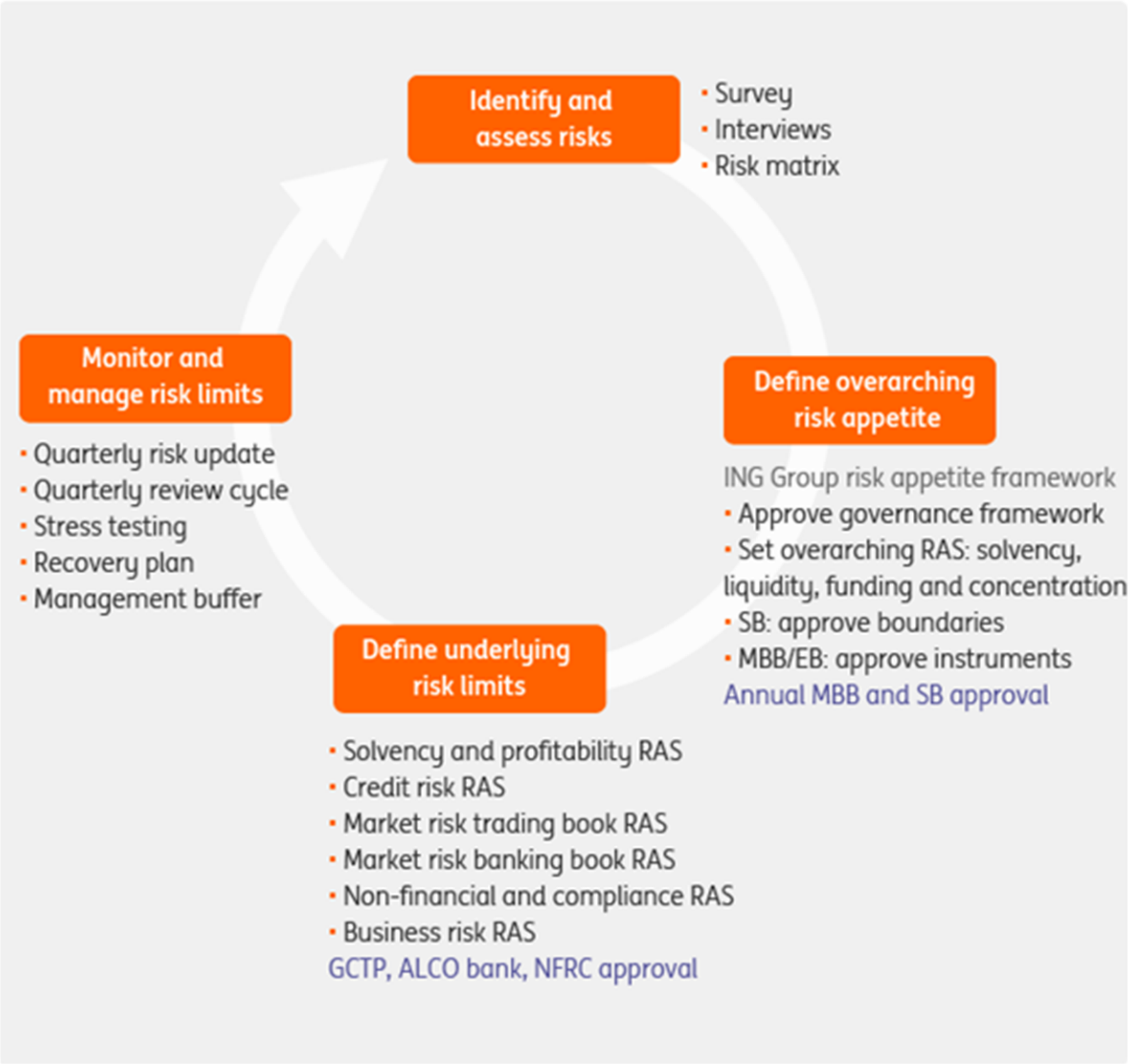
The Risk Appetite Framework (RAF) is one of the pillars of the Enterprise Risk Management (ERM) Framework. Its objective is to set the appropriate risk appetite at the consolidated level across the different risk categories and to allocate the risk appetite throughout the organisation.

The RAF policy states the overarching global risk appetite. Within the RAF, ING monitors a range of financial and non-financial risk metrics to ensure that our risk profile is in line with our risk appetite while executing our strategy. ING's RAF, which is approved by the Supervisory Board (SB), defines our desired risk profile that is integrated in the strategic decision-making and financial planning process. It is designed to be able to withstand market volatility and stress, while meeting regulatory requirements. The framework including underlying assumptions and metrics, is regularly reviewed so that it remains relevant. The RAF combines various financial and non-financial risk appetite statements into a single coordinated approach to provide the business with a clear overview of the relevant risks and the tools to manage them. This view allows the Executive Board (EB), the Management Board Banking (MBB) and senior management to form an opinion on the adequacy of internal risk management and control systems for the risks ING faces while pursuing its strategy.

Process

The RAF is focused on setting the risk appetite at the consolidated level and across the different risk categories, and provides the principles for cascading this risk appetite down into the organisation. The RAF and underlying limit allocation is reviewed on an annual basis, or more frequently if necessary, based on their quarterly review in the EB, the MBB and the SB. It is therefore a top-down process, which bases itself on the ambition of the bank in terms of its risk profile and is a function of the capital and liquidity levels, the regulatory environment, and the economic context. The set of limits used are split based on the approval level needed for them. The limits that need SB approval are called Boundary and the underlying metrics supporting the boundaries which need EB and MBB approval are called instruments.

Risk appetite framework process



Step 1. Identify & assess ING's key risks

The outcome of the risk identification & risk assessment process is used as starting point for the review of the RAF. Within this step the risks ING is facing when executing its strategy are identified, it is assessed if the potential impact is material and if it is controlled within ING's risk management function; benchmarking current risk framework versus regulatory developments; re-assessing known risks to confirm risk level or detect potential changes; and reflecting on the current set of Risk Appetite Statements.

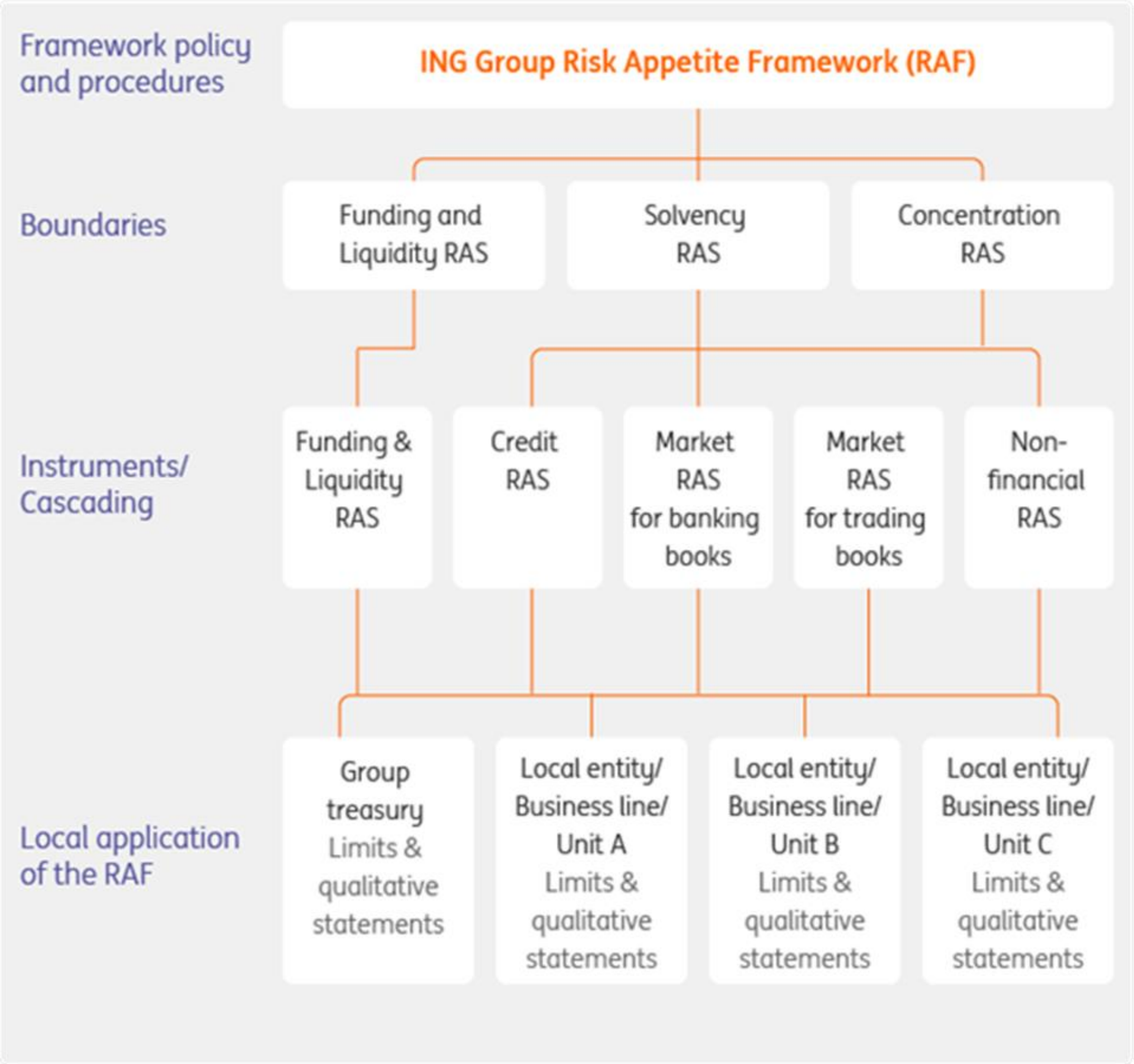
Step 2. Set Risk Appetite Framework

Based on ING's risk assessment and risk purpose, boundary for the overarching risk frameworks are set. Once the overarching risk appetite thresholds have been set and approved by EB/MBB and subsequent SB, the statements are translated into risk-type specific statements and lower level thresholds which are set and approved by senior risk committees ALCO Bank, GCTP and NFRC Bank. Cascading is done via a number of detailed risk appetite statements which have been defined per risk type, the combination of which ensure compliance with the overarching Solvency, Concentration and Funding & Liquidity RAS.

Step 3. Cascade into statements per risk type and business unit

The bank-wide risk appetite is translated per risk type, which is further cascaded into the organisation to the lowest level. Risk appetite statements are then translated into dedicated underlying risk limits that are used for the day-to-day monitoring and management of ING's risks. The suite of risk appetite statements serve as inputs for the quarterly planning process as well as for the establishment of key performance indicators and targets for senior management.

Risk appetite framework policy



Risk Appetite Statements	
Boundaries	**Underlying risk metrics**
Funding & Liquidity	Liquidity Coverage Ratio Net Liquidity Position – internal stress test
Solvency	CET1 ratio Leverage ratio Capital Utilisation MREL TLAC
Concentration	Concentration event Risk (LGD) Event Risk
Instruments	**Underlying risk metrics**
Credit Risk	EAD RWA ECL INCAP
Market Risk (Trading Book)	Value-at-Risk Stressed VaR Incremental Risk Charge Regulatory/ Economic Market Risk capital
Market Risk (Banking Book)	IFRS P&L-at-Risk NPV-at-Risk Customer Behavior/Market Risk Economic capital Revaluation-Reserve-at-Risk
Non-Financial Risk	Expected Loss Regulatory/ Economic Operational Risk capital Overdue iRisk
Business Risk	IFRS P&L-at-Risk

Step 4. Monitor and manage underlying risk limits

In order to verify that it remains within the risk appetite framework, ING reports its risk positions vis-à-vis its limits on a regular basis to senior management committees. The Quarterly Risk Update reflecting the exposure of ING against the risk appetite targets is submitted quarterly to the EB and the MBB and to the (Risk Committee of the) SB. Moreover every quarter the financial plan is checked for potential limit breaches within a 1 year horizon, where in the strategic dialog the MBB can take mitigating measures or adjustments to the dynamic plan can be made.

Stress testing

Stress testing is an important risk management tool that provides input for strategic decisions and capital planning. The purpose of stress testing is to assess the impact of plausible but severe stress scenarios on ING's capital and liquidity position. Stress tests provide insights into the vulnerabilities of certain portfolios, with regards to adverse macroeconomic circumstances, stressed financial markets, and changes in the (geo)political climate.

Types of stress tests

Within ING, different types of stress tests are performed. The most comprehensive type of stress tests are the firm-wide scenario analyses, which involve setting scenario assumptions for all the relevant macroeconomic and financial market variables in all countries relevant to ING. These assumptions usually follow a qualitative narrative that provides a background to the scenario. In addition to firm-wide scenario analyses, ING executes scenario analyses for specific countries or portfolios. Furthermore, sensitivity analyses are performed, which focus on stressing one or more risk drivers; usually without an underlying scenario narrative. Finally, ING performs reverse stress tests, which aim to determine scenarios that could lead to a pre-defined severe adverse outcome.

Process

The stress testing process of ING consists of several stages, which are:

- Risk identification & risk assessment: It identifies & assesses the risks ING or the relevant entity is facing when executing its strategy based on the current and possible future economic, political, regulatory and technological environment. It provides a description of the main risks related to the nature of ING's business, activities and vulnerabilities.
- Scenario definition & parameterisation: Based on the outcome of the previous step, a set of scenarios should be determined where the relevant scope and set of risk drivers is determined for each scenario, as well as the severity, the key assumptions and input parameters. The output of this phase includes a quantitative description of the stress scenarios to be analysed, the relevant output metrics and, when applicable, a narrative description.
- Impact calculation and aggregation: Based on the quantitative description of the stress scenarios determined in the previous step, the impact is determined for the relevant scenario, scope and horizon. The impact calculation and aggregation can be part of a recurring process or are part of a specific process set-up for one-off stress tests.
- Scenario reporting: For each stress test, a report is prepared after each calculation which describes the results of the scenario, gives a recap of the scenario and its main assumptions and parameters. It is complemented, if needed, with an advice for management action based on the stress testing results.
- Scenario control & management assessment: Depending on the outcomes of the stress test and the likelihood of the scenario, mitigating actions may be proposed. Mitigating actions may include, but are not limited to, sales or transfers of assets and reductions of risk limits.

Methodology
Detailed and comprehensive models are used to calculate the impact of the scenarios. In these models, statistical analysis is combined with expert opinion to make sure that the results adequately reflect the scenario assumptions. The methodologies are granular and portfolio-specific and use different macroeconomic and market variables as input variables. The calculations are in line with our accounting and regulatory reporting frameworks. The stress testing models are subject to review by Model Risk Management.

Regulatory environment

CRRII/CRDV and BRRDII
On 16 April 2019, the European Parliament (EP) approved the final agreement on a package of reforms proposed by EC to strengthen the resilience and resolvability of European banks. The package of reforms comprises two regulations and two directives, namely amendments to the Capital Requirements Regulation and Directive (CRR/CRD), the Bank Recovery and Resolution Directive (BRRD), and the Single Resolution Mechanism Regulation (SRMR).

The key changes introduced by the banking reform package consist of among others a binding Leverage Ratio (LR) requirement, independent from the riskiness of the underlying exposures, as a backstop to risk-weighted capital requirements, and a Net Stable Funding Ratio (NSFR) based on the Basel NSFR standard but including adjustments with regard to pass-through models and covered bonds issuance. Further, the EBA obtained a mandate to investigate how to incorporate environmental, social, and governance (ESG) risks into the supervisory process and what the prudential treatment of assets associated with environmental or social objectives should look like. Also, the rules on the subordination of Minimum Requirement for own funds and Eligible Liabilities (MREL) instruments are tightened and a new category of large banks with a balance sheet size greater than EUR 100 billion, is introduced.

Basel III revisions and upcoming regulations
In December 2017, the Basel III revisions were formally announced by the Basel Committee on Banking Supervision (BCBS). These new prudential rules for banks consist of a revision to the standardised approach to credit risk, the introduction of a capital floor based on standardised approaches, the use of internal models, the limitation of options for modelling operating risks, and new rules for the establishment of risk-weighted items and unused credit lines at the banks. In Europe, this will be implemented through the CRR III / CRD VI in the coming years. With this long implementation phase and the transposition into EU regulation still pending, some question marks remain on how this will shape up.

Targeted Review of Internal Models

In order to make capital levels more comparable and to reduce variability in banks' internal models, the European Central Bank (ECB) introduced the Targeted Review of Internal Models (TRIM) in June 2017 to assess the reliability and comparability between banks' models. The TRIM aims to create a level playing field by harmonising the regulatory guidance around internal models with the ultimate goal to restore trust in European banks' use of internal models.

In July 2019, the ECB published final chapters of the guide to internal models, covering credit risk, market risk and counterparty credit risk. These risk type-specific chapters are intended to ensure a common and consistent approach to the most relevant aspects of the regulations on internal models for banks directly supervised by the ECB. Additionally, they provide transparency on how the ECB understands the regulations on the use of internal models to calculate own funds requirements for the three risk types. Impact on ING is through more stringent regulation on internal models as well as an increase of Risk Weigthed Assets (RWA).

Top and emerging risks

The risks listed below are defined as material existing and emerging risks that may have a potentially significant impact on our financial position or our business model. They may have a material impact on the reputation of the company, introduce volatility in future operation results, or impact ING's medium and long-term strategy including the ability to pay dividends, maintain appropriate levels of capital or meet liquidity and funding targets. An emerging risk is defined as a risk that has the potential to have a significant negative effect on our performance, but whose impact on the organisation is currently more difficult to assess than other risk factors that are not identified as emerging risks.

The topics have emerged as part of the annual Risk Assessment that is performed as part of the Stress Testing Framework and the Risk Appetite Framework. The sequence in which the risks are presented below is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

During 2019, several changes were made to our top and emerging risks. The top risks in 2019 are related to financial crime, cybercrime and persistent low interest rates in Eurozone. Also, climate change risk remains an emerging risk, reflecting the impact a deterioration of the climate may have for the financial position and/or reputation of ING.

Macroeconomic developments

The economic activity was marked in 2019 by a slowdown in global growth led by prolonged uncertainty on Brexit, effects of US-China trade tensions and reduced US fiscal stimulus. The decision of the United Kingdom to leave the European Union ('Brexit') remains a major political and economic event that continues to affect sentiment. Despite negotiating a revised deal in October 2019, the vote in the UK parliament did not go ahead. The UK parliament chose to postpone the vote on the deal until legislation needed to turn the withdrawal agreement into UK law was completed. ING continued to take steps throughout the year to prepare for various options. Although ING has activities in the UK through the Wholesale Banking (WB) business line, no material asset quality deterioration following the Brexit decision has taken place.

The coronavirus, COVID-19, is recently dominating global news. As the coronavirus outbreak spreads rapidly, a central ING team has been set up to monitor the situation globally and provide guidance on health and safety measures, travel advice and business continuity for our company. As the situation differs from country to country, we are following local government guidelines in our response to the virus. Also the potential economic implications for the countries and sectors where ING is active in are being assessed and discussed in order to identify possible mitigating actions.

Financial economic crime

Knowing who we do business with helps us to protect our customers, society and our bank from financial economic crimes (FEC). We believe that as gatekeepers to the financial system we have an obligation to prevent criminals from misusing it or detect and respond when it is being misused. We believe we can be even more effective in safeguarding the financial system if we join forces and work with other banks and with national, European and global authorities and law enforcement agencies to tackle financial economic crime.

In 2019, we continued to implement and execute policies and procedures to further enhance our Know Your Customer (KYC) activities. We continued to work on the global KYC enhancement programme that started at ING in 2017 and which we built on in 2018 and 2019. The programme encompasses all customer segments in all ING business units. For more information on FEC and KYC see ‘Compliance risk’ chapter.

Model risk

Risk management also depends on models more and more as banking has become a digital business in a volatile, uncertain, complex and ambiguous world with constantly changing customer needs, more demanding regulatory expectations, increasing dependency on the use of models and the need to adapt and react quickly.

In 2019, we initiated a programme (the Model Paradigm Shift) to improve the availability and quality of our data, model governance and processes, further strengthening our risk modelling and data capabilities to give ING a competitive advantage.

Cybercrime

Cybercrime remains a continuous threat to companies in general and to financial institutions specifically. Both the frequency and the intensity of attacks increase on a global scale. Threats from Distributed Denial of Service (DDoS), targeted attacks (also called Advanced Persistent Threats) and Ransomware have intensified worldwide.

ING builds on its cybercrime resilience through its dedicated Cyber Crime Expertise and Response Team, further enhancing the control environment to protect, detect and respond to e-banking fraud, DDoS and targeted attacks. Controls and monitoring continue to be embedded in the organisation as part of the overall internal control framework and are continuously re-assessed against existing and new threats. The identification and monitoring of new threat actors and campaigns relevant to ING also informs this process as does the closer alignment between IT security and fraud teams. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration with financial industry peers, law enforcement authorities, government (e.g. National Cyber Security Center) and internet service providers (ISPs).

Low interest rates in Eurozone

The persistence of a low interest rate environment in Europe, where central banks held their rates at very low and even negative levels in most countries, continued to negatively impact short-term as well as long-term market rates. This is posing a challenge for banks to maintain positive income in the form of net interest income from traditional savings activities.

Sourcing risk and third-party resources

The amount of business processes that is sourced to third-parties increased significantly over the years. Most notable is our (internal) sourcing in Poland, the Philippines and Slovakia but also (external) third-party sourcing increased.

Through the renewed sourcing policy and related control standard, ING will actively monitor the controls around sourcing (internal & external). According to 2019 EBA guidelines, all external and internal contracts have to re-assessed and properly classified and registered before end of 2021. In 2020, NFR will focus on improving business units' risk data on Sourcing risk and related reporting.

Climate change risk

The urgency around climate change is escalating and climate-related risk tops the World Economic Forum's global ranking in terms of likelihood and impact. The potential financial impacts of extreme weather events such as hurricanes, floods and heatwaves are elevating the risks associated with climate change. With more than 38 million customers in over 40 countries, our business activities can both significantly influence communities and the environment and be impacted by climate risks. As such, we take our responsibility to help mitigate this risk seriously.

Shifts in societal expectations on climate change and developments in climate science are driving new initiatives and policy updates within the bank to address this threat. For example, we've set ambitious targets to reduce financing for coal power generation to close to zero by 2025, and no longer provide financing to new clients whose business is over 50 percent reliant on coal-fired power. By the end of 2025, we will not finance any clients in the utilities sector who are more than five percent reliant on coal. In addition, we are steering our loan portfolio to meet the well-below two degrees goal of the Paris Climate Accord. In 2019, we published our first progress report on Terra, our pathway towards climate alignment in the sectors most responsible for climate change.

We expect climate change to remain firmly on ING's agenda, as well as the agendas of our customers and of regulatory and supervisory bodies around the world. We have committed to report in line with the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD) and we continue to work on the challenging exercise of translating potential climate risks and transition risks into financial risk for ING.

Task Force on Climate-Related Financial Disclosures (TCFD)

ING endorses the Financial Stability Board's (FSB) Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. This voluntary disclosure outlines the progress made to date. To further strengthen understanding and adoption of TCFD recommendations, ING has joined the UNEP FI TCFD Phase 2 to develop transition and physical risk assessment models in 2019.

Governance

ING's Climate Change Committee (CCC) is mandated to oversee and set priorities for the implementation of the TCFD recommendations and other strategic climate-related topics that impact the group. For details please refer to our approach to climate governance.

Strategy

In order to get an understanding of our company's exposure to climate risk, we have started with the analysis of climate-affected sectors as outlined in the report 'Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)'. We conducted an Energy Transition assessment for particularly sensitive sectors within the Transportation, Industrials, Power and Real Estate sectors where the results can help improve our understanding of the impacts of changing regulation and technology developments. ING is committed to continuously reviewing and monitoring its policies and strategies as climate-related risks and opportunities emerge. As a result of transition risk ING further refined its coal policy in 2017, targeting near-zero coal exposure by 2025.

In 2018, ING started measuring and steering our lending portfolio towards the Paris Agreement's well-below two degree goal by 2040 – our Terra Approach (Report of the Executive Report). For instance, our automotive, real estate and power portfolio have been assessed. For an overview of how we capitalise on climate-related opportunities, please refer to Responsible Finance (Report of the Executive Report).

Risk Management
Our approach continues to evolve as we develop a better understanding of climate risk and we start to embed climate risk within our risk management process. ING has a Risk Identification and Risk Assessment process in place, helping us to adjust risk appetite and policies to reflect external environment management.

ING's Environmental and Social Risk (ESR) management process evaluates risks on a client and transaction basis. In 2019, we updated our ESR policy and implemented a standalone climate change policy which aims to limit deal-specific potential negative climate impacts. (refer to ESR policy).

Metrics and Targets
We have set climate-related targets in our lending portfolio. This includes exiting coal by 2025 and steering our €600 billion portfolio towards meeting the Paris Agreement's well-below two degree goal (Terra Approach). Under Terra, we need to set one target per sector for each of the nine sectors. As of year-end 2019, we had developed an approach and target for five sectors. For details refer to our 2019 Terra Progress Report. For our approach to setting opportunity-related metrics and targets please refer to Climate Finance.

Next Steps
In the course of 2020 we aim to identify physical risk in our lending portfolio while we continue our transition risk analysis. We utilise learnings and best practices from sector initiatives and our participation in the UNEP FI TCFD programme.

Credit risk

Introduction
Credit risk is the risk of loss from the default and/or credit rating deterioration of clients. Credit risks arise in ING's lending, financial markets and investment activities. The credit risk section provides information on how ING measures, monitors and manages credit risk and gives an insight into the portfolio from a credit risk perspective.

Governance (*)
ING's credit risk strategy is to maintain an internationally diversified loan and bond portfolio, avoiding large risk concentrations. The emphasis is on managing business developments within the business lines by means of a top-down risk appetite framework, which sets concentration limits for countries, individual clients, sectors, products, secondary risk (collateral/guarantees) and investment activities. The aim is to support relationship-banking activities, while maintaining internal risk/reward guidelines and controls.

Credit risk is a Tier 1 level risk function within ING and is part of the second line of defence. It is managed by regional and/or business unit CROs. The CRO Wholesale Banking (WB), CRO Challengers & Growth Markets (C&G), CRO Netherlands and CRO Belux focus on specific risks in the geographical and/or business areas of their responsibilities. The Financial Risk department is a Tier 2 level risk function, which is responsible for the consolidated risk appetite setting, risk frameworks, model development and policies.

The credit risk function encompasses the following activities:
- Measuring, monitoring and managing credit risks in the bank's portfolio;
- Challenging and approving new and modified transactions and borrower reviews;
- Managing the levels of provisioning and risk costs, and advising on impairments; and
- Providing consistent credit risk policies, systems and tools to manage the credit lifecycle of all activities.

Credit risk categories (*)

Credit risk uses the following risk categories to differentiate between the different types of credit risk:

- **Lending risk:** is the risk that the client (counterparty, corporate or individual) does not pay the principal, interest or fees on a loan when they are due, or on demand for letters of credit (LCs) and guarantees provided by ING..
- **Investment risk**: is the credit default and risk rating migration risk that is associated with ING's investments in bonds, commercial paper, equities, securitisations, and other similar publicly traded securities. This can be viewed as the potential loss that ING may incur as a result of holding a position in underlying securities whose Issuer's credit quality deteriorates or defaults. All investments in the banking book are classified in the investment risk category. The primary purpose of ING's investments in the banking books is for liquidity management.
- **Money market (MM) risk**: arises when ING places short-term deposits with a counterparty in order to manage excess liquidity. In the event of a counterparty default, ING may lose the deposit placed.
- **Pre-settlement (PS) risk**: arises when a client defaults on a transaction before settlement and ING must replace the contract by a trade with another counterparty at the then prevailing (possibly unfavourable) market price. This credit risk category is associated with derivatives transactions (exchange-traded derivatives, over-the-counter (OTC) derivatives and securities financing transactions).
- **Settlement risk**: is the risk that arises when there is an exchange of value (funds or instruments) for the same value date or different value dates and receipt is not verified or expected until after ING has given irrevocable instructions to pay or has paid or delivered its side of the trade. The risk is that ING delivers but does not receive delivery from its counterparty. ING manages settlement risk in the same way as other credit risks by setting a risk limit per client. Due to the short-term nature (typically one day), ING does not hold provisions or capital for settlement risk. Although a relatively low risk, ING increasingly uses DVP (delivery versus payment) and safe settlement payment techniques to reduce settlement risk.

For the reconciliation between credit risk outstandings categories and financial assets, refer to table below:

Reconciliation between credit risk categories and financial position (*)

Credit risk categories	Mainly relates to:	Notes in the financial statements
Lending risk	-Cash and balances with central banks -Loans and advances to banks -Loans and advances to customers -Off-balance sheet items e.g. obligations under financial guarantees and letters of credit and undrawn credit facilities	Note 2 Cash and balances with central banks Note 3 Loans and advances to banks Note 4 Financial assets at fair value through profit or loss Note 5 Financial assets at fair value through other comprehensive income Note 7 Loans and advances to customers Note 45 Contingent liabilities and commitments
Investment risk	-Debt securities -Equity securities	Note 4 Financial assets at fair value through profit or loss Note 5 Financial assets at fair value through other comprehensive income Note 6 Securities at amortised cost
Money market (MM) risk	-Cash and balances with central banks -Loans and advances to banks -Loans and advances to customers	Note 2 Cash and balances with central banks Note 3 Loans and advances to banks Note 7 Loans and advances to customers
Pre-settlement (PS) risk	-Financial assets at fair value through profit or loss (trading assets and non-trading derivatives) -Financial liabilities at fair value through profit or loss (trading assets and non-trading derivatives) -Securities financing	Note 4 Financial assets at fair value through profit or loss Note 15 Financial liabilities at fair value through profit or loss Note 44 Offsetting financial assets and liabilities
Settlement risk	-Financial assets at fair value through profit or loss (trading assets and non-trading derivatives) -Financial liabilities at fair value through profit or loss (trading assets and non-trading derivatives) -Amounts to be settled	Note 4 Financial assets at fair value through profit or loss Note 11 Other assets Note 15 Financial liabilities at fair value through profit or loss Note 17 Other liabilities

Credit risk appetite and concentration risk framework (*)

The credit risk appetite and concentration risk framework is designed to prevent undesired high levels of credit risk and credit concentrations within various levels of the ING portfolio. It is derived from the concepts of boundaries and instruments as described in the Risk Appetite Framework.

Credit risk appetite statements (*)

Credit risk appetite is the maximum level of credit risk ING is willing to accept for growth and value creation. The credit risk appetite is linked to the overall bank-wide risk appetite framework. The credit risk appetite is expressed in quantitative and qualitative measures. Having a credit risk appetite achieves:

- Clarity about the credit risks that ING is prepared to assume, target setting and prudent risk management;
- Consistent communication to different stakeholders;
- Guidelines on how to align reporting and monitoring tools with the organisational structure and strategy; and
- Alignment of business strategies and key performance indicators of business units with ING's credit risk appetite through dynamic planning..

Credit risk appetite is present across different levels within ING, at portfolio level as well as transaction level. The various credit risk appetite components at portfolio and transaction levels together result in the credit risk appetite framework.

The credit risk appetite and concentration risk framework is composed of:

- **Country risk concentration**: Country risk is the risk that arises due to events in a specific country (or group of countries). In order to manage the maximum country event loss ING is willing to accept, boundaries are approved by the Supervisory Board ensure ING's consolidated 3-year average result before tax can absorb an estimated country event loss due to a country risk occurrence. The estimated level is correlated to the risk rating assigned to a given country. Actual country limits are set by means of country instruments, which are reviewed monthly and updated when needed. For countries with elevated levels of geopolitical or severe economic cycle risk, monitoring is performed on a more frequent basis with strict pipeline and exposure management.
- **Single name and industry sector concentration**: ING has established a credit concentration risk framework in order to identify, measure and monitor single name concentration and industry sector concentration (systemic risk). The same concept of boundaries and instruments are applied.
- **Product and secondary risk concentration**: ING has established a concentration framework to identify, measure and monitor product concentration and secondary risk.
- **Scenarios and stress tests**: Stress testing evaluates ING's financial stability under severe, but plausible stress scenarios, and supports decision-making that assures ING remains a financially going concern even after a severe event occurs. In addition to the bank-wide stress testing framework as described above, ING performs regularly sensitivity analysis to assess portfolio risks and concentrations. These sensitivity analyses are consistent with the stress scenario established in the Group-wide credit risk appetite framework.
- **Product approvals**: The product approval and review process (PARP) assesses and manages risks associated with the introduction of new or modified products. It ensures that sound due diligence is performed by relevant stakeholders and the relevant risks (credit, operational, compliance, etc.) are addressed appropriately..
- **Sector policies**: These are detailed analyses of defined products and/or industries. They identify the major risk drivers and mitigants, the internal business mandate, and propose the risk (including business) parameters – and potentially the maximum product and/or portfolio limit - to undertake that business. A sector policy is always prepared by the front office responsible for the internal business mandate and requires an approval from the designated approval authority. Sector policies may carry various names and/or may have geographical and/or business limitations (e.g. local vs global).
- **Reference benchmarks:** The maximum credit risk appetite per obligor group is expressed as a (benchmark) exposure at the concentration risk level, which corresponds to (maximum) internal capital consumption for credit risk. It is used as a reference amount in the credit approval process.
- **Credit approval process**: The purpose of the credit approval process is that individual transactions and the risk associated with these transactions are assessed on a name-by-name basis. For each type of client there is a dedicated process with credit risk managers specialised along the business lines of ING. The credit approval process is supported by a risk rating system and exposure monitoring system. Risk ratings are used to indicate a client's creditworthiness which translates into a probability of default. This is used as input to determine the maximum risk appetite that ING has for a given type of client (reference benchmark). The determination of the delegated authority (the amount that can be approved at various levels of the organisation) is a function of the risk rating of the client and ING's credit risk exposure on the client.

Given the nature of the retail business, roles and responsibilities of the local credit risk policy are delegated to local retail credit risk management. However, the global retail risk policy prescribes no-go criteria and minimum standards for underwriting. Lending standards, including material changes to those standards, are approved by the global head of retail risk.

Environmental and Social Risk Framework

ING's environmental and social risk (ESR) policy framework helps us make transparent choices about how, where and who we do business with. In 2019 we renewed our ESR Framework based on input from different stakeholders including clients, peers, NGOs and our own colleagues. Through regular updates like these we keep abreast of societal norms and regulation relating to sustainability and challenge our own increasingly strong commitments on the topics of human rights and climate change.

ESR in practice in 2019

The ESR policy framework includes standards and best practice guidance for ESR-sensitive sectors. It includes explicit restrictions on activities not in line with ING's values and harmful to people or the environment (for example companies involved in manufacturing cluster munitions), which we will not directly finance.

The next table gives insight into the ESR policies that are part of the Framework and where they are applied.:

Credit risk portfolio per economic sector and application of ESR framework

in percentage	2019 outstandings	ING Values	Human rights	Environmental compliance	Animal welfare	Defence	Equator principles	Forestry and Agrocommodities	Mining and Metals	Tobacco*	Infrastructure	Generic engineering*	Manufacturing	Chemicals	Energy**	Fisheries*
Consumer lending	32.4%	●														
Financial institutions	20.5%	●														
Governments	7.1%	●														
Other	0.4%	●														
Corporates	39.6%	●	●	●												
Real estate	6.6%	●	●	●			●									
Natural resources	5.5%	●	●	●			●		●						●	
Transportation & logistics	4.4%	●	●	●		●	●						●			
Services	3.7%	●	●	●		●	●				●		●			
Food, beverages & personal care	3.2%	●	●	●	●		●	●		●		●				●
General industries	3.2%	●	●	●		●	●	●					●			
Builders & contractors	2.0%	●	●	●			●						●			
Chemicals, health & pharmaceuticals	2.0%	●	●	●	●		●					●		●		
Other	1.9%	●	●	●			●									
Utilities	1.5%	●	●	●			●								●	
Media and telecom	1.4%	●	●	●		●	●				●					
Retail	1.1%	●	●	●			●									
Automotive	0.8%	●	●	●		●	●						●			
Technology	2.2%	●	●	●		●	●						●	●		

* Fully or partially excluded activities.

** Includes policies on Oil and Gas, Coal, Nuclear Energy and Power Generation.

The way the Framework is applied in practice differs per product type. Generally the largest potential environmental and social impacts come from large corporates within our Wholesale Banking (WB) segment. WB is therefore the initial focus of our assessments and where we promote active ESR dialogue. We have been working with wholesale clients for more than 15 years to support them in understanding and managing their environmental and social impact. A simplified version of the ESR policy framework, following the same rationale and principles, applies to ING's retail activities for mid-corporates and small medium enterprises.

The ESR policy framework is incorporated in ING's KYC policy framework, meaning the ESR client assessment is part of client on-boarding and review. The ESR framework minimum requirements are also included in ING's procurement policy and apply to the screening of suppliers of ING's procurement activities.
ESR is applied in practice in different ways, including an ESR client assessment during KYC onboarding, an ESR transaction assessment for Wholesale Banking, separate in-depth advice from the global ESR team for ESR high-risk WB transactions and name screening for transactions with fully restricted clients. These ESR check and controls are integrated into our client and transaction due diligence processes.

Of all WB engagements in scope of the ESR policy framework in 2019, 85 percent were considered ESR low risk, 9 percent ESR medium risk and 6 percent ESR high risk. ESR high-risk cases require specialised advice from the global ESR team. The team now consists of 13 dedicated ESR advisors, 11 of them are in Amsterdam and two are located in Geneva and New York. Whereas we have a strong ESR policy framework, we acknowledge that we need to further improve our processes in order to ensure accuracy and completeness of the data. The ESR advice assesses the specific product offered and impacts associated with it, the sector, operating context and geography of the engagement and other relevant factors. Based on this in-depth research, a binding advice is given that can only be overruled at Board level. Of the 304 ESR advices given in 2019, 45 percent were positive, 25 percent positive subject to conditions and 30 percent negative. Conditions can play an important role in helping clients transition towards improved environmental and social performance on the ground.

The ESR team's main focus is on its policy development and transaction advisory roles. However the team also provides training (both in-person and via webinars) to hundreds of colleagues around the world every year in risk, front-office, KYC and compliance teams, so that ESR knowledge is built on and spread.

Updates in the ESR Framework

The renewed ESR Framework went live in July 2019. In this review, building on internal and external stakeholder input, we improved our structure and aimed to provide more clarity on the scope and governance of ESR. The Framework now includes standalone policies on human rights and climate change and an infrastructure policy. This reflects external developments, societal expectations and our ambitions for these topics and sustainability in general.

New restrictions in the updated framework include arctic offshore oil and gas exploration and production, white phosphorus, asbestos and small arms and light weapons for private individuals. We have a zero-tolerance policy for some of the restrictions, such as with companies involved in the production of cluster munitions. For others, we try to refrain as much as possible from any form of involvement, whether directly or indirectly. The new framework also affects companies with both controversial and non-controversial activities.

In the updated ESR policy framework we have ensured that each sector policy includes the proper references to the relevant standards of the human rights and climate change overarching pillars. Incorporating these helps us to determine which transactions require further analysis and action, and provides our stakeholders with a better understanding of our approach to human rights and climate change when assessing transactions. The updated ESR policy also encourages clients to identify and be transparent about how human rights and/or environmental issues affect their supply chains. They should provide evidence of proper monitoring and where relevant, translate these findings into acceptance criteria for partners and suppliers.

Developing international best practice and stakeholder engagement

Our ESR approach helps us and our clients to gradually enhance the implementation of key standards like the UN Guiding Principles on Human Rights and the Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises. But beyond stimulating better environmental and social performance in our own portfolio, ING actively collaborates with other institutions, peers and regulators to address the environmental and social challenges we face:

- **ING and the Equator Principles (EPs):** The EPs, an environmental and social risk management framework adopted by over 100 banks globally, were updated in 2019. The new version (EP4), has increased the scope to capture more project-related transactions. It contains new commitments on human rights, climate change, Indigenous people and biodiversity. ING, an active EP Association member, co-led the coordination of the EP4 update process. ING is a member of several working groups, including those on social risks, climate change and scope. ING also co-leads the capacity building and training working group, which resulted in the roll-out of an online EP learning tool to ING risk and front-office employees last year. The tool is used by other EP banks globally.
- **Dutch Banking Sector Agreement**: We continued our engagement in Dutch multi-stakeholder platforms to implement the Dutch Banking Sector Agreement on International Responsible Business Conduct Regarding Human Rights. In 2018, we published our first human rights report in which we disclosed our saliency process and the human rights salient to ING – child labour, forced labour and land-related community issues. In 2019, we published an update focused on our role as a corporate lender and the outcome of an exercise where we proactively engaged with 29 clients in human rights.
- **Thun Group**: In the international arena, ING actively participates in the Thun Group, an informal group of bank representatives sharing expertise and experience to support the integration of the UN Guiding Principles on Business and Human Rights into the policies and practices of banks.
- **OECD**: ING's active role in promoting and integrating human rights is reflected in our participation as a formal advisory member to the OECD on responsible business conduct in our sector. In 2019 the OECD published the Due Diligence for Responsible Corporate Lending and Securities Underwriting report that provides a global environmental and social risk framework for financial institutions. We participate in the annual meetings for practitioners from financial institutions (export credit agencies, EP financial institutions, commercial banks, development institutions, etc.) organised by the OECD in Paris, enhancing knowledge sharing and collaboration.
- **United Nations Human Rights Office**: In May, at the request of the UN Human Rights Office of the High Commissioner, ING hosted a meeting with Dutch private sector industrials and the UN High Commissioner for Human Rights, Ms Michelle Bachelet, during her first official visit to the Netherlands, to discuss the role and leverage of the private sector in this important area.

By taking part in the above-mentioned initiatives, we aim to contribute our viewpoint and those of our clients, employees and other stakeholders to help shape a consensus and develop clear guidelines that can serve as a standard for our industry.

Credit risk models (*)

Within ING, internal Basel compliant models are used to determine probability of default (PD), exposure at default (EAD) and loss given default (LGD) for regulatory and economic capital purposes. These models also form the basis of ING's IFRS 9 loan loss provisioning (see "IFRS 9 models" below). Bank-wide, ING has implemented around 100 credit risk models, for regulatory capital, economic capital and loan loss provisioning purposes.

There are two main types of PD, EAD and LGD models used throughout the Bank:
- **Statistical models** are created where a large set of default or detailed loss data is available. They are characterised by a sufficient number of data points that facilitate meaningful statistical estimation of the model parameters. The model parameters are estimated with statistical techniques based on the data set available;
- **Hybrid models** contain characteristics of statistical models combined with knowledge and experience of experts from risk management and front-office staff, literature from rating agencies, supervisors and academics. These models are especially appropriate for 'low default portfolios', where limited historical defaults exist.

Credit risk rating process (*)

In principle, all risk ratings are based on a Risk Rating (PD) Model that complies with the minimum requirements detailed in CRR/CRDIV, ECB Supervisory Rules and EBA guidelines. This concerns all borrower types and segments.

ING's PD rating models are based on a 1-22 scale (1=highest rating; 22=lowest rating) referred to as the 'Master scale', which roughly corresponds to the rating grades that are assigned by external rating agencies, such as Standard & Poor's, Moody's and Fitch. For example, an ING rating of 1 corresponds to an S&P/Fitch rating of AAA and a Moody's rating of Aaa; an ING rating of 2 corresponds to an S&P/Fitch rating of AA+ and a Moody's rating of Aa1, and so on.

The 22 grades are composed of the following categories:

- Investment grade (risk rating 1-10);
- Non-investment grade (risk rating 11-17);
- Sub-standard (risk rating 18-19); and
- Non-performing (risk rating 20-22).

The three first categories (1-19) are risk ratings for performing loans. The ratings are calculated in IT systems with internally developed models based on data that is either manually or automatically fed. Under certain conditions, the outcome of a manually fed model can be challenged through a rating appeal process. Risk ratings for non-performing loans (NPL) (20-22) are set by the global or regional credit restructuring department. For securitisation portfolios, the external ratings of the tranche in which ING has invested are leading.

Risk ratings assigned to clients are reviewed at least annually, with the performance of the underlying models monitored regularly. Over 90 percent of ING's credit exposures have been rated using one of the in-house developed PD rating models. Some of these models are global in nature, such as models for large corporates, commercial banks, insurance companies, central governments, local governments, funds, fund managers, project finance and leveraged companies. Other models are more regional- or country-specific: there are PD models for Small Medium Enterprise (SME) companies in Central Europe, the Netherlands, Belgium, Luxembourg, as well as residential mortgage and consumer loan models in the various retail markets.

Rating models for retail clients are predominantly statistically driven and automated, such that ratings can be updated on a monthly basis. Rating models for large corporates, institutions and banks include both statistical characteristics and manual input, with the ratings being manually updated on at least an annual basis.

Credit risk models - Pre-settlement measurement models

For regulatory capital, pre-settlement (PS) exposure is calculated using a marked to market (MtM) plus regulatory-based add-on. For internal capital purposes, ING uses a combination of a MtM plus model add-on approach and a scenario simulation approach.:

ING recognises that the above approaches are not sufficiently accurate for certain trading products such as highly structured or exotic derivative transactions. For the assessment of risk exposures of such complex products a bespoke calculation is made.

Under Pillar 1, ING uses the Current Exposure Method (Mark to Market method), which is a standard approach prescribed by the regulation. There are no exposures under the advanced, Internal Model Method (IMM) under Pillar1. Under Pillar 2 however, for FX and interest rate derivatives, ING uses a risk sensitive approach based on Monte Carlo simulations.

Credit risk tools

Credit risk systems and data standards

The acceptance, maintenance, measurement, management and reporting of credit risks at all levels of ING is executed through single, common credit risk data standards using shared credit risk tools that support standardised and transparent credit risk practices. ING has chosen to develop credit risk tools centrally. The philosophy is to use a single source of data, in an integrated approach that includes ING policy, the regulatory environment in which we operate, and the daily processes that are active throughout the Group. Disciplined application in these three areas is essential for achieving high data quality standards. The customer-centric data model conforms to the three core business needs of ING:

- To monitor the risks we undertake.
- To be compliant with our internal and external obligations; and
- To transact effectively and efficiently with our clients.

Credit risk portfolio (*)

ING's credit exposure is mainly related to lending to individuals and businesses followed by investments in bonds and securitised assets. Loans to individuals are mainly mortgage loans secured by residential property. Loans (including guarantees issued) to businesses are often collateralised, but may be unsecured based on the internal analysis of the borrower's creditworthiness. Bonds in the investment portfolio are generally unsecured, but predominantly consist of bonds issued by central governments and EU and/or OECD based financial institutions. Secured bonds, such as mortgage backed securities and asset backed securities are secured by the underlying diversified pool of assets (commercial or residential mortgages, car loans and/or other assets) held by the securities issuer. The last major credit risk source involves pre-settlement (PS) exposures which arise from trading activities, including derivatives, repurchase transactions and securities lending/borrowing transactions. This is also commonly referred to as counterparty credit risk.

The prior period outstandings have been updated to improve consistency and comparability to the current year presentation. This is applicable to all following tables in the sections credit risks portfolio, credit risk mitigation and credit quality that include outstandings with prior period comparatives.

Portfolio analysis per business line (*)

Outstandings per line of business[1,2,3] (*)

		Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
Rating class		**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Investment grade	1 (AAA)	31,859	25,179	372	466	18,973	16,390	24,774	29,333	75,978	71,368
	2-4 (AA)	46,394	46,847	5,853	5,572	36,460	28,515	1,832	1,431	90,539	82,365
	5-7 (A)	66,756	63,917	20,922	19,645	48,587	41,325	323	398	136,588	125,285
	8-10 (BBB)	115,888	110,875	115,192	109,844	49,681	56,551	3,190	3,149	283,951	280,419
Non-Investment grade	11-13 (BB)	86,342	93,152	63,993	66,899	41,584	43,154	31	957	191,950	204,162
	14-16 (B)	22,929	18,462	15,845	16,447	14,755	12,098		13	53,528	47,020
	17 (CCC)	1,081	1,648	2,223	2,324	933	764	98	90	4,335	4,826
Substandard grade	18 (CC)	1,228	1,441	1,409	1,492	531	602		.	3,168	3,536
	19 (C)	659	298	1,056	1,093	672	630		.	2,387	2,022
NPL grade	20-22 (D)	4,516	4,395	4,316	4,229	2,399	2,189	275	314	11,506	11,128
Total		**377,651**	**366,214**	**231,180**	**228,011**	**214,575**	**202,220**	**30,524**	**35,685**	**853,930**	**832,130**
Industry											
Private Individuals		31	32	164,466	164,220	167,262	156,385			331,758	320,637
Central Banks		34,044	28,962			8,383	6,124	23,339	27,116	65,766	62,202
Commercial Banks		44,152	45,213	250	251	8,884	8,889	3,502	4,461	56,788	58,814
Natural Resources		54,113	52,458	976	1,153	806	910			55,894	54,521
Central Governments		37,449	32,356	1,364	1,306	6,356	6,244	3,131	3,131	48,300	43,037
Non-Bank Financial Institutions		45,214	37,032	1,832	2,138	378	623	512	926	47,936	40,720
Real Estate		30,819	38,517	12,769	12,222	2,732	2,353			46,320	53,092
Transportation & Logistics		27,334	27,009	2,882	2,704	764	769			30,980	30,481
Food, Beverages & Personal Care		16,691	14,996	5,960	5,601	2,151	2,325			24,802	22,923
Services		10,252	12,461	10,929	9,911	862	990	3	2	22,046	23,363
General Industries		12,599	14,799	4,269	3,934	2,764	2,801			19,632	21,535
Lower Public Administration		3,594	3,459	5,619	5,296	8,184	8,227			17,397	16,983
Utilities		16,377	15,154	741	597	145	143			17,263	15,893
Chemicals, Health & Pharmaceuticals		9,213	10,190	6,213	6,258	1,017	1,129			16,443	17,577
Other		35,769	33,574	12,910	12,420	3,889	4,309	36	50	52,603	50,353
Total		**377,651**	**366,214**	**231,180**	**228,011**	**214,575**	**202,220**	**30,524**	**35,685**	**853,930**	**832,130**
Region											
Europe	Netherlands	41,255	41,807	142,547	142,621	905	657	25,340	30,025	210,046	215,110

Belgium	33,936	36,546	82,368	79,362	572	671	18	16	116,894	116,595
Germany	18,067	15,832	485	476	99,966	96,278	43	45	118,561	112,630
Poland	15,713	14,377	66	66	20,377	17,801			36,156	32,244
Spain	8,849	10,957	68	64	21,838	19,092	30	15	30,785	30,128
United Kingdom	27,026	26,633	277	256	225	258	1,872	1,463	29,400	28,610
Luxemburg	22,209	18,145	4,051	3,779	1,554	1,603	13	13	27,827	23,540
France	13,914	13,736	519	519	6,267	4,605	3	5	20,703	18,865
Rest of Europe	65,432	65,324	406	400	22,816	23,962	25	21	88,679	89,706
Americas	67,893	64,672	223	294	1,457	1,572	340	379	69,912	66,917
Asia	52,065	48,563	103	105	180	194	2,840	3,703	55,188	52,564
Australia	8,622	6,755	27	28	38,416	35,524	1	1	47,066	42,308
Africa	2,671	2,867	40	43	2	4			2,713	2,915
Total	**377,651**	**366,214**	**231,180**	**228,011**	**214,575**	**202,220**	**30,524**	**35,685**	**853,930**	**832,130**

1 Based on credit risk measurement contained in lending, pre-settlement, money market and investment activities.
2 Based on the total amount of credit risk in the respective column using ING's internal credit risk measurement methodologies. Economic sectors (industry) below 2% are not shown separately but grouped in Other.
3 Geographic areas are based on country of residence, except for private individuals for which the geographic areas are based on the primary country of risk.

Overall Portfolio (*)

During 2019, ING's portfolio size increased by EUR 22.3 billion (2.69%) to EUR 854 billion outstanding, driven by volume growth and foreign exchange rate changes. The net volume growth was concentrated in the Lending risk category. FX rate movements contributed to EUR 3.2 billion of the total growth, driven by the appreciation of the US dollar (+1.8%), British pound (+5.5%), Australian dollar (+1.5%) and Polish new zloty (+0.9%), partially off-set by the depreciation of New Turkish Lira (-9.0%) and New Romania Leu (-2.7%) against the Euro.

Rating distribution (*)

Overall the rating class concentration improved. The share of Investment grade rating classes increased from 67.2% to 68.7%, while the share of non-investment grade slightly decreased, from 30.8% to 29.3%. Substandard grade outstanding remained stable at EUR 5.5 billion whereas the NPL grade increased by 3.4%.

With respect to the rating distribution within the Business lines, in Wholesale Banking AAA-rated assets increased driven by the reserve deposit to Banque Centrale du Luxembourg and bond exposure to the Federal Government of the United States of America. Wholesale A rating class increased as a result of outstanding to Bank of Japan and large corporate customers in the US, Asia and the Netherlands. Reduced concentration in the BB rating class was mainly seen in real estate exposure.

In Retail Challengers & Growth Markets, the increase in AAA-rating was explained by increased reserve deposit to Deutsche Bundesbank. Volume growth in AA and A-rated residential mortgages was visible in Australia, Germany, Poland and Spain. This positive effect on the rating composition of C&G was slightly off-set by an increase in B rating related to lower ratings of Turkey's mid-corporate segment.

The rating distribution for Retail Benelux improved mostly driven by improved risk profile of Dutch residential mortgages shifting from rating classes BB to BBB, driven by historically low unemployment rate and continuing increase of the NVM House price index, improving LTV's.

Corporate line decreased concentration in AAA rating class due to a reduction in the reserve deposit with De Nederlandsche Bank.

Industry (*)

The industry composition within Retail is concentrated in private individuals with 71% for Retail Benelux and 78% for Retail Challengers & Growth. In C&G, mortgage volume increased, primarily in Germany, Poland and Australia.

In Retail Benelux the slight increase in Belgium and Luxemburg was largely off-set by the overall reduction in Dutch mortgages due to a trend of early pre-payments and the transfer from Westland Utrecht Bank to Nationale Nederlanden.

Within Wholesale Banking, the sector development in Central Governments and Central Banks is consistent with the aforementioned development in the AAA-rating category. Exposure towards Commercial Banks decreased mainly due to reduced pre-settlement and lending exposures within UK, Republic of Korea and Spain. Outstanding to Non-Bank FIs increased, most notably in funds & fund management sub-industry in Western Europe.

Apart from the movements against the financial counterparties, ING Wholesale increased its exposure to Food, Beverages & Personal Care industry (in Brazil and Hong Kong); to Natural Resources (UK and Singapore), and to Utilities (Luxemburg and the UK). Exposure decreased in Real Estate (Italy and the Benelux), Services (France and Belgium), and General Industries (US and the Netherlands).

Portfolio analysis per geographical area (*)

The portfolio analysis per geographical area re-emphasizes the international distribution of the ING portfolio. The share of Netherlands in the overall portfolio decreased further from 25.9% to 24.6%.

The most noticeable outstanding trends in the Netherlands were the previously mentioned reduction in regulatory reserves with the central bank. The lower volumes of residential mortgage loans were almost completely off-set by a growth in term loans granted to SMEs. For Belgium the overall exposure remained fairly stable as the reduction in the central bank deposit was off-set by increased exposures to Non-Bank FIs and growth in term loans to mid-corporates. Outstanding in Germany increased mainly due to residential mortgage lending, instalment loans and central bank exposures.

The higher exposure in the Americas was mainly driven by bond exposures to the US central government. In Asia, the concentration of outstanding slightly increased, with noticeable growth in exposure to Japan and Singapore, partly off-set by reduced exposures in China and Republic of Korea. Australia reported a growth in outstanding which was mainly driven by trade related transactions with Commercial Banks and mortgage lending to Private Individuals.

The top 5 countries within Rest of Europe based on outstanding were: Italy (EUR 16,781 million), Switzerland (EUR 12,016 million), Turkey (EUR 11,383 million), Romania (EUR 7,473 million) and Russian Federation (EUR 5,652 million).

Outstandings by economic sectors and geographical area [1] (*)

	Region													**Total**	**Total**
Industry	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	Luxemburg	France	Rest of Europe	America	Asia	Australia	Africa	**2019**	**2018**
Private Individuals	117,194	43,057	84,281	11,296	20,758	248	3,019	2,242	15,626	222	179	33,602	36	331,758	320,637
Central Banks	21,635	16,651	7,573	211	370	1,867	5,048	796	6,454	0	4,951	200	8	65,766	62,202
Commercial Banks	1,918	358	4,231	254	743	7,206	3,771	5,945	7,398	7,682	13,576	3,353	352	56,788	58,814
Natural Resources	2,556	1,323	959	729	220	4,307	2,339	652	16,037	9,521	15,442	749	1,061	55,894	54,521
Central Governments	7,970	5,777	3,033	6,626	4,597	42	184	1,554	6,668	9,724	1,071	689	367	48,300	43,037
Non-Bank Financial Institutions	4,168	2,516	3,824	1,292	906	7,486	4,438	1,815	4,974	12,435	3,259	674	149	47,936	40,720
Real Estate	17,162	8,949	450	2,375	659	326	2,410	3,006	3,682	3,395	805	3,091	8	46,320	53,092
Transportation & Logistics	4,722	2,298	505	1,100	569	2,081	868	812	6,129	3,979	6,818	651	447	30,980	30,481
Food, Beverages & Personal Care	6,301	3,095	322	2,093	329	995	1,779	874	2,602	4,632	1,651	111	19	24,802	22,923
Services	4,683	9,272	574	822	162	774	646	711	1,109	2,264	604	426	0	22,046	23,363
General Industries	4,096	3,301	1,143	2,295	274	382	437	144	3,504	2,628	1,423	5	0	19,632	21,535
Lower Public Administration	522	5,949	5,798	727	4		728	471	536	958	18	1,686	0	17,397	16,983
Utilities	1,331	1,056	1,673	654	418	2,032	571	445	3,103	3,493	1,380	843	265	17,263	15,893
Chemicals, Health & Pharmaceuticals	4,160	3,517	935	1,066	112	95	257	524	2,812	2,286	474	205	0	16,443	17,577
Other	11,628	9,774	3,260	4,614	664	1,560	1,331	712	8,045	6,694	3,536	782	2	52,603	50,353
Total	**210,046**	**116,894**	**118,561**	**36,156**	**30,785**	**29,400**	**27,827**	**20,703**	**88,679**	**69,912**	**55,188**	**47,066**	**2,713**	**853,930**	**832,130**
Rating class															
Investment grade	144,134	73,010	95,685	22,921	23,598	24,429	21,444	15,418	50,878	42,689	41,134	31,542	175	587,056	559,437
Non-Investment grade	60,937	39,994	21,616	12,219	6,832	4,807	6,229	5,163	35,775	25,660	13,553	14,573	2,457	249,814	256,007
Substandard grade	1,993	1,023	555	212	85	17	75	25	484	464	347	265	9	5,555	5,558
NPL grade	2,983	2,867	705	806	270	148	79	96	1,541	1,100	154	686	71	11,506	11,128
Total	**210,046**	**116,894**	**118,561**	**36,156**	**30,785**	**29,400**	**27,827**	**20,703**	**88,679**	**69,912**	**55,188**	**47,066**	**2,713**	**853,930**	**832,130**

1 Geographic areas are based on country of residence, except for private individuals for which the geographic areas are based on the primary country of risk.

Credit risk mitigation (*)

ING uses various credit risk mitigation techniques and instruments to mitigate the credit risk associated with an exposure and to reduce the losses incurred subsequent to a default by a customer. The most common terminology used in ING for credit risk protection is 'cover'. While a cover may be an important mitigant of credit risk and an alternative source of repayment, generally it is ING's practice to lend on the basis of the customer's creditworthiness rather than exclusively relying on the value of the cover.

Cover forms (*)

Within ING, there are two distinct forms of covers. First, where the asset has been pledged to ING as collateral or security ING has the right to liquidate it should the customer is unable to fulfil its financial obligation. As such, the proceeds can be applied towards full or partial compensation of the customer's outstanding exposure. This may be tangible (such as cash, securities, receivables, inventory, plant and machinery, and mortgages on real estate properties) or intangible (such as patents, trademarks, contract rights and licenses). Second, where there is a third-party obligation, indemnification or undertaking (either by contract and/or by law) ING has the right to claim from that third party an amount, if the customer fails on its obligations. The most common examples are guarantees (such as parent guarantees and export credit insurances), letters of comfort or third-party pledged mortgages.

Cover valuation methodology (*)

General guidelines for cover valuation are established to ensure consistent application within ING. These also require that the value of the cover is monitored on a regular basis. Covers are revalued periodically and whenever there is reason to believe that the market is subject to significant changes in conditions. The frequency of monitoring and revaluation depends on the type of cover.

The valuation method also depends on the type of covers. For asset collateral, the valuation sources can be the customer's balance sheet (e.g. inventory, machinery and equipment), nominal value (e.g. cash and receivables), market value (e.g. securities and commodities), independent valuations (commercial real estate) and market indices (residential real estate). For third-party obligations, the valuation is based on the value that is attributed to the contract between ING and that third party.

Cover values (*)

This section provides insight into the types of covers and the extent to which exposures benefit from collateral or guarantees. The disclosure differentiates between risk categories (lending, investment, money market and pre-settlement). The most relevant types of cover include mortgages, financial collateral (cash and securities) and guarantees. ING obtains cover that is eligible for credit risk mitigation under CRR/CRDIV, as well as cover that is not eligible. Collateral covering financial market transactions is valued on a daily basis, and as such not included in the following tables. To mitigate the credit risk arising from Financial Markets transactions, the bank enters into legal agreements governing the exchange of financial collateral (high-quality government bonds and cash).

The cover values are presented for the total portfolio of ING, both the performing and non-performing portfolio. Our definition of non-performing is explained in detail in the Credit restructuring section (below). For additional insight, a breakdown of ING's portfolio by industry and geography is provided.

Exposures are categorised into different Value to Loan (VTL) buckets that give insight in the level of collateralisation of ING's portfolio. VTL is calculated as the cover value divided by the outstandings at the balance sheet date. The cover values are indexed where appropriate and exclude any cost of liquidation. Covers can either be valid for all or some of a borrower's exposures or particular outstandings, the latter being the most common. For the purpose of aggregation, over-collateralisation is ignored in the total overview and VTL coverage of more than 100% is reported as fully covered. For VTL coverage in the tables for Dutch mortgages, consumer lending and business lending, each cover is subsequently assigned to one of the six defined VTL buckets: no cover, >0% to 25%, >25% to 50%, >50% to 75%, >75% to <100%, and ≥ 100%.

The next table gives an overview of the collateralisation of the ING's total portfolio.

Cover values including guarantees received - Total ING Bank – 2019 (*)

	Outstandings	Cover type				Value to Loan		
		Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	Partially covered	Fully covered
Consumer Lending	329,949	574,786	3,775	26,766	36,774	6.9%	7.6%	85.5%
Business Lending	378,444	154,351	21,073	93,407	296,286	36.7%	24.3%	39.1%
Investment and Money Market	94,866	33	133	64	266	96.0%	3.9%	0.1%
Total Lending, Investment and Money Market	**803,258**	**729,171**	**24,981**	**120,236**	**333,326**	**31.4%**	**15.0%**	**53.5%**
Pre-settlement [1]	50,672							
Total Bank	**853,930**							

1 More information on the credit risk mitigants can be found in the Pre-settlement section.

Cover values including guarantees received - Total ING Bank – 2018 (*)

	Outstan-dings	Cover type				Value to Loan		
		Mortgages	Financial Collateral	Guarantees	Other	No Cover	Partially covered	Fully covered
Consumer Lending	318,804	547,832	3,509	25,760	39,446	6.6%	7.9%	85.4%
Business Lending	365,804	147,205	19,090	86,222	257,929	37.0%	24.5%	38.5%
Investment and Money Market	95,857		80	145	214	90.8%	9.1%	0.2%
Total Lending, Investment and Money Market	**780,465**	**695,037**	**22,679**	**112,128**	**297,590**	**31.2%**	**15.8%**	**52.9%**
Pre-settlement [1]	51,665							
Total Bank	**832,130**							

1 More information on the credit risk mitigants can be found in the Pre-settlement section.

Over the year, the collateralisation level of the total portfolio remained stable. Excluding the pre-settlement portfolio, 53.5% of ING Group's outstandings were fully collateralised in 2019 (2018: 52.9%). Since investments traditionally do not require covers, the percentage for 'no covers' in this portfolio is close to 90%. However, 99% of the investment outstanding is investment grade. Improved economic conditions in ING's main markets contributed to improved collateral valuations, observed in consumer lending.

Consumer lending portfolio (*)

The consumer lending portfolio accounts for 38.6% of ING's total outstanding, primarily consisting of residential mortgage loans and other consumer lending loans, which mainly comprise term loans, revolvers and personal loans to consumers. As a result, most of the collateral consists of mortgages. The mortgage values are collected in an internal central database and in most cases external data is used to index the market value (e.g. mortgage values for the Netherlands are updated on a quarterly basis using the NVM house price index).

A significant part of ING's residential mortgage portfolio is in the Netherlands (37.9%), followed by Germany (25.0%), Belgium and Luxembourg (13.6%) and Australia (10.7%). Given the size of the Dutch mortgage portfolio, the valuation methodology to determine the cover values for Dutch residential mortgages is provided below.

Dutch mortgages valuation (*)

When a mortgage loan is granted in the Netherlands, the policy dictates maximum loan to market value (LTMV) for an existing property and for construction property financing of 100 percent.

In case of newly built houses usually the building /purchase agreement is sufficient as valuation. In the case of existing houses three types of valuations are allowed. If the LTMV is below 90 percent, either WOZ (fiscal market value, determined by government authorities) or an automated model valuation (the Calcasa ING Valuation) are permitted. In most cases, a valuation is performed by certified valuers that are registered at one of the organisations accepted by ING. In addition, the valuer must be a member of the NVM (Nederlandse Vereniging van Makelaars – Dutch Association of Real Estate Agents), VBO (Vereniging Bemiddeling Onroerend Goed – Association of Real Estate Brokers), VastgoedPRO (Association of Real Estate Professionals) or NVR (Nederlandse Vereniging van Rentmeesters).

Consumer lending portfolio – cover values (*)

The below tables show the values of different covers and the VTL split between performing and non-performing loans.

Cover values including guarantees received - Consumer lending portfolio – 2019 (*)

		Cover type				Value to Loan					
	Out-stan-dings	Mortgages	Financial Colla-teral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Performing											
Residential Mortgages (Private Individuals)	294,658	561,766	2,897	24,281	30,541			0.1%	0.8%	7.2%	91.8%
Residential Mortgages (SME) 1	5,687	8,786	258	145	1,402		0.2%	0.8%	1.4%	8.0%	89.6%
Other Consumer Lending	26,025	183	603	2,204	3,980	83.8%	0.3%	0.1%	0.1%	0.3%	15.4%
Total Performing	**326,370**	**570,734**	**3,759**	**26,630**	**35,922**	**6.7%**	**–**	**0.1%**	**0.8%**	**6.7%**	**85.7%**
Non-performing											
Residential Mortgages (Private Individuals)	2,477	3,804	14	121	720	0.2%	0.2%	0.7%	2.3%	9.6%	87.1%
Residential Mortgages (SME) 1	147	240	–	7	36	0.2%	0.3%	0.8%	2.9%	6.0%	89.8%
Other Consumer Lending	956	7	2	8	96	94.0%	0.4%	0.2%	0.4%	0.5%	4.6%
Total Non-performing	**3,579**	**4,052**	**16**	**136**	**852**	**25.3%**	**0.2%**	**0.5%**	**1.8%**	**7.0%**	**65.2%**
Total Consumer Lending	**329,949**	**574,786**	**3,775**	**26,766**	**36,774**	**6.9%**	**–**	**0.1%**	**0.8%**	**6.7%**	**85.5%**

1 Consists mainly of residential mortgages to small one man business clients

Cover values including guarantees received - Consumer lending portfolio – 2018 (*)

		Cover type				Value to Loan					
	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Performing											
Residential Mortgages (Private Individuals)	285,976	535,664	2,839	23,741	33,446			0.1%	1.0%	7.3%	91.6%
Residential Mortgages (SME) [1]	5,383	8,219	160	155	1,239		0.3%	0.8%	1.7%	7.5%	89.7%
Other Consumer Lending	23,937	156	493	1,694	4,072	84.7%	0.3%	0.1%	0.1%	0.5%	14.3%
Total Performing	**315,297**	**544,039**	**3,492**	**25,591**	**38,757**	**6.4%**	**0.1%**	**0.1%**	**0.9%**	**6.8%**	**85.7%**
Non-performing											
Residential Mortgages (Private Individuals)	2,490	3,568	16	152	607	0.5%	0.2%	0.8%	2.9%	13.6%	82.0%
Residential Mortgages (SME) [1]	134	218		9	29	0.4%		0.7%	2.4%	8.9%	87.7%
Other Consumer Lending	884	7	1	9	52	95.4%	0.5%	0.1%	0.2%	0.6%	3.2%
Total Non-performing	**3,508**	**3,793**	**17**	**169**	**689**	**24.4%**	**0.2%**	**0.6%**	**2.2%**	**10.1%**	**62.4%**
Total Consumer Lending	**318,804**	**547,832**	**3,509**	**25,760**	**39,446**	**6.6%**	**0.1%**	**0.1%**	**1.0%**	**6.9%**	**85.4%**

1 Consists mainly of residential mortgages to small one man business clients

The collateralisation of the consumer lending portfolio continued to improve during 2019. The rise in collateralisation levels was due to rising housing prices observed in different mortgage markets, specifically noticeable in the Netherlands.

ING's residential mortgage outstanding increased mainly in Germany (3.1%), Spain (14.8%) and Poland (23.2%). Mortgage outstanding in the Netherlands decreased slightly (0.8%). For the residential mortgages portfolio, the cover type guarantees relate to mortgages covered by governmental insurers under the Nationale Hypotheek Garantie (NHG) in the Netherlands. The NHG guarantees the repayment of a loan in case of a forced property sale.

Business lending portfolio (*)

Business lending accounts for 44.3 percent of ING's total outstanding (44.0 percent in 2018). In line with our objective to give stakeholders insight into the portfolio, we present the business lending portfolio per industry breakdown in accordance with the NAICS definition and per region and main market. Business Lending presented in this section does not include pre-settlement, investment and money market exposures, which are outlined in the next sections.

Cover values including guarantees received - Business lending portfolio – 2019 (*)

Industry	Outstandings	Cover type				Value to Loan					
		Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Natural Resources	53,796	1,197	2,426	22,041	35,691	26.6%	15.3%	9.6%	11.6%	12.9%	24.1%
Real Estate	45,927	85,946	1,442	5,942	17,765	2.6%	0.7%	1.9%	2.0%	9.7%	83.1%
Central Banks	42,087		7			100.0%					
Non-Bank Financial Institutions	30,230	13,726	11,486	6,565	43,672	26.2%	2.8%	4.6%	5.0%	5.9%	55.6%
Transportation & Logistics	29,303	3,293	168	7,519	36,223	17.0%	6.4%	2.3%	4.1%	11.3%	58.9%
Food, Beverages & Personal Care	22,585	8,030	407	8,777	34,633	24.5%	5.2%	7.8%	10.3%	12.8%	39.5%
Commercial Banks	22,508	331	129	1,656	6,062	72.4%	3.3%	2.0%	1.6%	5.9%	14.8%
Services	21,044	10,090	1,519	8,799	29,470	30.7%	5.0%	6.3%	6.5%	6.9%	44.6%
General Industries	18,849	5,031	246	5,369	22,154	32.2%	5.1%	4.3%	8.3%	9.6%	40.6%
Utilities	15,952	242	1,036	3,785	7,928	41.7%	19.7%	3.9%	5.5%	2.0%	27.3%
Chemicals, Health & Pharmaceuticals	15,410	8,361	203	3,744	12,439	26.4%	6.7%	3.9%	7.5%	11.8%	43.7%
Builders & Contractors	15,054	7,449	201	3,802	15,704	27.5%	6.7%	7.2%	8.6%	8.7%	41.2%
Others [1]	45,698	10,655	1,800	15,407	34,546	41.5%	4.9%	4.6%	5.8%	7.7%	35.4%
Total Business Lending	**378,444**	**154,351**	**21,073**	**93,407**	**296,286**	**36.7%**	**6.0%**	**4.4%**	**5.7%**	**8.2%**	**39.1%**
of which Total Non-performing	***7,856***	***2,600***	***281***	***2,643***	***6,305***	***32.6%***	***3.6%***	***7.9%***	***9.2%***	***16.5%***	***30.2%***

1 'Others' comprises industries with outstandings lower than EUR 10 billion.

Cover values including guarantees received - Business lending portfolio – 2018 (*)

		Cover type				Value to Loan					
Industry	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Natural Resources	52,783	1,170	2,142	17,944	38,366	23.9%	15.5%	11.9%	11.2%	13.3%	24.2%
Real Estate	52,476	93,181	1,500	7,399	10,995	4.3%	1.2%	2.2%	3.1%	7.6%	81.6%
Central Banks	34,365		6			100.0%					
Non-Bank Financial Institutions	21,083	1,581	9,163	5,529	32,346	34.6%	5.6%	3.2%	9.1%	6.9%	40.6%
Transportation & Logistics	28,980	3,085	148	7,470	30,855	17.7%	6.2%	3.0%	4.5%	10.3%	58.4%
Food, Beverages & Personal Care	20,970	7,376	302	7,380	24,099	28.7%	4.9%	6.8%	10.3%	11.8%	37.6%
Commercial Banks	23,876	323	338	1,312	3,918	78.8%	2.6%	1.7%	0.3%	6.2%	10.4%
Services	22,248	9,379	2,889	7,480	21,432	34.1%	4.7%	4.2%	6.7%	6.0%	44.3%
General Industries	20,391	5,027	263	6,065	31,648	33.2%	5.9%	3.7%	8.4%	8.3%	40.5%
Utilities	14,442	376	616	3,447	7,955	42.2%	16.4%	5.6%	5.1%	3.6%	27.1%
Chemicals, Health & Pharmaceuticals	16,444	8,634	203	3,899	10,849	35.5%	2.8%	3.9%	7.6%	11.9%	38.3%
Builders & Contractors	14,843	7,132	205	4,370	13,739	27.0%	7.5%	5.7%	8.2%	10.5%	41.1%
Others [1]	42,901	9,941	1,315	13,927	31,728	43.5%	4.2%	5.1%	4.7%	7.8%	34.6%
Total Business Lending	**365,804**	**147,205**	**19,090**	**86,222**	**257,929**	**37.0%**	**5.9%**	**4.6%**	**5.9%**	**8.2%**	**38.5%**
of which Total Non-performing	**7,543**	**3,578**	**266**	**2,676**	**4,447**	**28.7%**	**3.8%**	**4.9%**	**9.1%**	**15.7%**	**37.7%**

1 'Others' comprises industries with outstandings lower than EUR 10 billion.

Cover values including guarantees received - Business lending portfolio – 2019 (*)

Region		Outstandings	Cover type				Value to Loan					
			Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Europe	Netherlands	81,383	60,334	3,265	8,845	52,909	37.4%	2.8%	3.7%	5.3%	10.7%	40.1%
	Belgium	51,881	35,937	1,231	23,583	51,204	25.4%	1.8%	2.6%	4.0%	6.7%	59.5%
	Germany	18,366	3,143	95	1,237	4,916	62.7%	9.2%	2.4%	2.2%	2.5%	20.9%
	Luxembourg	19,013	7,076	1,690	3,780	31,685	48.3%	2.3%	6.6%	3.2%	3.0%	36.7%
	Poland	17,498	8,896	135	3,053	27,356	30.1%	3.4%	4.6%	7.0%	11.4%	43.4%
	United Kingdom	14,919	1,132	1,128	4,381	10,159	39.0%	18.0%	5.7%	8.9%	5.3%	23.0%
	Switzerland	11,328	83	656	2,950	6,085	35.7%	13.7%	12.3%	7.4%	11.7%	19.2%
	France	10,015	6,843	147	2,003	4,661	39.5%	5.7%	5.5%	3.5%	1.3%	44.6%
	Rest of Europe	48,494	15,504	2,873	17,219	40,243	32.1%	7.8%	4.9%	4.7%	10.2%	40.2%
America		48,048	7,253	7,856	8,827	39,792	39.7%	6.1%	5.0%	6.6%	9.2%	33.4%
Asia		45,131	920	1,941	14,051	24,632	37.2%	8.4%	4.5%	9.2%	7.2%	33.5%
Australia		9,731	7,219	4	1,640	1,867	37.3%	9.6%	1.5%	3.0%	5.5%	43.1%
Africa		2,638	9	51	1,838	778	9.2%	16.5%	9.6%	13.2%	12.2%	39.3%
Total Business Lending		**378,444**	**154,351**	**21,073**	**93,407**	**296,286**	**36.7%**	**6.0%**	**4.4%**	**5.7%**	**8.2%**	**39.1%**
of which Non-performing		**7,856**	**2,600**	**281**	**2,643**	**6,305**	**32.6%**	**3.6%**	**7.9%**	**9.2%**	**16.5%**	**30.2%**

Cover values including guarantees received - Business lending portfolio – 2018 (*)

Region		Outstandings	Cover type: Mortgages	Cover type: Financial Collateral	Cover type: Guarantees	Cover type: Other covers	Value to Loan: No Cover	Value to Loan: >0% - 25%	Value to Loan: >25%-50%	Value to Loan: >50% - 75%	Value to Loan: >75% - <100%	Value to Loan: ≥ 100%
	Netherlands	84,669	56,560	2,978	7,560	49,346	43.4%	2.1%	2.9%	5.7%	9.8%	36.1%
	Belgium	49,464	34,299	990	18,601	45,209	25.0%	2.0%	3.1%	4.2%	6.4%	59.4%
	Germany	15,168	2,288	71	1,366	4,064	62.4%	5.0%	3.3%	3.9%	2.3%	23.1%
	Luxembourg	12,903	6,834	2,626	3,768	22,132	23.4%	5.6%	12.8%	6.1%	3.6%	48.5%
Europe	Poland	15,982	7,992	122	3,054	26,346	30.2%	3.8%	3.4%	7.1%	10.1%	45.4%
	United Kingdom	14,623	1,031	1,191	3,411	7,883	41.1%	18.5%	4.8%	3.4%	9.9%	22.3%
	Switzerland	11,109	18	470	2,543	4,773	30.7%	25.2%	11.0%	7.6%	6.8%	18.8%
	France	9,828	7,312	106	2,631	4,054	42.1%	2.5%	4.8%	4.0%	1.0%	45.6%
	Rest of Europe	52,084	17,813	2,690	18,908	28,064	33.7%	7.5%	4.7%	6.2%	8.3%	39.7%
America		47,458	6,105	6,408	7,007	39,839	40.1%	5.6%	6.1%	6.8%	9.1%	32.2%
Asia		41,943	868	1,153	14,391	23,332	37.9%	9.1%	5.2%	7.4%	9.0%	31.3%
Australia		7,741	6,074	226	939	1,965	33.6%	3.4%	1.8%	3.7%	6.3%	51.2%
Africa		2,830	10	62	2,043	925	15.5%	4.6%	6.5%	16.6%	25.0%	31.7%
Total Business Lending		**365,804**	**147,205**	**19,090**	**86,222**	**257,929**	**37.0%**	**5.9%**	**4.6%**	**5.9%**	**8.2%**	**38.5%**
of which Non-performing		**7,543**	**3,578**	**266**	**2,676**	**4,447**	**28.7%**	**3.8%**	**4.9%**	**9.1%**	**15.7%**	**37.7%**

The tables above describe the collateralisation of ING's business lending portfolio. Breakdowns are provided by industry as well as by geographical region or market, based on the residence of the borrowers.

Broken down by industry, the largest increase in outstanding is attributable to Non-Bank Financial Institutions (EUR 9.1 billion, 43.1%), followed by Central Banks (EUR 7.7 billion, 22.5%), with low covers. The largest decrease in outstanding was observed in Chemicals, Health & Pharmaceuticals (EUR 8.2 billion), where the total cover percentage increased.

The proportion of the business lending portfolio in Africa and the Netherlands with no cover decreased substantially year-on-year, respectively from 15.5% to 9.2% and from 43.4% to 37.4% in 2019. All industry types experienced an increase in total covers, but while the industries' cover levels grew, only the outstanding for Utilities grew slightly faster.

The largest increases in outstanding in absolute figures were seen in Germany (21.1%) and Asia (7.6%). The increase in Germany (EUR 3.2 billion) was primarily due to increases in term loans, regulatory reserve deposits and nostro accounts. As these deposits and nostro accounts are not collateralised, this increase had only a small impact on total cover amounts.

Credit quality (*)

Following the higher credit risk levels seen as a result of the financial crisis and economic downturn, credit quality has been improving since 2014 and also continued the improving trend in 2019..

Credit risk categories (*)

	Regular	Watch List	Restructuring [1]	Non-performing [1]
Possible ratings	1–19	1–19	11–20	20-22
Typical ratings	1–14	15–17	18–20	20-22
Deterioration in risk	Not significant	Significant	Significant	Significant
Significant intervention	Not required	Not required	Required	Required
Includes impairments	No	No	Yes	Yes
Account Ownership	Front Office	Front Office	Front Office	Front Office
Credit Risk Management	Regular	Regular	Credit Restructuring	Credit Restructuring
Primary Manager	Front Office	Front Office	Credit Restructuring	Credit Restructuring
Accounting provisioning	Stage 1/2	Stage 1/2	Stage 2/3	Stage 3

1 More information on the Restructuring and Non-performing categories can be found in the Credit restructuring section.

Credit quality outstandings (*)

	2019	2018
Neither past due nor non-performing	831,340	816,588
Business lending past due but performing (1–90 days)1[1]	7,747	
Consumer lending past due but performing (1–90 days)	3,367	4,440
Non-performing [2]	11,477	11,102
Total	**853,930**	**832,130**

1 For 2018, the business lending amount past due but performing could not be isolated.
2 Based on lending and investment activities

The credit quality of the ING portfolio improved overall. For consumer lending past due but performing, the portfolio decreased by EUR 1.1 billion mainly in Retail portfolio in Belgium & Luxembourg, from EUR 1.9 billion to EUR 0.9 billion. For non-performing assets, an increase was observed mainly in Belgium & Luxembourg for Retail portfolio (EUR 0.4 billion) and Wholesale Banking portfolio (EUR 0.3 billion), and the United Kingdom WB (EUR 0.3 billion). This increase was partially offset by the decrease in non-performing exposures in Netherlands Retail (EUR 0.4 billion) and Real Estate & Other (EUR 0.4 billion).

Past due obligations (*)

Retail Banking continuously measures its portfolio in terms of payment arrears and on a monthly basis determines if there are any significant changes in the level of arrears. This methodology is principally extended to loans to private individuals, such as residential mortgage loans, car loans and other consumer loans. An obligation is considered 'past due' if a payment of interest or principal is more than one day late. ING aims to help its customers as soon as they are past due by communicating to remind them of their payment obligations. In its contact with the customers, ING aims to solve the (potential) financial difficulties by offering a range of measures (e.g. payment arrangements, restructuring). If the issues cannot be cured, for example because the customer is unable or unwilling to pay, the contract is sent to the recovery unit. The facility is downgraded to risk rating 20 (non-performing) when arrears exceed 90 days past due and to risk rating 21 or 22 when the contract is terminated. The table below captures all past due exposures starting from day 1.

Aging analysis (past due but performing): Consumer lending portfolio, outstandings [1] (*)

	2019	2018
Past due for 1–30 days	2,564	3,283
Past due for 31–60 days	639	892
Past due for 61–90 days	163	265
Total	**3,367**	**4,440**

1 Based on consumer lending. The amount of past due but performing financial assets in respect of non-lending activities was not significant.

Aging analysis (past due but performing): Consumer lending portfolio by geographic area, outstandings[1] (*)

Region		2019 Residential Mortgages	2019 Other retail	2019 Total	2018 Total
Europe	Netherlands	829	11	840	934
	Belgium	733	166	899	1,870
	Germany	372	104	476	606
	Poland	145	90	236	215
	Luxemburg	21	36	56	46
	Spain	3	24	27	55
	France	2	10	13	11
	United Kingdom	3		3	5
	Rest of Europe	195	290	484	515
America		3		3	3
Asia		3		3	2
Australia		310	18	328	178
Africa					1
Total		**2,619**	**749**	**3,367**	**4,440**

1 Based on consumer lending. The amount of past due but performing financial assets in respect of non-lending activities was not significant.

Total past due, but performing exposure, for consumer loans decreased by EUR 1.1 billion. The improvement was mainly visible in the 1-30 days bucket driven by Belgium and the Netherlands residential mortgages due to macro-economic factors (low unemployment, low inflation and increasing house prices). This was partially offset by the increase in Australia. Less significant decreases were witnessed in the 31-60 and 61-90 days past due buckets mainly driven by the Belgium residential mortgages portfolio.

In Wholesale Banking, ING classifies the relevant obligors for business loans (governments, institutions, and corporates) as non-performing when any of the following default triggers occur:

- The borrower has failed in the payment of principal or interest/fees and such payment failure has remained unresolved for the following periods:
  - for corporates: more than 90 days; and
  - for financial institutions and governments – from day 1. However, a period of 14 calendar days will be observed in order for ING to establish whether the payment default was due to non-operational reasons (i.e. the deteriorated credit quality of the financial institution) or due to operational reasons. The latter does not trigger default.
- ING believes the borrower is unlikely to pay; the borrower has evidenced significant financial difficulty, to the extent that it will have a negative impact on the future cash flows of the financial asset. The following events could be seen as indicators of financial difficulty:
  - The borrower (or third party) has started insolvency proceedings.
  - A group company/co-borrower has NPL status.
  - Significant fraud (affecting the company's ability to service its debt).
  - There is doubt as to the borrower's ability to generate stable and sufficient cash flows to service its debt.
  - Restructuring of debt.
- ING has granted concessions relating to the borrower's financial difficulty, the effect of which is a reduction in expected future cash flows of the financial asset below current carrying amount.

Further, Wholesale Banking has an individual name approach, using Early Warnings indicators to signal possible future issues in debt service.

Aging analysis (past due but performing): Business lending, outstandings (*)

	2019
Past due for 1–30 days	6,681
Past due for 31–60 days	658
Past due for 61–90 days	408
Total	**7,747**

Aging analysis (past due but performing): Business lending portfolio by geographic area, outstandings (*)

Region		Total
Europe	Netherlands	751
	Belgium	1,028
	Germany	385
	United Kingdom	820
	Spain	688
	France	639
	Luxemburg	340
	Poland	279
	Rest of Europe	1,445
America		1,159
Asia		187
Australia		23
Africa		2
Total		**7,747**

Credit restructuring (*)

Global Credit Restructuring (GCR) is the dedicated and independent department that deals with non-performing loans and loans that hold a reasonable probability that ING will end up with a loss, if no specific action is taken. GCR deals with accounts or portfolios requiring an active approach, which may include renegotiation of terms & conditions and business or financial restructuring. The loans are managed by GCR or by units in the various regions and business units.

ING uses three distinct statuses to categorise the management of clients with (perceived) deteriorating credit risk profiles, i.e. there is doubt as to the performance and the collectability of the client's contractual obligations:

- **Watch List**: Usually, a client is first classified as Watch List when there are concerns of any potential or material deterioration in credit risk profile that may affect the ability of the client to adhere to its debt service obligations or to refinance its existing loans. Watch List status requires more than usual attention, increased monitoring and quarterly reviews. Some clients with a Watch List status may develop into a Restructuring status or even a Recovery status.
- **Restructuring**: A client is classified in Restructuring when there are concerns about the client's financial stability, credit worthiness, and/or ability to repay, but where the situation does not require the recall or acceleration of facilities or the liquidation of collateral. ING's actions aim to maintain the going concern status of the client by:
  - Restoring the client's financial stability;
  - Supporting the client's turnaround;
  - Restoring the balance between debt and equity; and
  - Restructuring the debt to a sustainable situation.
- **Recovery**: A client is classified as in Recovery when ING and/or the client concludes that the client's financial situation cannot be restored and a decision is made to end the (credit) relationship or even to enter into bankruptcy. ING will prefer an amicable exit, but will enforce and liquidate the collateral or claim under the guarantees if deemed necessary.

Watch List, Restructuring and Recovery accounts are reviewed at least quarterly by the front office, GCR, and the relevant credit risk management executives.

Non-performing loans (*)

ING's loan portfolio is under constant review. Loans with past due financial obligations of more than 90 days are reclassified as non-performing. For commercial lending portfolios, there generally are reasons for declaring a loan non-performing prior to being 90 days past due. These reasons include, but are not limited to, ING's assessment of the customer's perceived inability to meet its financial obligations, or the customer filing for bankruptcy or bankruptcy protection.

The table below represents the breakdown by industry of credit risk outstandings for lending and investment positions that have been classified as non-performing.

Non-performing Loans: outstandings by economic sector and business lines[1] (*)

	Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
Industry	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Private Individuals	–	1	2,173	2,163	1,573	1,535			3,746	3,698
Natural Resources	1,108	925	35	43	53	54			1,196	1,022
Food, Beverages & Personal Care	599	372	351	294	168	109			1,119	775
Transportation & Logistics	651	599	96	177	40	28			787	804
Services	320	260	357	265	60	38			737	563
Builders & Contractors	265	405	258	332	168	152			691	889
Real Estate	312	823	311	333	9	3			631	1,159
General Industries	248	373	204	186	153	135			605	693
Non-Bank Financial Institutions	426	25	34	27	2	2			462	54
Retail	89	80	172	134	63	44			325	258
Other[2]	467	507	326	274	110	90	275	314	1,178	1,187
Total	**4,487**	**4,370**	**4,316**	**4,229**	**2,399**	**2,188**	**275**	**313**	**11,477**	**11,102**

1 Based on Lending and Investment outstandings.
2 Economic sectors not specified in above overview are grouped in Other.

Non-performing Loans: outstandings by economic sectors and geographical area (*)

	Region													Total	Total
Industry	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	France	Luxemburg	Rest of Europe	America	Asia	Australia	Africa	2019	2018
Private Individuals	840	1,271	585	134	195	4	14	24	411	4	3	261	1	3,746	3,698
Natural Resources	83	21		28		63			254	533	84	111	20	1,196	1,022
Food, Beverages & Personal Care	315	153	63	117	1	12	68	1	109	254	26			1,119	775
Transportation & Logistics	432	48	1	31	47	49		3	88	32	10	46		787	804
Services	224	377	0	36				3	49	42	6			737	563
Builders & Contractors	88	226	1	103	1			3	230	39				691	889
Real Estate	219	225	0	96	19		7	28	27	8		4		631	1,159
General Industries	176	148	12	89		3		1	127	48	1			605	693
Non-Bank Financial Institutions	53	8		3	7	0	0	5	14	107		264		462	54
Retail	74	147		40		4	7	1	52					325	258
Other [1]	464	239	44	130		10	1	9	173	34	23		51	1,178	1,187
Total	**2,968**	**2,864**	**705**	**805**	**270**	**144**	**96**	**79**	**1,534**	**1,099**	**154**	**686**	**71**	**11,477**	**11,102**

1 Economic sectors not specified in above overview are grouped in Other.

The non-performing portfolio increased slightly during 2019. The increase was mainly visible in Challengers & Growth and Wholesale Banking. The increase in Challengers & Growth was due to a combination of various smaller items, while the increase in Wholesale Banking was mainly driven by Food, Beverages & Personal Care and Natural Resources. This was largely offset by a significant decrease in Real Estate NPL outstandings. The largest increases were witnessed in Belgium in the services industry, the natural resources industry in the Americas and in Australia over various smaller items. The largest decreases were visible in the Netherlands in real estate and private individuals. .

Forbearance (*)

Forbearance occurs when a client is unable to meet their financial commitments due to financial difficulties it faces or is about to face and ING grants concessions towards this client. Forborne assets are assets in respect of which forbearance measures have been granted.

Forbearance may enable clients experiencing financial difficulties to continue repaying their debt.

For business customers, ING mainly applies forbearance measures to support clients with fundamentally sound business models that are experiencing temporary difficulties with the aim of maximising the client's repayment ability and therewith avoiding a default situation or helping the client to return to a performing situation.

For ING retail units, clear criteria have been established to determine whether a client is eligible for forbearance process. Specific approval mandates are in place to approve the measures, as well as procedures to manage, monitor and report the forbearance activities.

ING reviews the performance of forborne exposures at least quarterly, either on a case-by-case (business) or on a portfolio (retail) basis.

All exposures are eligible for forbearance measures, i.e. both performing (Risk Ratings 1-19) and non-performing (Risk Ratings 20-22) exposures. ING uses specific criteria to move forborne exposures from non-performing to performing or to remove the forbearance statuses that are consistent with the corresponding EBA standards. An exposure is reported as forborne for a minimum of two years. An additional one year probation period is observed for forborne exposures that move from non-performing back to performing.

The prior period outstandings and performing/ non-performing amounts in the table Summary Forborne assets have been updated by EUR 46 million to improve consistency and comparability to the current year presentation. This is also applicable to the other tables in this section Forbearance.

Summary Forborne portfolio [1] (*)

	2019				2018			
Business Line	Outstandings	Of which: Performing	Of which: Non-Performing	% of total portfolio	Outstandings	Of which: Performing	Of which: Non-Performing	% of total portfolio
Wholesale Banking	4,632	2,699	1,932	1.7%	5,081	3,088	1,994	1.9%
Retail Banking	4,861	2,686	2,175	1.1%	5,012	2,862	2,151	1.2%
Total	**9,492**	**5,385**	**4,107**	**1.3%**	**10,094**	**5,949**	**4,145**	**1.4%**

1 Undrawn commitments are excluded.

Summary Forborne portfolio by forbearance type [1] (*)

	2019				2018			
Forbearance type	Outstandings	Of which: Performing	Of which: Non-Performing	% of total portfolio	Outstandings	Of which: Performing	Of which: Non-Performing	% of total portfolio
Loan modification	8,285	4,800	3,485	1.1%	8,410	4,827	3,583	1.2%
Refinancing	1,208	585	622	0.2%	1,684	1,122	561	0.2%
Total	**9,492**	**5,385**	**4,107**	**1.3%**	**10,094**	**5,949**	**4,145**	**1.4%**

1 Undrawn commitments are excluded.

As per December 2019 ING's total forborne assets decreased by EUR 0.6 billion (6%) against December 2018 to EUR 9.5 billion, mainly driven by Wholesale Banking (-EUR 0.5 billion). Please note, that 2018 amount includes EUR 46 million of non-IFRS eligible items (i.e. undrawn commitments and guarantees).

Wholesale Banking (*)

As per December 2019, Wholesale Banking forborne assets amounted to EUR 4.6 billion, which represented 1.7% of the total Wholesale Banking portfolio.

Wholesale Banking: Forborne portfolio by geographical area [1] (*)

Region		2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
	Netherlands	822	410	412	1,138	687	451
	Belgium	41	16	25	131	102	29
	Germany	246	182	63	127	94	33
	United Kingdom	332	251	81	287	246	41
Europe	Italy	197	115	83	388	113	275
	Ukraine	169	77	93	297	108	189
	Norway	151	124	27	258	236	22
	Poland	134	31	103	190	78	113
	Rest of Europe	502	322	180	462	288	174
America		1,315	759	556	1,173	695	478
Asia		316	206	109	378	300	78
Australia		214	85	129	104	86	17
Africa		192	122	71	148	55	93
Total		**4,632**	**2,699**	**1,932**	**5,081**	**3,088**	**1,994**

1 Undrawn commitments are excluded.

Wholesale Banking: Forborne portfolio by economic sector [1] (*)

Industry	2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
Natural Resources	1,587	909	678	1,474	943	532
Transportation & Logistics	674	362	313	833	445	388
General Industries	427	286	142	402	190	212
Food, Beverages & Personal Care	375	227	148	244	161	83
Real Estate	374	207	167	998	601	397
Chemicals, Health & Pharmaceuticals	212	209	3	189	171	19
Builders & Contractors	195	79	116	145	37	109
Utilities	188	55	133	181	30	152
Services	129	69	60	129	76	53
Retail	114	92	22	118	84	34
Automotive	108	72	36	134	131	3
Other	248	134	114	233	220	12
Total	**4,632**	**2,699**	**1,932**	**5,081**	**3,088**	**1,994**

1 Undrawn commitments are excluded.

The main concentration of forborne assets in a single country was in the Netherlands with 18% (2018: 22%) of the total Wholesale Banking forborne assets and 21% (2018: 23%) of the total non-performing forborne assets.

Wholesale Banking forborne assets decreased by EUR 0.5 billion compared to 2018, of which the performing forborne assets decreased by EUR 0.4 billion. The decrease of the performing forborne assets was attributed mostly to a few cured large entities which exited forborne status.

Wholesale Banking forborne assets were mainly concentrated in Natural Resources, Transportation & Logistics and General Industries. Together they accounted for 58% of the total Wholesale Banking forborne assets and 59% of the total Wholesale Banking non-performing forborne assets. Back in 2018, the main concentration was witnessed in Natural Resources, Real Estate and Transportation & Logistics, with 65% of the total WB forborne. A significant decrease in forborne assets was visible in the Real Estate industry (EUR 0.6 billion) during 2019, followed by the Transportation & Logistics (-EUR 0.2 billion), partly offset by the Food, Beverages & Personal Care and the Natural Resources (+EUR 0.1 billion each).

Retail Banking (*)

As per end of December 2019, Retail Banking forborne assets amounted to a total of EUR 4.9 billion, which represented 1.1% of the total Retail Banking portfolio.

Retail Banking: Forborne portfolio by geographical area [1] (*)

Region		2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
Europe	Netherlands	2,212	1,367	845	2,461	1,514	946
	Belgium	1,149	435	714	1,046	383	663
	Germany	425	294	131	462	337	126
	Turkey	314	184	130	273	197	77
	Poland	209	101	109	216	115	101
	Romania	101	55	46	69	36	33
	Italy	25	13	12	25	13	12
	Spain	25	13	12	39	23	16
	Rest of Europe	43	22	22	37	18	19
America		2	1	1	1		1
Asia		1	0	1	3	2	1
Australia		354	201	153	381	225	156
Africa							
Total		**4,861**	**2,686**	**2,175**	**5,012**	**2,862**	**2,151**

1 Undrawn commitments are excluded.

The main concentration of forborne assets in a single country was in the Netherlands with 46% (2018: 49%) of the total Retail Banking forborne assets and 39% (2018: 44%) of the non-performing forborne assets. .

Loan Loss Provisioning (*)

Since 1 January 2018, ING has recognised loss allowances based on the expected credit loss model (ECL) of IFRS 9, which is designed to be forward-looking. The IFRS 9 impairment requirements are applicable to on-balance sheet financial assets measured at amortised cost or fair value through other comprehensive income (FVOCI), such as loans, debt securities and lease receivables, as well as off-balance sheet items such as undrawn loan commitments, certain financial guarantees, and undrawn committed revolving credit facilities. These financial instruments are divided into three groups, depending on the stage of credit quality deterioration.

IFRS 9 models (*)

The IFRS 9 models leverage the advanced internal rating-based (AIRB) models (PD, LGD, EAD), which include certain required conservatism. In order to include IFRS 9 requirements, such regulatory conservatism is removed from the ECL parameters (PD, LGD and EAD). The IFRS9 models apply two types of adjustments to the ECL parameters: (1) to economic outlook and (2) for stage 2 and stage 3 assets only, to the lifetime horizon. The IFRS9 model parameters are estimated based on statistical techniques and supported by expert judgement.

Portfolio quality (*)

As shown in the table below, 94.0% of the total gross carrying amounts is classified as stage 1, mainly composed of investment grade, while stage 2 and 3 make up 4.7% and 1.3% of total amounts, respectively..

Gross Carrying amount per IFRS 9 stage and rating class[1,2,3,4] (*)

2019		Stage 1		Stage 2		Stage 3		Total	
Rating class		Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions
Investment grade	1 (AAA)	75,144	1					75,144	1
	2-4 (AA)	82,992	3	28				83,020	3
	5-7 (A)	131,931	11	273				132,204	11
	8-10 (BBB)	295,449	55	4,905	6			300,354	61
Non-Investment grade	11-13 (BB)	194,643	209	7,925	54			202,568	263
	14-16 (B)	36,683	202	18,416	367			55,099	569
	17 (CCC)	405	7	4,067	146			4,472	153
Substandard grade	18 (CC)			3,253	160			3,253	160
	19 (C)			2,216	148			2,216	148
NPL grade	20-22 (D)					10,955	3,275	10,955	3,275
Total		**817,247**	**490**	**41,082**	**881**	**10,955**	**3,275**	**869,284**	**4,646**

1 Compared to the credit risk portfolio, the differences are mainly undrawn committed amounts (EUR 115 billion) not included in Credit outstandings and non-IFRS 9 eligible assets (EUR 100 billion, mainly guarantees, letters of credit and pre-settlement exposures)
2 For a reference to the Notes in the consolidated financial statements, we refer to the table 'Reconciliation between credit risk categories and financial position', page 176.
3 IAS 37 provisions (EUR 93.3 million) are excluded.
4 The table is generated in 2019 for the first time, no comparable schedule for 2018 available.

Changes in loan loss provision and gross carrying amounts(*)

##SL

Changes in gross carrying amounts and loan loss provisions (*)

2019	Stage 1		Stage 2		Stage 3		Total	
	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions
Opening balance	**788,537**	**501**	**46,949**	**925**	**10,758**	**3,141**	**846,244**	**4,568**
Transfer into 12-month ECL (Stage 1)	12,856	30	-12,579	-253	-277	-23		-246
Transfer into lifetime ECL not credit impaired (Stage 2)	-21,577	-73	22,382	474	-805	-81		320
Transfer into lifetime ECL credit impaired (Stage 3)	-2,210	-6	-1,753	-135	3,964	1,113		972
Net remeasurement of loan loss provisions		-77		36		283		242
New financial assets originated or purchased	180,605	205					180,605	205
Financial assets that have been derecognised	-126,082	-103	-9,108	-162	-1,659	-137	-136,849	-402
Net drawdowns and repayments	-14,880		-4,807		1		-19,686	
Changes in models/risk parameters		15		2		-8		9
Increase in loan loss provisions		**-9**		**-39**		**1,147**		**1,099**
Write-offs	-1	-1	-2	-2	-1,027	-1,028	-1,030	-1,031
Recoveries of amounts previously written off						55		55
Foreign exchange and other movements		-1		-3		-41		-45
Closing balance	**817,247**	**490**	**41,082**	**881**	**10,955**	**3,275**	**869,284**	**4,646**

1 At the end of December 2019, the Gross carrying amounts included loans and advances to central banks (EUR 51.2 billion), loans and advances to banks (EUR 35.1 billion), financial assets at FVOCI (EUR 32.2 billion), securities at amortised cost (EUR 46.1 billion), loans and advances to customers (EUR 612.6 billion) and contingent liabilities (credit replacements) in scope of IFRS 9 (EUR 115.7 billion) and excludes receivables related to securities in reverse repurchase transaction (EUR -9.9 billion), cash collateral in respect of derivatives (EUR -10.2 billion), a receivable that is offsetted by a liquidity facility (EUR -1.3 billion), de-netting of cash pool balances (EUR -1.8 billion) and other differences amounting to EUR -0.3 billion.
2 Stage 3 Lifetime credit impaired includes EUR 1 million Purchased or Originated Credit Impaired (2018: EUR 2 million).
3 At the end of December 2019, the stock of provisions included provisions for loans and advances to central banks (EUR 1 million), loans and advances to banks (EUR 9 million), financial assets at FVOCI (EUR 10 million), securities at amortised cost (EUR 10 million), provisions for loans and advances to customers (EUR 4,590 million) and provisions for contingent liabilities (credit replacements) recorded under Provisions (EUR 25 million).
4 The table is generated in 2019 for the first time, no comparable schedule for 2018 available.

The table above provides a reconciliation by stage of the gross carrying/nominal amount and allowances for loans and advances to banks and customers, including loan commitments and financial guarantees. The transfers of financial instruments represents the impact of stage transfers upon the gross carrying/nominal amount and associated allowance for ECL. This includes the net remeasurement of ECL arising from stage transfers, for example, moving from a 12-month (stage 1) to a lifetime (stage 2) ECL measurement basis.

The net remeasurement line represents the changes in provisions for facilities that remain in the same stage.

The following table shows the reconciliations from the opening to the closing balance of the loan loss provisions in 2018.

Changes in loan loss provisions (*)

2018	Stage 1	Stage 2	Stage 3	Total
	Provisions	Provisions	Provisions	Provisions
Opening balance	**438**	**955**	**3,923**	**5,316**
Transfer into 12-month ECL (Stage 1)	19	-206	-23	-209
Transfer into lifetime ECL not credit impaired (Stage 2)	-62	501	-56	383
Transfer into lifetime ECL credit impaired (Stage 3)	-7	-86	707	615
Net remeasurement of loan loss provisions	17	-55	312	274
Changes in models/risk parameters				
New financial assets originated or purchased	213			212
Financial assets that have been derecognised	-101	-145	-341	-588
Increase in loan loss provisions	**80**	**9**	**599**	**688**
Write-offs			-1,043	-1,044
Recoveries of amounts previously written off			53	53
Foreign exchange and other movements	-18	-38	-390	-446
Closing balance	**501**	**925**	**3,141**	**4,568**

The following table provides the following information:
- Information on financial assets that were modified during the year (i.e. qualified as forborne) while they had a loss allowance measured at an amount equal to lifetime ECL (i.e. stage 2).
- Financial assets that were reclassified to stage 1 during the period.

Financial assets modified (*)

	2019	2018
Financial assets modified during the period		
Amortised cost before modification	2,662	2,503
Net modification results	164	-50
Financial assets modified since initial recognition		
Gross carrying amount at 31 December of financial assets for which loss allowance has changed to 12-month measurement during the period	689	908

Sensitivity analysis of key sources of estimation uncertainty (*)

The introduction of IFRS 9, with its inherent complexities and potential impact on the carrying amounts of our assets and liabilities, represents a key source of estimation uncertainty. In particular, the Group's reportable ECL numbers are most sensitive to the forward-looking macroeconomic forecasts used as model inputs, the probability-weights applied to each of the three scenarios, and the criteria for identifying a significant increase in credit risk. As such, these crucial components require consultation and management judgement, and are subject to extensive governance.

Forward-looking macroeconomics used as model inputs (*)

As a baseline for IFRS 9, ING Group uses the consensus outlook for economic variables. The Oxford Economics' Global Economic Model (OEGEM) is then used to complement the consensus with consistent projections for variables for which there are no consensus estimates available (most notably House Price Index (HPI) and unemployment), and to ensure general consistency of the scenarios.

The Group's consensus view of the baseline scenario suggests economic growth will level off over the initial (three year) forecast period, as the pace of expansion in the main advanced economies and emerging markets is expected to wane. For the eurozone, as output gaps close and monetary policy begins to normalise, growth is expected to decline. For the US, the near-term outlook is still positive. The Group continues to monitor the potential escalation of an international trade conflict, and the likely outcome of any Brexit deal, which, at present remains unclear.

The downside scenario sees a relatively synchronised global downturn with economic growth in advanced economies falling close to zero, and emerging markets suffering a pronounced slowdown. The upside scenario sees economic growth returning to rates not seen since the financial crisis and a return to pre-crisis unemployment rates.

The relevance and selection of macro-economic variables is defined by the ECL models under credit risk model governance. The scenarios are reviewed and challenged by two panels. The first panel consists of economic experts from Global Markets Research and Risk and Modelling specialists, while the second panel consists of relevant senior managers.

Probability weights applied to each of the three scenarios (*)

The alternative scenarios are technically based on the forecast errors of the OEGEM. To understand the baseline level of uncertainty around any forecast, Oxford Economics keeps track of all its forecast errors of the past 20 years. The distribution of forecast errors for GDP, unemployment, house prices and share prices is applied to the baseline forecast creating a broad range of alternative outcomes. In addition, to understand the balance of risks facing the economy in an unbiased way, Oxford Economics runs a survey with respondents from around the world and across a broad range of industries. In this survey the respondents put forward their views of key risks. Following the survey results, the distribution of forecast errors (that is being used for determining the scenarios) may be skewed.

For the downside scenario, ING has chosen for the 90th percentile of that distribution because this corresponds with how within risk management earnings at risk is defined within the Group. The upside scenario is represented by the 10th percentile of the distribution. The distribution of the scenarios, taking into account the applicable percentile of the distribution, results in the upside and downside scenario being weighted at 20% each. Consequently, the base case scenario has a 60% probability weighting. Please note that, given their technical nature, the downside scenario and upside scenario are not explicitly based on a specific narrative.

Based on the above two sources of estimation uncertainty, analysis on the sensitivity of key forward-looking macroeconomic inputs used in the ECL collective-assessment modelling process and the probability-weights applied to each of the three scenarios is presented below. The countries included in the analysis are the Group's most significant geographic regions, in terms of both gross contribution to reportable ECL, and sensitivity of ECL to forward-looking macroeconomics. Accordingly, the Group considers these portfolios to present the most significant risk of resulting in a material adjustment to the carrying amount of financial assets within the next financial year. The Group also observes that, in general, the Wholesale business is more sensitive to the impact of forward-looking macroeconomic scenarios.

Real GPD, unemployment rate and HPI (in that order) are considered the variables with the largest impact on the LLP. Exposure class based the largest impact is observed in Corporates, followed by Retail Mortgages, SMEs and Retail non-SMEs. This is supported by statistical analysis. These forward-looking macroeconomics (among others) are used in the calculation of the Group's un-weighted ECLs, to which are applied the probability-weightings as disclosed, to arrive at the reportable ECL for collectively-assessed assets. While the table does give a high-level indication of the sensitivity of the outputs to the different scenarios, it does not provide insight on the interdependencies and correlations between different macroeconomic variable inputs. Furthermore, in addition to forward-looking macroeconomics, there are a number of other model inputs and processes which contribute to the calculation of un-weighted ECLs. Any sensitivity analysis which relies on this data should consider these complexities.

Sensitivity analysis [1,2,3] (*)

		2020	2021	2022	Un-weighted ECL (Eur mln)	Probability-weighing	Reportable ECL (Eur mln)[4]
Netherlands							
Upside scenario	Real GDP	2.3	3.5	3.2	370	20%	428
	Unemployment	2.8	2.4	2.3			
	HPI	14.1	11.3	2.9			
Baseline Scenario	Real GDP	1.4	1.5	1.6	416	60%	
	Unemployment	3.6	3.9	4.2			
	HPI	3.3	2.9	2.8			
Downside scenario	Real GDP	-0.7	-0.9	0.5	520	20%	
	Unemployment	5.0	6.3	7.1			
	HPI	-7.5	-7.0	2.7			
Germany							
Upside scenario	Real GDP	2.6	2.8	1.8	458	20%	502
	Unemployment	2.4	1.7	1.4			
	HPI	9.7	7.0	6.4			
Baseline Scenario	Real GDP	0.8	1.1	1.3	495	60%	
	Unemployment	3.2	3.2	3.3			
	HPI	6.1	3.5	2.9			
Downside scenario	Real GDP	-1.2	-1.7	0.5	567	20%	
	Unemployment	4.3	4.8	5.2			
	HPI	2.5	-0.3	-1.1			
Belgium							
Upside scenario	Real GDP	2.3	2.6	2.0	323	20%	357
	Unemployment	5.5	5.4	5.3			
	HPI	5.1	4.2	4.3			
Baseline Scenario	Real GDP	1.1	1.2	1.3	350	60%	
	Unemployment	5.8	5.9	6.1			
	HPI	3.5	3.4	3.4			
Downside scenario	Real GDP	-0.4	-0.2	1.0	411	20%	
	Unemployment	7.5	8.4	8.4			
	HPI	1.5	2.6	2.4			
United States							
Upside scenario	Real GDP	2.6	4.1	3.8	74	20%	144
	Unemployment	2.6	1.7	1.5			
	HPI	5.0	8.0	8.1			
Baseline Scenario	Real GDP	1.8	1.8	1.9	127	60%	

	Unemployment	3.7	3.7	3.8		
	HPI	2.6	2.6	2.8		
Downside scenario	Real GDP	-0.6	-0.5	0.3	267	20%
	Unemployment	5.2	6.5	7.1		
	HPI	0.1	-3.1	-3.4		

1 Real GDP, in % year-on-year change
2 Unemployment in % of total labour force
3 House Price Index (HPI) in % year-on-year
4 Sensitivity does not include the effect of manual adjustments, which are not material

Criteria for identifying a significant increase in credit risk (*)

All assets and off-balance sheet items are in scope of IFRS 9 impairment and which are subject to collective ECL assessment are allocated a 12-month ECL if deemed to belong in Stage 1, or a lifetime ECL if deemed to belong in Stages 2 and 3. An asset belongs in Stage 2 if it is considered to have experienced a significant increase in credit risk since initial origination or purchase. The stage allocation process involves an asset's derived scenario weighted average PD being assessed against a set of PD threshold bandings, which determines the appropriate staging and ECL. Stage 2 is triggered when either a threshold for absolute change in lifetime PD or relative change in lifetime PD is hit. The thresholds for the absolute change in lifetime PD vary between 75bps for Retail portfolios, 100bp for Wholesale and 250bps for SMEs, based on the characteristics of the specific portfolio. The threshold for the relative change in LT PD are inversely correlated with the PD at origination; the higher the PD at origination, the lower the threshold. Despite this, the relative threshold is punitive for Investment grade assets while the absolute threshold primarily affects Speculative grade assets. The Group reports total ECL collective-assessment of EUR 1,291 million (2018: EUR 1,391 million).

The setting of PD threshold bandings requires management judgement, and is a key source of estimation uncertainty. To demonstrate the sensitivity of the ECL to these PD thresholds bandings, analysis was run on all collectively-assessed assets, which assumed all assets were below the threshold, and apportioned a 12 month ECL. On the same asset base, analysis was run which assumed all performing assets were above the threshold, and apportioned a lifetime ECL. This gave rise to a hypothetical collective-assessment ECLs of EUR 866 million (2018: EUR 888 million) and EUR 2,665 million (2018: EUR 3,333 million) respectively. Please note that in this analysis all other ECL risk parameters (except for the stage) were kept equal.

It should be noted that the lifetime PD thresholds are not the only drivers of stage allocation. An asset can change stages by virtue of being in arrears, on a Watch List, being forborne etc. Refer to section 1.6.8 of Note 1 'Accounting Policies' for an exhaustive list. Furthermore, this analysis is rudimentary in that other parameters would change when an asset changes stages.

Market risk

Introduction

Market risk is the risk that movements in market variables, such as interest rates, equity prices, foreign exchange rates, credit spreads and real estate prices negatively impact the bank's earnings, capital, market value or liquidity position. Market risk either arises through positions in banking books or trading books. The banking book positions are intended to be held for the long-term (or until maturity) or for the purpose of hedging other banking book positions. The trading book positions are typically held with the intention of short-term trading or in order to hedge other positions in the trading book. This means that financial instruments in the trading books should be free of trade restrictions. Policies and processes are in place to monitor the inclusion of positions in either the trading or banking book as well as to monitor the transfer of risk between the trading and banking books.

ING recognises the importance of sound market risk management and bases its market risk management framework on the approach to identify, assess, control and manage market risks. The approach consists of a cycle of five recurring activities: risk identification, risk assessment, risk control, risk monitoring and risk reporting.

(*)

- Risk identification is a joint effort of the first and second lines of defence out of the three lines of the defence. The goal of risk identification is to detect potential new risks and any changes in known risks. See the Risk Governance paragraph under the Group risk Management section for more on our "three lines of defence" governance model;
- Identified risks are assessed and measured by means of various risk metrics to determine the importance of the risk to ING and subsequently to identify the control measures needed;
- Risk control measures used by ING include policies, procedures, minimum standards, limit frameworks, buffers and stress tests;
- Risk monitoring occurs to check if the implemented risk controls are executed, complied with across the organisation, and are effective; and
- Market risk management results and findings are reported to the necessary governing departments and approval bodies.

Governance (*)

A governance framework has been established defining specific roles and responsibilities of business management units, market risk management units, and internal approval bodies per activity.

Supervision of market risk falls under the responsibility of the MBB and is delegated to the ALCO function, where ALCO Bank is the highest approval authority and sets the market risk appetite. ALCO Bank monitors ING's adherence to the risk appetite for market risk and sets additional limits where appropriate. These limits are cascaded through the organisation through lower level ALCOs. This ALCO structure facilitates top-down risk management, limit setting, and the monitoring and control of market risk.

The monitoring and control of market risk is the responsibility of the Financial Risk (FR) department and Financial Institutions – Financial Markets (FI-FM) Risk. FR and FI-FM Risk are the designated departments of the second line of defence that report to the CRO function and are responsible for the design and execution of the bank's market risk and counterparty credit risk management functions in support of the ALCO function. FR focuses on the market risks in the banking books, whereas FI-FM Risk is responsible for counterparty credit risk and market risks resulting from the Financial Markets trading books. FR and FI-FM Risk are responsible for determining adequate policies and procedures for actively managing market risk in the banking and trading books and for monitoring ING's compliance with these guidelines.

FR and FI-FM Risk also maintain a limit framework in line with ING's Risk Appetite Framework. The businesses are responsible for adhering to limits that are ultimately approved by the ALCO Bank. Limit excesses are reported to senior management on a timely basis and the business is required to take appropriate actions to reduce the risk position. To adhere to the established limit framework, ING implements hedging and risk mitigation strategies that range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at the portfolio level.

The organisational structure facilitates top-down risk management by recognising that risk taking and risk management to a large extent occur at the regional/local level. Bottom-up reporting from regional/local units to head office units allows each management level to fully assess the market risks relevant at the respective levels.

Several committees govern communication between the parties involved in market risk management. These committees have a functional reporting line to ALCO Bank, which derives its global discretion from the ING Group Decision Structure and as such is the highest level ING Bank body with the exception of the Management Board Banking (MBB). The Market Risk Model Committee (MRMC) is the dedicated authority within ING for the approval of all trading and banking risk models, methodologies and parameters related to market risk. The Trading Pricing Model Committee (TPMC) approves pricing models for trading and banking books. Financial Risk and FI-FM Risk departments provide systematic risk reporting to the EB and MBB, the senior executive management of the CRO function and the senior executive management of related business functions.

The FI-FM Risk Management Framework governs the boundary between trading books and banking books. It defines the activities ING considers to be trading according to a regulatory definition and for own funds requirement purposes. The trading activity is systematically reviewed and positions are assessed against the mandates jointly by the first and second lines of defence. As specified in the framework, the transfer of risk or the transfer of positions between banking and trading books is in principle not allowed but in exceptional cases when a re-designation is deemed necessary, the re-designation should be approved by senior management.

The following market risk paragraphs elaborate on the various elements of the risk management framework for:
- Market risk economic capital (trading and banking books);
- Market risks in banking books; and
- Market risks in trading books.

Market risk economic capital (trading and banking books)

Economic capital for market risk is the economic capital necessary to withstand unexpected value movements due to changes in market variables and model risk.

Economic capital for market risk is calculated for exposures both in trading portfolios and banking portfolios and includes interest rate risk, credit spread risk, equity price risk, foreign exchange rate risk, real estate risk, model risks and pension risk. Economic capital for market risk is calculated using internally developed methodologies with a 99.9% confidence level and a horizon of one year.

For the trading books and the linear interest rate risk and equity investments in the banking books, the Value at Risk (VaR) is taken as a starting point for the economic capital calculations for market risk. The VaR is measured at a 99% confidence level, a one day holding period.

To arrive at the economic capital for market risk, a simulation based model is used which includes scaling to the required confidence level and holding period. In determining this scaling factor, other factors are also taken into account like the occurrence of large market movements (events).

Embedded options, e.g. the prepayment option and offered rate option in mortgages in the banking books, result in non-linear interest rate risk in the banking books. The embedded options are economically hedged using a delta-hedging methodology, leaving the mortgage portfolio exposed to convexity risk, volatility risk and model risk. For the calculation of economic capital for this non-linear interest rate risk, ING performs a Monte Carlo simulation.

Real estate price risk includes the market risks in both the real estate investment and the development portfolio of the ING Wholesale Banking business line. The economic capital for real estate price risk is calculated by stressing the underlying market variables.

While aggregating the different economic capital market risk figures for the different portfolios, diversification benefits (based on stressed correlations) are taken into account as it is not expected that all extreme market movements will appear at the same moment.

Market risk in banking books (*)

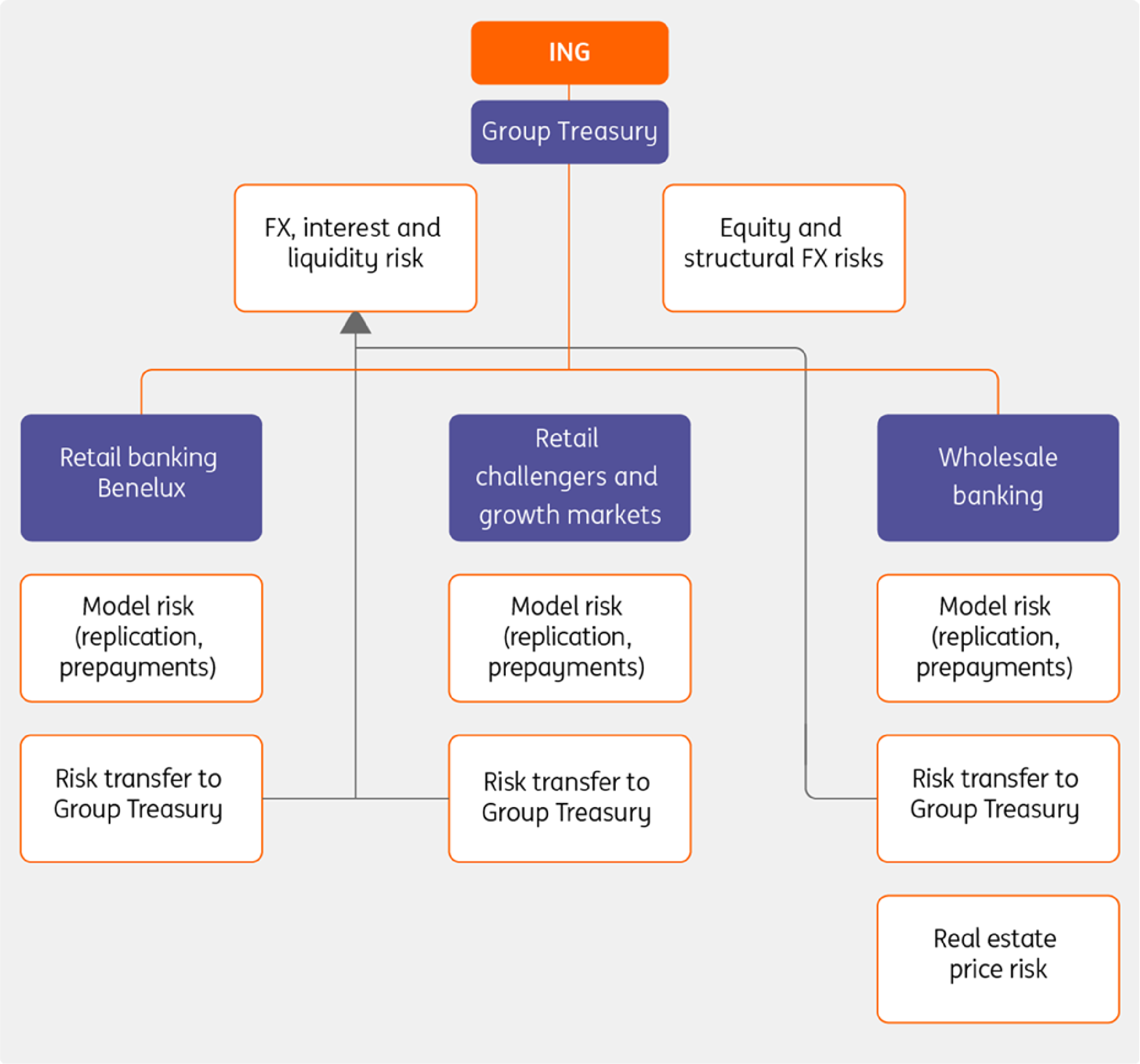
(*)

ING makes a distinction between the trading and banking (non-trading) books. Positions in banking books originate from the market risks inherent in commercial products that are sold to clients, Group Treasury exposures, and from the investment of our own funds (core capital). Both the commercial products and the products used to hedge market risk exposures in these products are intended to be held until maturity, or at least for the long-term.

Risk transfer (*)

An important element of the management of market risks in the banking book is the risk transfer process. In this process the interest rate, FX, funding and liquidity risks are transferred from the commercial books through matched funding to Group Treasury, where it is centrally managed. The scheme below presents the transfer and management process of market risks in the banking books:

Risk transfer



Risk measurement (*)

The main concepts and metrics used for measuring market risk in the banking book are described below per risk type.

Interest rate risk in banking book (*)

Interest rate risk in the banking book is defined as the exposure of a bank's earnings, capital, and market value to adverse movements in interest rates originated from positions in the banking book.

Governance (*)

The management of interest rate risk follows the Interest Rate Risk in the Banking Book (IRRBB) framework as approved by ALCO Bank. This framework describes roles, responsibilities, risk metrics, the policies and procedures related to interest rate risk management. Furthermore ALCO Bank sets the risk appetite for interest rate risk, which is then translated into limits for the interest rate risk metrics.

ING's approach to interest rate risk management, as set forth in this framework, is the centralisation of risks from commercial books (that capture the products sold to clients) to globally managed interest rate risk books. This enables a clear demarcation between commercial business results and results on unhedged interest rate positions.

ING distinguishes between three types of activities that generate interest rate risk in the banking book:
- Investment of own funds (by Group Treasury);
- Commercial business (e.g. Retail business); and
- The strategic interest rate position (Group Treasury).

Below the three activities are described in more detail:

Group Treasury is responsible for managing the investment of own funds (core capital), more information can be found in the Capital Management section. Capital is invested for longer periods to keep earnings stable.

The commercial activities can result in linear interest rate risk, for example, when re-pricing tenors of assets differ from those of liabilities. Also, interest rate risk can arise from customer behaviour depending on the nature of the underlying product characteristics. Customer behaviour risk is defined as the potential future value loss due to deviations in the actual behaviour of clients versus the modelled behaviour towards the embedded options in commercial products. General sources of customer behaviour risk include the state of the economy, competition, changes in regulation, legislation and tax regime, and developments in the housing market. Since these risk factors cannot be (fully) mitigated, ING holds capital to be able to absorb possible losses as a result of changed customer behaviour.

From an interest rate risk perspective, commercial activities can typically be divided into three main product types: savings and demand deposits, mortgages, and loans.

- Savings and demand deposits are generally invested with the goal to hedge their value and minimize the sensitivity of the margin to market interest rates. Interest rate risk can arise when there is a lag between savings rate adjustments and the adjustments experienced through market rates or when market rate changes cannot be passed on to clients. Interest rate risk is modelled based on the stability of the deposit and the pass through rate. This takes into account different elements, such as pricing strategies, volume developments and the level and shape of the yield curve. Savings volumes are typically assumed not to be sensitive to interest rate shocks;
- Interest rate risk for mortgages arises through prepayment behaviour. In modelling this risk, interest rate dependent pre-payments are considered. Next to the dependence on interest rates, modelled prepayment may include other effects such as loan to value, seasonality and the reset date of the loan. In addition, the interest sensitivity of embedded offered rate options is considered; and
- Wholesale Banking loans typically do not experience interest rate prepayment behavior as they are hedged from an interest rate risk perspective and therefore do not contain significant fixed rate convexity risk.

Customer behaviour in relation to mortgages, loans, savings and demand deposits is modelled, based on extensive research. Per business unit and product type, exposures are typically segmented into different portfolios based on expected client behaviour. For each of the segments, model parameters for example for the pass through rate and customer behaviour are determined based on historical data and expert opinion. Models are back tested and updated when deemed necessary. Model parameters and the resulting risk measures are approved by (local) ALCO.

Linear interest rate risk is transferred from the commercial business to the treasury book (Group Treasury), if necessary, using estimations of customer behaviour. The originating commercial business is ultimately responsible for estimating customer behaviour, leaving convexity risk and (unexpected) customer behaviour risk with the commercial business. Risk measurement and the risk transfer process take place on a monthly basis, but more often if deemed necessary, for instance in volatile markets.

The commercial business manages the convexity risk that is the result of products that contain embedded options, like mortgages. Here the convexity risk is defined as the optionality effects in the value due to interest rate changes, excluding the first-order effects. In some cases, convexity risk is transferred from the commercial books to treasury books using cap/floor contracts.

Group Treasury manages the strategic interest rate position including capital investments. The main objective is to maximise the economic value of the book and to generate adequate and stable annual earnings within the risk appetite boundaries set by ALCO Bank.

In the following sections, the interest rate risk exposures in the banking books are presented. ING uses risk measures based on both an earnings and a value perspective. Net Interest Income (NII)-at-Risk is used to provide the earnings perspective and the Net Present Value (NPV)-at-Risk and

Basis Point Value (BPV) figures provide the value perspective. Please note that corrective management actions are not taken into account in these figures although price adjustments are included in the earnings risk measure.

During 2019, the following refinements to the risk measurement for Interest Rate Risk in the Banking Book were made:

- Review of the risk appetite for Interest Rate Risk for the Banking Book;
- Annual review of the interest rates scenarios used for calculating NII-a-Risk and NPV-at-Risk; and;
- Savings model updates for market developments.

Net Interest Income (NII) at Risk (*)

NII-at-Risk measures the impact of changing interest rates on (before tax) net interest income of the banking book with a time horizon of one year. This excludes credit spread sensitivity and longer term earnings impact. The NII-at-Risk figures in the tables below reflect a parallel interest rate shock with a time horizon of one year. Next to parallel scenarios, IRRBB monitoring and management includes the impact of non-parallel scenarios and the impact over a longer horizon. The NII-at-Risk asymmetry between the downward and upward ramped scenarios (gradual shock ≈ +/-100bps) is primarily caused by the convexity risk in the mortgage and savings portfolio due to the embedded options and pricing constraints.

NII-at-Risk banking books per business - year 1 (*)

	2019		2018	
	Ramped, unfloored		Ramped, unfloored	
	parallel ▼	parallel ▲	parallel ▼	parallel ▲
By business				
Wholesale Banking	–12	12	–204	239
Retail Banking Benelux	–91	40	–49	22
Retail Challengers & Growth Markets	–3	–3	165	–186
Corporate Line Banking	–30	30	–30	30
Total	**–136**	**79**	**–119**	**106**

The NII-at-Risk is mainly influenced by the sensitivity of savings to interest rate movements due to pass through rate differences between savings rates and investment yields, but is partially offset by the sensitivity of mortgages. The investment of own funds only impacts the earnings sensitivity marginally, as only a relatively small part has to be (re)invested within the 1-year horizon.

NII-at-Risk banking book per currency - year 1 (*)

	2019		2018	
	Ramped, unfloored		Ramped, unfloored	
	parallel ▼	parallel ▲	parallel ▼	parallel ▲
By currency				
Euro	-134	65	-81	60
US Dollar	25	-24	20	–20
Other	-27	39	-57	65
Total	**-136**	**79**	**–119**	**106**

Year-on-year variance analysis (*)

The change in NII-at-Risk is mainly visible for Retail Banking Benelux and Retail Challengers & Growth Markets. This is driven by the savings model updates for market developments in ING Belgium, ING Germany, ING Netherlands, ING Spain and ING Poland. The annual update of the interest rate scenarios also led to a limited increase in the NII-a-Risk for year 1.

Net Present Value (NPV) at Risk (*)

NPV-at-Risk measures the impact of changing interest rates on value. The NPV-at-Risk is defined as the outcome of an instantaneous increase and decrease in interest rates from applying currency specific scenarios. The NPV-at-Risk asymmetry between the downward and upward shock is primarily caused by convexity risk in the mortgage and savings portfolio. The NPV-at-Risk figures are also calculated using the updated interest rate scenarios.

The full value impact cannot be directly linked to the financial position or profit or loss account, as fair value movements in banking books are not necessarily reported through the profit or loss account or through Other Comprehensive Income (OCI). The value mutations are expected to materialise over time in the profit and loss account if interest rates develop according to forward rates throughout the remaining maturity of the portfolio.

NPV-at-Risk banking books per business (*)

	2019		2018	
	parallel ▼	unfloored parallel ▲	parallel ▼	unfloored parallel ▲
By business				
Wholesale Banking	182	400	-55	134
Retail Banking Benelux	-1,431	268	-1,344	-269
Retail Challengers & Growth Markets	-259	-452	-521	-54
Corporate Line Banking	0	0	-38	35
Total	**-1,508**	**216**	**-1,958**	**-153**

The asymmetry between the NPV-at-Risk for a downward and an upward shock scenario is primarily caused by the convexity risk, which arises from (embedded) optionality in the savings and mortgage portfolio.

Year-on-year variance analysis (*)

The change in NPV-at-Risk for Retail Banking Benelux was driven by updates in the savings model to reflect the most recent market developments in The Netherlands and Belgium. The internal view on capital replication of the own funds long-term investments is included in the NPV-at-Risk figures. Only a mismatch from the target investment profile results in NPV-at-Risk.

IBOR Transition (*)

Interbank offered rates, such as Euribor and Libor, are widely used as benchmarks to set interest rates across a broad range of financial products and contracts. The financial markets are going through a significant reform and financial institutions are obligated to implement a replacement of these major interest rate reference rates. In line with recommendations from the Financial Stability Board, a fundamental review and reform of the major interest rates benchmarks has been undertaken. For the Eurozone, this led to a reform of the EURIBOR benchmark rate and development of €STR as the recommended new nearly risk free rate to replace EONIA. For LIBOR benchmarks the reform will include replacing interest rate benchmarks with alternative, nearly risk-free rates. This process is at different stages, and is progressing at different speeds, across several major currencies.

ING is currently making the necessary preparations for the potential cessation and transition of IBORs in the years to come, where we take 2022 as the potential first date that this could materialise. Due to the many uncertainties the overall IBOR transition still faces, at this stage the potential impact of this major event on ING's credit risk profile, business model and funding profiles is not entirely clear. We would like to underline however that ING is aware of the significant impact of this transition and is therefore putting all efforts into making sure that it is properly prepared for this transition in a timely manner. For this purpose, ING has established a global program across all areas of the bank to coordinate ING's transition activities and to assess the potential risks and impacts of any transition. It is a multi-year global program that encompasses various workstreams and departments including the client facing teams, Legal, Finance, Operations and IT.

The following interest rate benchmarks are in scope of ING's IBOR transition program: GBP LIBOR, USD LIBOR, EUR LIBOR, EURIBOR, EONIA, CHF LIBOR and JPY LIBOR.

ING is pro-actively reaching out to industry participants, counterparties and clients to create awareness and support on the upcoming transition.

Given that IBOR reform may have various accounting implications, the International Accounting Standards Board (IASB) has commenced a two phase project. Phase 1 addresses those issues that affect financial reporting before the replacement of an existing benchmark and Phase 2 focuses on issues that may affect financial reporting when the existing benchmark rate is reformed or replaced. In 2019, ING early adopted the amendments to IFRS issued by the IASB as part of Phase 1 (refer to section 1.6.5 of Note 1 of the financial statements). Refer to Note 39 'Derivatives and hedge accounting' for the disclosure requirements relating to the application of the amendments as part of Phase 1. Phase 2 of the project is still ongoing and focusses on, amongst others, accounting for changes to contracts due to the IBOR reform and impact on hedge accounting. ING continues to monitor the progress of Phase 2 of the project and will assess the impact as more information becomes available.

Foreign exchange (FX) risk in banking books (*)

FX exposures in banking books result from core banking business activities (business units doing business in currencies other than their base currency), foreign currency investments in subsidiaries (including realised net profit and loss), and strategic equity stakes in foreign currencies. The policy regarding these exposures is briefly explained below.

Governance – Core banking business (*)

Every business unit hedges the FX risk resulting from core banking business activities into its base currency. Consequently, assets and liabilities are matched in terms of currency.

Governance – FX translation result (*)

ING's strategy is to keep the target CET1 ratio within a certain range when FX rates fluctuate, whilst limiting the volatility in the profit and loss account. Therefore, hedge accounting is applied to the largest extent possible. Taking this into account, the CET1 ratio hedge can be achieved by deliberately taking foreign currency positions equal to certain target positions, such that the target CET1 capital and risk-weighted assets are equally sensitive in relative terms to changing FX rates. For a selection of emerging market currencies ING decided not to enter into foreign currency hedges as allowed under the policy.

Risk profile – FX translation result (*)

The following table presents the currency exposures in the banking books for the most important currencies for the FX translation result. Positive figures indicate long positions in the respective currency. As a result of the strategy to hedge the CET1 ratio a net foreign currency exposure exists.

In order to measure the sensitivity of the target CET1 ratio against FX rate fluctuations, the Historical Value at Risk is used based on historical series of last year's FX rates. It measures the drop in the CET1 ratio from the target based on historical FX rates. Based on these time series and with a probability of 10%, the drop in the CET1 ratio would be 0.09%..

Net banking currency exposures banking books (*)

	Foreign Investments		Hedges		Net exposures	
	2019	2018	2019	2018	2019	2018
US Dollar	8,031	5,794	-11	-1	8,020	5,793
Pound Sterling	-22	614			-22	614
Polish Zloty	2,522	2,563	-278	-526	2,244	2,036
Australian Dollar	3,565	3,569	-2,033	-2,398	1,532	1,171
Turkish Lira	1,337	1,219			1,337	1,219
Chinese Yuan	2,255	2,208			2,255	2,208
Indian Rupee		917				917
Russian Rouble	540	460	-85	-101	455	359
Other currency	4,742	4,462	-1,834	-2,057	2,907	2,405
Total	**22,969**	**21,806**	**-4,242**	**-5,084**	**18,727**	**16,722**

The USD net exposure increased due to optimization of the capitalization and funding of the NY entity. In 2019, we reviewed and updated our methodology for specific CET1 deductibles. This drives the move in GBP net exposure and applies to the calculation of the FX Translation figures in the above table hence has no impact on the reported CET1 figure itself. ING sold its stake in Kotak Mahindra in February 2019 and therefore no longer has exposure on Indian Rupee.

Equity price risk in banking books (*)

Governance (*)

ING maintains a strategic portfolio with substantial equity exposure in its banking books. Local offices are responsible for the management of the equity investment positions. Financial Risk is responsible for monitoring the regulatory capital for equity investments on a monthly basis and acts independently from ING's / Local management when monitoring these positions.

Risk Profile (*)

Equity price risk arises from the possibility that an equity security's price will fluctuate, affecting the value of the equity security itself as well as other instruments whose value react similarly to the particular security, a defined basket of securities, or a securities index. ING's equity exposure mainly consists of the investments in associates and joint ventures of EUR 1,790 million (2018: EUR 1,203 million) and equity securities held at fair value through other comprehensive income (FVOCI) of EUR 2,306 million (2018: EUR 3,228 million). The value of equity securities held at FVOCI is directly linked to equity security prices with increases/decreases being recognized in the revaluation reserve. Investments in associates and joint ventures are measured in accordance with the equity method of accounting and the balance sheet value is therefore not directly linked to equity security prices.

Year-on-year variance analysis (*)

The revaluation reserve relating to equity securities at FVOCI moved from EUR 1,914 million per year end 2018 to EUR 1,580 million per year end 2019. In 2019, the securities at FVOCI decreased by EUR 334 million following the full disposal of Kotak in the same year.

Revaluation reserve equity securities at fair value through other comprehensive income[1] (*)

		2018
Positive re-measurement	1,582	1,923
Negative re-measurement	-2	-8
Total	**1,580**	**1,914**

Real Estate price risk in banking books(*)

Real Estate price risk arises from the possibility that Real Estate prices fluctuate. This affects both the value of Real Estate assets and the earnings related to Real Estate activities.

Governance (*)

Real Estate is a run-off business consisting of Real Estate Development and Real Estate Investment Management activities which are being wound down by sale of assets, strict execution of contract maturity, or through portfolio sales.

Market risk in trading books (*)

Within the trading portfolios, positions are maintained in the financial markets. These positions are often a result of transactions with clients and may benefit from short-term price movements. In 2019, ING continued its strategy of undertaking trading activities to develop its client-driven franchise and deliver a differentiating experience by offering multiple market and trading products.

Governance (*)

The Financial Markets Risk Committee (FMRC) is the market risk committee that, within the risk appetite set by ALCO Bank, sets market risk limits both on an aggregated level and on a desk level, and approves new products. FI-FM Risk advises both FMRC and ALCO Bank on the market risk appetite of trading activities.

With respect to the trading portfolios, FI-FM Risk focuses on the management of market risks of Wholesale Banking (mainly Financial Markets) as this is the only business line within ING where trading activities take place. Trading activities include facilitation of client business and market making. FI-FM Risk is responsible for the development and implementation of trading risk policies and risk measurement methodologies, and for reporting and monitoring risk exposures against approved trading limits. FI-FM Risk also reviews trading mandates and limits, and performs the gatekeeper role in the product review process. The management of market risk in trading portfolios is performed at various organisational levels. The FI-FM Risk Management Framework defines policies and procedures for the overall management of trading books. Trading activity is systematically reviewed and positions against the mandates are assessed jointly by the first and second lines of defence.

Risk measurement (*)

ING uses a comprehensive set of methodologies and techniques to measure market risk in trading books: Value at Risk (VaR) and Stressed Value at Risk (SVaR), Incremental Risk Charge (IRC), and Event Risk (stress testing). Systematic validation processes are in place to validate the accuracy and internal consistency of data and parameters used for the internal models and modelling processes.

Value at Risk (*)

FI-FM Risk uses the historical simulation VaR methodology (Hvar) as its primary risk measure. The HVaR for market risk quantifies, with a one-sided confidence level of 99%, the maximum overnight loss that could occur in the trading portfolio of ING due to changes in risk factors (e.g. interest rates, equity prices, foreign exchange rates, credit spreads, implied volatilities) if positions remain unchanged for a time period of one day. Next to general market movements in these risk factors, HVaR also takes into account market data movements for specific moves in e.g. the underlying issuer of securities. A single model that diversifies general and specific risk is used. In general, a full revaluation approach is applied, and for a limited number of linear trading positions and risk factors in commodity and equity risk classes a sensitivity-based approach is applied. The potential impact of historical market movements on today's portfolio is estimated, based on equally weighted observed market movements of the previous year (260 days). When simulating potential movements in risk factors, depending on the risk factor type, either an absolute or a relative shift is used. The data used in the computations is updated daily. ING uses HVaR with a one-day horizon for internal risk measurement, management control, and backtesting, and HVaR with a ten-day horizon for determining regulatory capital. To compute HVaR with a ten-day horizon the one day risk factor shifts are scaled by the square root of ten and then used as an input for the revaluation. The same model is used for all legal entities within ING with market risk exposure in the trading portfolio.

Limitations (*)

HVaR has some limitations: HVaR uses historical data to forecast future price behaviour, but future price behaviour could differ substantially from past behaviour. Moreover, the use of a one-day holding period (or ten days for regulatory capital calculations) assumes that all positions in the portfolio can be liquidated or hedged in one day. In periods of illiquidity or market events, this assumption may not hold. Also, the use of a 99% confidence level means that HVaR does not take into account any losses that occur beyond this confidence level.

Backtesting (*)

Backtesting is a technique for the ongoing monitoring of the plausibility of the HVaR model in use. Although HVaR models estimate potential future trading results, estimates are based on historical market data. In a backtest, the actual daily trading result (excluding fees and commissions) is compared with the one-day HVaR. In addition to using actual results for backtesting, ING also uses hypothetical results, which exclude the effects of intraday trading, fees, and commissions. When an actual or a hypothetical loss exceeds the HVaR, an 'outlier' occurs. Based on ING's one-sided confidence level of 99%, an outlier is expected once in every 100 business days. In 2019, there were five actual outliers i.e. occurrences of actual loss and four hypothetical outliers i.e. occurrences of hypothetical loss, when the daily trading loss exceeded the daily consolidated HVaR of ING. The outliers were driven by interest rates market moves mainly related to quantitative easing. ING reports the backtesting results on a quarterly basis to the ECB.

Stressed HVaR (*)

The Stressed HVaR (SVaR) is intended to replicate the HVaR calculation that would be generated on the bank's current portfolio with inputs calibrated to the historical data from a continuous 12-month period of significant financial stress relevant to the bank's portfolio. To calculate SVaR, ING uses the same model that is used for 1DHVaR, with a ten-day horizon. The data for historical stress period used currently includes the height of the credit crisis around the fall of Lehman Brothers, and this choice is reviewed regularly. The historical data period is chosen so that it gives the worst scenario loss estimates for the current portfolio. The same SVaR model is used for management purposes and for regulatory purposes. The same SVaR model is used for all legal entities within ING with market risk exposure in the trading portfolio.

Incremental Risk Charge (*)

The IRC for ING is an estimate of the default and migration risks for unsecuritised credit products in the trading book, over a one-year capital horizon, with a 99.9% confidence level. The same IRC model is used for all legal entities within ING with market risk exposure in the trading portfolio. Unsecuritised trading positions of ING, which are subject to specific interest rate risk included in the internal model approach for market risk regulatory capital, are in scope of the IRC model. By model choice, equity is excluded from the model. For the calculation of IRC, ING performs a Monte-Carlo simulation based on a Gaussian copula model. The asset correlations used in the Gaussian copula model are determined using the IRB correlation formula. The rating change is simulated for all issuers over the different liquidity horizons (i.e. time required to liquidate the position or hedge all significant risks) within one year. Movements across different rating categories and probabilities of default are governed by a credit-rating transition matrix. An external transition matrix is obtained from Standard & Poor's (S&P). The financial impact is then determined for the simulated migration to default, or for the simulated migration to a different rating category, based on LGD or credit spread changes, respectively.

The liquidity horizon has been set to the regulatory minimum of three months for all positions in scope. ING reviews the liquidity horizons regularly based on a structured assessment of the time it takes to liquidate the positions in the trading portfolio.

ING periodically assesses the compliance of the IRC model with regulatory requirements by performing gap analyses, substantiating the modelling choices, and quantifying the impact of alternative approaches.

Stress Testing and Event Risk (*)

Stress Testing and Event Risk are valuable risk management tools. In addition to the bank-wide stress test framework as described in the stress testing section, FI-FM Risk performs structured stressed scenario tests under the Event Risk framework to monitor market risks under extreme market conditions. Event Risk is calculated because HVaR in general does not produce an estimate of the potential losses that can occur as a result of extreme market movements, i.e. beyond the confidence level. Event Risk evaluates the bank's financial stability under severe but plausible stress scenarios and assists in decision-making aimed at maintaining a financially healthy going-concern institution after a severe event occurs. Event Risk is based on historical as well as hypothetical extreme scenarios. The result is an estimate of the profit and loss caused by a potential event and its world-wide impact for ING. The Event Risk number for ING trading activity is generated on a weekly basis. Like for HVaR, risk appetite for Event Risk is limited by ALCO Bank.

ING's Event Risk policy is based on a large set of possible stress scenarios per risk type. In stress scenarios, shocks are applied to prices (credit spreads, interest rates, equity, commodities, and fx rates) and volatilities. Depending on the type of the stress test, additional scenario assumptions can be made, for example on correlations, dividends, or recovery rates. For example, for equity products both a crisis scenario (prices decrease) as well as a bull scenario (prices increase) are assumed. Scenarios are calculated based on events happening independently, jointly by region, or in all countries simultaneously. This way, for each risk type, a large set of scenarios is calculated. The worst scenarios per market are combined across markets by assessing both independent events per market, and the worst events happening in all markets at the same time.

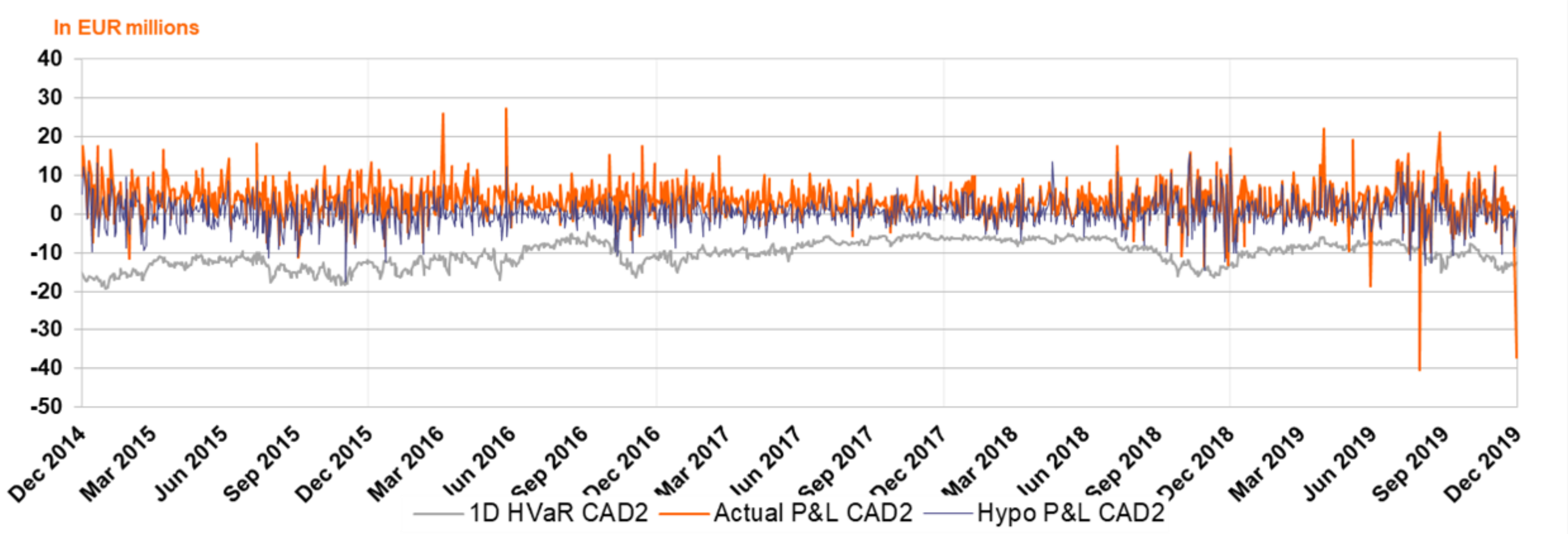
Risk measurement - Other trading controls

HVaR and Event Risk limits are the most important limits to control the trading portfolios. Additionally, limits have been set on SVaR and IRC. Furthermore, ING uses a variety of other controls to supplement these limits. Position and sensitivity limits are used to prevent large concentrations in specific issuers, sectors, or countries. Moreover, other risk limits are set with respect to the activities in complex derivatives trading. The market risk of these products is controlled by product specific limits and constraints.

Risk profile

The following chart shows the development of the overnight HVaR under a 99% confidence level and a one-day horizon versus actual and hypothetical daily trading profits and losses. In calculation of the hypothetical daily profit and loss, the trading position is kept constant and only the market movement is taken into account. The overnight HVaR is presented for the ING trading portfolio from 2014 to 2019.

EU MR4: Consolidated trading HVaR[1]



1 CVA risk is not included in VaR.

.

The risk figures in the backtesting graph above and in the table below relate to all trading books for which the internal model approach is applied, i.e. all trading books, including Credit Exposure Management books.

1d VaR for Internal Model Approach trading portfolios

	Minimum		Maximum		Average		Year end	
amounts in millions of euros	2019	2018	2019	2018	2019	2018	2019	2018
Interest rate [1]	3	3	13	7	6	5	12	4
Equity and commodity	1	1	7	10	2	3	1	7
Foreign exchange	1	1	11	10	2	4	1	9
Credit spread	4	3	7	6	6	4	5	6
Diversification [2]					-6	-8	-6	-13
Total VaR	**6**	**5**	**15**	**16**	**10**	**9**	**13**	**13**

1 For calculation of HVaR per risk class the full valuation is performed according to HVaR methodology using a set of scenario changes for the risk factors for the particular risk class, while risk factors for all other risk classes are kept unchanged.

2 The total HVaR for the columns Minimum and Maximum cannot be calculated by taking the sum of the individual components since the minimum/maximum observations for both the individual markets as well as for total HVaR may occur on different dates. Therefore, diversification is not calculated for the minimum and maximum categories.

3 CVA risk is not included in VaR.

Average 1D/10D HVaR, 10D SVaR and IRC over 2019 are in line with the average over 2018. The average for foreign exchange decreased compared to 2018 while credit spread increased compared to 2018, both driven by portfolio changes. The VaR at the period end of 2019 and 2018 was EUR 13 million, however the asset class decomposition changed significantly. The risk moved from foreign exchange and equity and commodity towards interest rate asset class

EU MR3: Internal Model Approach values for trading portfolios

amounts in millions of euros	2019	2018
VaR (10 day 99%)		
1 Maximum value	42	46
2 Average value	27	25
3 Minimum value	16	15
4 Period end	33	40
Stressed VaR (10 day 99%)		
5 Maximum value	126	139
6 Average value	72	73
7 Minimum value	47	41
8 Period end	76	124
Incremental Risk Charge (99.9%)		
9 Maximum value	169	107
10 Average value	76	62
11 Minimum value	42	40
12 Period end	64	58
Comprehensive Risk capital charge (99.9%)		
13 Maximum value	n/a	n/a
14 Average value	n/a	n/a
15 Minimum value	n/a	n/a
16 Period end	n/a	n/a

Regulatory Capital

According to the Capital Requirements Regulation (CRR/CRD IV), regulatory capital (own funds requirements) for market risk can be calculated using the standardised approach or an internal model approach. ING received regulatory approval to use an internal model to determine the regulatory capital for the market risk in all trading books of ING. Market risk capital of trading books is calculated according to the CRR, using internal HVaR, SVaR, and IRC models, where diversification is taken into account. Capital for foreign exchange risk from the banking books and for Collective Investment Undertakings (CIUs) exposures in trading books are calculated using Standardised Approach with fixed risk weights. ING does not have a correlation trading portfolio or any other securitisations in the trading book.

Standardised Approach

EU MR1: Market risk under Standardised Approach

	2019		2018	
amounts in EUR millions	RWA	Capital requirements	RWA	Capital requirements
Outright products				
1 Interest rate risk (general and specific)	14	1		
2 Equity risk (general and specific)				
3 Foreign exchange risk			1,131	90
4 Commodity risk				
Options				
5 Simplified approach				
6 Delta-plus method				
7 Scenario approach				
8 Securitization (specific risk)				
9 **Total**	**14**	**1**	**1,131**	**90**

The MRWA under Standardised Approach decreased significantly compared to 4Q2018. At the beginning of 2019 an important FX position in the banking book was closed causing the FX exposure to decrease below the 2% own funds threshold. According to Art. 351 CRR, in such a case, the calculation of Market Risk regulatory capital is not required. As of 3Q2019, CIU exposures in trading books are capitalised in Market risk under Standardised Approach under interest rate specific risk and foreign exchange risk categories.

Internal Model Approach

Market risk Regulatory Capital increased during the 2019 compared to 2018. The increase is driven by an increase in IRC, while VaR and SVaR slightly decreased. IRC capital increased as a result of changes in the portfolio in combination with credit spread movements.

EU MR2-A: Market risk under Internal Model Approach

amounts in EUR millions	2019 RWA	2019 Capital requirements	2018 RWA	2018 Capital requirements
1 **VaR (higher of values a and b)**	**1,261**	**101**	**1,394**	**112**
(a) Previous day's VaR (Article 365(1) (VaRt-1))	404	32	529	42
(b) Average of the daily VaR (Article 365(1)) on each of the preceding sixty business days (VaRavg) x multiplication factor ((mc) in accordance with Article 366)	1,261	101	1,394	112
2 **SVaR (higher of values a and b)**	**3,011**	**241**	**3,217**	**257**
(a) Latest SVaR (Article 365(2) (sVaRt-1))	902	72	1,486	119
(b) Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)	3,011	241	3,217	257
3 **Incremental risk charge -IRC (higher of values a and b)**	**1,278**	**102**	**767**	**61**
(a) Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with Section 3 articles 370/371)	799	64	727	58
(b) Average of the IRC number over the preceding 12 weeks	1,278	102	767	61
4 **Comprehensive Risk Measure – CRM** (higher of values a, b and c)				
(a) Most recent risk number for the correlation trading portfolio (article 377)				
(b) Average of the risk number for the correlation trading portfolio over the preceding 12-weeks				
(c) 8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4))				
5 **Total**	**5,550**	**444**	**5,378**	**430**

Sensitivities (*)

As part of the risk monitoring framework, FI-FM Risk actively monitors the daily changes of sensitivities of the trading portfolios. Sensitivities measure the impact of movements in individual market risk factors (foreign exchange rates, interest rates, credit spreads, equity, and commodity prices) on profit and loss results of the trading positions and portfolios.

The following tables show the five largest trading positions in terms of sensitivities to foreign exchange, interest rate and credit spread risk factor movements. These largest exposures also reflect concentrations of risk in FX risk per currency, IR risk per currency, and Credit Spread risk per country and rating and sector. Due to the nature of the trading portfolios, positions in the portfolios can change significantly from day to day, and sensitivities of the portfolios can change daily accordingly.

Most important foreign exchange year-end trading positions (*)

amounts in EUR millions	2019		2018
Foreign exchange		Foreign exchange	
US Dollar	116	US Dollar	–957
Chinese Yuan Renminbi	-21	Chinese Yuan Renminbi	–18
South Korean Won	20	Swiss Franc	–14
Brazilian Real	-15	Polish Zloty	14
Japanese Yen	-10	South Korean Won	14

Most important interest rate and credit spread sensitivities at year-end (*)

amounts in EUR thousands	2019		2018
Interest Rate (BPV) [1]		**Interest Rate (BPV)** [1]	
Euro	-740	Euro	–214
US Dollar	-325	US Dollar	189
Russian Ruble	-105	Great-Britain Pound	–112
Great-Britain Pound	-68	Taiwan New Dollar	96
Australian Dollar	-31	Polish Zloty	54
Credit Spread (CS01) [2]		**Credit Spread (CS01)** [2]	
United States	360	Germany	345
Germany	163	United States	330
France	117	Russian Federation	177
Russian Federation	73	Netherlands	164
United Kingdom	72	France	151

1 Basis Point Value (BPV) measures the impact on value of a 1 basis point increase in interest rates. The figures include
2 Credit Spread Sensitivity (CS01) measures the impact on value of a 1 basis point increase in credit spreads. Exposures to to a specific country.

Credit spread sensitivities per risk class and sector at year-end (*)

	2019		2018	
amounts in EUR thousands	Corporate	Financial Institutions	Corporate	Financial Institutions
Credit Spread (CS01) [1]				
Risk classes				
1 (AAA)	1	-1	–6	90
2–4 (AA)	-15	-63	3	–24
5–7 (A)	143	32	117	78
8–10 (BBB)	273	1	245	–2
11–13 (BB)	148	9	85	6
14–16 (B)	51	1	37	13
17–22 (CCC and NPL)	26	0	18	
Not rated	0	0	1	
Total	**626**	**-21**	**500**	**161**

1 1 Credit Spread Sensitivity (CS01) measures the impact on value of a 1 basis point increase in credit spreads.

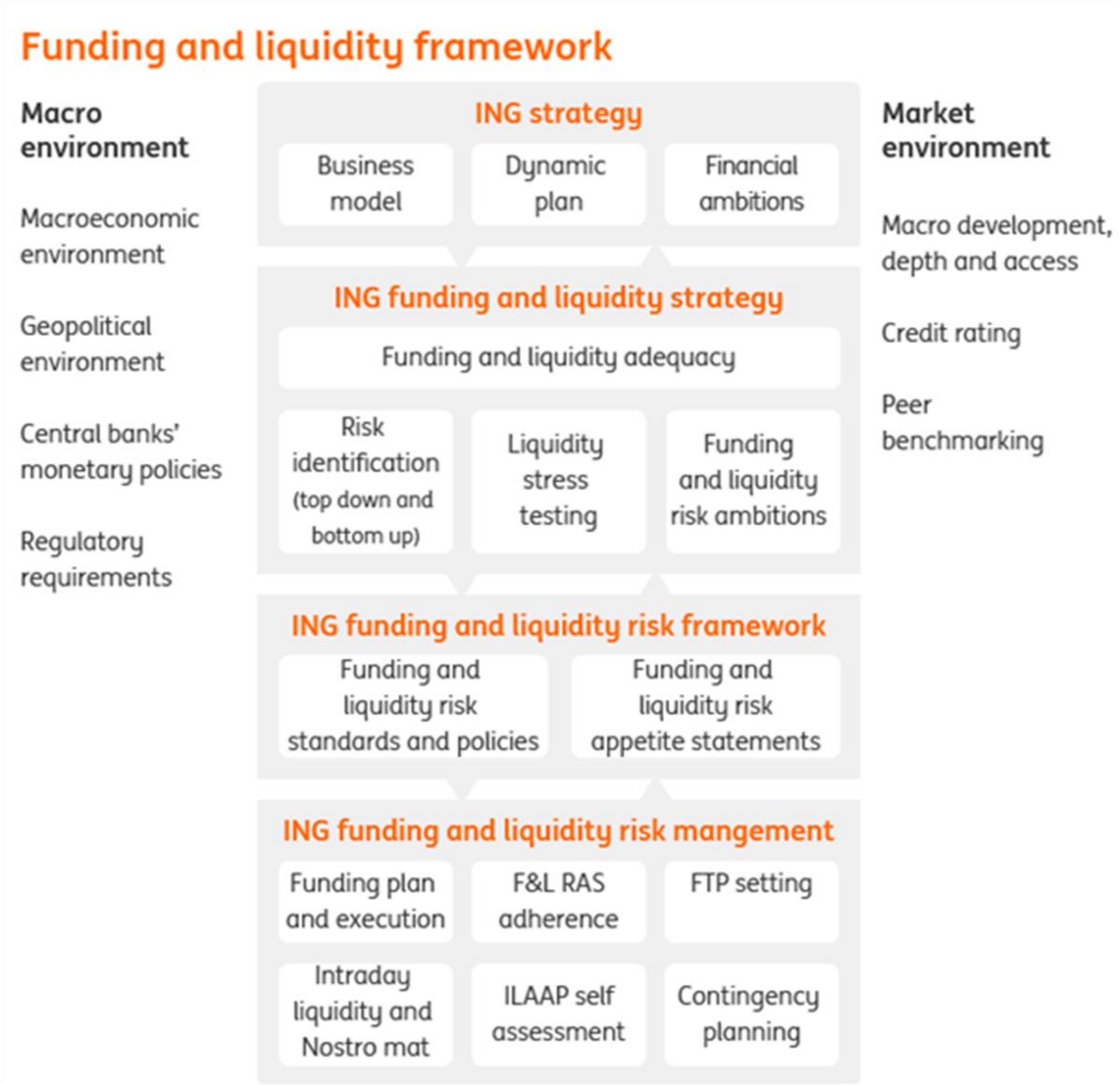
Funding and liquidity risk (*)

Introduction (*)

Funding and liquidity (F&L) risk is the risk that ING Group or one of its subsidiaries cannot meet its financial liabilities when they are due at reasonable cost and in a timely manner. ING incorporates funding and liquidity management in its business strategy and applies a funding and liquidity risk framework in order to manage such risks within pre-defined boundaries.

A high-level overview of the F&L framework is provided in the next figure.

(*)



Governance (*)

Funding & liquidity risk management within ING falls under the supervision of the ALCO Bank function which approves the funding and liquidity risk appetite that is subsequently cascaded throughout the organisation. In addition, ALCO Bank has delegated responsibilities concerning the ICLAAP processes and documents as per the ICLAAP Framework of ING Group towards the Internal Capital & Liquidity Adequacy Assessment Process (ICLAAP) Committee. Therefore, it focuses on technical liquidity documents and oversees business processes and deliverables concerning ILAAP. The EB and MBB, staff departments from the CRO and CFO domain as well as Group Treasury have oversight of and are responsible for managing funding and liquidity risk.

ING's liquidity risk framework is based on the three lines of defence concept whereby risk principles are implemented, monitored and controlled in conjunction with both first and second line of defence functions.

Group Treasury and business lines are the first line of defence functions. Group Treasury's main responsibility is to manage ING's (regulatory) liquidity and funding position by executing ING's funding plan, maintaining access to both the short and the long term professional funding markets and managing the liquidity buffer. Business lines are responsible for managing the funding and liquidity positions from the originated business. A large part of this is replicated with Group Treasury.

The second line of defence Financial Risk function is responsible for developing and maintaining ING's policies, standards and guidelines on F&L risk management as well as for setting the F&L risk appetite. Furthermore, the Financial Risk function measures funding & liquidity risks, executes stress testing, provides management information and controls the liquidity and funding requirements on commercial products. The Finance function is responsible for management and regulatory reporting related to funding and liquidity risk management.

Funding and liquidity management strategy and objectives (*)

The main objective of ING's funding and liquidity risk management is to maintain sufficient liquidity to fund the commercial activities of ING both in normal and stressed market circumstances across various geographies, currencies and tenors. This requires a diversified funding structure considering relevant opportunities and constraints.

ING's funding consists mainly of retail and corporate deposits contributing 51% and 21% of the total funding respectively. These funding sources provide a relatively stable funding base. The remainder of the required funding is attracted primarily through a combination of long-term and short-term professional funding. Group Treasury manages the professional funding in line with the F&L risk appetite to ensure a sufficiently diversified and stable funding base.

ING Bank Funding Mix[1] (*)

	2019	2018
Funding type		
Customer deposits (retail)	51%	50%
Customer deposits (corporate)	21%	21%
Interbank	5%	5%
Lending/repurchase agreement	5%	7%
CD/CP	5%	6%
Long-term debt	11%	11%
Subordinated debt	2%	2%
Total	**100%**	**100%**

1 Liabilities excluding trading securities and IFRS equity

The Loan-to-deposit ratio remained stable at the level of 1.06.

ING's long-term professional funding is well diversified across maturities and currencies. The main part of it is EUR and USD denominated which is in line with the currency composition of customer lending:

ING Group long-term debt maturity profile by currency[1] (*)

	2020	2021	2022	2023	2024	2025	Beyond 2025	Total
Currency								
EUR	9	9	8	5	1	4	26	**62**
USD	3	2	4	4	1	-	8	**22**
Other	1	2	1	1	1	-	2	**10**
Total	**13**	**14**	**13**	**10**	**3**	**4**	**37**	**94**

1 Nominal amounts in EUR billion.

Funding and liquidity adequacy and risk appetite (*)

ING distinguishes several key drivers of future liquidity and funding needs:

- Refinancing needs resulting from maturing debt and asset growth;
- Current and future regulatory requirements;;
- Risk appetite statements set by ING's funding and liquidity risk function;;
- The outcomes of various stress tests;
- Ability to distribute and transfer liquidity.

Taking into consideration the abovementioned factors, ING Group assesses its current and future liquidity adequacy and, if deemed necessary, takes steps to further improve ING's liquidity position and to ensure sufficient counterbalancing capacity. That is achieved through the quarterly update of the Liquidity adequacy statement and the execution of the ILAAP process.

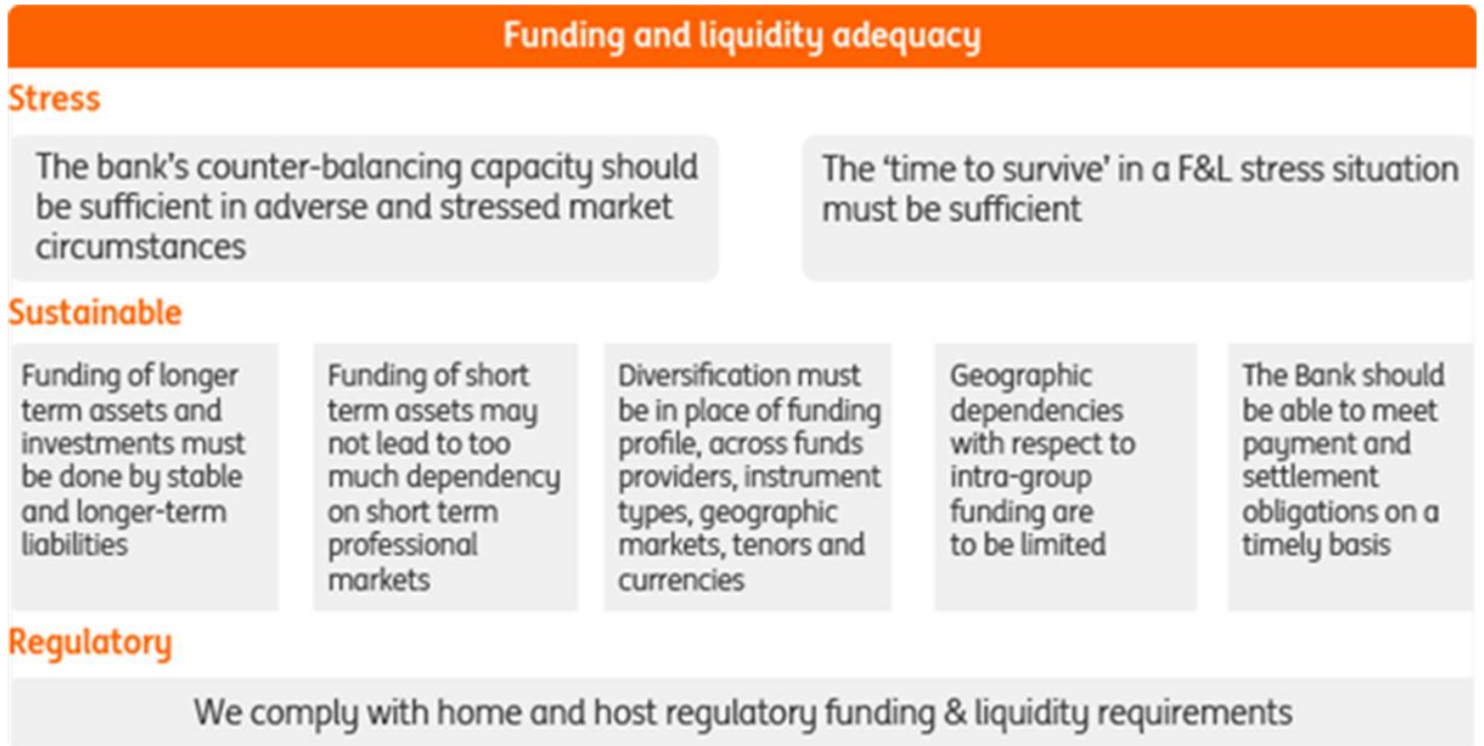
ING's Funding and Liquidity framework aims to ensure sufficient liquidity under normal, adverse and stressed market circumstances. ING assesses its F&L adequacy through three lenses: (i) Stress, (ii) Sustainability and (iii) Regulatory.

(i) Through the Stress lens ING evaluates its ability to withstand a period of prolonged F&L stress (idiosyncratic, market-wide or a combination of the two) which is characterised by customer deposit outflows and/or deterioration of funding markets access;

ii) Through the Sustainability lens ING assesses the extent to which its customers, professional counterparties and investors are comfortable extending funding in tenors, currencies and instruments necessary to sustainably fund ING under a going-concern situation;
(iii) Through the Regulatory lens ING ascertains that it is in a position to meet both current and future regulatory requirements.

For each lens, ING has established a related set of risk appetite statements which define ING's risk appetite commensurate with the principles of liquidity adequacy. These risk appetite statements are summarised in the next graph.

(*)



The F&L risk appetite statements are translated into a number of metrics with appropriate boundaries and instruments which are used to measure and manage ING's funding and liquidity risk.

The risk appetite with respect to the stress lens is set to ensure there is sufficient counterbalancing capacity under various internally defined stress scenarios. Regarding the sustainability perspective, an internally defined Stable funding to loans (SFL) ratio (supplemented by other metrics) is used to ensure a diversified funding base and to prevent overreliance on professional funding. Finally, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) regulatory metrics are monitored in terms of both ING's risk appetite and regulatory requirements.

The LCR compares the volume of available high quality liquid assets (HQLA) to net outflows (outflows- inflows) over a 30-day stress scenario defined by the regulator. ING's liquidity buffer is part of the counterbalancing capacity which serves as a liquidity cushion under normal and stressed conditions.

The liquidity buffer consists mainly of Level 1 assets which are represented by government and central bank assets and are of the highest liquidity quality. Only assets that are freely available (not pledged under existing contracts) for liquidity purposes are included in the buffer. The size and composition of the Liquidity buffer are driven by ING's risk appetite as well as by regulatory requirements.

The macroeconomic and market environment are also important considerations in ING's funding and liquidity framework.

The macroeconomic environment comprises various exogenous factors over which ING has no control but which may have a material impact on ING's F&L position. The main macroeconomic factors analysed on a regular basis include:
- Global and local economic performance: e.g. shifts in GDP, inflation rate, unemployment rates and public deficit/surplus;
- Changing geopolitical trends;
- Monetary policy with special focus on the impact of the eventual reversal of unconventional monetary measures employed by central banks in recent years; and

- Regulatory requirements: e.g. understanding the changing regulatory landscape as well as the impact of ING's actions on existing regulatory boundaries.

The strategic ambitions of ING, together with the design and execution of the funding plan, are assessed under both current and projected market conditions. Key emphasis is placed on understanding overall market trends and developments, credit rating changes and peer comparison.

Liquidity Stress Testing (*)

Funding and liquidity stress testing forms part of the overall F&L framework. It allows ING to examine the effects of exceptional but plausible future events on ING's liquidity position and provides insight into which entities, business lines or portfolios are vulnerable to which types of risk and under which scenarios.

The stress testing framework encompasses the funding and liquidity risks of the consolidated balance sheet of ING Group including all entities, business lines as well as on and off-balance sheet positions. The Net liquidity position and Time-to-survive are the two main stress testing output metrics. Both metrics are impacted differently under specific F&L stress scenarios with related parameterisation.

The stress testing framework considers idiosyncratic, market-wide and combined (idiosyncratic and market-wide) stress scenarios. Moreover, it differentiates between stress events that develop in a gradual and in a fast manner. The generic design of the framework, which is based on empirical evidence supplemented by expert judgment, can easily be applied to a specific scenario. For example, it can be used as input for firm-wide stress testing and reverse stress testing.

The outcomes of the stress testing are taken into account in all the key aspects of ING's F&L risk framework and F&L risk management:

- risk appetite framework (through risk appetite statements);
- risk identification and assessment;
- monitoring of the liquidity position;
- contingency funding plan; and
- early warning indicators.

The Funding and liquidity stress testing framework is also subject to regular internal validation.

In line with ECB regulation, ING's liquidity position is stress tested on a monthly basis using particular scenarios that form part of the F&L risk appetite statement. In addition, the results of all internal stress scenarios are monitored and assessed on a regular basis. They also serve as input in the decision on additional contingency measures.

Contingent F&L risks are addressed in the contingency funding plan whose focus is on early warning indicators as well as organisation and planning of liquidity management in times of stress. The contingency funding measures are developed in conjunction with the ING recovery plan and are tested on a regular basis.

Non-financial risk

Introduction

Non-financial risk is defined as the risk of financial loss, legal or regulatory sanctions, or reputational damage due to inadequate or failing internal processes, people and systems; a failure to comply with laws, regulations and standards; or external events. The Non-Financial Risk (NFR) function encompasses Operational Risk Management (ORM), Information Risk Management (IRM), the Independent Validation Unit (IVU) and Corporate Security & Investigations (CSI).

Governance

The head of Corporate ORM, Corporate IRM, IVU, CSI, Professional Practice Unit and Strategy, Central Services & Digitalisation Unit report to the global head of NFR, who directly reports to the bank CRO.. The global head of Non-Financial Risk is responsible for developing the framework of non-financial risk policies and standards within ING, and for monitoring the quality of non-financial risk management in the ING entities.

Non-Financial risk measurement

In line with the Advanced Measurement Approach (AMA), the bank has in place a model to define the required level of own funds for operational risk (operational risk capital). This model predicts potential operational risk losses (annually aggregated) by combining a forward-looking and a backward-looking view on operational risk events. The business has a leading role in assessing scenario severities, with the ORM function validating and challenging the results.

ING uses its AMA model for regulatory capital calculation purposes and reports the regulatory capital numbers on a quarterly basis. The bank is currently not using any insurance or risk transfer mechanisms for the mitigation of risk in the context of the AMA capital calculation.

Risk categories

ING categorises NFR risks in a number of areas:

- *Information (Technology)* risk is the risk of financial loss, regulatory sanctions or reputational damage due to breaches of confidentiality, integrity or availability within business processes or information or lack of information quality;
- Continuity risk is the risk of financial loss, regulatory sanctions or reputational damage due to business disruptions (loss of people, processes, systems, data, premises);
- *Control and processing risk* are the risks of financial loss, regulatory sanctions or reputational damage due to ineffective organisational structures and governance procedures (including unclear roles and responsibilities and inadequate reporting structure), failed (transaction) processing (input, execution, output) or failing process management; monitoring and enforcement of risk mitigating measures; and risk culture;
- *Internal fraud risk* is the risk of financial loss, regulatory sanctions or reputational damage due to deliberate abuse of procedures, systems, assets, products and/or services of ING by employees (incl. temporary workers, third party contractors, internships and consultants) who intend to deceitfully or unlawfully benefit themselves or others;
- *External fraud risk* is the risk of financial loss, regulatory sanctions or reputational damage due to deliberate abuse of procedures, systems, assets, products and/or services of ING by external parties (clients, potential clients or other third parties, including vendors and outside agencies) who intend to deceitfully or unlawfully benefit themselves or others;
- *Unauthorised activity risk* is the risk of financial loss, regulatory sanctions or reputational damage due to employees performing outside the normal course of their business, intentionally giving unauthorised approvals or overstepping their authority;
- *Personal and physical security risk* is the risk of financial loss, regulatory sanctions or reputational damage due to criminal and environmental threats that might endanger the security or safety of ING personnel at work, people in ING locations, ING assets or assets entrusted to ING, people at ING event locations, or might have an impact on ING organisation's confidentiality, integrity or availability; and

- *Employment practice risk* is the risk of financial loss, regulatory sanctions or reputational damage due to acts that are inconsistent with employment, health and/or safety laws, regulations or agreements, from payment of personal injury claims, or from diversity/discrimination events.

Data Governance and Data Quality

ING recognises that information and underlying data are assets that are key (together with people, processes and IT systems) to further develop its digital profile. Cooperation and mutual agreement on global data management roles and responsibilities in ING are critical success factors to meet this objective. As such ING has embraced multiple data management and governance initiatives triggered by internal and external stakeholders (e.g. Principles for Effective Risk Data Aggregation and Risk Reporting). These principles are embedded in risk data management and enshrined within the Data Governance framework. The framework outlines roles and responsibilities relevant for the risk lifecycle and data quality assurance.

Main developments in 2019

Cybercrime and Fraud

- Controls and monitoring continue to be embedded in the organisation as part of the overall internal control framework and are continuously re-assessed against existing and new threats. The identification and monitoring of new threat actors and campaigns relevant to ING also informs this process as does the closer alignment between IT security and fraud teams. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration with financial industry peers, law enforcement authorities, government (e.g. National Cyber Security Centre) and internet service providers (ISPs).
- Concerns over the potential impact of insider threats continues to increase with specific information relating to external instances or trends in the financial industry remaining limited, albeit collaboration within the financial sector is improving.

  The increasing use of third party vendors for services and the implementation of PSD2 are likely to present ongoing fraud management and IT security challenges; both in the short- and medium-term as criminal actors target financial and broader PII data outside the traditional banking environment.
- Dealing with current and emerging fraud threats effectively requires continuous improvement of fraud management capabilities such as real-time transaction and response capabilities and better alignment and standardisation of cross border fraud management across ING and related platforms as well as exchanging data cross border. With legislation such as EBA PSDII and the continuing emphasis on duty of care, financial institutions are becoming more and more responsible for losses incurred by clients, and taking on more of the burden of reclaiming those losses.

Enterprise Risk Management

In 2019, a professional practice unit (PPU) has been set up to establish an Enterprise Risk Management ("ERM") Framework gatekeeper for policy design. ERM is designed to be an overarching risk management framework (RMF) pulling together common design principles and roles & responsibilities for all risk types (Financial, Non-financial, and Strategic). The purpose and benefits of the ERM Framework facilitates clear and easy communication and improving the visible and transparent link to ING's Strategy, business activities and processes. The ERM Framework is being implemented to ensure standardisation of all risk frameworks and, once finalised, it will apply to all businesses lines and entities on global and local level.

User Access Management (UAM)

UAM is one of the focus areas of ING and an important element in our control framework to mitigate the risk of unauthorized and / or inappropriate access to systems, processes and the data and information contained therein. Consequently, the UAM processes, controls and practices are periodically reviewed, tested, adapted and improved by a dedicated UAM team to address ongoing developments in and outside ING. In 2019, ING continued to mature, with attention to standardization, harmonisation of processes via standardized workflows and further automation of UAM controls, which will continue in 2020.

GDPR

As per 25 May 2018, the European General Data Protection Regulation (GDPR) became effective. GDPR affords greater protection to individuals and requires more control on data and transparency regarding the use of data by companies. In 2019, ING continued its central programme, initiated in 2016, in a continuing effort to mature our data protection standards in line with GDPR standards.

Outsourcing Risk

In 2019, a renewed Sourcing Policy became effective, outlining the inherent critical and high risks that can materialise during the sourcing life-cycle. In addition, a Sourcing Guideline was issued to support updated requirements, issued by EBA in 1Q 2019. Support Control Framework (SCF) Sourcing defines the controls that have to be implemented and tested to effectively mitigate the risks. The scope of sourcing encompasses outsourcing to external providers as well as intra-group sourcing.

BCBS239

In January 2013 the Basel Committee on Banking Supervision published the principles for effective risk data aggregation and risk reporting (BCBS 239), which is adopted by the ECB and became effective for all G-Sib's as of January 2016. ING initiated a central program which is continued in 2019 to improve the risk data aggregation and reporting capabilities.

Compliance risk

Introduction

Compliance risk is defined as the risk of impairment of ING's integrity, leading to damage to ING's reputation, legal or regulatory sanctions, or financial loss, due to a failure (or perceived failure) to comply with applicable laws, regulations and standards and the ING Orange Code.

Governance

The Compliance Risk Management function is organised via countries and business lines. The heads of Financial Crime Compliance, Regulatory & Conduct Compliance, Strategy & Transformation Office at the head office, as well as the heads of compliance in the Netherlands and Belux and the business lines Challenge & Growth and Wholesale Banking report to the chief compliance officer (CCO), who is the global head of Compliance Risk Management. This is an independent function that is amongst others responsible for developing and establishing bank-wide policies and minimum standards for managing compliance risks. The CCO assists the Supervisory Board, Executive Board and Management Board Banking in managing ING's compliance risks and control framework. The CCO is a permanent participant of the Risk Committee of the Supervisory Board. The CCO regularly meets the chairman of the Risk Committee of the SB.

Risk categories

ING categorises compliance risk into four conduct-related integrity risk areas:

- Client/third party conduct refers to the compliance risks arising from the relationship with or generated by the conduct of our customers and/or business partners, like money laundering or terrorist financing. Those risks are generally defined within ING as financial economic crimes. Furthermore, client conduct refers to the compliance risks relating to FATCA, CRS, CTI and US withholding tax and information reporting regulations;
- Personal conduct refers to the compliance risks arising from the conduct of ING employees. The scope includes amongst others personal conduct related conflicts of interest, bribery and corruption, protection of personal data;

- Financial services conduct refers to the compliance risks arising from or generated by the conduct of ING when developing product offerings, marketing and/or selling products and services to its clients as well as customer interest and protection; and
- Organisational conduct refers to the compliance risks arising from the way the bank is organising itself to develop its activities. This category covers among others the licences required to perform its regulated banking activities, the operating effectiveness of its information barriers, organisation conduct conflicts of interest, anti-competitive conduct, record retention.

Controls aiming to mitigate the compliance risks associated with the above-mentioned risk areas are designed and applied to the day-to-day processes in the bank. The effectiveness of the controls is tested and monitored periodically, and senior management is responsible for ensuring that processes are compliant with applicable laws and regulations, ING's internal policies, and the Orange Code.

In cases where an employee of ING suspects an actual or potential irregularity or misconduct within ING that leads or could lead to a violation of the Orange Code, any ING policy and/or any applicable law, regulation or code, this can be reported anonymously in line with the Whistle-blower Policy, via internal or external channels as well as through normal reporting channels.

Strengthening the global compliance function

ING has introduced measures to strengthen the Compliance Risk Management function. These measures are being implemented as part of a multi-year, global compliance strategy and transformation programme The programme encompasses the whole compliance function and aims at enhancing global steering and oversight by the compliance function.

Know your customer (KYC)

ING is committed to the preservation of its reputation and integrity through compliance with applicable laws, regulations and ethical standards in each of the markets in which it operates. All employees are expected to adhere to these laws, regulations and ethical standards, and management is responsible for ensuring such compliance. Compliance is therefore an essential ingredient of good corporate governance. As gatekeepers of the financial system we have obligations to safeguard trust in that system and prevent misuse. For example a recent study found almost €13 billion worth of criminal money is laundered in the Netherlands each year – around 1.6 percent of the GDP. However, money laundering is not contained within a single country or jurisdiction, it is a global challenge that impacts the entire financial system. ING, like all other participants in the financial services industry, has an important role to play in helping to combat financial economic crime. We contribute knowledge and capacity to various public-private partnerships fighting financial crime. We believe we can be even more effective in safeguarding the financial system if we join forces and work with other banks and with national and European authorities and law enforcement to identify and manage the financial economic crime risks better, taking all relevant laws and regulations into account. Improving the way we manage compliance risk, especially when it comes to preventing criminals from misusing the financial system, is a key priority for ING.

KYC policy framework

The know your customer (KYC) policy and related control standards ('KYC policy framework') sets the minimum requirements and control objectives for all ING entities to guard against involvement in financial crime activity. The KYC policy framework reflects relevant national and international laws, regulations and industry standards related to financial economic crime (money laundering, terrorist financing), export trade controls, proliferation financing, sanctions (economic, financial and trade), countries designated by ING as ultra high risk countries (UHRC), CTI, FATCA, CRS, and (parts of) ESR. The KYC policy framework is mandatory and applies to all ING entities, majority-owned ING business, businesses under management control, staff departments, product lines and to all customer engagements and transactions. The KYC Policy Framework reflects relevant national and international laws, regulations and industry standards related to business partners and overarching requirements with regards to record retention, training and awareness. The management of ING entities also includes local procedures aimed at enabling them to comply with local laws and regulations and the KYC Policy Framework. Where local laws and regulations are more stringent, these more stringent local laws and regulations are applied.

As a result of frequent evaluation of the businesses from economic, strategic and risk perspective ING continues to believe that for business reasons doing business involving certain specified countries should be discontinued. In that respect, ING has a policy not to enter into new relationships with clients from these countries and processes remain in place to discontinue existing relationships involving these countries. At present these countries are Cuba, Iran, North Korea, Sudan and Syria.

In addition to addressing financial economic crime-related requirements, the KYC policy framework also reflects KYC-related requirements of the FATCA/CRS policy, as well as certain elements of the Environmental Social Risk policy.

KYC enhancement programme

In 2017, ING began implementation of its KYC enhancement programme across all customer segments and in all ING business units. The KYC enhancement programme consists of, among other things:

- Enhancing selected customer due diligence files to improve customer documentation, customer data and identity verification;
- Working on structural solutions to become sustainably better in the execution of our KYC policies, tooling, monitoring, governance and knowledge and behaviour; and
- Assessing selected past transactions and follows the applicable reporting process should any unusual transactions be identified.

In September 2018, ING announced that it had reached a settlement agreement with the Dutch Public Prosecutor related to an investigation that found serious shortcomings in the execution of customer due diligence and transaction monitoring requirements related to fighting financial economic crime, and announced steps to further enhance its management of compliance risks and embed stronger awareness across the whole organisation as part of the KYC enhancement programme.

In 2019, we continued the implementation of the KYC enhancement programme, and had more than 4,000 FTEs working on KYC-related activities globally. In March 2019, ING in Italy took steps to improve its KYC processes and compliance risks in line with the global KYC enhancement programme after the Italian central bank identified shortcomings in anti-money laundering processes. This was based on an inspection conducted from October 2018 to January 2019. In consultation with the Banca d'Italia, ING agreed to refrain from taking on new customers in Italy while further discussions on the enhancement plans took place. ING continued to fully serve existing clients in Italy while working to address the shortcomings and resolve the issues identified. Please refer to Note 46 'Legal proceedings' to the consolidated financial statements for more information.

In 2019, as part of our commitment to enhance the way we manage compliance risks and embed stronger awareness across the whole organisation, we also took the following steps across our five KYC pillars:

- **Policies and risk**: This pillar focuses on the development and roll out of a global KYC policy, a global KYC risk appetite statements and KYC risk assessments on customers, capability structure and maturity assessments.
  - In 2019, we updated the new KYC policy, which integrated all existing policies related to anti-money laundering, financial economic crime and customer due diligence. It came into effect in July. (See section 'KYC policy framework' above).
  - The global KYC policy may be stricter than local requirements, in which case the global risk appetite statement is used as the starting point to execute a uniform risk assessment and to determine the local KYC-related risk appetite.

  - As part of our due diligence process we updated the environmental and social risk (ESR) framework, which helps us make transparent choices about who and what we finance. All customers undergo an initial ESR check as part of the onboarding process. (See 'Environmental and social risk framework' in the credit risk chapter for more information)
  - We implemented a systematic integrated risk approach (SIRA) in all business lines globally. Driven by data, the SIRA provides guidance on KYC integrity risks and helps determine which customers to accept/continue and the type and frequency of monitoring. It takes into account elements such as where the customer is located and the type of product and sector they are active in. The KYC integrity risks are reviewed each year..

- **Tooling**: This pillar aims to improve processes and tooling around customer due diligence, screening and monitoring. This entails rolling out a bank-wide KYC digital service and fulfilling client acceptance and maintenance life cycle on one global digital platform. In addition, all required screening components (name screening, pre-transaction screening, adverse media screening) are incorporated into the client acceptance due diligence process. Once a customer is onboarded, ongoing screening and monitoring of transactions can then be activated. Steps taken in 2019 included:
  - Developed new customer due diligence case management modules for Private Banking clients in Luxembourg, and mid-corporates in Poland, which is to be rolled out in other countries with similar client segments.
  - The target adverse media screening tool was rolled out in most locations
  - Innovating to automate and improve KYC processes. In 2019, we developed a 'smurfing' tool, which uses artificial intelligence to detect instances of smurfing when large fraudulent transactions are broken up into smaller transactions that will not be flagged by conventional monitoring systems. And we are developing a virtual alerts handler that uses artificial intelligence to reduce the number of false positives, freeing up KYC staff to concentrate on those alerts that do require attention.
  - In September 2019, an anomaly detection tool went live to monitor the payment flow of ING's correspondent banking clients. Developed by ING, the tool uses advanced analytics to detect changes in behaviour that could indicate money laundering or other financial economic crime. The approach for innovations is per country and business line and based on success will be scaled up and rolled out in other locations.
- **Monitoring and screening**: This pillar entails translating risk assessment outcomes into scenarios and alert definitions that can be applied in transaction monitoring. This includes the design and definitions of the applicable financial economic crime and client activity monitoring scenarios tailored to the entity yet based on a global set, building alert definitions (including data feeds) and validating and testing the approach from risks to alerts.
  - In 2019, we introduced the new standard transaction monitoring tooling in the first countries. This includes risk-based scenarios, with follow-up for handling alerts and reporting suspicious activity.
  - In May 2019, the first version of the global transaction monitoring (TM) control guidance came into effect. It outlines the adoption of a uniform TM methodology framework to mitigate financial economic crime risks.
  - In September 2019, ING partnered with four other Dutch banks to explore options to jointly monitor payment transactions. Transaction Monitoring Netherlands (TMNL) is part of a broader cooperation with the private sector, government agencies, regulators and law enforcement to harmonise efforts to fight financial crime and strengthen the resilience of the financial system as a whole, both on a national and European level. We also work with the Dutch central bank and are a member of the public-private partnership council of the Dutch Financial Expertise Centre (FEC-RAAD PPS).
  - The increased focus on KYC and our efforts to streamline our operations led to an increased number of accounts being closed. This includes inactive accounts and accounts of customers who do not respond adequately to our requests for information. We are also re-evaluating certain client and business relationships.

- **Governance**: Under this pillar we are setting up a global KYC governance to ensure decision making on standards, operations, customer acceptance and continuous improvements. This started with the appointment of a global head of KYC at the end of 2018 and a global Centre of Expertise, as well as a Delivery Tribe, who together with the business lines and the second line of defence (Risk and Compliance functions) are responsible for implementing KYC across the organisation.
  - In 2019, local KYC Committees were established in the countries/regions and business lines to manage and steer all KYC-related activities. These committees are overseen by the global KYC Committee, which drives improvements and ensures alignment between KYC-related projects and activities. It also monitors all KYC-related costs, helps prioritise activities and steers decisions on KYC-related issues and developments.
  - Client Integrity Risk Committees (CIRCs) were set up in the retail business lines and Wholesale Banking to steer decisions around client acceptance and exits, based on compliance criteria and risk appetite. The committee members represent both the first and second lines of defence to ensure proper decision-making is adhered to.

- **Knowledge and behaviour**: This pillar focuses on increasing knowledge about KYC, providing training and carrying out behavioural risk assessments to detect high-risk behaviours intervening where necessary.
  - Internal communication in 2019 reiterated the importance of non-financial risk and compliance.
  - We set up a global KYC Academy to coordinate a global learning curriculum and provide expert training for specialist KYC staff and new joiners as well as awareness training for all ING employees.
  - The first behavioural risk assessments in KYC were carried out in the Netherlands, the Philippines and the US by ING's team of behavioural experts. The outcomes were discussed by senior management at ING's leadership days in March, as well as with the management teams of the countries involved and in Wholesale Banking with the intention of changing behaviours to enhance KYC, starting from the top.

Following on from that, workstreams were set up with senior managers and a number of interventions were initiated with the aim of changing high-risk behavioural patterns. Another behavioural risk assessment was conducted at ING in Belgium in the fourth quarter of 2019. We will start a dialogue in 2020 to dive into the outcomes and root causes of the behavioural patterns observed.

Regulatory developments

Compliance with applicable laws and regulations is resource-intensive. Banks continue to be faced with new and increasingly onerous regulatory requirements. Generally, we expect the scope and extent of regulations in the jurisdictions in which we operate to continue to increase.

Regulation is becoming more extensive and complex. An example is the implementation of DAC6 which like FATCA and CRS requires financial institutions to report detailed client-related information to the competent authorities. Customer due diligence (CDD), (sanctions) screening and transaction monitoring impose requirements on financial institutions to maintain appropriate policies, procedures and controls to detect, prevent and report to the competent authorities on e.g. money laundering and terrorist financing.

The increasing regulatory scrutiny drives the need to continuous change in the various processes, procedures and IT systems. In some situations the applicable laws and regulations, at local and/or at global level, seem to be conflicting with each other, which imposes a significant challenge on banks as part of the implementation of requirements. In addition, the timeline for implementation of those new/changed requirements is sometimes very short, which is challenging in general, yet especially in IT development. Obviously ING will continuously work on embedding the processes and procedures reflecting the applicable requirements in our IT systems and data sources, driving a business environment which is compliant by desire and design, and will execute ongoing training and awareness to develop its people to have the right knowledge and skills.

That also accounts for risks deriving from new technologies. As an innovative bank, ING continuously monitors regulatory developments to make risk assessments and define the banks risk appetite. Regulations on distributed ledger technology and business developments in this area are as rapid and impactful as the accompanying risks.

5th AML Directive

In addition, the 5th AML Directive will be implemented in the Netherlands. The 5th AML Directive was originally adopted by the EU Council in June 2018, with the aim of addressing means of terrorist financing, increasing transparency to combat money laundering and helping to strengthen the fight against tax avoidance. The most important aspects of the 5th AML Directive involve the (anti money-laundering) risks relating to the use of virtual currencies, the improvement of information exchange between supervising authorities, and the introduction of beneficial ownership registers for corporate and other legal entities.

ING expects to revise the KYC policy framework to reflect the requirements of the 5th AML Directive. Prior to the adoption of the 5th AML Directive, European supervisory authorities (ESAs) had previously issued their final guidelines on risk factors, which came into force in June 2018. These guidelines promote a common understanding of the risk-based approach to anti-money laundering/combatting terrorist financing (AML/CFT) and set out how it should be applied in the context of the 4th AML Directive. These guidelines are currently in the process of being updated, in order to support firms' AML/CFT compliance efforts and enhance the ability of the EU's financial sector to effectively deter and detect money laundering/terrorist financing. The ESAs published a consultation version of the updated guidelines on 5 February 2020. The final updated guidelines are expected to come into force in the course of 2020. Furthermore, in September 2017, the ESAs issued their final guidelines to prevent the abuse of funds transfers for terrorist financing and money laundering purposes. These guidelines came into force in June 2018.

Financial Account Tax Compliance Act (FATCA)

Under provisions of US tax law commonly referred to as FATCA, non-US financial institutions are required to provide certain information on their US account holders and/or certain US investors to the US Internal Revenue Service (IRS). A 30 percent withholding tax will be imposed on 'withholdable payments' made to non-compliant non-US financial institutions. As part of the actions taken to comply with FATCA and other US withholding tax regulations, ING is for example updating and strengthening its withholding compliance programme and reviewing, amending and filing the necessary tax returns and information reports.

Many countries, including the Netherlands, have entered into agreements (intergovernmental agreements or IGAs) with the US to facilitate the type of information reporting required under FATCA. While the existence of IGAs will not eliminate the risk of the withholding tax described above, these agreements are expected to reduce that risk for financial institutions and investors in countries that have entered into IGAs. IGAs often require financial institutions in those countries to report information on their US account holders to the taxing authorities of those countries, who then pass the information to the IRS.

If the Group cannot rely on IGA or satisfy the requirements, certain payments to the Group may be subject to withholding under FATCA. Certain payments may also be subject to other US withholding tax regulations. The possibility of such withholding and the need for account holders and investors to provide certain information may adversely affect the sales of certain of the Group's products. In addition, compliance with the terms of such IGAs and with FATCA, any regulations or other guidance promulgated thereunder, or any legislation promulgated under an IGA, and offering products that generate 'withholdable payments', may substantially increase the Group's compliance costs.

Common Reporting Standard (CRS)

Similarly, the Organisation for Economic Cooperation and Development ('OECD') has developed a Common Reporting Standard ('CRS') and model competent authority agreement to enable the multilateral and automatic exchange of financial account information. CRS requires financial institutions to identify and report the tax residency and account details of non-resident customers to the relevant authorities in CRS-compliant jurisdictions. As of 19 September 2019, 109 jurisdictions ('signatory countries'), including the Netherlands, have signed a multilateral competent authority agreement to automatically exchange information pursuant to CRS. The majority of countries where ING has a presence have committed to CRS. The EU has made CRS mandatory for all its member states. The first information exchange by the Netherlands (as for approximately half of the signatory countries) was executed in 2017. Most other signatory countries commenced their information exchange in 2018 and some in 2019.

The OECD has also introduced two additional new measures to tackle global tax avoidance/evasion:
- Mandatory Disclosure Rules for Addressing CRS Avoidance Arrangements and Opaque Offshore Structures
- Preventing Abuse of Residence by Investment (RBI) and Citizenship by Investment (CBI) Schemes to Circumvent the CRS.

These measures are in the process of being implemented in local laws. With regard to the mandatory disclosure rules for EU jurisdictions, this was done via the amendment to Directive 2011/16 (DAC6). See below.

DAC6 (EU2018/822, an amendment to EU Directive 2011/16)

DAC6 imposes mandatory disclosure requirements for taxpayers and intermediaries involving the reporting of cross-border arrangements affecting at least one EU member state that fall within one of a number of 'hallmarks'. These hallmarks are broad categories setting out particular characteristics identified as potentially indicative of aggressive tax avoidance. The reporting obligations apply to 'intermediaries' (financial institutions like ING may fall under this term) or, in some circumstances, the taxpayer itself. There will be a mandatory automatic exchange of information on such reportable cross-border schemes via the Common Communication Network (CCN) between the member states which will be set-up by the EU. Although DAC6 is not effective until 1 July 2020, taxpayers and intermediaries have been required to monitor cross-border arrangements since 25 June 2018.

MiFID II

Integrity and transparency in financial markets are essential for public and investor confidence. The revised Markets in Financial Instruments Directive European legislation (MiFID II/MiFIR) came into effect in January 2018 and had a major impact on ING and the markets in which it operates. A central programme continued in 2019 to support ING's commitment to further embed the revised legislation throughout the organisation.

The requirements set out in MiFID II/MiFIR are manifold and impact a large part of our organisation and day-to-day business. In order to ensure compliance with these rules, standard controls were rolled out throughout the ING EU entities. In addition, a framework measuring MiFID compliance risk was implemented in order to stay abreast of any compliance issues that need addressing.

Regulatory guidance around MiFID II/MiFIR continues to evolve and key requirements are currently under review. As a result, ING will ensure that the organisation has continuous access to central guidance giving a clear steer on expected conduct and processes. A network of experts has been set up to ensure timely implementation of any regulatory changes.

Learning

In 2019 we continued to develop our approach to learning on compliance and risk culture (and e.g. established the KYC Academy). Supporting staff to deliver a sound and consistent risk culture is a focus for our learning. We emphasise a standard and streamlined approach that facilitates consistent messaging and learning across the bank, as appropriate. More focus is being given to role of specific training in ensuring staff continue to extend knowledge, skills and behaviours for their particular roles and responsibilities.

Model risk

Introduction

Model risk is the risk that the financial or reputational position of ING is negatively impacted as a consequence of the use of models. Model risk can arise from errors in the development, implementation, use or interpretation of models, or from incomplete or wrong data etc., leading to inaccurate, noncompliant or misinterpreted model outputs.

A model is defined as a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into quantitative estimates.

A candidate model is considered a model when:

- the outcome is used for a decision: by the customer, community, business / colleagues, and / or other internal or external stakeholders such as regulators or shareholders, and
- the model is repeatedly used without a manual change of the design, and
- the outcome is an estimation, not the 100 percent measured truth; and
- it processes the data input with a quantitative method or approach that applies statistical, economic, financial, or mathematical theories, techniques and / or assumptions.

Models governance

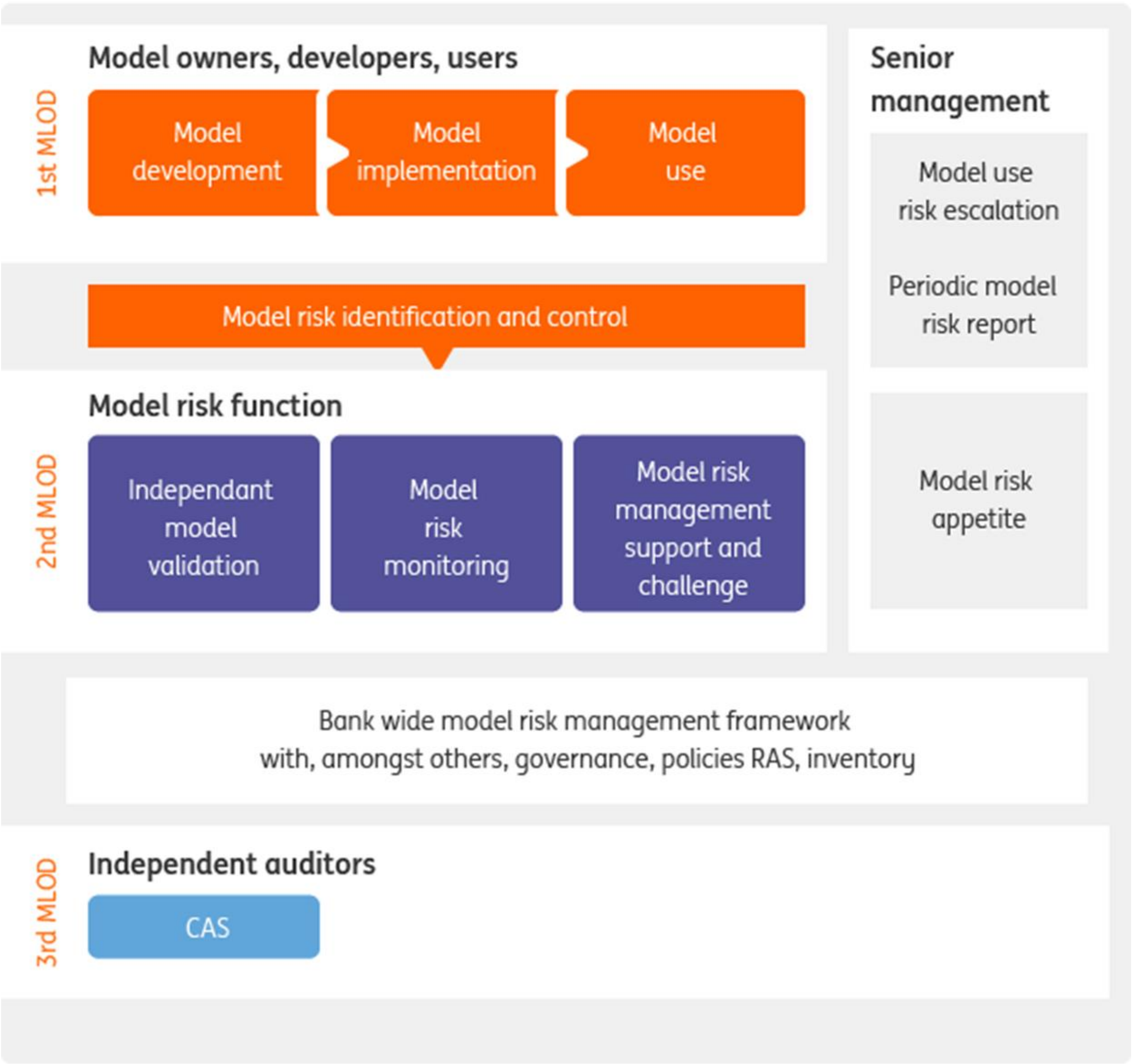
The growing complexity and number of models created and utilised every year for decision-making makes it important to manage and control the associated model risk accordingly. Within ING this overarching responsibility for this risk type lies within Model Risk Management. The department, in addition to its traditional function of model validation, is also responsible for global model risk oversight. It sets and maintains a model risk management framework containing: (1) the governance, (2) the model risk appetite, (3) model risk management policies and standards and (4) the global model inventory tool. It is also responsible for monitoring and reporting the global model risk exposures of ING.

The Model Risk Management Committee (MoRMC) has been established to align the overall model strategy and the model risk appetite, and approve model policies, procedures and methodologies. Mandated by the MBB and chaired by the CRO of ING, the MoRMC meets monthly.

Model lines of defence

ING's model risk and control structure is based on the three model lines of defence (MLoD) approach. This approach aims to provide a sound governance framework for model risk management by defining and implementing three different management layers with distinct roles and oversight responsibilities.

Model lines of defence



In terms of composition and main activities:
- The 1st LoD is composed of the model owners (mainly the business), data management and model development, accountable for, among others, the development, implementation and use of the models as well as monitoring the effectiveness of the models;
- The 2nd LoD is composed of model validation and model risk management, which owns the model risk management framework and the risk appetite; and
- The 3rd LoD is the internal audit, reviewing the quality of execution in all lines of defence and providing independent assurance.

An important difference with the financial and non-financial risk lines of defence is that models can also be owned by risk (normally a 2nd LoD), e.g. for bank wide stress testing, or by the audit service (normally a 3rd LoD), e.g. to support their audits. In that case both domains (risk or audit service) become 1st model line of defence.

Model Risk Appetite (MoRAS)

The model risk appetite is designed to control the level of model risk ING is willing to accept in pursuit of its strategic objectives. It is derived from the concepts of boundaries and instruments as described in the Risk Appetite Framework. Model RAS and related boundaries and instruments will be set in 2020 and going forward will be reviewed on an annual basis. RAS requires approval from the MBB/EB and ratification from SB.

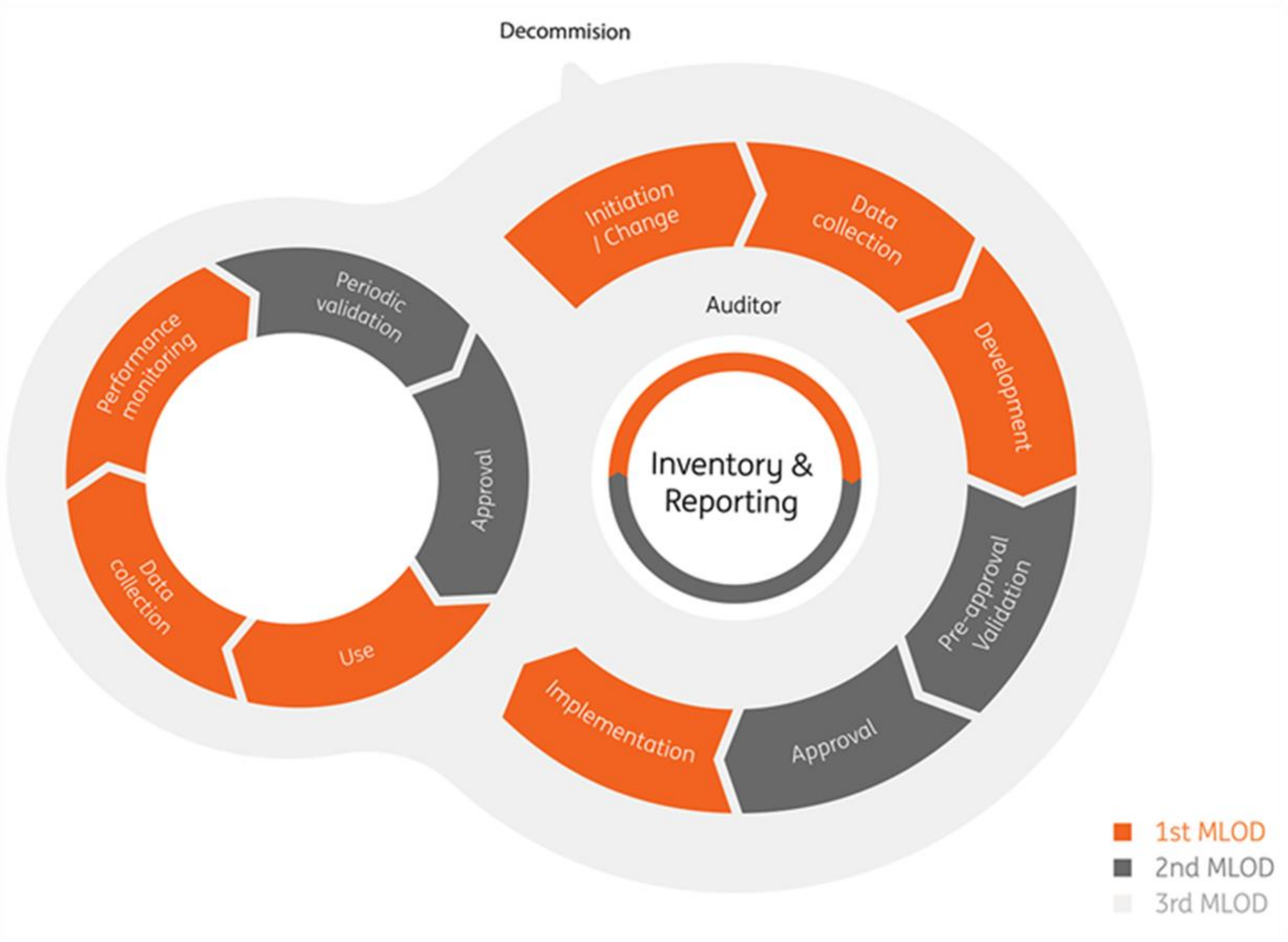
Model risk management

Since models are by definition simplifications of reality, model risk is inherent in the use of models and therefore model risk must be identified and managed. Model risk management includes the identification, assessment, control (acceptance or mitigation) and monitoring (and reporting) of the risks caused by applying models.

Model management is executed through the model life cycle with two types of components, which are (i) the stages that each individual model goes through, from initiation to final decommissioning and (ii) the overarching components to manage ING's model risk of all models: continuous model inventory and reporting.

Model lifecycle

The next figure provides a schematic overview of the model lifecycle, where orange represents the 1st model LoD, blue the 2nd and grey the 3rd. It is composed of a set of processes starting after a model is identified. The objectives of the different processes are outlined below.



Initiation or change: The initiation of the development of a new model or change of an existing model can be triggered by different factors. These may be (i) internal, such as the introduction of a new product that cannot be handled by the existing models, a change in ING's organisation, financial or commercial strategy or findings and issues by an auditor, validator or based on monitoring; or (ii) external, such as innovation/new technology that becomes available (for example the Fintech models), new or upcoming supervisory regulations or ongoing technical developments.

Data collection is the process of defining and collecting data that meets the defined data quality requirements for model development. The process includes the definition of the data needed, assessment of data availability and quality, assumptions and limitations, as well as the gathering of the data needed for the analyses, impact study and testing during the model development process.

Model development is a structured process that leads to a model that is ready for validation and subsequent use.

Depending on the development approach these first stages can be separate or integrated. An example of the latter is data science based application development.

Pre-approval validation is the independent confirmation that the model is valid for its intended use, before the new or changed model is submitted for use approval. To ensure objectivity and effective challenge, the model validator is independent from other model parties such as the model developer, model owner or model approver. Model validation applies equally to in-house developed and third-party models.

The objective of the **model approval** stage is approval for use. The model owner submits the model for formal consent by the internal approver before being deployed and used. The recommendations and validation report prepared by the model validator are key inputs for approval for use.

During the **implementation** stage, the model is realised, tested and made available in a production environment.

In the **model use** stage the model is applied by the users for the specific purpose it was designed for. The model can only be used after formal validation and approval for use of the model.

The objective of model **performance monitoring** is to regularly check if the model is performing as intended, also after possible changes in the commercial, organisational or legal environment. Model performance monitoring begins when model use has started and continues until the model has officially been decommissioned.

Periodic validation: During the life time of a model the ongoing validity of the models must be safeguarded. This is done by periodical independent (re)validation that assesses whether the model is still valid for its intended use. There are two types of validation: (1) periodic, such as annual, which is mandatory for regulatory models, or (2) ad hoc, for example triggered by changes in the model, the business or financial instruments etc. The actual frequency of periodic validation depends on the model risk, model type and applicable regulation.

A model that is / will no longer be used must be decommissioned. **Decommissioning** disables the model. It can, for example, be triggered because (1) the product, organisation or risk the model is made for has changed considerably or no longer exists, (2) the model is outdated, underperforming or better alternatives are available, (3i) the model became obsolete due to standardisation or (4) the external approver withdraws its approval for the model.

Continuous model inventory and reporting: Keeping an inventory of all models and their status during their lifecycle is a continuous process. It supports management and control of the models in scope, both per individual model and the overarching management of all ING's models. Periodic model risk reporting provides the relevant internal and external stakeholders with an overview of the models in use and the associated model risk given the defined model risk appetite..

Business Risk

Introduction

Business Risk for ING has been defined as the exposure to value loss due to fluctuations in volumes/margins as well as expenses. It is the risk inherent to strategy decisions and internal efficiency. Business risk capital is calculated via the variance-covariance methodology for expense risk, covering the risk that expenses will deviate from the expected expenses over the horizon of the relevant activities. This risk primarily relates to inability of adjusting expenses when that is needed. Expense risk only concerns non-financial expenses (e.g. staff and IT expenses); financial expenses are not in scope.

Governance and risk management

ING applies an explicit Risk Appetite Statement regarding business risk, focusing on earnings stability and diversification of the business mix. Avoiding putting all eggs in one basket reduces the risk that volumes and/or margins will suddenly drop due to unexpected changes in the business environment for certain markets and products. Furthermore, the underlying risk types (expense risk and volume-margin risk) are mitigated and managed differently. Expense risk is monitored and managed via the financial performance of the bank and the local units, whereby the reported expense numbers are compared on a quarterly basis with the projected cost/income ratio. Deviations from this ambition are monitored as part of the financial projections that are discussed continuously within different parts of the organisation.

SELECTED STATISTICAL INFORMATION ON BANKING OPERATIONS

Reference is made to Note 1 ‘ Accounting Policies’ of the Consolidated financial statements for information on Changes in accounting principles, estimates and presentation of the consolidated financial statements and related notes.

The information in this section sets forth selected statistical information regarding the Group’s operations.
Information for 2019, 2018 and 2017 is set forth under IFRS-IASB. Unless otherwise indicated, average balances, when used, are calculated from monthly data and the distinction between domestic and foreign is based on the location of the office where the assets and liabilities are booked, as opposed to the domicile of the customer. However, the Company believes that the presentation of these amounts based upon the domicile of the customer would not result in material differences in the amounts presented in this section.

Year ended 31 December	**2019**	**2018**	**2017**
Return on equity	7.8%	9.9%	11.4%
Return on assets	0.4%	0.5%	0.6%
Equity to assets	5.7%	5.5%	5.7%
Net interest margin	1.5%	1.5%	1.5%

AVERAGE BALANCES AND INTEREST RATES

The following tables show the Group’s operations, average interest-earning assets and average interest-bearing liabilities, together with average rates, for the periods indicated. The interest income, interest expense and average yield figures do not reflect interest income and expense on derivatives and other interest income and expense not considered to be directly related to interest-bearing assets and liabilities. These items are reflected in the corresponding interest income, interest expense and net interest income figures in the consolidated financial statements. A reconciliation of the interest income, interest expense and net interest income figures to the corresponding line items in the consolidated financial statements is provided hereunder.

ASSETS
Interest-earning assets

	2019			2018			2017		
	Average balance (EUR millions)	Interest income (EUR millions)	Average yield %	Average balance (EUR millions)	Interest income (EUR millions)	Average yield %	Average balance (EUR millions)	Interest income (EUR millions)	Average yield %
Time deposits with banks[1]									
domestic	8,213	95	1.2	3,395	41	1.2	16,234	89	0.6
foreign	34,583	912	2.6	40,970	1,016	2.5	39,807	536	1.4
Loans and advances[1]									
domestic	190,143	5,679	3.0	187,440	5,893	3.1	204,229	6,109	3.0
foreign	461,833	13,973	3.0	445,512	13,539	3.0	417,708	12,280	2.9
Interest-earning securities[2]									
domestic	29,892	347	1.2	29,454	336	1.1	28,856	400	1.4
foreign	50,156	917	1.8	50,699	1,055	2.1	61,035	1,341	2.2
Other interest-earning assets									
domestic	30,659	56	0.2	36,898	34	0.1	22,526	24	0.1
foreign	24,978	66	0.3	30,224	80	0.3	30,215	75	0.2
Total	**830,456**	**22,047**	**2.7**	**824,594**	**21,994**	**2.7**	**820,610**	**20,854**	**2.5**
Non-interest earning assets	54,459			59,345			34,286		
Derivatives assets	25,322			27,432			33,572		
Total assets	**910,238**			**911,370**			**888,468**		
Percentage of assets applicable to foreign operations		70.0%			70.2%			67.5%	
Interest income on derivatives		5,499			5,556			22,498	
Other		617			579			644	
Total interest income		**28,163**			**28,129**			**43,996**	

(1) Securities purchased with agreements to resell are reflected in the categories Time deposits with banks, and Loans and advances.
(2) Substantially all interest-earning securities held by the banking operations of the Company are taxable securities.

LIABILITIES
Interest-bearing liabilities

	2019			2018			2017		
	Average balance (EUR millions)	Interest expense (EUR millions)	Average yield %	Average balance (EUR millions)	Interest expense (EUR millions)	Average yield %	Average balance (EUR millions)	Interest expense (EUR millions)	Average yield %
Time deposits from banks									
domestic	17,673	28	0.2	17,805	22	0.1	17,219	25	0.1
foreign	14,270	200	1.4	15,262	210	1.4	15,169	234	1.5
Demand deposits									
domestic	66,667	498	0.7	60,679	289	0.5	59,207	164	0.3
foreign	108,193	32	0.0	95,977	29	0.0	83,878	21	0.0
Time deposits(1)									
domestic	14,019	336	2.4	21,746	391	1.8	26,315	239	0.9
foreign	14,114	300	2.1	14,607	259	1.8	15,766	255	1.6
Savings deposits									
domestic	93,911	114	0.1	92,203	121	0.1	92,818	246	0.3
foreign	266,470	1,301	0.5	261,398	1,257	0.5	263,340	1,502	0.6
Short term debt									
domestic	22,559	180	0.8	18,253	96	0.5	6,958	47	0.7
foreign	17,928	405	2.3	31,521	553	1.8	23,479	260	1.1
Long term debt									
domestic	72,012	1,700	2.4	55,080	1,525	2.8	60,915	1,520	2.5
foreign	14,110	317	2.2	12,765	345	2.7	14,424	435	3.0
Subordinated liabilities									
domestic	15,304	664	4.3	16,444	721	4.4	16,635	395	2.4
foreign	77	3	4.3	81	3	4.1	150	6	4.1
Other interest-bearing liabilities									
domestic	1,508	146	9.7	4,227	100	2.4	16,375	106	0.7
foreign	10,162	140	1.4	16,310	192	1.2	64,595	756	1.2
Total	**748,979**	**6,363**	**0.8**	**734,359**	**6,113**	**0.8**	**777,243**	**6,211**	**0.8**
Non-interest bearing liabilities	86,107			102,449			35,447		
Derivatives liabilities	24,376			25,927			33,297		
Total Liabilities	**859,461**			**862,735**			**845,987**		
Group Capital	50,777			48,635			42,481		
Total liabilities and capital	**910,238**			**911,370**			**888,468**		

LIABILITIES
Interest-bearing liabilities

	2019			2018			2017		
	Average balance (EUR millions)	Interest expense	Average yield %	Average balance (EUR millions)	Interest expense	Average yield %	Average balance (EUR millions)	Interest expense	Average yield %
Percentage of liabilities applicable to foreign operations	63.5%			65.2%			62.3%		
Other interest expense:									
Interest expenses on derivatives		5,925			6,212			23,064	
other		2,064			1,844			1,074	
Total interest expense		**14,353**			**14,169**			**30,349**	
Total net interest result		**13,811**			**13,960**			**13,647**	

(1) These captions do not include deposits from banks.

ANALYSIS OF CHANGES IN NET INTEREST INCOME

The following table allocates changes in the Group's operations' interest income and expense and net interest result between changes in average balances and rates for the periods indicated. Changes due to a combination of volume and rate have been allocated to changes in average volume. The net changes in interest income, interest expense and net interest result, as calculated in this table, have been reconciled to the changes in interest income, interest expense and net interest result in the consolidated financial statements. See introduction to "Average Balances and Interest Rates" for a discussion of the differences between interest income, interest expense and net interest result as calculated in the following table and as set forth in the consolidated financial statements.

	2019 over 2018 Increase (decrease) due to changes in			2018 over 2017 Increase (decrease) due to changes in		
	Average volume	Average rate (EUR millions)	Net change	Average volume	Average rate (EUR millions)	Net change
Interest-earning assets						
Time deposits to banks						
domestic	58	–4	54	–71	22	–48
foreign	–158	55	–103	16	462	478
Loans and advances						
domestic	97	–311	–214	–504	289	–216
foreign	520	–85	435	818	442	1,259
Interest-earning securities						
Domestic	5	7	12	8	–73	–65
foreign	–11	–127	–138	–227	–59	–286
Other interest-earning assets						
domestic	–6	28	22	15	–5	11
foreign	–14	–1	–15	–	5	5
Interest income						
domestic	**154**	**–280**	**–126**	–552	233	–319
foreign	**336**	**–157**	**179**	606	850	1,457
Total	**490**	**–437**	**53**	**55**	**1,083**	**1,138**
Other interest income [1]			–19			–17,007
Total interest income			**34**			**–15,869**

(1) Since 2018, ING Group changed its separate presentation of interest (income and expenses) for trading derivatives, trading securities and trading loans / deposits (mainly repo's) to presenting the full fair value movements in 'Valuation results and net trading income'.

The following table shows the interest spread and net interest margin for the past two years.

	2019 Average rate %	2018 Average rate %
Interest spread		
Domestic	1.2	1.3
Foreign	2.2	2.1
Total	1.8	1.8
Net interest margin		
Domestic	1.0	1.2
Foreign	2.3	2.2
Total	1.9	1.9

	2019 over 2018 Increase (decrease) due to changes in			2018 over 2017 Increase (decrease) due to changes in		
	Average volume	Average rate	Net change	Average volume	Average rate	Net change
	(EUR millions)			(EUR millions)		
Interest-bearing liabilities						
Time deposits from banks						
domestic	–0	7	7	1	–5	–4
foreign	–14	4	–9	1	–26	–24
Demand deposits						
domestic	29	180	209	4	122	126
foreign	4	–1	3	3	5	8
Time deposits						
domestic	–139	84	–55	–42	193	151
foreign	–9	49	40	–19	23	4
Savings deposits						
domestic	2	–10	–8	–1	–124	–125
foreign	25	18	44	–11	–234	–245
Short term debt						
domestic	23	62	85	76	–27	49
foreign	–238	91	–148	89	203	292
Long term debt						
domestic	469	–294	175	–146	150	5
foreign	36	–64	–28	–50	–40	–90
Subordinated liabilities						
domestic	–50	–8	–58	–5	331	326
foreign	–0	0	0	–3	–0	–3
Other interest-bearing liabilities						
domestic	–64	110	46	–79	72	–6
foreign	–72	20	–52	–565	1	–564
Interest expense						
domestic	269	131	400	–191	712	521
foreign	–268	118	–150	–554	–67	–622
Total	**1**	**249**	**250**	**–745**	**645**	**–100**
Other interest expense [1]			–67			–16,082
Total interest expense			**183**			**–16,182**
Net interest						
domestic	–115	–411	–526	–361	–479	–840
foreign	604	–275	329	1,160	918	2,078
Net interest	**488**	**–686**	**–197**	**800**	**439**	**1,239**
Other net interest result			48			–925
Net interest result			**–149**			**314**

(1) Since 2018, ING Group changed its separate presentation of interest (income and expenses) for trading derivatives, trading securities and trading loans / deposits (mainly repo's) to presenting the full fair value movements in 'Valuation results and net trading income'.

INVESTMENTS OF THE GROUP'S BANKING OPERATIONS

The following table shows the balance sheet value under IFRS-IASB of the investments of the Group's banking operations (excluding debt securities held in the trading portfolio).

	Year ended 31 December		
	2019	**2018**	**2017**
Debt securities at fair value through other comprehensive income	30,483	25,616	n/a
Debt securities at amortised cost	46,108	47,276	n/a
Debt securities at fair value through profit or loss	3,067	3,218	1,739
Debt securities available for sale	n/a	n/a	65,747
Debt securities held to maturity	n/a	n/a	9,343
Shares and convertible debentures	2,464	3,438 [2]	3,983
Land and buildings [1]	803	834	839
Total	**82,926**	**80,382**	**81,651**

(1) Including commuted ground rents

(2) The prior period has been updated to improve consistency and comparability.

	Year ended 31 December		
	2019	2018	2017
	(EUR millions)		
Debt securities at fair value through other comprehensive income			
Dutch government	1,831	1,444	n/a
German government	2,836	2,278	n/a
Belgian government	1,997	2,059	n/a
Other governments	13,729	11,847	n/a
Central banks	43		n/a
Banks and financial institutions	5,164	5,321	n/a
Other corporate debt securities	486	484	n/a
U.S. Treasury and other U.S. Government agencies	3,190	1,061	n/a
Other debt securities	1,206	1,123	n/a
Total debt securities at fair value through other comprehensive income	**30,483**	**25,616**	**n/a**
Debt securities at amortised cost			
Dutch government	6,155	6,484	n/a
German government	4,863	4,959	n/a
Belgian government	1,975	2,285	n/a
Other governments	13,004	12,771	n/a
Central banks	712	1,455	n/a
Banks and financial institutions	11,478	11,906	n/a
Other corporate debt securities	305	974	n/a
U.S. Treasury and other U.S. Government agencies	6,419	4,959	n/a
Other debt securities	1,199	1,483	n/a
Total debt securities at amortised cost	**46,108**	**47,276**	**n/a**

	Year ended 31 December		
	2019	2018	2017
	(EUR millions)		
Debt securities available for sale			
Dutch government	n/a	n/a	7,053
German government	n/a	n/a	10,682
Belgian government	n/a	n/a	4,892
Other governments	n/a	n/a	19,804
Central banks	n/a	n/a	1,216
Banks and financial institutions	n/a	n/a	15,356
Other corporate debt securities	n/a	n/a	1,493
U.S. Treasury and other U.S. Government agencies	n/a	n/a	3,034
Other debt securities	n/a	n/a	2,217
Total debt securities available for sale	**n/a**	**n/a**	**65,747**
Debt securities held to maturity			
Dutch government	n/a	n/a	1,087
German government	n/a	n/a	238
Belgian government	n/a	n/a	628
Other governments	n/a	n/a	2,240
Central banks	n/a	n/a	310
Banks and financial institutions	n/a	n/a	908
Other corporate debt securities	n/a	n/a	209
U.S. Treasury and other U.S. Government agencies	n/a	n/a	3,507
Other debt securities	n/a	n/a	216
Total debt securities held to maturity	**n/a**	**n/a**	**9,343**

Banking investment strategy

ING's investment strategy for its investment portfolio related to the banking activities is formulated by the Asset and Liability Committee ("ALCO"). The exposures of the investments to market rate movements are managed by modifying the asset and liability mix, either directly or through the use of derivative financial products including interest rate swaps, futures, forwards and purchased option positions such as interest rate caps, floors and collars. See "Item 11. Quantitative and Qualitative Disclosure of Market Risk".

Portfolio maturity

	Year ended 31 December 2019				
	1 year or less	Between 1 and 5 years	Between 5 and 10 years	Over 10 years	Total
Fair value through other comprehensive income					
Dutch government	16	1,400	416	-0	1,831
German government	63	1,973	801		2,836
Belgian government	202	1,165	630		1,997
Other governments	685	6,620	6,410	15	13,729
Central banks	43				43
Banks and financial institutions	334	2,867	1,963	-0	5,164
Other corporate debt securities	176	182	128		486
U.S. Treasury and other U.S. Government agencies	18	229	2,133	810	3,190
Other debt securities	1	91	659	455	1,206
Fair value through other comprehensive income	**1,537**	**14,528**	**13,139**	**1,280**	**30,483**
Yield[(1)]	2.8	2.8	1.6	2.2	

(1) Since substantially all investment securities held by the banking operations of the Company are taxable securities, the yields are on tax-equivalent basis.

	Year ended 31 December 2019				
	1 year or less	Between 1 and 5 years	Between 5 and 10 years	Over 10 years	Total
Securities at amortised cost					
Dutch government	1,426	4,729			6,155
German government	692	4,131	40		4,863
Belgian government	110	139	1,726		1,975
Other governments	2,319	4,753	5,498	433	13,004
Central banks	712	–	–		712
Banks and financial institutions	2,524	6,634	2,320		11,478
Other corporate debt securities	35	236	33		305
U.S. Treasury and other U.S. Government agencies	32	3,391	1,551	1,445	6,419
Other debt securities	2	543	459	195	1,199
Total Securities at amortised cost	**7,851**	**24,556**	**11,628**	**2,074**	**46,108**
Yield[(1)]	3.1	1.9	1.3	3.5	

(1) Since substantially all investment securities held by the banking operations of the Company are taxable securities, the yields are on a tax-equivalent basis.

On 31 December 2019, ING Group also held the following securities for the banking operations that exceeded 10 % of shareholders' equity:

	2019	
	Book value	Market value
	(EUR millions)	
German government	11,527	11,796
Dutch government	9,403	9,538
US Treasury and other US governments	10,651	10,745
Polish government	7,450	7,442

LOAN PORTFOLIO

Loans and advances to banks and customers

Loans and advances to banks include all receivables from credit institutions, except for cash, current accounts and deposits with other banks (including central banks). Loans and advances to customers includes lending facilities to corporate and private customers encompass among others, loans, overdrafts and finance lease receivables.

The following table sets forth the gross loans and advances to banks and customers as of 31 December 2019, 2018, 2017, 2016 and 2015 under IFRS-IASB.

IFRS-IASB	Year ended December 31				
	2019	**2018**	**2017**	**2016**	**2015**
By domestic offices:					
Loans guaranteed by public authorities	25,340	24,547	26,975	27,746	30,912
Loans secured by mortgages	117,199	117,848	119,514	123,378	124,771
Loans to or guaranteed by credit institutions	13,847	8,163	8,157	10,582	16,343
Other private lending	3,482	3,304	3,162	3,236	5,636
Other corporate lending	39,645	37,213	38,208	39,669	197,069
Total domestic offices	**199,514**	**191,074**	**196,016**	**204,611**	**374,731**
By foreign offices:					
Loans guaranteed by public authorities	16,849	17,257	19,397	18,634	18,214
Loans secured by mortgages	231,327	219,530	204,451	195,328	179,938
Loans to or guaranteed by credit institutions	25,069	25,364	22,641	19,427	17,688
Other private lending	24,768	21,563	20,074	18,723	17,041
Asset backed securities excluding MBS	–	–	2,209	3,380	4,937
Other corporate lending	150,233	149,787	140,455	134,092	119,161
Total foreign offices	**448,246**	**433,500**	**409,227**	**389,585**	**356,979**
Total gross loans and advances to banks and customers	**647,759**	**624,575**	**605,243**	**594,196**	**731,710**

Maturities and sensitivity of loans to changes in interest rates

The following table analyses loans and advances to banks and customers by time remaining until maturity as of 31 December 2019.

	1 year or less	**1 year to 5 years**	**After 5 years**	**Total**
	(EUR millions)			
By domestic offices:				
Loans guaranteed by public authorities	2,311	1,897	21,132	25,340
Loans secured by mortgages	5,811	16,091	95,298	117,199
Loans guaranteed by credit institutions	12,705	1,060	82	13,847
Other private lending	1,591	905	987	3,482
Other corporate lending	22,253	13,215	4,177	39,645
Total domestic offices	**44,670**	**33,167**	**121,676**	**199,514**
By foreign offices:				
Loans guaranteed by public authorities	3,507	6,440	6,902	16,849
Loans secured by mortgages	23,577	57,244	150,506	231,327
Loans guaranteed by credit institutions	18,725	3,658	2,686	25,069
Other private lending	6,439	12,826	5,504	24,768
Other corporate lending	55,966	72,772	21,495	150,233
Total foreign offices	**108,213**	**152,940**	**187,093**	**448,246**
Total gross loans and advances to banks and customers	**152,883**	**186,107**	**308,769**	**647,759**

The following table analyzes loans and advances to banks and customers by interest rate sensitivity by maturity as of 31 December 2019.

	1 Year or less	**Over 1 Year**	**Total**
Non-interest earning	3,584	1,032	4,617
Fixed interest rates	61,570	87,181	148,751
Floating or adjustable interest rates [(1)]	87,729	406,662	494,391
Total	**152,883**	**494,876**	**647,759**

(1) Loans that have an interest rate that remains fixed for more than one year and which can then be changed are classified as “adjustable interest rates”

Loan concentration

The following industry concentrations were in excess of 10% of total loans as of 31 December, 2019:

	Total outstanding
Private Individuals	38.9%

Risk elements

Loans Past Due 90 days and Still Accruing Interest

Loans past due 90 days and still accruing interest are loans that are contractually past due 90 days or more as to principal or interest on which we continue to recognize interest income on an accrual basis in accordance with IFRS-IASB. Once an impairment loss is recognized for a loan, interest income is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

The following table sets forth the gross balance of the loans past due 90 days and still accruing interest for the years ended 31 December 2019, 2018, 2017, 2016 and 2015 under IFRS-IASB.

IFRS-IASB	Year ended 31 December (EUR millions)				
	2019	**2018**	**2017**	**2016**	**2015**
Domestic	2,272	2,948	4,343	5,292	7,523
Foreign	3,126	2,427	3,861	3,338	4,055
Total loans past due 90 days and still accruing interest	**5,398**	**5,375**	**8,204**	**8,630**	**11,578**

As of 31 December 2019, EUR5,398 million of the loans past due 90 days and still accruing interest have a loan loss provision. ING's loan portfolio is under constant review. Loans with past due financial obligations of more than 90 days are reclassified as non-performing.

For commercial lending portfolios, there generally are reasons for declaring a loan non-performing prior to being 90 days past due.

These reasons include, but are not limited to, ING's assessment of the customer's perceived inability to meet its financial obligations, or the customer filing for bankruptcy or bankruptcy protection.

The total loans classified as non performing, including those loans classified as past due 90 days and still accruing interest, amounts to EUR 11,477 million as of 31 December 2019.

For information on credit restructuring reference is made to "Additional information – ING Group Risk Management".

Troubled Debt Restructurings

Troubled debt restructurings are loans that we have restructured due to deterioration in the borrower's financial position and in relation to which, for economic or legal reasons related to the borrower's deteriorated financial position, we have granted a concession to the borrower that we would not have otherwise granted.

The following table sets forth the gross outstanding balances of the troubled debt restructurings as of December 31 2019, 2018, 2017, 2016 and 2015 under IFRS-IASB.

IFRS-IASB	Year ended 31 December				
	2019	**2018**	**2017** (EUR millions)	**2016**	**2015**
Troubled debt restructurings:					
Domestic	869	672	675	325	86
Foreign	946	779	330	277	376
Total troubled debt restructurings	**1,815**	**1,451**	**1,005**	**602**	**462**

Relationship Between Forbearance and Troubled Debt Restructurings (TDR)

Both forbearance and TDR refer to a situation in which a debtor is facing financial difficulties and the creditor grants concessions in respect of the terms of the loans, but the application of the respective guidance, specifically the entry criteria under both standards, results in differences between the total amount of reported forborne loans and the amount of forborne loans which are considered TDR.

This difference is due to ING's determination of forbearance being based on the criteria in the European Implementing Technical Standards on Supervisory reporting on forbearance and non-performing exposures under article 99(4) of Regulation (EU) No 575/2013 (the "EU Standard"), while ING's determination of Troubled Debt Restructurings (TDR) is based on FASB codification (ASC) 310-40 "Troubled Debt Restructurings by Creditors" (the "TDR Standard").

Under the EU Standard, all concessions that ING makes in respect of a loan given to a debtor in financial difficulty will result in a loan being considered forborne, including modification of payment terms (such as interest deferrals or extensions of maturity) as well as concessions that do not have any impact on cash flows, such as when ING waives covenant or other non-payment-related loan terms. As a result, the "Total Forborne Loans" in the table below represents all loans where ING has made borrower concessions, regardless of the impact of such concessions on the timing or likelihood of repayment.

Under the TDR Standard, however, loans may only be classified as TDR if the creditor has granted a concession and as a result of such concession does not expect to collect all amounts due, including both interest and principal. For these purposes, the TDR Standard also provides that concessions that result in a delay in payment that is only considered "insignificant" will not result in the loan being considered TDR. This means that the loans reported by ING as TDR will not include loans for which covenant or other non-payment terms have been modified, as well as loans for which payment-related concessions would, in ING's judgment, result in only insignificant delays in repayment. Examples of concessions which result in only insignificant delays in payment would include temporary payment holidays for retail mortgage clients, or standstill arrangements with corporate borrowers. As ING will ordinarily receive compensation in connection with such concessions (generally through additional interest income), these concessions would typically not result in a significant NPV loss or would result in a delay in payment that we would consider to be insignificant taking into account the remaining duration of the loan. Debt forgiveness, either through principal or interest reductions, is generally not granted by ING, but to the extent granted would likely result in the loan being classified as TDR.

As a result of the application of these two standards, ING reports a significantly larger amount of loans in the forborne category than in the TDR category. The following table (in EUR millions) sets forth total forborne loans and loans that are TDR as of December 31, 2019, 2018 and 2017, as well as a reconciliation indicating the categories of forborne loans under the EU Standard which do not meet the criteria of the TDR Standard.

	2019	2018	2017
Total Forborne Loans (EU Standard)	**9,492**	**10,094**	**11,819**
Wholesale Banking:			
Concessions not reducing cash flows (e.g., covenant waiver)	–1,018	–1,429	–2,359
Concessions that do not result in significant delay in payment (1)	–2,536	–2,244	–2,817
Retail Banking:			
Concessions that do not result in significant delay of payment	–4,029	–4,696	–5,317
Other	–94	–274	–321
Total Loans that are Troubled Debt Restructurings (TDR Standard)	**1,815**	**1,451**	**1,005**

(1) This category includes concessions where the NPV loss is less than 1%.

Interest Income on Troubled Debt Restructurings

The following table sets forth the gross interest income that would have been recorded during the year ended 31 December 2019 on troubled debt restructurings had such loans been current in accordance with their original contractual terms and interest income on such loans that was actually included in interest income during the year ended 31 December 2019.

	Year ended 31 December 2019 (EUR millions)		
	Domestic Offices	Foreign Offices	Total
Interest income that would have been recognized under the original contractual terms	17	40	58
Interest income recognized in the profit and loss account	10	17	27

Potential Problem Loans

Potential problem loans are loans that are not classified as loans past due 90 days and still accruing interest or troubled debt restructurings and amounted to EUR 4,845 million as of 31 December 2019. Of this total, EUR 1,865 million relates to domestic loans and EUR 2,980 million relates to foreign loans. These loans are considered potential problem loans as there is known information about possible credit problems causing us to have serious doubts as to the ability of the borrower to comply with the present loan repayment terms and which may result in classifying the loans as loans past due 90 days and still accruing interest or as troubled debt restructurings.

Cross-border outstandings

Cross-border outstandings are defined as loans (including accrued interest), acceptances, interest-earning deposits with other banks, other interest-earning investments and any other monetary assets that are denominated in euro or other non-local currency. To the extent that material local currency outstandings are not hedged or are not funded by local currency borrowings, such amounts are included in cross-border outstandings.

Commitments such as irrevocable letters of credit are not considered as cross border outstanding. Total outstandings are in line with Dutch Central Bank requirements. On 31 December 2019, there were no outstandings exceeding 1% of total assets in any country where current conditions give rise to liquidity problems which are expected to have a material impact on the timely repayment of interest or principal.

The following tables analyze cross-border outstandings as of the end of 31 December 2019, 2018 and 2017 stating the name of the country and the aggregate amount of cross-border outstandings to borrowers in each foreign country where such outstandings exceed 1% of total assets, by the following categories.

	Year ended 31 December 2019 (EUR millions)					
	Government & official institutions	Banks & other financial institutions	Commercial & industrial	Other	Total	Cross-border Commitments
United States of America	9,890	5,994	70,325	1,707	87,917	25,965
United Kingdom	1,811	18,552	14,665	3,496	38,525	7,314
France	1,318	15,824	17,720	991	35,854	8,670
Ireland	55	1,628	19,168	211	21,061	1,720
Luxembourg	949	7,165	6,595	1,286	15,996	3,303
Germany	2,400	5,216	3,985	3,869	15,470	11,974
Switzerland	1,192	717	11,501	1,989	15,399	2,060
Singapore	0	1,322	12,343	1,119	14,783	795
Cayman Islands		10,657	645	143	11,445	479
China	54	4,924	1,180	4,563	10,721	331

	Year ended 31 December 2018					
	Government & official institutions	Banks & other financial institutions	Commercial & industrial	Other	Total	Cross-border Commitments
			(EUR millions)			
United States of America	6,054	5,759	71,956	2,407	86,176	19,819
United Kingdom	1,420	14,756	13,213	2,376	31,766	6,415
France	1,851	11,535	16,017	979	30,383	2,360
Ireland		1,819	19,506	142	21,467	1,008
Switzerland	220	3,087	13,406	1,886	18,598	2,272
Germany	2,965	3,837	3,800	3,935	14,537	12,142
Luxembourg	863	2,969	8,026	1,369	13,227	3,901
Singapore		1,163	9,823	769	11,755	774
China	31	4,920	1,848	3,969	10,768	733
Belgium	997	1,805	7,054	845	10,702	13,954

	Year ended 31 December 2017					
	Government & official institutions	Banks & other financial institutions	Commercial & industrial	Other	Total	Cross-border Commitments
			(EUR millions)			
United States	6,665	7,165	65,444	2,727	82,001	16,621
France	2,564	24,353	15,333	1,230	43,479	7,840
United Kingdom	1,263	13,493	14,373	2,574	31,702	6,442
Switzerland	4	7,594	10,800	2,700	21,098	2,521
Ireland		574	19,686	161	20,421	927
Germany	4,404	5,873	3,897	3,267	17,441	12,585
Belgium	439	2,612	12,496	812	16,359	14,484
China	85	7,849	2,248	5,490	15,671	320
Singapore		1,601	9,175	550	11,326	618
Luxembourg	508	2,151	6,910	1,598	11,167	3,445
Turkey	1,274	3,710	5,312	234	10,530	1,139
Hong Kong		4,512	4,134	575	9,221	300

The following table Discloses cross-border outstandin's as of the end of 31 December 2019, 2018 and 2017 stating the name of the country and the aggregate amount of cross-border outstandings to borrowers in each foreign country where such outstandings are between 0.75 percent and 1.0 percent of total assets.

	Year ended 2019
	(EUR millions)
Belgium	8,277
Hong Kong	8,232
Canada	8,169
Japan	7,674
Turkey	6,630

	Year ended 2018
	(EUR millions)
Cayman Islands	8,516
Turkey	7,831
Spain	7,523
Hong Kong	7,083
Japan	6,792

	Year ended 2017
	(EUR millions)
Japan	8,332
Canada	6,116
Cayman Islands	6,062

Summary of Loan Loss Experience

For further explanation on loan loss provision reference is made to Note 1 ‘Accounting Policies’ and Additional info – Risk Management.

The following table presents the movements in allocation of the provision for loan losses on loans accounted for as loans and advances to banks and customers for 2019, 2018, 2017, 2016 and 2015 under IFRS-IASB.

IFRS-IASB	Calendar period				
	2019	**2018[1]**	**2017**	**2016**	**2015**
	(EUR millions)				
Balance on 1 January	4,568	4,521	5,308	5,786	5,995
Effect of changes in accounting policy		795			
Write-offs:					
Domestic:					
Loans guaranteed by public authorities		–69		–207	
Loans secured by mortgages	–127	–127	–231	–323	–436
Loans to or guaranteed by credit institutions			–5		
Other private lending	–72	–177	–48	–93	–121
Other corporate lending	–264	–105	–409	–234	–447
Foreign:					
Loans secured by mortgages	–48	–70	–66	–129	–154
Loans to or guaranteed by credit institutions		–1			
Other private lending	–144	–141	–188	–233	–303
Other corporate lending	–375	–354	–331	–275	–257
Total write-offs	**–1,030**	**–1,044**	**–1,278**	**–1,494**	**–1,718**
Recoveries:					
Domestic:					
Loans guaranteed by public authorities					
Loans secured by mortgages	13	15	24	14	23
Other private lending	10	11	15	15	16
Other corporate lending	7	14	19	6	–5
Foreign:					
Loans secured by mortgages	2	2	3	3	4
Other private lending	11	4	7	8	37
Other corporate lending	12	7	–8	48	16
Total recoveries	**55**	**53**	**60**	**94**	**91**
Net write-offs	**–975**	**–992**	**–1,218**	**–1,400**	**–1,627**
Additions and other adjustments (included in value Adjustments to receivables of the Banking operations)	1,052	244	538	922	1,418
Balance on 31 December	**4,645**	**4,568**	**4,628**	**5,308**	**5,786**
Ratio of net charge-offs to average loans and advances to banks and customers	0.14%	0.15%	0.20%	0.23%	0.28%

(1) As from 1 January 2018 changes in loan loss provision presents IFRS 9 expected credit losses (excluding IAS 37 provisions for non-credit replacement positions). The IAS 39 comparative 2017 amount includes IAS 37 provision for all off balance positions

Additions to the provision for loan losses presented in the table above were influenced by developments in general economic conditions as well as certain individual exposures. The following table shows the allocation of the provision for loan losses on loans accounted for as loans and advances to banks and to customers, to financial assets at at fair value through other comprehensive income and amortised cost and contingent liabilities for 2019, 2018, 2017, 2016 and 2015 under IFRS-IASB.

IFRS-IASB	Year ended December 31									
	2019		2018(2)		2017		2016		2015	
	EUR	%(1)	EUR	%(1)	EUR	%(1)	EUR	%(1)	EUR	%(1)
					(EUR millions)					
Domestic:										
Loans guaranteed by public authorities		4		4		4		5		5
Loans secured by mortgages	472	18	421	19	347	20	550	21	819	22
Loans to or guaranteed by credit institutions	6	2	5	1	2	1	2	2		2
Other private lending	72	1	119	1	118	1	122	1	177	1
Other corporate lending	657	6	959	6	1,268	6	1,738	6	1,904	7
Total domestic	**1,207**	**31**	**1,504**	**31**	**1,735**	**32**	**2,412**	**34**	**2,900**	**37**
Foreign:										
Loans guaranteed by public authorities	3	3	7	3	3	3	7	3	2	3
Loans secured by mortgages	599	36	700	35	526	34	638	32	717	30
Loans to or guaranteed by credit institutions	4	4	8	4	7	4	12	3	15	3
Other private lending	820	4	763	3	746	3	620	3	712	3
Mortgage backed securities					9		2	1	2	1
Other corporate lending	1,992	23	1,563	24	1,602	23	1,617	23	1,438	22
Total foreign	**3,418**	**69**	**3,041**	**69**	**2,893**	**67**	**2,896**	**66**	**2,886**	**63**
Total	**4,625**	**100**	**4,545**	**100**	**4,628**	**100**	**5,308**	**100**	**5,786**	**100**
LLP financial assets at FVOCI	10		11							
LLP Securities at AC	10		11							
Total provisions	**4,645**		**4,568**							

(1) The percentages represent the loans in each category as a percentage of the total loan portfolio for loans and advances to banks and customers.

(2) As from 1 January 2018 changes in loan loss provision presents IFRS 9 expected credit losses (excluding IAS 37 provisions for non-credit replacement positions). The IAS 39 comparative 2017 amount includes IAS 37 provision for all off balance positions.

DEPOSITS

For information on deposits reference is made to Note 13 'Deposits from banks' and Note 14 ' Customer deposits' of the consolidated financial statements.

For the years ended 31 December 2019, 2018 and 2017 the aggregate amount of deposits by foreign depositors in domestic offices was EUR 27,649 million EUR 27,586 million and EUR 43,572 million, respectively.

Outstanding of time certificates of deposit and other time deposits > EUR 20.000

On 31 December 2019, the amount of domestic time certificates of deposit and other time deposits, exceeding EUR 20,000, issued by domestic offices by time remaining until maturity was:

	Time certificates of deposit		Other time deposits	
	(EUR	%	(EUR	%
3 months or less	3,912	39.5	7,487	29.5
6 months or less but over 3 months	1,298	13.1	11,093	43.6
12 months or less but over 6 months	4,702	47.4	913	3.6
Over 12 months			5,921	23.3
Total	**9,912**		**25,414**	

The following table shows the amount outstanding for time certificates of deposit and other time deposits exceeding EUR 20,000 issued by foreign offices on December 31 2019.

	(EUR
Time certificates of deposit	4,000
Other time deposits	23,279
Total	**27,278**

Short-term Borrowings

Short-term borrowings are borrowings with an original maturity of one year or less. Commercial paper and securities sold under repurchase agreements are the only significant categories of short-term borrowings within our banking operations.

The following table sets forth certain information relating to the categories of our short-term borrowings.

IFRS-IASB	**Year ended 31 December**		
	2019	**2018**	**2017**
	(EUR millions, except % data)		
Commercial paper:			
Balance at the end of the year	27,581	33,471	20,506
Monthly average balance outstanding during the year	28,751	34,647	17,600
Maximum balance outstanding at any period end during the year	36,692	39,556	20,748
Weighted average interest rate during the year	1.36%	1.37%	1.19%
Weighted average interest rate on balance at the end of the year	1.42%	1.42%	1.02%
Securities sold under repurchase agreements:			
Balance at the end of the year	43,255	52,481	41,672
Monthly average balance outstanding during the year	57,501	76,953	65,465
Maximum balance outstanding at any period end during the year	64,334	92,796	89,225
Weighted average interest rate during the year	2.42%	1.63%	0.98%
Weighted average interest rate on balance at the end of the year	3.22%	2.38%	1.54%

Contents

Report of independent registered public accounting firm

To the Shareholders and the Supervisory Board
ING Groep N.V.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of ING Groep N.V. and subsidiaries ('the Company') as of December 31, 2019 and 2018, the related consolidated statements of profit or loss, comprehensive income, changes in equity, and cash flows for each of the years in the three year period ended December 31, 2019, and the related notes and specific disclosures described in Note 1 of the consolidated financial statements as being part of the consolidated financial statements (collectively: 'the consolidated financial statements'). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2019, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ('PCAOB'), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 2, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Changes in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting in 2019 due to the adoption of International Financial Reporting Standard 16, 'Leases'. The Company early adopted the amendments to IAS 39 'Financial Instruments: Recognition and Measurement' and IFRS 7 'Financial Instruments: Disclosures' in relation to the Interest Rate Benchmark Reform as issued by the IASB in September 2019. The Company changed its method of accounting for financial instruments in 2018 due to the adoption of International Financial Reporting Standard 9, 'Financial Instruments'.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The Critical Audit Matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the Audit Committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgement. The communication of a Critical Audit Matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the Critical Audit Matter below, providing a separate opinion on the Critical Audit Matter or on the accounts or disclosures to which it relates.

Assessment of Expected Credit Losses on loans and advances to customers and banks.

As discussed in the Credit Risk section on pages 172-207, and in Note 7 and Note 3 to the consolidated financial statements, the loans and advances to customers and loans and advances to banks amounts are EUR 608 billion and EUR 35 billion, respectively, as at December 31, 2019. These loans and advances are measured at amortised cost, less a provision for Expected Credit Losses ('ECL') of EUR 4.6 billion. Considerable judgement is exercised in determining the amount of ECL for loans and advances to customers and banks assessed on both a collective and an individual basis.

We identified the assessment of ECL on loans and advances to customers and banks as a Critical Audit Matter because there was a high degree of estimation uncertainty as a result of complexity of the models, inputs, assumptions and judgements in measuring the ECL. Specifically, assessment of the probability of default ('PD'), the loss given default ('LGD'), and the exposure at default ('EAD'), including expected future recovery cash flows, the use of the macro-economic assumptions in the ECL, and the criteria for identifying significant increase in credit risk ('SICR') required significant and complex auditor judgement and knowledge and experience in the industry.

The primary procedures we performed to address this Critical Audit Matter, included the following:

- We tested certain internal controls over the Company's ECL process for loans and advances to customers and banks, including controls related to governance and monitoring of the ECL, review of the relevant loan inputs used in the collective provisioning models, determination of risk ratings, and the estimated future recovery cash flows of individual loan provisions. Furthermore, we tested certain internal controls with respect to the assessment of the PD, LGD, and EAD assumptions in credit risk models used to calculate the collective ECL, including the development of macro-economic scenarios, SICR criteria, and review of model outputs.
- We involved professionals with specialised skills and knowledge who assisted in:
  - evaluating the inputs, assumptions and judgements to determine the PD, LGD, and EAD parameters in models used by the Company to calculate the collective provisions;
  - assessing the criteria and thresholds used to identify loans that experienced a significant increase in credit risk.
- With the assistance of Corporate Finance professionals and Real Estate Valuation professionals with specialised skills and knowledge, we assessed the methodologies, cash flows and collateral values used in expected future recovery cash flow assessments of provisions for impaired loans, including the Company's judgements made.
- We involved economic professionals with specialised skills and knowledge to assist in the assessment of the Company's methodology in determining the macro-economic scenarios used in the ECL calculation.

/s/ KPMG Accountants N.V.

We have served as the Company's auditor since 2016.

Amstelveen, the Netherlands
March 2, 2020

Consolidated statement of financial position

As at 31 December

in EUR million	2019[1]	2018
Assets		
Cash and balances with central banks 2	53,202	49,987
Loans and advances to banks 3	35,136	30,422
Financial assets at fair value through profit or loss 4		
– Trading assets	49,254	50,152
– Non-trading derivatives	2,257	2,664
– Designated as at fair value through profit or loss	3,076	2,887
– Mandatorily at fair value through profit or loss	41,600	64,783
Financial assets at fair value through other comprehensive income 5	34,468	31,223
Securities at amortised cost 6	46,108	47,276
Loans and advances to customers 7	608,029	589,653
Investments in associates and joint ventures 8	1,790	1,203
Property and equipment 9	3,172	1,659
Intangible assets 10	1,916	1,839
Current tax assets	251	202
Deferred tax assets 37	1,242	958
Other assets 11	7,018	8,433
Assets held for Sale 12		1,262
Total assets	**888,520**	**884,603**

in EUR million	2019[1]	2018
Liabilities		
Deposits from banks 13	34,826	37,330
Customer deposits 14	574,355	555,729
Financial liabilities at fair value through profit or loss 15		
– Trading liabilities	28,042	31,215
– Non-trading derivatives	2,215	2,299
– Designated as at fair value through profit or loss	47,684	59,179
Current tax liabilities	554	822
Deferred tax liabilities 37	322	180
Provisions 16	688	1,011
Other liabilities 17	12,829	13,510
Debt securities in issue 18	118,528	119,751
Subordinated loans 19	16,588	13,724
Total liabilities	**836,631**	**834,751**
Equity 20		
Share capital and share premium	17,117	17,088
Other reserves	4,013	3,621
Retained earnings	29,866	28,339
Shareholders' equity (parent)	**50,996**	**49,049**
Non-controlling interests	893	803
Total equity	**51,889**	**49,851**
Total liabilities and equity	**888,520**	**884,603**

1 The amounts for the period ended December 2019 have been prepared in accordance with IFRS 16. The right-of-use-assets are presented under line-item 'Property and Equipment' and the lease liability is included in line-item 'Other liabilities'. Prior period amounts have not been restated.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

Consolidated statement of profit or loss

for the years ended 31 December

in EUR million	2019[1]	2018[1]	2017[1]
Continuing operations			
Interest income using effective interest rate method	25,056	25,249	n/a
Other interest income	3,107	2,880	n/a
Total interest income	**28,163**	**28,129**	**43,996**
Interest expense using effective interest rate method	–11,268	–11,171	n/a
Other interest expense	–3,084	–2,997	n/a
Total interest expense	**–14,353**	**–14,169**	**–30,349**
Net interest income 21	**13,811**	**13,960**	**13,647**
Fee and commission income	4,439	4,240	3,865
Fee and commission expense	–1,571	–1,442	–1,155
Net fee and commission income 22	**2,868**	**2,798**	**2,710**
Valuation results and net trading income 23	–159	1,227	1,512
Investment income 24	188	183	192
Share of result from associates and joint ventures 8	48	143	178
Result on disposal of group companies 25	117	–123	1
Other income 26	252	136	350
Total income	**17,125**	**18,324**	**18,590**

Reference relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

	2019[1]	2018[1]	2017[1]
Addition to loan loss provisions 7	1,120	656	676
Staff expenses 27	5,755	5,420	5,202
Other operating expenses 28	4,598	5,262	4,627
Total expenses	**11,472**	**11,338**	**10,505**
Result before tax from continuing operations	**5,653**	**6,986**	**8,085**
Taxation 37	1,652	2,116	2,539
Net result from continuing operations	**4,001**	**4,869**	**5,546**
Net result (before non-controlling interests)	**4,001**	**4,869**	**5,546**
Net result attributable to Non-controlling interests	99	108	82
Net result attributable to Equityholders of the parent	**3,903**	**4,761**	**5,464**

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated.
2018 amounts in other interest income and other interest expense have been updated to improve consistency and comparability.

Consolidated statement of profit or loss – continued

in EUR	2019	2018	2017
Earnings per ordinary share 29			
Basic earnings per ordinary share	1.00	1.22	1.41
Diluted earnings per ordinary share	1.00	1.22	1.41
Earnings per ordinary share from continuing operations 29			
Basic earnings per ordinary share from continuing operations	1.00	1.22	1.41
Diluted earnings per ordinary share from continuing operations	1.00	1.22	1.41
Dividend per ordinary share 30	0.69	0.68	0.67

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

Consolidated statement of comprehensive income

for the years ended 31 December

in EUR million	2019[1]	2018[1]	2017[1]
Net result (before non-controlling interests)	4,001	4,869	5,546
Other comprehensive income			
Items that will not be reclassified to the statement of profit or loss:			
Realised and unrealised revaluations property in own use	58	1	26
Remeasurement of the net defined benefit asset/liability 36	58	6	–29
Net change in fair value of equity instruments at FVOCI	139	–461	n/a
Change in fair value of own credit risk of financial liabilities at FVPL	–116	199	n/a
Items that may subsequently be reclassified to the statement of profit or loss:			
Unrealised revaluations AFS investments and other revaluations	n/a	n/a	–283
Realised gains/losses on AFS investments reclassified to the statement of profit or loss	n/a	n/a	–92
Net change in fair value of debt instruments at FVOCI	–42	–177	n/a
Realised gains/losses on debt instruments at FVOCI reclassified to the statement of profit or loss	–34	–56	n/a
Changes in cash flow hedge reserve	640	382	–525
Exchange rate differences	–29	–396	–864
Share of other comprehensive income of associates and joint ventures and other income	–	14	–5
Total comprehensive income	**4,674**	**4,381**	**3,774**
Comprehensive income attributable to:			
Non-controlling interests	142	132	109
Equity holders of the parent	4,532	4,250	3,665
	4,674	**4,381**	**3,774**

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

For the disclosure on the income tax effects on each component of the other comprehensive income reference is made to Note 37 'Taxation'.

Consolidated statement of changes in equity

For the years ended 31 December

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2018	17,088	3,621	28,339	49,049	803	49,851
Net change in fair value of equity instruments at fair value through other comprehensive income		–335	472	137	1	139
Net change in fair value of debt instruments at fair value through other comprehensive income		–43		–43	1	–42
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		–33		–33	–1	–34
Changes in cash flow hedge reserve		604		604	36	640
Realised and unrealised revaluations property in own use		49	9	58	–0	58
Remeasurement of the net defined benefit asset/liability 36		58		58		58
Exchange rate differences and other		–36		–36	7	–29
Share of other comprehensive income of associates and joint ventures and other income		69	–69			
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		–123	6	–116		–116
Total amount recognised directly in other comprehensive income net of tax		**211**	**418**	**629**	**44**	**673**
Net result		180	3,723	3,903	99	4,001
Total comprehensive income net of tax		**391**	**4,141**	**4,532**	**142**	**4,674**
Dividends 30			–2,650	–2,650	–29	–2,679
Changes in treasury shares		1		1		1
Employee stock option and share plans	28		13	41	0	41
Changes in the composition of the group and other changes			23	23	–23	–0
Balance as at 31 December 2019	**17,117**	**4,013**	**29,866**	**50,996**	**893**	**51,889**

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.
Changes in individual Reserve components are presented in Note 20 'Equity'.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2017	17,045	4,362	27,022	48,429	715	49,144
Effect of change in accounting policy due to implementation of IFRS 9		–604	–390	–993	–14	–1,008
Balance as at 1 January 2018	17,045	3,759	26,632	47,435	700	48,136
Net change in fair value of equity instruments at fair value through other comprehensive income		–518	56	–461	0	–461
Net change in fair value of debt instruments at fair value through other comprehensive income		–177		–177	0	–177
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		–54		–54	–2	–56
Changes in cash flow hedge reserve		342	–	342	41	382
Realised and unrealised revaluations property in own use		–2	3	1	–0	1
Remeasurement of the net defined benefit asset/liability36		6		6	–	6
Exchange rate differences and other		–380		–380	–16	–396
Share of other comprehensive income of associates and joint ventures and other income		283	–270	14		14
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		199		199		199
Total amount recognised directly in other comprehensive income net of tax		**–301**	**–211**	**–512**	**24**	**–488**
Net result		160	4,601	4,761	108	4,869
Total comprehensive income net of tax		**–141**	**4,391**	**4,250**	**132**	**4,381**
Dividends 30			–2,607	–2,607	–61	–2,668
Changes in treasury shares		4		4		4
Employee stock option and share plans	44		19	63	0	63
Changes in the composition of the group and other changes[1]			–96	–96	31	–65
Balance as at 31 December 2018	**17,088**	**3,621**	**28,339**	**49,049**	**803**	**49,851**

1 Includes an amount for the initial recognition of the redemption liability related to the acquisition of Payvision Holding B.V. and Makelaarsland B.V. that reduces the Retained earnings of the Group. Future remeasurements of the redemption liability are recognised in the statement of profit or loss.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 1 January 2017	16,989	5,897	24,371	47,257	606	47,863
Unrealised revaluations available-for sale investments and other revaluations		–293		–293	10	–283
Realised gains/losses transferred to the statement of profit or loss		–90		–90	–2	–92
Changes in cash flow hedge reserve		–514		–514	–11	–525
Unrealised revaluations property in own use			26	26		26
Remeasurement of the net defined benefit asset/liability 36		–29		–29		–29
Exchange rate differences		–894		–894	30	–864
Share of other comprehensive income of associates and joint ventures and other income		138	–143	–5		–5
Total amount recognised directly in other comprehensive income	**–**	**–1,682**	**–117**	**–1,799**	**27**	**–1,772**
Net result from continuing and discontinued operations		153	5,311	5,464	82	5,546
Total comprehensive income net of tax		**–1,529**	**5,194**	**3,665**	**109**	**3,774**
Dividends 30			–2,564	–2,564		–2,564
Changes in treasury shares		–6		–6		–6
Employee stock option and share plans	56		21	77		77
Balance as at 31 December 2017	**17,045**	**4,362**	**27,022**	**48,429**	**715**	**49,144**

Consolidated statement of cash flows

for the years ended 31 December

in EUR million		2019 [1]	2018 [1]	2017 [1]
Cash flows from operating activities 31				
Result before tax		5,653	6,986	8,085
Adjusted for:	– Depreciation and amortisation	789	520	520
	– Addition to loan loss provisions	1,120	656	676
	– Other non-cash items in Result before tax	1,213	–1,763	703
Taxation paid		–2,345	–1,602	–1,691
Changes in:	– Net change in Loans and advances to/from banks, not available/payable on demand	–3,911	–211	3,194
	– Net change in Trading assets and Trading liabilities	–2,568	9,910	–11,187
	– Loans and advances to customers	–16,687	–31,356	–21,390
	– Customer deposits	18,040	19,709	18,291
	– Other 31	11,752	4,067	–2,454
Net cash flow from/(used in) operating activities		**13,055**	**6,915**	**–5,253**
Cash flows from investing activities				
Investments and advances:	- Acquisition of subsidiaries, net of cash acquired	–17	–111	
	- Associates and joint ventures	–507	–97	–79
	- Available-for-sale investments	n/a	n/a	–21,601
	- Held-to-maturity investments	n/a	n/a	–3,609
	- Financial assets at fair value through other comprehensive income	–16,270	–10,517	n/a
	- Securities at amortised cost	–12,268	–17,985	n/a
	- Property and equipment	–355	–286	–304
	- Other investments	–395	–258	–264

		2019 [1]	2018 [1]	2017
Disposals and redemptions:	– Associates and joint ventures	67	116	245
	– Available-for-sale investments	n/a	n/a	32,788
	– Held-to-maturity investments	n/a	n/a	2,675
	– Financial assets at fair value through other comprehensive income	13,390	15,657	n/a
	– Securities at amortised cost	13,001	18,709	n/a
	– Property and equipment	81	17	79
	– Loans sold	744	206	1,815
	– Other investments	34		9
Net cash flow from/(used in) investing activities		**–2,495**	**5,451**	**11,754**
Cash flows from financing activities				
Proceeds from debt securities		90,793	152,543	95,458
Repayments of debt securities		–94,497	–131,170	–96,837
Proceeds from issuance of subordinated loans		3,429	1,859	2,331
Repayments of subordinated loans		–933	–4,646	–2,343
Repayments of principal portion of lease liabilities [2]		–271	n/a	n/a
Purchase/sale of treasury shares		1	4	7
Dividends paid		–2,679	–2,607	–2,564
Other financing		2		
Net cash flow from/(used in) financing activities		**–4,154**	**15,983**	**–3,948**
Net cash flow		**6,406**	**28,349**	**2,553**
Cash and cash equivalents at beginning of year 33		47,529	18,977	16,164
Effect of exchange rate changes on cash and cash equivalents		95	204	260
Cash and cash equivalents at end of year 33		**54,031**	**47,529**	**18,977**

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated.
2 The amount for the period ended 31 December 2019 has been prepared in accordance with IFRS 16. Previous period amounts have not been restated.

As at 31 December 2019, Cash and cash equivalents includes cash and balances with central banks of EUR 53,202 million (2018: EUR 49,987 million; 2017: EUR 21,989 million). The increase in cash and balances with central banks reflects ING's liquidity management. Reference is made to Note 33 'Cash and cash equivalents'.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

The table below presents the Interest and dividend received and paid.

	2019[1]	2018[1]	2017[1]
Interest received	28,957	28,722	45,014
Interest paid	–14,550	–14,948	–31,032
	14,407	**13,774**	**13,982**
Dividend received[2]	219	183	206
Dividend paid	–2,679	–2,607	–2,564

1. The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9, the adoption of IFRS 9 led to new presentation requirements; 2017 period amounts have not been restated, refer also to note 21 'Net interest income'.
2. Includes dividends received as recognized within Investment Income, from equity securities included in the Financial assets at fair value through profit or loss, Financial assets at fair value through OCI, and from Investments in associates and joint ventures. Dividend paid and received from trading positions have been included.

Interest received, interest paid and dividends received are included in operating activities in the Consolidated statement of cash flow. Dividend paid is included in financing activities in the Consolidated statement of cash flow.

Notes to the Consolidated financial statements

1 Basis of preparation and accounting policies

1.1 Reporting entity

ING Groep N.V. is a company domiciled in Amsterdam, the Netherlands. Commercial Register of Amsterdam, number 33231073. These Consolidated financial statements, as at and for the year ended 31 December 2019, comprise ING Groep N.V. (the Parent company) and its subsidiaries, together referred to as ING Group. ING Group is a global financial institution with a strong European base, offering a wide range of retail and wholesale banking services to customers in over 40 countries.

1.2 Authorisation of the Consolidated financial statements

The ING Group Consolidated financial statements, as at and for the year ended 31 December 2019, were authorised for issue in accordance with a resolution of the Executive Board on 2 March 2020. The Executive Board may decide to amend the financial statements as long as these are not adopted by the General Meeting of Shareholders. The General Meeting of Shareholders may decide not to adopt the financial statements, but may not amend these.

1.3 Basis of preparation of the Consolidated financial statements

The ING Group Consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board for purposes of reporting with the U.S. Securities and Exchange Commission (SEC), including financial information contained in this Annual report on Form 20-F. The term 'IFRS-IASB' is used to refer to International Financial Reporting Standards as issued by the International Accounting Standards Board, including the decisions ING Group made with regard to the options available under IFRS-IASB.

The ING Group Consolidated financial statements have been prepared on a going concern basis.

The consolidated financial statements are presented in euros and rounded to the nearest million, unless stated otherwise. Amounts may not add up due to rounding.

1.3.1 Presentation of Risk management disclosures

To improve transparency, reduce duplication and present related information in one place, certain disclosures of the nature and extent of risks related to financial instruments required by IFRS 7 are now included in the "ING Group Risk management" section of the Annual Report.

These disclosures are an integral part of ING Group Consolidated financial statements and are indicated in the 'Risk management' section by the symbol (*). Chapters, paragraphs, graphs or tables within the risk management section that are indicated with this symbol in the respective headings or table header are considered to be an integral part of the consolidated financial statements.

1.3.2 Reconciliation between IFRS-EU and IFRS-IASB

The published 2019 Annual Accounts of ING Group are prepared in accordance with IFRS-EU. IFRS-EU refers to International Financial Reporting Standards ('IFRS') as adopted by the European Union (EU), including the decisions ING Group made with regard to the options available under IFRS as adopted by the EU. IFRS-EU differs from IFRS-IASB in respect of certain paragraphs in IAS 39 'Financial Instruments: Recognition and Measurement' regarding hedge accounting for portfolio hedges of interest rate risk.

Under IFRS-EU, ING Group applies fair value hedge accounting for portfolio hedges of interest rate risk (fair value macro hedges) in accordance with the EU carve-out version of IAS 39. Under the EU IAS 39 carve-out, hedge accounting may be applied, in respect of fair value macro hedges, to core deposits and hedge ineffectiveness is only recognised when the revised estimate of the amount of cash flows in scheduled time buckets falls below the original designated amount of that bucket and is not recognised when the revised amount of cash flows in scheduled time buckets is more than the original designated amount. Under IFRS-IASB, hedge accounting for fair value macro hedges cannot be applied to core deposits and ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket.

This information is prepared by reversing the hedge accounting impacts that are applied under the EU 'carve-out' version of IAS 39. Financial information under IFRS-IASB accordingly does not take account of the possibility that had ING Group applied IFRS-IASB as its primary accounting framework it might have applied alternative hedge strategies where those alternative hedge strategies could have qualified for IFRS-IASB compliant hedge accounting. These decisions could have resulted in different shareholders' equity and net result amounts compared to those indicated in this Annual Report on Form 20-F.

A reconciliation between IFRS-EU and IFRS-IASB is included below.
Both IFRS-EU and IFRS-IASB differ in several areas from accounting principles generally accepted in the United States of America (US GAAP).

Reconciliation net result under IFRS-EU and IFRS-IASB

		Net result	
	2019	2018	2017
In accordance with IFRS-EU	4,781	4,703	4,905
Adjustment of the EU IAS 39 carve-out	–1,181	148	817
Tax effect of the adjustment [1]	303	–90	–258
Effect of adjustment after tax	–878	58	559
In accordance with IFRS-IASB (attributable to the equityholders of the parent)	3,903	4,761	5,464
Non-controlling interests	99	108	82
In accordance with IFRS-IASB Total net result	**4,001**	**4,869**	**5,546**

[1] includes the effect of changes in tax rate.

Reconciliation shareholders' equity under IFRS-EU and IFRS-IASB

		Total Equity	
	2019	2018	2017
In accordance with IFRS-EU	53,769	50,932	50,406
Adjustment of the EU IAS 39 carve-out	–3,658	–2,460	–2,655
Tax effect of the adjustment	885	577	678
Effect of adjustment after tax	–2,773	–1,883	–1,977
Shareholders' equity	50,996	49,049	48,429
Non-controlling interests	893	803	715
In accordance with IFRS-IASB Total Equity	**51,889**	**49,851**	**49,144**

1.4 Changes to accounting policies

ING Group has consistently applied its accounting policies to all periods presented in these Consolidated financial statements, except for changes due to the introduction of IFRS 16 in 2019 and IFRS 9 in 2018. Comparatives were not restated when applying these Standards.

1.4.1 Changes in IFRS effective in 2019

ING Group changed its accounting policies in 2019 as a result of adopting IFRS 16 'Leases'.

The impact of the adoption of IFRS 16 is disclosed in paragraph 1.4.3 'Changes to accounting policies in 2019' of Note 1.

ING Group early adopted the amendments to IAS 39 'Financial Instruments: Recognition and Measurement' and IFRS 7 'Financial Instruments: Disclosures' in relation to the Interest Rate Benchmark Reform as issued by the IASB in September 2019. These amendments are early adopted retrospectively to hedging relationships that existed at the start of the reporting period or were designated thereafter. The amendments provide temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by IBOR reform. The amendments require certain additional disclosures and have no further impact. Refer to paragraph 1.6.5 of Note 1 and to Note 39 'Derivatives and hedge accounting' for more information on the adoption of these amendments.

The other changes in IFRS that became effective in 2019 did not have a significant impact on ING Group's accounting policies, ING Group's results or financial position:

- Annual Improvements to IFRS Standards 2015-2017 Cycle: Amendments to IFRS 3 'Business Combinations', IFRS 11 'Joint Arrangements', IAS 12 'Income Taxes', IAS 23 'Borrowing Costs' (issued on 12 December 2017);
- Amendments to IAS 19 'Employee Benefits': Plan Amendment, Curtailment or Settlement (issued on 7 February 2018);
- Amendments to IAS 28 'Investments in Associates and Joint Ventures': Long-term Interests in Associates and Joint Ventures (issued on 12 October 2017); and
- IFRIC 23 'Uncertainty over Income Tax Treatments' (issued on 7 June 2017).

The amendments to IFRS 9 'Financial Instruments': Prepayment Features with Negative Compensation and Modifications of Financial Liabilities (issued on 12 October 2017) were early adopted by ING Group in 2018.

Apart from the amendments to IAS 39 and IFRS 7 in relation to Interest Rate Benchmark Reform, ING Group has not early adopted any other standard, interpretation or amendment in 2019 which has been issued, but is not yet effective.

1.4.2 Upcoming changes in IFRS after 2019

The following published amendments are not mandatory for 2019 and have not been early adopted by ING Group. ING Group is still currently assessing the detailed impact of these amendments, however the implementation of these amendments is expected to have no significant impact on ING Group's Consolidated financial statements.

The list of upcoming changes to IFRS, which are applicable for ING Group:
<u>Effective in 2020:</u>

- Amendments to IFRS 3 'Business Combinations': Definition of a Business (issued on 22 October 2018);
- Amendments to IAS 1 and IAS 8: 'Definition of Material' (issued on 31 October 2018); and
- Amendments to References to the Conceptual Framework in IFRS Standards (issued on 29 March 2018).

<u>Effective in 2022:</u>

- Amendments to IAS 1 'Presentation of Financial Statements': Classification of Liabilities as Current or Non-current (issued on 23 January 2020).

The IASB has also issued IFRS 17 'Insurance Contracts'. The original effective date of IFRS 17 was 1 January 2021, but in June 2019 the IASB has published an Exposure Draft proposing 1 January 2022 as the new effective date. ING Group is currently assessing the detailed impact of IFRS 17.

1.4.3 Changes to accounting policies in 2019

IFRS 16 'Leases'

IFRS 16 'Leases' was issued by the IASB in January 2016. IFRS 16 replaces IAS 17 'Leases', IFRIC 4 'Determining whether an Arrangement contains a Lease', SIC-15 'Operating Leases- Incentives' and SIC-27 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'. ING Group has adopted IFRS 16 retrospectively from 1 January 2019, but has not restated comparatives for the 2018 and 2017 reporting periods, as permitted under the specific transitional provisions in the Standard, the so-called 'modified retrospective approach'. The reclassifications and the adjustments arising from the new leasing rules are therefore recognised in the opening statement of financial position on 1 January 2019.

IFRS 16 'Leases' – Impact of adoption

Transition

For lessee accounting, the new Standard removes the distinction between operating and finance leases. All leases are recognised on the statement of financial position with exemptions for short-term leases with a lease term of less than 12 months and leases of low-value assets (for example mobile phones or laptops).

There is no significant impact of the adoption of IFRS 16 on ING Group's Net Result, Comprehensive income and Shareholders' equity on transition. This follows ING Group's implementation decision where the value of the right-of-use asset is based on the value of the lease liability, adjusted for any previously recognised prepaid and/or accrued lease payments on that lease contract, as is permitted under the Standard.

On transition to IFRS 16, ING Group recognised lease liabilities of EUR 1,301 million and right-of-use assets of EUR 1,279 million equal to the lease liability adjusted for any previously recognised prepaid or accrued lease payments on that lease.

The weighted average incremental borrowing rate applied to lease liabilities recognised in the statement of financial position at the date of initial application is 2.47%.

The following table reconciles the future rental commitments for operating lease contracts under IAS 17 to the lease liability under IFRS 16 on transition to IFRS 16 as of 1 January 2019:

	1 January 2019
Future rental commitments for operating lease contract disclosed under IAS 17 as at 31 December 2018	1,378
(Less) discounting effect using ING's incremental borrowing rate at 1-1-2019	–108
(Less) recognition exemption for short-term leases	–16
(Less) recognition exemption for low value assets	–3
(Less) non-lease components of a contract	–78
Add extension and termination options reasonably certain to be exercised	143
(Less) variable lease payments based on an index or a rate	–15
Lease liability recognised under IFRS 16 at 1 January 2019	**1,301**

In applying IFRS 16 for the first time, ING Group has used the following practical expedients permitted by the Standard:

- Reliance on previous assessments whether a contract is, or contains a lease at the date of initial application;
- The use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- Reliance on previous assessments on whether leases are onerous;
- The accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases;
- The exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application; and
- The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

IFRS 16 ‘Leases’ – Accounting policies applied from 1 January 2019

ING Group as the lessee

A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a corresponding liability representing its obligation to make lease payments at the date at which the leased asset is available for use by ING Group. Each lease payment is allocated between the repayment of the liability and finance cost. The finance costs are charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset’s useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- Variable lease payments that are based on an index or a rate;
- Amounts expected to be payable by the lessee under residual value guarantees;
- The exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- Payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, the lessee’s incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions. This rate is approximated by using the risk free rate applicable to the lease term, the currency of the lease payment and jurisdiction, with the Fund Transfer Pricing (FTP) rate as an add-on. The FTP rate is used to transfer interest rate risk and funding and liquidity risk positions between the ING Group business and treasury departments. It is determined by either ING Group or Local Asset and Liability Committee (ALCO).

Right-of-use assets are measured at cost comprising the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date less any lease incentives received and any initial direct costs and restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise mainly IT-equipment (for example mobile phones or laptops) and small items of office furniture.

The right-of-use asset is included in the statement of financial position line-item ‘Property and equipment’, the lease liability is included in the statement of financial position line-item ‘Other liabilities’. Refer to Note 9 ‘Property and equipment’ and Note 17 ‘Other liabilities’.

Subsequently, the right-of-use asset will amortise using a straight-line method to the income statement over the life of the lease. The lease liability will subsequently increase for the accrual of interest and decrease when payments are made. Any remeasurement of the lease liability due to a lease modification or other reassessment result in a corresponding adjustment to the carrying amount of the right-of-use asset.

ING Group as the lessor

When ING Group acts as a lessor, a distinction should be made between finance leases and operating leases. For ING Group as a lessor these are mainly finance leases. The present value of the lease payments is recognised as a receivable under Loans and advances to customers or Loans and advances to banks. The difference between the gross receivable and the present value of the receivable is unearned finance lease income. Lease income is recognised over the term of the lease using the net investment method (before tax), which reflects a constant periodic rate of return.

Operating leases for lessees prior to 1 January 2019 under IAS 17

The comparative figures presented are accounted for using the previous Standard, IAS 17 ‘Leases’. Under this Standard a distinction was made between finance leases and operating leases. A lease was considered a finance lease if it transfers substantially all risks and rewards of the ownership of the asset. All other leases are operating leases.

Leases entered into by ING Group as a lessee were primarily operating leases. The total payments under operating leases were recognised in the statement of profit or loss on a straight-line basis over the period of the lease.

1.5 Significant judgements and critical accounting estimates and assumptions

The preparation of the consolidated financial statements requires management to make judgements in the process of applying its accounting policies and to use estimates and assumptions. The estimates and assumptions affect the reported amounts of the assets and liabilities and the amounts of the contingent assets and contingent liabilities at the balance sheet date, as well as reported income and expenses for the year. The actual outcome may differ from these estimates. The process of setting assumptions is subject to internal control procedures and approvals.

ING Group has identified areas that require management to make significant judgements and use critical accounting estimates and assumptions based on the information and financial data that may change in future periods. These areas are:

- The determination of the fair values of financial assets and liabilities;
- Loan loss provisions; and
- Provisions.

For further discussion of the significant judgements and critical accounting estimates and assumptions in these areas, reference is made to the relevant parts in paragraph 1.6 'Financial instruments', 1.17 'Provisions, contingent liabilities and contingent assets' of Note 1 and the applicable notes to the Consolidated financial statements.

1.6 Financial instruments

1.6.1 Recognition and derecognition of financial instruments

Recognition of financial assets

Financial assets are recognised in the balance sheet when ING becomes a party to the contractual provisions of the instrument. For a regular way purchase or sale of a financial asset, trade date and settlement date accounting is applied depending on the classification of the financial asset.

Derecognition of financial assets

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or where ING Group has transferred substantially all risks and rewards of ownership. If ING Group neither transfers nor retains substantially all the risks and rewards of ownership of a financial asset, it derecognises the financial asset if it no longer has control over the asset. The difference between the carrying amount of a financial asset that has been extinguished and the consideration received is recognised in profit or loss.

Recognition of financial liabilities

Financial liabilities are recognised on the date that the entity becomes a party to the contractual provisions of the instrument.

Derecognition of financial liabilities

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished and the consideration paid is recognised in profit or loss.

1.6.2 Classification and measurement of financial instruments

Financial assets

ING Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value (either through OCI, or through profit or loss); and
- those to be measured at amortised cost (AC).

At initial recognition, ING Group measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss (FVPL) are expensed in the statement of profit or loss.

Financial assets - Debt instruments

The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows at initial recognition.

Business models

Business models are classified as Hold to Collect (HtC), Hold to Collect and Sell (HtC&S) or Other depending on how a portfolio of financial instruments as a whole is managed. ING Group's business models are based on the existing management structure of the bank, and refined based on an analysis of how businesses are evaluated and reported, how their specific business risks are managed and on historic and expected future sales. Sales are permissible in a HtC business model when these are due to an increase in credit risk, take place close to the maturity date (where the proceeds from the sales approximate the collection of the remaining contractual cash flows), are insignificant in value (both individually and in aggregate) or are infrequent.

Contractual cash flows Solely Payments of Principal and Interest (SPPI)

The contractual cash flows of a financial asset are assessed to determine whether they represent SPPI. Interest includes consideration for the time value of money, credit risk and also consideration for liquidity risk and costs associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are SPPI.

In assessing whether the contractual cash flows are SPPI, ING Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making the assessment, terms such as the following are considered, with an example of an SPPI failure for each consideration:

- prepayment terms. For example a prepayment of an outstanding principal amount plus a penalty which is not capped to three or six months of interest;
- leverage features, which increase the variability of the contractual cash flows with the result that they do not have the economic characteristics of interest. An example is a Libor contract with a multiplier;
- terms that limit ING Group's claim to cash flows from specified assets - e.g. non-recourse asset arrangements. This could be the case if payments of principal and interest are met solely by the cash flows generated by the underlying asset, for example instances in real estate, shipping and aviation financing; and
- features that modify consideration of the time value of money. These are contracts with for example an interest rate which is reset every month to a one-year rate. ING Group performs either a qualitative or quantitative benchmark test on a financial asset with a modified time value of money element. A qualitative test is performed when it is clear with little or no analysis whether the contractual cash flows solely represent SPPI.

Based on the entity's business model for managing the financial assets and the contractual terms of the cash flows, there are three measurement categories into which ING Group classifies its debt instruments:

- *Amortised Cost (AC):*
  Debt instruments that are held for collection of contractual cash flows under a HtC business model where those cash flows represent SPPI are measured at AC. Interest income from these financial assets is included in Interest income using the EIR method. Any gain or loss arising on derecognition is recognised directly in profit or loss. Impairment losses are presented as a separate line item in the Consolidated statement of profit or loss.
- *FVOCI:*
  Debt instruments that are held for collection of contractual cash flows and for selling the financial assets under a HtC&S business model, where the assets' cash flows represent SPPI, are measured at FVOCI. Movements in the carrying amount are recognised in OCI, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and presented in Investment income or Other income, based on the specific characteristics of the business model. Interest income from these financial assets is included in Interest income using the EIR method. Impairment losses are presented as a separate line item in the Consolidated statement of profit or loss.
- *FVPL:*
  Debt instruments that do not meet the criteria for AC or FVOCI are measured at FVPL. This includes debt instruments that are held-for-trading (presented separately as Trading assets) and all other debt instruments that do not meet the criteria for AC or FVOCI (presented separately as Mandatorily at FVPL). ING Group may in some cases, on initial recognition, irrevocably designate a financial asset as classified and measured at FVPL. This is the case where doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise on assets measured at AC or FVOCI. Fair value movements on trading securities, trading loans and deposits (mainly reverse repo's) are presented fully within valuation result and net trading income, this also includes interest. The interest arising on financial assets designated as at FVPL is recognised in profit or loss and presented within Interest income or Interest expense in the period in which it arises. The interest arising on a debt instrument that is part of a hedge relationship, but not subject to hedge accounting, is recognised in profit or loss and presented within Interest income or Interest expense in the period in which it arises.

ING Group reclassifies debt investments when, and only when, its business model for managing those assets changes. Such changes in business models are expected to be very infrequent. There have been no reclassifications during the reporting period.

Financial assets - Equity instruments

All equity investments are measured at fair value. ING Group applies the fair value through OCI option to investments which are considered strategic, consisting of investments that add value to ING Group's core banking activities.

There is no subsequent recycling of fair value gains and losses to profit or loss following the derecognition of investments if elected to be classified and measured as FVOCI. Dividends from such investments continue to be recognised in profit or loss as Investment income when ING Group's right to receive payments is established. Impairment requirements are not applicable to equity investments classified and measured as FVOCI.

Other remaining equity investments are measured at FVPL. All changes in the fair value are recognised in Valuation result and Net trading income in the Consolidated statement of profit or loss.

Financial liabilities

Financial liabilities are classified and subsequently measured at AC, except for financial guarantee contracts, derivatives and liabilities designated at FVPL. Financial liabilities classified and measured at FVPL are presented as follows:

- the amount of change in the fair value that is attributable to changes in own credit risk of the liability designated at FVPL is presented in OCI. Upon derecognition this Debit Valuation Adjustment (DVA) impact does not recycle from OCI to profit or loss; and
- the remaining amount of change in the fair value is presented in profit or loss in 'Valuation results and net trading income'. Interest on financial liabilities at FVPL is also recognised in the valuation result, except for items voluntarily designated as FVPL for which interest is presented within 'Other interest income (expense).

A financial guarantee contract is a contract that requires ING Group to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. Such a contract is initially recognised at fair value and is subsequently measured at the higher of (a) the amount determined in accordance with impairment provisions of IFRS 9 (see section "Impairment of financial assets") and (b) the amount initially recognised less, when appropriate, cumulative amortisation recognised in accordance with the revenue recognition principle of IFRS 15.

1.6.3 Fair values of financial assets and liabilities

All financial assets and liabilities are recognised initially at fair value. Subsequently, except for financial assets and financial liabilities measured at amortised cost, all the other financial assets and liabilities are measured at fair value.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It assumes that market participants would use and take into account the characteristics of the asset or liability when pricing the asset or liability. Fair values of financial assets and liabilities are based on unadjusted quoted market prices where available. Such quoted market prices are primarily obtained from exchange prices for listed financial instruments. Where an exchange price is not available, quoted prices in an active market may be obtained from independent market vendors, brokers, or market makers. In general, positions are valued at the bid price for a long position and at the offer price for a short position or are valued at the price within the bid-offer spread that is most representative of fair value in the circumstances. In some cases where positions are marked at mid-market prices, a fair value adjustment is calculated.

For certain financial assets and liabilities, quoted market prices are not available. For such instruments, fair value is determined using valuation techniques. These range from discounting of cash flows to various valuation models, where relevant pricing factors including the market price of underlying reference instruments, market parameters (volatilities, correlations and credit ratings), and customer behaviour are taken into account. ING maximises the use of market observable inputs and minimises the use of unobservable inputs in determining the fair value. It can be subjective dependent on the significance of the unobservable input to the overall valuation. All valuation techniques used are subject to internal review and approval. Most data used in these valuation techniques are validated on a daily basis when possible.

When a group of financial assets and liabilities are managed on the basis of their net risk exposures, the fair value of a group of financial assets and liabilities are measured on a net portfolio level.

To include credit risk in fair value, ING applies both Credit and Debit Valuation Adjustments (CVA, DVA). Own issued debt and structured notes that are designated as measured at FVPL are adjusted for credit risk by means of a DVA. Additionally, derivatives valued at fair value are adjusted for credit risk by a CVA. The CVA is of a bilateral nature as both the credit risk on the counterparty as well as the credit risk on ING are included in the adjustment. All input data that is used in the determination of the CVA is based on market implied data. Additionally, wrong-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty deteriorates) and right-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty improves) are taken into account in the measurement of the valuation adjustment. ING applies an additional 'Funding Valuation Adjustment' (FVA) to the uncollateralised derivatives based on the market price of funding liquidity.

Significant judgements and critical accounting estimates and assumptions:
Even if market prices are available, when markets are less liquid there may be a range of prices for the same security from different price sources. Selecting the most appropriate price requires judgement and could result in different estimates of fair value.

Valuation techniques are subjective in nature and significant judgement is involved in establishing fair values for certain financial assets and liabilities. Valuation techniques involve various assumptions regarding pricing factors. The use of different valuation techniques and assumptions could produce significantly different estimates of fair value.

Price testing is performed to assess whether the process of valuation has led to an appropriate fair value of the position and to an appropriate reflection of these valuations in the statement of profit or loss. Price testing is performed to minimise the potential risks for economic losses due to incorrect or misused models.

Reference is made to Note 38 'Fair value of assets and liabilities' and Market risk paragraph in the 'Risk management' section of the Annual Report for the basis of the determination of the fair value of financial instruments and related sensitivities.

1.6.4 Credit risk management classification and maximum credit risk exposure

Credit risk management disclosures are provided in the Credit risk' paragraph 'Credit risk categories' of the 'Risk management' section in the Annual Report.

The maximum credit risk exposure for items in the statement of financial position is generally the carrying value for the relevant financial assets. For the off-balance sheet items the maximum credit exposure is the maximum amount that could be required to be paid. Reference is made to Note 45 'Contingent liabilities and commitments' for these off-balance sheet items. Collateral received is not taken into account when determining the maximum credit risk exposure.

The manner in which ING Group manages credit risk and determines credit risk exposures for that purpose is explained in the Credit risk paragraph 'Credit Risk Appetite and Concentration Risk Framework' of the 'Risk management' section in the Annual Report.

1.6.5 Derivatives and hedge accounting

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently measured at fair value. Fair values are obtained from quoted market prices in active markets, including market transactions and valuation techniques (such as discounted cash flow models and option pricing models), as appropriate. All derivatives are carried as assets when their fair value is positive and as liabilities when their fair value is negative. Fair value movements on derivatives are presented in profit or loss in Valuation result and net trading income, except for derivatives in either a formal hedge relationship and so-called economic hedges that are not in a formal hedge accounting relationship where a component is presented separately in interest result in line with ING's risk management strategy.

Embedded derivatives are separated from financial liabilities and other non-financial contracts and accounted for as a derivative if, and only if:
a) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract;

b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
c) the combined instrument is not measured at fair value with changes in fair value reported in profit or loss.

If an embedded derivative is separated, the host contract is accounted for as a similar free-standing contract.

The method of recognising the resulting fair value gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as hedges of the fair value of recognised assets or liabilities or firm commitments (fair value hedge), hedges of highly probable future cash flows attributable to a recognised asset or liability or a forecast transaction (cash flow hedge), or hedges of a net investment in a foreign operation. Hedge accounting is used for derivatives designated in this way provided certain criteria are met.

At the inception of the transaction ING Group documents the relationship between hedging instruments and hedged items, its risk management objective, together with the methods selected to assess hedge effectiveness. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of the hedged items.

ING Group applies also macro cash flow hedge accounting to hedge the variability in future cash flows of non-trading assets and liabilities due to the interest rate risk and foreign currency exchange rate risk. The designated hedged items are floating rated assets or liabilities, such as floating rate mortgages and corporate loans. The effective portion of changes in the fair value of the derivatives are recognised in the Other Comprehensive Income.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in the statement of profit or loss, together with fair value adjustments to the hedged item attributable to the hedged risk. If the hedge relationship no longer meets the criteria for hedge accounting, the cumulative adjustment of the hedged item is, in the case of interest bearing instruments, amortised through the statement of profit or loss over the remaining term of the original hedge or recognised directly when the hedged item is derecognised. For non-interest bearing instruments, the cumulative adjustment of the hedged item is recognised in the statement of profit or loss only when the hedged item is derecognised.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognised in the Other Comprehensive Income. The gain or loss relating to the ineffective portion is recognised immediately in the statement of profit or loss. Amounts accumulated in the Other Comprehensive Income are recycled to the statement of profit or loss in the periods in which the hedged item affects net result. When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the Other Comprehensive Income at that time remains in the Other Comprehensive Income and is recognised when the forecast transaction is ultimately recognised in the statement of profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in the Other Comprehensive Income is transferred immediately to the statement of profit or loss.

Net investment hedges

Hedges of net investments in foreign operations are accounted for in a similar way to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in the Other Comprehensive Income and the gain or loss relating to the ineffective portion is recognised immediately in the statement of profit or loss. Gains and losses accumulated in the Other Comprehensive Income are included in the statement of profit or loss when the foreign operation is disposed.

Specific policies applicable from 1 January 2019 for hedges directly affected by IBOR reform
ING Group early adopts the amendments as described in paragraph 1.4.1 'Changes in IFRS effective in 2019' of Note 1. The amendments provide temporary reliefs which enable hedge accounting to continue during the period of uncertainty before the replacement of an existing interest rate benchmark with an alternative nearly risk-free interest rate (an "RFR"). The following temporary reliefs are part of the amendment:

- Highly probable requirement for cash flow hedges
  When determining whether a forecast transaction is highly probable, it is assumed that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the reform.
- Prospective assessment of hedge effectiveness
  When performing the prospective assessment it is assumed that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the reform.
- Retrospective assessment of hedge effectiveness
  When performing the retrospective assessment hedges are allowed to pass the assessment even if actual results are outside the 80-125% range, during the period of uncertainty arising from the IBOR reform.
- Designation of a component of an item as a hedged item
  For hedges of the benchmark component of interest rate risk affected by the reform, the separately identifiable requirement only needs to be demonstrated at the inception of such hedging relationships (including macro hedges).

The amendments are relevant given that ING Group hedges and applies hedge accounting to benchmark interest rate exposure part of IBOR reform. Hedging instruments and hedged items continue to be indexed by the IBOR benchmark rates. Therefore, there is uncertainty over the timing and the amount of the replacement rate cash flows. ING Group will cease to apply the amendments when this uncertainty is no longer present or when the hedging relationship is discontinued.

Non-trading derivatives that do not qualify for hedge accounting

Derivative instruments that are used by the Group as part of its risk management strategies, but which do not qualify for hedge accounting under ING Group's accounting policies, are presented as non-trading derivatives. Non-trading derivatives are measured at fair value with changes in the fair value taken to the statement of profit or loss.

1.6.6 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset, and the net amount reported, in the statement of financial position when the Group has a current legally enforceable right to set off the recognised amounts and intends to either settle on a net basis or to realise the asset and settle the liability simultaneously. Offsetting is applied to certain interest rate swaps for which the services of a central clearing house are used.

1.6.7 Repurchase transactions and reverse repurchase transactions

Securities sold subject to repurchase agreements (repos), securities lending and similar agreements continue to be recognised in the consolidated statement of financial position. The counterparty liability is measured at FVPL (designated) and included in Other financial liabilities at FVPL if the asset is measured at FVPL. Otherwise, the counterparty liability is included in Deposits from banks, Customer deposits, or Trading, as appropriate.

Securities purchased under agreements to resell (reverse repos), securities borrowings and similar agreements are not recognised in the consolidated statement of financial position. The consideration paid to purchase securities is recognised as Loans and advances to customers, Loans and advances to banks, Other financial assets at FVPL or Trading assets, as appropriate. The difference between the sale and repurchase price is treated as interest and amortised over the life of the agreement using the effective interest method for instruments that are not measured at FVPL.

1.6.8 Impairment of financial assets (IFRS 9)

An ECL model is applied to on-balance sheet financial assets accounted for at AC and FVOCI such as loans, debt securities and lease receivables, as well as off-balance sheet items such as undrawn loan commitments, certain financial guarantees, and undrawn committed revolving credit facilities. Under the ECL model ING Group calculates the allowance for credit losses (loan loss provision, LLP) by considering on a discounted basis the cash shortfalls it would incur in various default scenarios for prescribed future periods and multiplying the shortfalls by the probability of each scenario occurring. The LLP is the sum of these probability-weighted outcomes and the ECL estimates are unbiased and include supportable information about past events, current conditions, and forecasts of future economic conditions. ING Group's approach leverages the existing regulatory capital models that use the Advanced Internal Ratings Based (AIRB) models for regulatory purposes.

Three stage approach

Financial assets are classified in any of the below 3 Stages at each reporting date. A financial asset can move between Stages during its lifetime. The Stages are based on changes in credit quality since initial recognition and defined as follows:

- Stage 1: 12 month ECL;

Financial assets that have not had a significant increase in credit risk since initial recognition (i.e. no Stage 2 or 3 triggers apply). Assets are classified as stage 1 upon initial recognition (with the exception of purchased or originated credit impaired (POCI) assets) and have a provision for ECL associated with the probability of default (PD) events occurring with the next 12 months (12 months ECL). For those financial assets with a remaining maturity of less than 12 months, a PD is used that corresponds to the remaining maturity;

- Stage 2: Lifetime ECL not credit impaired

Financial assets showing a significant increase in credit risk since initial recognition. A provision is made for the life time ECL representing losses over the life of the financial instrument (lifetime ECL); or

- Stage 3: Lifetime ECL credit impaired

Financial instruments that are credit impaired require a life time provision.

Significant increase in credit risk

ING Group established a framework, incorporating quantitative and qualitative indicators, to identify and assess significant increases in credit risk (SICR). This is used to determine the appropriate ECL Staging for each financial asset.

The main determinate of SICR is a quantitative test, whereby the lifetime PD of an asset at each reporting date is compared against its lifetime PD at the date of origination or purchase. If the delta is above pre-defined absolute or relative PD thresholds, then an asset is considered to have experienced a SICR, which is a trigger for movement between Stage 1 and Stage 2. In these instances, assets will cease reporting a 12 month ECL, and instead report a lifetime ECL. Assets can also return to Stage 1 if there is sufficient evidence that there has been a significant reduction in credit risk.

ING Group relies on a number of qualitative indicators to identify and assess SICR. These include:

- Forbearance status;
- Watch List status. Loans on the Watch List are individually assessed for Stage 2 classification;
- Intensive care management;
- Substandard Internal rating; and
- Arrears status.

Credit impaired financial assets (Stage 3)

Financial assets are assessed for credit-impairment at each reporting date and more frequently when circumstances warrant further assessment. Evidence of credit-impairment includes arrears of over 90 days on any material credit obligation, indications that the borrower is experiencing significant financial difficulty, a breach of contract, bankruptcy or distressed restructuring.

An asset that is in stage 3 will move back to stage 2 when, as at the reporting date, it is no longer considered to be credit-impaired. The asset will migrate back to stage 1 when its credit risk at the reporting date is no longer considered to have increased significantly since initial recognition.

Definition of default

ING Group has aligned the definition of credit impaired under IFRS 9 (Stage 3) with the definition of default for prudential purposes. This is also the definition used for internal risk management purposes.

Macroeconomic scenarios

ING has established a quarterly process whereby forward-looking macroeconomics scenarios and probability weightings are developed for ECL calculation purposes. ING Group applies data predominantly from a leading service provider enriched with the internal ING Group view. A baseline, up-scenario and a down-scenario are determined to reflect an unbiased and probability-weighted ECL amount. As a baseline scenario, ING Group applies the market-neutral view combining consensus forecasts for economic variables such as unemployment rates, GDP growth, house prices, commodity prices, and short-term interest rates. Applying market consensus in the baseline scenario ensures unbiased estimates of the expected credit losses.

The alternative scenarios are based on observed forecast errors in the past, adjusted for the risks affecting the economy today and the forecast horizon. The probabilities assigned are based on the likelihoods of observing the three scenarios and are derived from confidence intervals on a probability distribution. The forecasts for the economic variables are adjusted on a quarterly basis.

Measurement of ECL

ING Group applies a collective assessment method to measure ECL for performing (Stage 1), under-performing (Stage 2), and certain non-performing (Stage 3) assets. Other non-performing assets subject to ECL measurement apply the individual assessment method, and are all in Stage 3.

Collectively assessed assets (Stages 1 to 3)

This is a model-based approach that calculates ECL in a formula that is expressed simplistically as PD x EAD x LGD, adjusted for the time value of money. Assets that are collectively assessed are grouped on the basis of similar credit risk characteristics, taking into account loan type, industry, geographic location, collateral type, past due status and other relevant factors. These characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated.

For Stage 3 assets the PD equals 100% and the LGD and EAD represent a lifetime view of the losses based on characteristics of defaulted facilities.

To build the IFRS 9 models, ING Group's expected loss models (PD, LGD, EAD) used for regulatory and capital purposes have been adjusted by removing embedded prudential conservatism (such as floors) and converted through-the-cycle estimates to point-in-time estimates to support the calculation of collective-assessment ECL under IFRS 9. The models assess ECL on the basis of forward-looking macroeconomic forecasts and other inputs. For most financial assets, the expected life is limited to the remaining maturity. For overdrafts and certain revolving credit facilities, such as credit cards, the maturity is estimated based on historical data as these do not have a fixed term or repayment schedule.

Individually assessed assets (Stage 3)

ING Group estimates individual impairment provisions for individually significant credit impaired financial assets within Stage 3. Individual provisions are calculated using the discounted expected future cash flow method. To determine expected future cash flows, one or more scenarios are used. Each scenario is analysed based on the probability of occurrence and including forward looking information.

In determining the scenarios, all relevant factors impacting the future cash flows are taken into account. These include expected developments in credit quality, business and economic forecasts, and estimates of if/when recoveries will occur and taking into account ING's restructuring/recovery strategy.

The best estimate of ECL is calculated as the weighted-average of the shortfall (gross carrying amount minus discounted expected future cash flow using the original EIR) per scenario, based on best estimates of expected future cash flows. Recoveries can be from different sources including repayment of the loan, collateral recovery, asset sale etc. Cash flows from collateral and other credit enhancements are included in the measurement of the expected credit losses of the related financial asset when it is part of or integral to the contractual terms of the financial asset and the credit enhancement is not recognised separately. For the individual assessment, with granular (company or deal-specific) scenarios, specific factors can have a larger impact on the future cash flows than macroeconomic factors.

When a financial asset is credit-impaired, interest ceases to be recognised on the regular accrual basis, which accrues income based on the gross carrying amount of the asset. Rather, interest income is calculated by applying the original EIR to the AC of the asset, which is the gross carrying amount less the related loan loss provision.

Purchased or Originated Credit Impaired (POCI) assets

POCI assets are financial assets that are credit-impaired on initial recognition. Impairment on a POCI asset is determined based on lifetime ECL from initial recognition. POCI assets are recognised initially at an amount net of impairments and are measured at AC using a credit-adjusted effective interest rate. In subsequent periods any changes to the estimated lifetime ECL are recognised in profit or loss. Favourable changes are recognised as an impairment gain even if the lifetime ECL at the reporting date is lower than the estimated lifetime ECL at origination.

Modifications

In certain circumstances ING grants borrowers postponement and/or reduction of loan principal and/or interest payments for a temporary period of time to maximise collection opportunities, and if possible, avoid default, foreclosure, or repossession. When such postponement and/or reduction of loan principal and/or interest payments is executed based on credit concerns it is also referred to as forbearance (refer to the 'Risk Management' section of the Annual Report for more details). In such cases, the net present value of the postponement and/or reduction of loan and/or interest payments is taken into account in the determination of the appropriate level of impairment loss. If the forbearance results in a substantial modification of the terms of the loan, the original loan is derecognised and a new loan is recognised at its fair value at the modification date. ING Group determines whether there has been a substantial modification using both quantitative and qualitative factors.

Write-off and debt forgiveness

If there is no reasonable expectation of recovery and/or collectability of amounts due a write-off can occur. The following events can lead to a write-off:

- After a restructuring has been completed and there is a high improbability of recovery of part of the remaining loan exposure (including partial debt forgiveness);
- In a bankruptcy liquidation scenario;
- After divestment or sale of a credit facility at a discount;
- Upon conversion of a credit facility into equity; or

- ING Group releases a legal (monetary) claim it has on its customer.

When a loan is uncollectable, it is written off against the related loan loss provision. Subsequent recoveries of amounts previously written off are recognised in the statement of profit or loss.

Debt forgiveness (or debt settlement) involves write-off but additionally involves the forgiveness of a legal obligation, in whole or in part. This means that ING forfeits the legal right to recover the debt. As a result, the financial asset needs to be derecognised. Distinction is made in situations where ING ends the relationship with the client and situations where ING (partially) continues the financing of the client.

Presentation of ECL

Loss allowances for financial assets measured at AC are deducted from the gross carrying amount of the assets. For debt instruments at FVOCI, the loss allowance is recognised in OCI, instead of deducting the carrying amount of the asset. For impaired financial assets with drawn and undrawn components, ECL also reflects any credit losses related to the portion of the loan commitment that is expected to be drawn down over the remaining life of the instrument. The loss allowance on issued financial guarantee contracts, in scope of IFRS 9 and not measured at FVPL, are recognised as liabilities and presented in Other provisions. ECL are presented in profit or loss in Addition to loan loss provision.

Significant judgements and critical accounting estimates and assumptions:
Considerable management judgement is exercised in determining the amount of LLP for financial assets assessed on both a collective and an individual impairment basis. In particular, this judgement requires ING Group to make various assumptions about the risk of default, the subsequent expected loss rates in the event of default, and expected future cash flows. These assumptions are based on a combination of the Group's past history, existing market conditions and forward-looking estimates at the end of each reporting period. Changes in these assumptions may lead to changes in the LLP over time. Given they are subjective and complex in nature, and because the LLP and the underlying exposures subject to impairment assessment are material, these assumptions are considered critical accounting assumptions. The sensitivity of these assumptions is assessed in the credit risk section of the 'Risk Management' section in the Annual Report.

The critical accounting estimates and assumptions are:
The use of forward-looking macroeconomic scenarios in both collective and individual impairment assessments. Forward-looking macroeconomic scenarios are subjective and uncertain in nature. The process the Group follows involves using inputs from third party provider Oxford Economics (OE), and subjecting these to internal expert review and challenge to ensure the inputs used in the models reflect ING's view on the macro economy. Two internal groups, the Macroeconomics Scenarios Team and the Macroeconomics Scenarios Expert Panel, were established for this purpose. The latter team consists of senior management representatives from the Business, Risk and Finance. The use of alternate forward-looking macroeconomic scenarios can produce significantly different estimates of ECL. This is demonstrated in the sensitivity analysis in the 'Risk Management' section of the Annual Report, where the un-weighted ECL under each of the three scenarios for some significant portfolios is disclosed.

The probability weights applied to each of the three scenarios. This is a management judgement that ultimately requires estimation and consideration of the range of possibilities. This ensures consensus view on the likelihood of each scenario materializing is appropriately reflected in the weights applied by the Group for collective assessment ECL calculations. The sensitivity analysis in the 'Risk Management' section of the Annual Report discloses these weights used.

The significant judgements are:
The criteria for identifying a significant increase in credit risk. When determining whether the credit risk on a financial asset has increased significantly, ING Group considers reasonable and supportable information available to compare the risk of default occurring at reporting date with the risk of a default occurring at initial recognition of the financial asset. Whilst judgement is required in applying each financial asset with a PD rating, there is significant judgement used in

determining the stage allocation PD banding thresholds. The process of comparing a financial asset's PD with the PD banding thresholds determines its ECL stage. Assets in Stage 1 are allocated a 12 month ECL, and those in Stage 2 are allocated a lifetime ECL, and the difference is often significant. As such, the judgement made both in assigning financial asset PDs and in setting PD banding thresholds constitute a significant judgement. Analysis of the sensitivity associated with the assessment of significant increase in credit risk is presented in the 'Risk Management' section of the Annual Report.

The definition of default. Judgement is exercised in management's evaluation of whether there is objective evidence of impairment loss has been incurred for larger exposures. Management judgement is required in assessing evidence of credit-impairment.

1.7 Financial instruments, prior to 1 January 2018 under IAS 39

The following is applicable to periods prior to 1 January 2018 for financial instruments accounted for under IAS 39, to the extent not already discussed earlier in this section. The 2017 comparative period was not restated for the adoption of IFRS 9.

1.7.1 Classification and measurement of financial assets and financial liabilities (IAS 39)

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

Management will designate a financial asset or a financial liability as such only if this eliminates a measurement inconsistency, if the related assets and liabilities are managed on a fair value basis or classified as an embedded derivative as described below.

Interest income and expense from financial instruments classified at fair value through profit or loss is recognised in Interest income using the effective interest method (where applicable). The remaining changes in fair value of such instruments are recognised in Valuation results and net trading income in the statement of profit or loss. Dividend income from equity instruments classified at fair value through profit or loss is generally recognised in 'Valuation results and net trading income' in the statement of profit or loss when the dividend has been declared.

Embedded derivatives

Certain derivatives embedded in other contracts are measured as separate derivatives when their economic characteristics and risks are not closely related to those of the host contract, the host contract is not carried at fair value through profit or loss, and if a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative. These embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. An assessment is carried out when ING Group first becomes party to the contract. A reassessment is carried out only when there is a change in the terms of the contract that significantly modifies the expected cash flows.

Investments

Investments (including loans quoted in active markets) are classified either as held-to-maturity or available-for-sale. Investment debt securities and loans quoted in active markets with fixed maturity where management has both the intent and the ability to hold to maturity are classified as held-to-maturity. Investment securities and quoted loans intended to be held for an indefinite period of time, which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices, are classified as available-for-sale financial assets.

Available-for-sale financial assets

Available-for-sale financial assets include available-for-sale debt securities and available-for-sale equity securities. Available-for-sale financial assets are initially recognised at fair value plus transaction costs. For available-for-sale debt securities, the difference between cost and redemption value is amortised. Interest income is recognised using the effective interest method. Available-for-sale financial assets are subsequently measured at fair value. Interest income from debt securities classified as available-for-sale is recognised in Interest income in the statement of profit or loss. Dividend income from equity instruments classified as available-for-sale is recognised in Investment income in the statement of profit or loss when the dividend has been declared. Unrealised gains and losses arising from changes in the fair value are recognised in equity and are recycled to the statement of profit or loss as Investment income when the asset is disposed. Investments in prepayment sensitive securities such as Interest-Only and Principal-Only strips are generally classified as available-for-sale.

Held-to-maturity investments

Non-derivative financial assets with fixed or determinable payments and fixed maturity for which ING Group has the positive intent and ability to hold to maturity and which are designated by management as held-to-maturity assets are initially recognised at fair value plus transaction costs. Subsequently, they are carried at AC using the effective interest method less any impairment losses. Interest income from debt securities classified as held-to-maturity is recognised in Interest income in the statement of profit or loss using the effective interest method. Held-to-maturity investments include only debt securities.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially recognised at fair value plus transaction costs. Subsequently, they are carried at AC using the effective interest method less any impairment losses. Loans and receivables include Cash and balances with central banks, Loans and advances to banks, Loans and advances to customers, and some categories of Other assets and are reflected in these line items in the statement of financial position. Interest income from loans and receivables is recognised in Interest income in the statement of profit or loss using the effective interest method.

Impairments of financial assets at amortised cost (loan loss provisions) (IAS 39)

ING Group assesses periodically and at each balance sheet date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset, but before the balance sheet date, (a loss event) and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated. The following circumstances, among others, are considered objective evidence that a financial asset or group of assets is impaired:

- The borrower has sought or has been placed in bankruptcy or similar protection and this leads to the avoidance of or delays in repayment of the financial asset;
- The borrower has failed in the repayment of principal, interest, or fees and the payment failure has remained unsolved for a certain period;
- The borrower has demonstrated significant financial difficulty, to the extent that it will have a negative impact on the expected future cash flows of the financial asset;
- The credit obligation has been restructured for non-commercial reasons. ING Group has granted concessions, for economic or legal reasons relating to the borrower's financial difficulty, the effect of which is a reduction in the expected future cash flows of the financial asset; and
- Historical experience, updated for current events where necessary, provides evidence that a proportion of a group of assets is impaired although the related events that represent impairment triggers are not yet captured by ING Group's credit risk systems.

Losses expected as a result of future events, no matter how likely, are not recognised.

ING Group first assesses whether objective evidence of impairment (a loss event/trigger) exists individually for financial assets that are individually significant, and then individually or collectively for financial assets that are not individually significant. If ING Group determines that no objective evidence of impairment (a loss event/trigger) exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss on an asset carried at AC has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account (loan loss provision) and the amount of the loss is recognised in the statement of profit or loss under Addition to loan loss provision. If the asset has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the previously recognised impairment loss is reversed by adjusting the provision. The amount of the reversal is recognised in the statement of profit or loss.

Impairments on other debt instruments (Loans and held-to-maturity investments) are part of the loan loss provision as described above.

Impairment of AFS assets

At each balance sheet date, ING Group assesses whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the specific case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered in determining whether the assets are impaired. Significant and prolonged are interpreted on a case-by-case basis for specific equity securities; generally 25% and six months are used as triggers. If any objective evidence exists for available-for-sale debt and equity investments, the cumulative loss, measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in net result, is removed from equity and recognised in the statement of profit or loss. Impairment losses recognised on equity instruments can never be reversed. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in the statement of profit or loss, the impairment loss is reversed through the statement of profit or loss.

1.8 Consolidation

ING Group comprises ING Groep N.V. (the Parent Company), ING Bank N.V. and all other subsidiaries. Subsidiaries are entities controlled by ING Groep N.V. Control exists if ING Groep N.V. is exposed or has rights to variable returns and has the ability to affect those returns through the power over the investee. Control is usually achieved through situations including, but not limited to:

- Ownership, directly or indirectly, of more than half of the voting power;
- Ability to appoint or remove the majority of the board of directors;
- Power to govern operating and financial policies under statute or agreement; and
- Power over more than half of the voting rights through an agreement with other investors.

The existence and effect of potential voting rights that are currently exercisable or convertible are considered in assessing whether Group controls another entity.

For interests in structured entities, the existence of control requires judgement as these entities are designed so that voting or similar rights are not the dominant factor in deciding who controls the entity. This judgement includes, for example, the involvement in the design of the structured entity, contractual arrangements that give rights to direct the structured entities relevant activities and commitment to ensure that the structured entity operates as designed.

A list of principal subsidiaries is included in Note 48 'Principal subsidiaries'.

A list containing the information referred to in Section 379 (1), Book 2 of the Dutch Civil Code has been filed with the office of the Commercial Register of Amsterdam, in accordance with Section 379 (5), Book 2 of the Dutch Civil Code.

The results of the operations and the net assets of subsidiaries are included in the statement of profit or loss and the statement of financial position from the date control is obtained until the date control is lost. On disposal, the difference between the sales proceeds, net of directly attributable transaction costs, and the net assets is included in net result.

A subsidiary which ING Group has agreed to sell but is still legally owned by ING Group may still be controlled by ING Group at the balance sheet date and therefore, still be included in the consolidation. Such a subsidiary may be presented as a held for sale disposal group if certain conditions are met.

All intercompany transactions, balances and unrealised surpluses and deficits on transactions between group companies are eliminated. Where necessary, the accounting policies used by subsidiaries are changed to ensure consistency with group policies. In general, the reporting dates of subsidiaries are the same as the reporting date of ING Groep N.V.

ING Groep N.V. and its Dutch group companies are subject to legal restrictions regarding the amount of dividends they can pay to their shareholders. The Dutch Civil Code contains the restriction that dividends can only be paid up to an amount equal to the excess of the company's own funds over the sum of the paid-up capital and reserves required by law. Additionally, certain Group companies are subject to restrictions on the amount of funds they may transfer in the form of dividends, or otherwise, to the parent company.

Furthermore, in addition to the restrictions in respect of minimum capital requirements that are imposed by industry regulators in the countries in which the subsidiaries operate, other limitations exist in certain countries.

1.9 Segment reporting

An operating segment is a distinguishable component of the Group, engaged in providing products or services, whose operating results are regularly reviewed by the Executive Board of ING Group and the Management Board Banking (together the Chief Operating Decision Maker (CODM)) to make decisions about resources to be allocated to the segments and assess its performance. A geographical area is a distinguishable component of the Group engaged in providing products or services within a particular economic environment that is subject to risks and returns that are different from those of segments operating in other economic environments.

The CODM examines ING Group's performance both by line of business and geographic perspective and has identified five reportable segments by line of business and six by geographical area. The geographical analyses are based on the location of the office from which the transactions are originated.

1.10 Foreign currency translation

Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The Consolidated financial statements are presented in euros, which is Group's presentation currency.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rate prevailing at the date of the transactions. Exchange rate differences resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of profit or loss, except when deferred in equity as part of qualifying cash flow hedges or qualifying net investment hedges.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

Exchange rate differences on non-monetary items, measured at fair value through profit or loss, are reported as part of the fair value gain or loss. Non-monetary items are retranslated at the date fair value is determined. Exchange rate differences on non-monetary items measured at fair value through the revaluation reserve are included in the revaluation reserve in equity.

Exchange rate differences in the statement of profit or loss are generally included in 'Valuation results and net trading income'. Reference is made to Note 23 'Valuation results and net trading income', which discloses the amounts included in the statement of profit or loss. Exchange rate differences relating to the disposal of debt and FVPL equity securities are considered to be an inherent part of the capital gains and losses recognised in Investment income. As mentioned below, in Group companies relating to the disposals of group companies, any exchange rate difference deferred in equity is recognised in the statement of profit or loss in 'Result on disposal of group companies'. Reference is also made to Note 20 'Equity', which discloses the amounts included in the statement of profit or loss.

Group companies

The results and financial positions of all group companies that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities included in each statement of financial position are translated at the closing rate at the date of that statement of financial position;
- Income and expenses included in each statement of profit or loss are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- All resulting exchange rate differences are recognised in a separate component of equity.

On consolidation, exchange rate differences arising from the translation of a monetary item that forms part of the net investment in a foreign operation, and of borrowings and other instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold, the corresponding exchange rate differences are recognised in the statement of profit or loss as part of the gain or loss on sale.

Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the exchange rate prevailing at the balance sheet date.

1.11 Investments in associates and joint ventures

Associates are all entities over which the Group has significant influence but not control. Significant influence is the ability to participate in the financial and operating policies of the investee. It generally results from a shareholding of between 20% and 50% of the voting rights or through situations including, but not limited to one or more of the following:

- Representation on the board of directors;
- Participation in the policymaking process; and
- Interchange of managerial personnel.

Joint ventures are entities over which the Group has joint control. Joint control is the contractually agreed sharing of control over an arrangement or entity, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Joint control means that no party to the agreement is able to act unilaterally to control the activity of the entity. The parties to the agreement must act together to control the entity and therefore exercise the joint control.

Investments in associates and joint ventures are initially recognised at cost and subsequently accounted for using the equity method of accounting.

The Group's investment in associates and joint ventures (net of any accumulated impairment loss) includes goodwill identified on acquisition. The Group's share of its associates and joint ventures post-acquisition profits or losses is recognised in the statement of profit or loss, and its share of post-acquisition changes in reserves is recognised in equity. The cumulative post-acquisition changes are adjusted against the carrying amount of the investment. When the Group's share of losses in an associate or joint venture equals or exceeds its interest in the associate or joint venture, including any long-term interests in the associate like uncollateralised loans that are neither planned nor likely to be settled in the foreseeable future, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interest in the associates and joint ventures. Unrealised losses are also eliminated unless they provide evidence of an impairment of the asset transferred. Accounting policies of associates and joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group. The reporting dates of all significant associates and joint ventures are consistent with the reporting date of the Group.

1.12 Property and equipment

Property in own use

Land and buildings held for own use are stated at fair value at the balance sheet date. Increases in the carrying amount arising on revaluation of land and buildings held for own use are credited to the revaluation reserve in shareholders' equity. Decreases in the carrying amount that offset previous increases of the same asset are charged against the revaluation reserve directly in equity; all other decreases are charged to the statement of profit or loss. Increases that reverse a revaluation decrease on the same asset previously recognised in net result are recognised in the statement of profit or loss. Depreciation is recognised based on the fair value and the estimated useful life (in general 20–50 years). Depreciation is calculated on a straight-line basis. On disposal, the related revaluation reserve is transferred to retained earnings.

The fair values of land and buildings are based on regular appraisals done by independent qualified valuers or by internal valuers, similar to appraisals of real estate investments. Subsequent expenditure is included in the asset's carrying amount when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably.

Equipment

Equipment is stated at cost less accumulated depreciation and any impairment losses. The cost of the assets is depreciated on a straight line basis over their estimated useful lives, which are generally as follows: for data processing equipment two to five years, and four to ten years for fixtures and fittings. Expenditure incurred on maintenance and repairs is recognised in the statement of profit or loss as incurred. Expenditure incurred on major improvements is capitalised and depreciated.

Disposals of property and equipment

The difference between the proceeds on disposal and net carrying value is recognised in the statement of profit or loss under Other income.

1.13 Acquisitions, goodwill and other intangible assets

Acquisitions and goodwill

ING Group's acquisitions are accounted for using the acquisition method of accounting. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of exchange) of assets given, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree. Goodwill, being the difference between the cost of the acquisition (including assumed debt) and the Group's interest in the fair value of the acquired assets, liabilities and contingent liabilities as at the date of acquisition, is capitalised as an intangible asset. Goodwill is only recognised separately on acquisitions. The results of the operations of the acquired companies are included in the statement of profit or loss from the date control is obtained.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value. Contingent consideration arrangements classified as an asset or a liability, are subsequently measured at fair value and the changes in fair value will be recognised in the statement of profit or loss. Changes in the fair value of the contingent consideration classified as equity, are not recognised.

Where a business combination is achieved in stages, ING Group's previously held interests in the assets and liabilities of the acquired entity are remeasured to fair value at the acquisition date (i.e. the date ING Group obtains control) and the resulting gain or loss, if any, is recognised in the statement of profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to the statement of profit or loss, where such treatment would be appropriate if that interest were disposed of. Acquisition related costs are recognised in the statement of profit or loss as incurred and presented in the statement of profit or loss as Other operating expenses.

The initial accounting for the fair value of the net assets of the companies acquired during the year may be determined only provisionally as the determination of the fair value can be complex and the time between the acquisition and the preparation of the Financial statements can be limited. The initial accounting shall be completed within a year after acquisition. Adjustments to the fair value as at the date of acquisition of acquired assets and liabilities, that are identified within one year after acquisition are recognised as an adjustment to goodwill; any subsequent adjustment is recognised as income or expense. On disposal of group companies where control is lost, the difference between the sale proceeds and carrying value (including goodwill) and the unrealised results (including the currency translation reserve in equity) is included in the statement of profit or loss.

Goodwill impairment

ING assesses at each reporting period, whether there is an indication that an intangible asset may be impaired. Irrespective of whether there is an indication of impairment, intangible assets with an indefinite useful life, including goodwill acquired in a business combination, and intangible assets not yet available for use, are tested annually for impairment. Goodwill is allocated to groups of CGUs (that is, the group of cash generating units or CGUs) for the purpose of impairment testing. These groups of CGUs represent the lowest level at which goodwill is monitored for internal management purposes. Goodwill is tested for impairment by comparing the carrying value of the group of CGUs to the recoverable amount of that group of CGUs. The carrying value is determined as the IFRS net asset value including goodwill. In compliance with IAS 36 'Impairment of assets', the carrying value is determined on a basis that is consistent with the way in which the recoverable amount of the CGU is determined. When the carrying values need to be allocated between Retail and Wholesale solvency (risk-weighted assets) are used as a basis. The recoverable amount is estimated as the higher of fair value less costs of disposal and value in use. Several methodologies are applied to arrive at the best estimate of the recoverable amount. Impairment of goodwill, if applicable, is included in the statement of profit or loss in Other operating expenses.

Computer software

Computer software that has been purchased or generated internally for own use is stated at cost less amortisation and any impairment losses. Amortisation is calculated on a straight-line basis over its useful life. This period will generally not exceed five years. Amortisation is included in Other operating expenses.

Other intangible assets
Other intangible assets are capitalised and amortised over their expected economic life, which is generally between three and ten years. Intangible assets with an indefinite life are not amortised.

1.14 Taxation
Income tax on the result for the year comprises current and deferred tax. Income tax is recognised in the statement of profit or loss but it is recognised directly in equity if the tax relates to items that are recognised directly in equity.

Deferred income tax
Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled. Deferred tax assets and liabilities are not discounted.

Deferred tax assets are recognised where it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax is provided on temporary differences arising from investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the difference will not reverse in the foreseeable future. The tax effects of income tax losses available for carry forward are recognised as an asset where it is probable that future taxable profits will be available against which these losses can be utilised.

Fair value remeasurement of debt and equity instruments measured at FVOCI and cash flow hedges are recognised directly in equity. Deferred tax related to this fair value remeasurement is also recognised directly in equity and is subsequently recognised in the statement of profit or loss together with the deferred gain or loss.

Uncertain tax positions are assessed continually by ING Group and in case it is probable that there will be a cash outflow; a current tax liability is recognised.

1.15 Other assets

Investment property
Investment properties are recognised at fair value at the balance sheet date. Changes in the carrying amount resulting from revaluations are recognised in the statement of profit or loss. On disposal, the difference between the sale proceeds and carrying value is recognised in the statement of profit or loss.

Property obtained from foreclosures
Property obtained from foreclosures is stated at the lower of cost and net realisable value. Net realisable value is the estimated selling price, less applicable variable selling expenses. Property obtained from foreclosures is included in Other assets - Property development and obtained from foreclosures.

Property development
Property developed and under development is included in Other assets – Property development and obtained from foreclosures. Depending on the intention of ING Group after completion of the development, the property is measured as follows:
Intention to sell: at the lower of cost and net realisable value;
Intention to use as a real estate investment: at fair value.

1.16 Disposal groups held for sale and discontinued operations

Disposal groups (and groups of non-current assets) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This is only the case when the sale is highly probable and the disposal group (or group of assets) is available for immediate sale in its present condition; management must be committed to the sale, which is expected to occur within one year from the date of classification as held for sale.

Upon classification as held for sale, the disposal group is measured at the lower of its carrying amount and fair value less costs to sell, except where specifically exempt from IFRS 5. An impairment loss is recognised for any initial or subsequent write-down of the disposal group to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of the disposal group, but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the disposal group is recognised at the date of derecognition. Assets within the disposal group are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised. The assets of the disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

When a group of assets that is classified as held for sale represents a major line of business or geographical area the disposal group is classified as discontinued operations. Upon classification of a business as held for sale and discontinued operations the individual income and expenses are presented within the Total net result from discontinued operations instead of being presented in the usual line items in the Consolidated statement of profit or loss. All comparative years in the Consolidated statement of profit or loss are restated and presented as discontinued operations for all periods presented. Furthermore, the individual assets and liabilities are presented in the Consolidated statement of financial position as Assets and liabilities held for sale and are no longer included in the usual line items in the Consolidated statement of financial position. Changes in assets and liabilities as a result of classification as held for sale are included in the notes in the line 'Changes in composition of the group and other changes'.

1.17 Provisions, contingent liabilities and contingent assets

A provision is a present obligation arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits, however the timing or the amount is uncertain. Provisions are discounted when the effect of the time value of money is significant using a pre-tax discount rate.

Reorganisation provisions include employee termination benefits when the Group is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal, or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

A liability is recognised for a levy when the activity that triggers payment, as identified by the relevant legislation, occurs. For a levy that is triggered upon reaching a minimum threshold, the liability is recognised only upon reaching the specified minimum threshold.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of ING Group; or a present obligation that arises from past events but is not recognised because it is either not probable that an outflow of economic benefits will be required to settle the obligation or the amount of the obligation cannot be measured reliably. Contingent liabilities are not recognised in the statement of financial position, but are rather disclosed in the notes unless the possibility of the outflow of economic benefits is remote.

A contingent asset is a possible asset that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of ING Group. Contingent assets are recognised in the statement of financial position only when realisation of the income that arises from such an asset is virtually certain. Contingent assets are disclosed in the notes when an inflow of economic benefits is probable.

Significant judgements and critical accounting estimates and assumptions:
The recognition and measurement of provisions is an inherently uncertain process involving using judgement to determine when a present obligation exists and estimates regarding probability, amounts and timing of cash flows.

ING Group may become involved in legal proceedings. The degree of uncertainty and the method of making the accounting estimate depends on the individual case, its nature and complexity. Legal cases are usually one of a kind. Judgement is required to estimate the probability of an unfavourable outcome and the amount of potential loss. For the assessment of litigation provisions ING Group consults with legal experts. Even taking into consideration legal experts' advice, the probability of an outflow of economic benefits can still be uncertain and the amount provisioned can remain sensitive to the assumptions used which may have a broad range of outcomes. Reference is made to Note 16 'Provisions'. For legal proceedings where it is not possible to make a reliable estimate of the expected financial effect, that could result from the ultimate resolution of the proceedings, no provision is recognised, however disclosure is included in the financial statements. Reference is made to Note 46 'Legal proceedings'.

Critical accounting estimates and assumptions for the reorganisation provision are in estimating the amounts and timing of cash flows as the announced transformation initiatives are implemented over a period of several years. Reference is made to Note 16 'Provisions'.

1.18 Other liabilities

Defined benefit plans

The net defined benefit asset or liability recognised in the statement of financial position in respect of defined benefit pension plans is the fair value of the plan assets less the present value of the defined benefit obligation at the balance sheet date.

Plan assets are measured at fair value at the balance sheet date. For determining the pension expense, the return on plan assets is determined using a high quality corporate bond rate identical to the discount rate used in determining the defined benefit obligation.

Changes in plan assets that effect Shareholders' equity and/or Net result, include mainly:

- Return on plan assets using a high quality corporate bond rate at the start of the reporting period which are recognised as staff costs in the statement of profit or loss; and
- Remeasurements which are recognised in Other comprehensive income (equity).

The defined benefit obligation is calculated by internal and external actuaries through actuarial models and calculations using the projected unit credit method. This method considers expected future payments required to settle the obligation resulting from employee service in the current and prior periods, discounted using a high quality corporate bond rate. Inherent in these actuarial models are assumptions including discount rates, rates of increase in future salary and benefit levels, mortality rates, consumer price index and the expected level of indexation. The assumptions are based on available market data as well as management expectations and are updated regularly. The actuarial assumptions may differ significantly from the actual results due to changes in market conditions, economic and mortality trends, and other assumptions. Any changes in these assumptions could have a significant impact on the defined benefit plan obligation and future pension costs.

Changes in the defined benefit obligation that effects Shareholders' equity and/or Net result, include mainly:

- Service cost which are recognised as staff costs in the statement of profit or loss;
- Interest expenses using a high quality corporate bond rate at the start of the period which are recognised as staff costs in the Statement of profit or loss; and
- Remeasurements which are recognised in Other comprehensive income (equity).

Remeasurements recognised in other comprehensive income are not recycled to profit or loss. Any past service cost relating to a plan amendment is recognised in profit or loss in the period of the plan amendment. Gains and losses on curtailments and settlements are recognised in the statement of profit or loss when the curtailment or settlement occurs.

The recognition of a net defined benefit asset in the Consolidated statement of financial position is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

Defined contribution plans

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as staff expenses in the profit or loss when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Other post-employment obligations

Some group companies provide other post-employment benefits to certain employees and former employees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using an accounting methodology similar to that for defined benefit pension plans.

1.19 Income recognition

Interest

Interest income and expense are recognised in the statement of profit or loss using the effective interest method. The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument (for example, prepayment options) but does not consider future credit losses.

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. Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Interest results on instruments classified at Amortised Cost, assets measured at FVOCI and derivatives in a formal hedge accounting relationship is presented in 'Interest income (expense) using effective interest rate method'. Interest result on financial assets and liabilities voluntarily designated as at FVPL and derivatives in so called economic hedges and instruments designated at fair value are presented in 'Other interest income (expense)'. Interest result on all other financial assets and liabilities at FVTPL is recognised in 'Valuation results and net trading income'.

Fees and commissions

Fees and commissions are generally recognised as the service is provided. Loan commitment fees for loans that are likely to be drawn down are deferred (together with related direct costs) and recognised as an adjustment to the effective interest rate on the loan. Loan syndication fees are recognised as income when the syndication has been completed and the Group has retained no part of the loan package for itself or has retained a part at the same effective interest rate as the other participants. Commission and fees arising from negotiating, or participating in the negotiation of, a transaction for a third party – such as the arrangement of the acquisition of shares or other securities or the purchase or sale of businesses – are recognised on completion of the underlying transaction. Portfolio and other management advisory and service fees are recognised based on the applicable service contracts as the service is provided. Asset management fees related to investment funds and investment contract fees are recognised on a pro-rata basis over the period the service is provided. The same principle is applied for wealth management, financial planning and custody services that are continuously provided over an extended period of time. Fees received and paid between banks for payment services are classified as commission income and expenses.

Lease income

The proceeds from leasing out assets under operating leases are recognised on a straight-line basis over the life of the lease agreement. Lease payments received in respect of finance leases when ING Group is the lessor are divided into an interest component (recognised as interest income) and a repayment component.

1.20 Expense recognition

Expenses are recognised in the statement of profit or loss as incurred or when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability has arisen that can be measured reliably. Fee and commission expenses are generally a result from a contract with ING service providers in order to perform the service for ING Group's customers. Costs are generally presented as 'Commission expenses' if they are specific, incremental, directly attributable and identifiable to generate commission income.

Share-based payments

Share-based payment expenses are recognised as a staff expense over the vesting period. A corresponding increase in equity is recognised for equity-settled share-based payment transactions. A liability is recognised for cash-settled share-based payment transactions. The fair value of equity-settled share-based payment transactions are measured at the grant date, and the fair value of cash-settled share-based payment transactions are measured at each balance sheet date. Rights granted will remain valid until the expiry date, even if the share based payment scheme is discontinued. The rights are subject to certain conditions, including a pre-determined continuous period of service.

1.21 Earnings per ordinary share

Earnings per ordinary share is calculated on the basis of the weighted average number of ordinary shares outstanding. In calculating the weighted average number of ordinary shares outstanding:

- Own shares held by group companies are deducted from the total number of ordinary shares in issue;
- The computation is based on daily averages; and
- In case of exercised warrants, the exercise date is taken into consideration.

The non-voting equity securities are not ordinary shares, because their terms and conditions (especially with regard to coupons and voting rights) are significantly different. Therefore, the weighted average number of ordinary shares outstanding during the period is not impacted by the non-voting equity securities.

Diluted earnings per share data are computed as if all convertible instruments outstanding at year-end were exercised at the beginning of the period. It is also assumed that ING Group uses the assumed proceeds thus received to buy its own shares against the average market price in the financial year. The net increase in the number of shares resulting from the exercise is added to the average number of shares used to calculate diluted earnings per share.

Share options with fixed or determinable terms are treated as options in the calculation of diluted earnings per share, even though they may be contingent on vesting. They are treated as outstanding on the grant date. Performance-based employee share options are treated as contingently issuable shares because their issue is contingent upon satisfying specified conditions in addition to the passage of time.

1.22 Statement of cash flows

The statement of cash flows is prepared in accordance with the indirect method, classifying cash flows as cash flows from operating, investing and financing activities. In the net cash flow from operating activities, the result before tax is adjusted for those items in the statement of profit or loss and changes in items per the statement of financial position, which do not result in actual cash flows during the year.

For the purposes of the statement of cash flows, Cash and cash equivalents comprise balances with less than three months' maturity from the date of acquisition, including cash and balances with central banks, treasury bills and other eligible bills, amounts due from other banks, and deposits from banks. Investments qualify as a cash equivalent if they are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Cash flows arising from foreign currency transactions are translated into the functional currency using the exchange rates at the date of the cash flows.

The net cash flow shown in respect of Loans and advances to customers relates only to transactions involving actual payments or receipts. The Addition to loan loss provision which is deducted from the item Loans and advances to customers in the statement of financial position has been adjusted accordingly from the result before tax and is shown separately in the statement of cash flows.

The difference between the Net cash flow in accordance with the statement of cash flows and the change between the opening and closing balance of Cash and cash equivalents in the statement of financial position is due to exchange rate differences and is presented separately in the cash flow statement.

Liabilities arising from financing activities are debt securities and subordinated loans.

Assets

2 Cash and balances with central banks

Cash and balances with central banks

	2019	2018
Amounts held at central banks	51,178	47,655
Cash and bank balances	2,024	2,333
	53,202	**49,987**

The movement in Cash and balances with central banks reflects ING's active liquidity management. Amounts held at central banks reflect on demand balances.

Reference is made to Note 42 'Assets not freely disposable' for restrictions on Cash balances with central banks.

3 Loans and advances to banks

Loans and advances to banks

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Loans	13,641	7,967	21,499	22,460	35,140	30,428
Cash advances, overdrafts and other balances	0	1	4	3	5	3
	13,641	**7,968**	**21,504**	**22,463**	**35,145**	**30,431**
Loan loss provisions	-6	-5	-3	-5	-9	-9
	13,635	**7,963**	**21,501**	**22,458**	**35,136**	**30,422**

Reference is made to Note 42 'Assets not freely disposable' for restrictions on Loans and advances to banks.
Loans include balances (mainly short-term deposits) with central banks amounting to EUR 3,185 million (2018: EUR 4,713 million).

As at 31 December 2019, Loans include receivables related to securities in reverse repurchase transactions amounting to EUR 8,943 million (2018: EUR 6,686 million) and receivables related to finance lease contracts amounting to EUR 24 million (2018: EUR 51 million). Reference is made to Note 7 'Loans and advances to customers' for information on finance lease receivables.

As at 31 December 2019, all loans and advances to banks are non-subordinated.

4 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

	2019	2018
Trading assets	49,254	50,152
Non-trading derivatives	2,257	2,664
Designated at fair value through profit or loss	3,076	2,887
Mandatorily measured at fair value through profit or loss	41,600	64,783
	96,187	**120,486**

Financial assets at fair value through profit or loss includes securities lending and sales and repurchase transactions which were not derecognised, because ING Group continues to be exposed to substantially all risks and rewards of the transferred financial asset. These assets are included in Trading assets and Financial assets mandatorily measured at fair value through profit or loss. Reference is made to Note 43 'Transfer of financial assets' for information on transferred assets which were not derecognised.

Trading assets

Trading assets by type

	2019	2018
Equity securities	8,499	8,898
Debt securities	6,256	5,213
Derivatives	21,694	22,110
Loans and receivables	12,806	13,931
	49,254	**50,152**

Trading assets include assets that are classified under IFRS as Trading, but are closely related to servicing the needs of the clients of ING Group. ING offers institutional clients, corporate clients, and governments, products that are traded on the financial markets.
A significant part of the derivatives in the trading portfolio is related to servicing corporate clients in their risk management to hedge for example currency or interest rate exposures. In addition, ING provides its customers access to equity and debt markets for issuing their own equity or debt securities (securities underwriting). Although these are presented as Trading under IFRS, these are directly related to services to ING's customers.

Part of the trading assets are sold subject to repurchase agreements, securities lending and similar agreements comparable to collateralised lending, and continue to be recognised in the consolidated statement of financial position.
From a risk perspective, the gross amount of trading assets must be considered together with the gross amount of trading liabilities, which are presented separately on the statement of financial position since IFRS does not always allow netting of these positions in the statement of financial position.

As at 31 December 2019, Trading Assets - Loans and receivables include receivables of EUR 11,969 million (2018: EUR 12,939 million) with regard to reverse repurchase transactions.

Reference is made to Note 15 'Financial liabilities at fair value through profit or loss' for information on trading liabilities.

Non-trading derivatives

Non-trading derivatives by type

	2019	2018
Derivatives used in		
- fair value hedges	524	650
- cash flow hedges	677	1,012
- hedges of net investments in foreign operations	23	41
Other non-trading derivatives	1,033	961
	2,257	**2,664**

Reference is made to Note 39 'Derivatives and hedge accounting' for information on derivatives used in hedge accounting.

Other non-trading derivatives mainly includes interest rate swaps and foreign exchange currency swaps for which no hedge accounting is applied.

Designated at fair value through profit or loss

Designated at fair value through profit or loss by type

	2019	2018
Debt securities	2,334	2,114
Loans and receivables	742	772
	3,076	**2,887**

'Financial assets designated at fair value through profit or loss' includes a portfolio of loans and receivables which is economically hedged by credit derivatives. The hedges do not meet the criteria for hedge accounting and the loans are recorded at fair value to avoid an accounting mismatch. The maximum credit exposure of the loans and receivables included in 'Financial assets designated at fair value through profit or loss' approximates its carrying value. The cumulative change in fair value of the loans attributable to changes in credit risk is not significant.

The notional value of the related credit derivatives is EUR 1,672 million (2018: EUR 1,364 million). The change in fair value of the credit derivatives attributable to changes in credit risk since the loans were first designated, amounts to EUR 29 million (2018: EUR -23 million) and the change for the current year amounts to EUR -52 million (2018: EUR 17 million).

The changes in fair value of the (designated) loans attributable to changes in credit risk have been calculated by determining the changes in credit spread implicit in the fair value of bonds issued by entities with similar credit characteristics.

Mandatorily at fair value through profit or loss

Mandatorily at fair value through profit or loss by type

	2019	2018
Equity securities	159	210
Debt securities	733	1,103
Loans and receivables	40,708	63,469
	41,600	**64,783**

None of the equity securities are individually significant for ING Group.

For details on ING Group's total exposure to debt securities reference is made to Note 6 'Securities at amortised cost'.

As at 31 December 2019, Loans and receivables mandatorily measured at fair value through profit or loss includes EUR 38,985 million (2018: EUR 63,022 million) with regard to reverse repurchase transactions.

5 Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income by type

	2019	2018
Equity securities	2,306	3,228
Debt securities[1]	30,483	25,616
Loans and advances[1]	1,680	2,379
	34,468	**31,223**

1 Debt securities include an amount of EUR -7 million (2018: EUR -6 million) and the Loans and advances includes EUR -3 million (2018: EUR -5 million) of Loan loss provisions.

Exposure to equity securities

Equity securities designated as at fair value through other comprehensive

	Carrying value	Dividend income	Carrying value	Dividend income
	2019	2019	2018	2018
Investment in Bank of Beijing	2,001	93	1,967	83
Investment in Kotak Mahindra Bank	–	–	919	1
Other Investments	305	18	342	8
	2,306	**111**	**3,228**	**92**

For strategic equity securities, ING decided to apply the option to irrevocably designate these investments at fair value through other comprehensive income, instead of the IFRS 9 default measurement of fair value through profit or loss.

As at 31 December 2019 ING holds approximately 13% (2018: 13%) of the shares of Bank of Beijing, a bank listed on the stock exchange of Shanghai. Following a change in regulatory requirements set by China Banking and Insurance Regulatory Commission, ING, as a shareholder holding more than 5% or more of the shares, is required to supply additional capital when necessary. No request for additional capital was received in 2019 (2018: not applicable).

The following table presents changes in financial assets at fair value through other comprehensive income.

Changes in fair value through other comprehensive income financial assets

	FVOCI equity securities		FVOCI debt instruments[1]		Total	
	2019	2018	2019	2018	2019	2018
Opening balance as at 1 January	3,228	3,983	27,995	65,747	31,223	69,730
Effect of change in accounting policy due to the implementation of IFRS 9		–184		–31,945		–32,129
Additions	11	33	16,259	10,486	16,270	10,518
Amortisation			–12	–12	–12	–12
Transfers and reclassifications	3	1	–0	1	3	2
Changes in unrealised revaluations[2]	139	–463	258	–660	397	–1,123
Impairments			–2		–2	
Reversals of impairments			1	16	1	16
Disposals and redemptions	–1,091	–178	–12,298	–15,478	–13,389	–15,656
Exchange rate differences	15	35	–40	–159	–25	–124
Changes in the composition of the group and other changes		0	2	1	3	1
Closing balance	**2,306**	**3,228**	**32,163**	**27,995**	**34,468**	**31,223**

1 Fair value through other comprehensive income debt instruments includes both debt securities and loans and advances.
2 Changes in unrealised revaluations include changes on hedged items which are recognised in the statement of profit or loss.

Following a partial divestment in the fourth quarter of 2018, ING sold its last tranche of shares in India's Kotak Mahindra Bank (Kotak) in the first quarter of 2019 for EUR 880 million. The transaction, for a stake of 3.07%, concluded the divestment process and was the main driver for the increase in the 'disposal' line.

Reference is made to Note 6 'Securities at amortised cost' for details on ING Group's total exposure to debt securities.

6 Securities at amortised cost

Securities at amortised cost fully consist of Debt securities.

ING Group's exposure to debt securities is included in the following lines in the statement of

Exposure to debt securities

	2019	2018
Debt securities at fair value through other comprehensive income	30,483	25,616
Debt securities at amortised cost	46,108	47,276
Debt securities at fair value through other comprehensive income and amortised cost	**76,592**	**72,893**
Trading assets	6,256	5,213
Debt securities at fair value through profit or loss	3,067	3,218
Total debt securities at fair value through profit or loss	**9,323**	**8,431**
	85,914	**81,323**

ING Group's total exposure to debt securities (excluding debt securities held in the trading portfolio) of EUR 79,659 million (31 December 2018: EUR 76,111 million) is specified as follows:

Debt securities by type of exposure

	Debt Securities at FVPL		Debt Securities at FVOCI		Debt Securities at AC		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Government bonds	408	142	20,300	15,580	25,627	24,659	46,334	40,381
Sub-sovereign, Supranationals and Agencies	505	467	6,606	5,928	10,689	11,244	17,801	17,639
Covered bonds			1,734	2,245	6,960	6,722	8,693	8,967
Corporate bonds	–	23	476	485	143	765	619	1,273
Financial institutions' bonds	1,440	1,527	332	460	1,536	2,415	3,308	4,402
ABS portfolio	714	1,059	1,043	924	1,163	1,483	2,920	3,466
	3,067	**3,218**	**30,491**	**25,622**	**46,118**	**47,288**	**79,676**	**76,128**
Loan loss provisions			-7	-6	-10	-11	-17	-17
Bond portfolio	**3,067**	**3,218**	**30,483**	**25,616**	**46,108**	**47,276**	**79,659**	**76,111**

Approximately 90% (2018: 99%) of the exposure in the ABS portfolio is externally rated AAA, AA or A. There are no borrowed debt securities recognised in the statement of financial position.

7 Loans and advances to customers

Loans and advances to customers by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Loans to, or guaranteed by, public authorities	25,340	24,547	16,849	17,257	42,190	41,803
Loans secured by mortgages	117,199	117,848	231,327	219,530	348,526	337,379
Loans guaranteed by credit institutions	206	195	3,569	2,901	3,775	3,095
Personal lending	3,482	3,304	24,768	21,563	28,250	24,867
Corporate loans	39,645	37,213	150,233	149,787	189,878	187,000
	185,873	**183,106**	**426,746**	**411,037**	**612,619**	**594,144**
Loan loss provisions	-1,193	-1,480	-3,398	-3,011	-4,590	-4,491
	184,680	**181,626**	**423,349**	**408,027**	**608,029**	**589,653**

As at 31 December 2019, Loans and advances to customers – corporate loans include receivables with regard to securities which have been acquired in reverse repurchase transactions amounting to EUR 180 million (2018: EUR 266 million).

Loans and advances to customers by subordination

	2019	2018
Non-subordinated	607,908	589,533
Subordinated	121	120
	608,029	**589,653**

No individual loan or advance has terms and conditions that significantly affect the amount, timing or certainty of the consolidated cash flows of the Group.

Loans and advances to customers and Loans and advances to banks include finance lease receivables and are detailed as follows:

Finance lease receivables

	2019	2018
Maturities of gross investment in finance lease receivables		
- within 1 year	3,116	2,374
- between 1-2 years	3,811	n/a
- between 2-3 years	2,145	n/a
- between 3-4 years	717	n/a
- between 4-5 years	367	n/a
- more than 1 year but less than 5 years	n/a	5,959
- more than 5 years	434	1,646
	10,591	**9,979**
Unearned future finance income on finance leases	-580	-673
Net investment in finance leases	**10,011**	**9,306**
Included in Loans and advances to banks	24	51
Included in Loans and advances to customers	9,987	9,256
	10,011	**9,306**

The finance lease receivables mainly relate to the financing of equipment and to a lesser extent real estate for third parties, where ING is the lessor. The finance lease receivables are part of corporate loans. Interest income in 2019 on Finance lease receivables amounts to EUR 251 million (2018: EUR 269 million).
Expected credit losses for uncollectable finance lease receivables of EUR 136 million as at 31 December 2019 (2018: EUR 150 million) is included in the loan loss provision. The loan loss provision for finance lease receivables is classified into the following loan loss provision stages; stage 1: EUR 2 million (2018: EUR 5 million), stage 2: EUR 6 million (2018: EUR 11 million), and stage 3: EUR 128 million (2018: EUR 134 million).

No individual finance lease receivable has terms and conditions that significantly affect the amount, timing or certainty of the consolidated cash flows of the Group.

8 Investments in associates and joint ventures

Investments in associates and joint ventures

2019	Interest held (%)	Fair value of listed invest-ments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMB Public Company Limited	23	1,109	1,509	55,804	49,974	1,145	891
Other investments in associates and joint ventures			281				
			1,790				

Investments in associates and joint ventures

2018	Interest held (%)	Fair value of listed invest-ments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMB Public Company Limited	30	776	991	23,494	20,884	1,055	722
Other investments in associates and joint ventures			212				
			1,203				

TMB is a financial institution providing products and services to Wholesale, Small and Medium Enterprise (SME), and Retail customers. TMB is domiciled in Bangkok, Thailand and is listed on the Stock Exchange of Thailand (SET). In December 2019 TMB merged with Thanachart Bank and became Thailand's sixth largest bank. Prior to this merger ING paid a capital contribution to TMB of EUR 381 million. As a result of the merger transaction ING recognized a gain of EUR 16 million mainly to partial release of the related foreign currency reserves.

Other investments in associates and joint ventures are mainly financial services and financial technology funds or vehicles operating predominantly in Europe

ING Group does not hold any interests in Investments in associates and joint ventures that are individually significant to ING Group. Other investments in associates and joint ventures represents a large number of associates and joint ventures with an individual carrying value of less than EUR 50 million.

Significant influence for associates in which the interest held is below 20%, is based on the combination of ING Group's financial interest and other arrangements, such as participation in the Board of Directors.

The reporting dates of certain associates and joint ventures can differ from the reporting date of the Group, but by no more than three months.

Accumulated impairments of EUR 49 million (2018: EUR 15 million) have been recognised. The values presented in the tables above could differ from the values presented in the individual financial statements of the associates and joint ventures, due to the fact that the individual values have been brought in line with ING Group's accounting principles. When the fair value of the investment is below cost for a significant amount or prolonged period of time, an impairment test is performed.
The associates and joint ventures of ING are subject to legal and regulatory restrictions regarding the amount of dividends it can pay to ING. These restrictions are for example dependent on the laws in the country of incorporation for declaring dividends or as a result of minimum capital requirements that are imposed by industry regulators in the countries in which the associates and joint ventures operate. In addition, the associates and joint ventures also consider other factors in determining the appropriate levels of equity needed. These factors and limitations include, but are not limited to, rating agency and regulatory views, which can change over time.

Changes in Investments in associates and joint ventures

	2019	2018
Opening balance	1,203	1,088
Effect of change in accounting policy due to the implementation of IFRS 9		-28
Additions	507	97
Transfers to and from Investments/Other assets and liabilities	4	5
Revaluations	-18	-2
Share of results	82	146
Dividends received	-58	-30
Disposals	-10	-116
Impairments	-34	-3
Exchange rate differences	113	47
Closing balance	**1,790**	**1,203**

Share of results from associates and joint ventures of EUR 82 million (2018: EUR 146 million) as included in the table above, is mainly attributable to results of TMB of EUR 77 million (2018: EUR 117 million).
Share of results from associates and joint ventures as presented in the statement of profit or loss includes, besides above mentioned share of results, also impairments.

9 Property and equipment

Property and equipment by type

	2019	2018
Property in own use	757	780
Equipment	940	879
Right- of- use assets	1,476	n/a
	3,172	**1,659**

As ING has implemented IFRS 16 Leases without restating comparatives, no Right-of-use assets were recognised in 2018. Reference is made to Note 1 'Accounting policies', 1.4.3. IFRS 16 'leases' – Impact of adoption.
ING considers valuations from third party experts in determining the fair values of Property, Plant and Equipment.

Changes in property in own use

	2019	2018
Opening balance	780	774
Additions	5	5
Reclassifications		
- Transfers to and from Other Assets	–1	11
Amounts recognised in the statement of profit or loss for the year		
- Depreciation	–11	–14
- Impairments	–2	–4
- Reversal of impairments	6	17
	–7	**–1**
Revaluations recognised in equity during the year	58	23
Disposals	–72	–12
Exchange rate differences	–7	–20
Closing balance	**757**	**780**
Gross carrying amount as at 31 December	1,279	1,320
Accumulated depreciation as at 31 December	–385	–387
Accumulated impairments as at 31 December	–137	–153
Net carrying value as at 31 December	**757**	**780**
Revaluation surplus		
Opening balance	280	279
Revaluation in the year	59	1
Closing balance	**339**	**280**

The cost or the purchase price amounted to EUR 940 million (2018: EUR 1,040 million). Cost or the purchase price less accumulated depreciation and impairments would have been EUR 417 million (2018: EUR 500 million) had property in own use been valued at cost instead of at fair value.

Changes in equipment

	Data processing equipment		Fixtures and fittings and other equipment		Total	
	2019	2018	2019	2018	2019	2018
Opening balance	290	291	589	626	879	917
Additions	149	148	200	136	349	284
Disposals	–1	–1	–8	–4	–9	–5
Depreciation	–136	–133	–142	–164	–278	–298
Impairments	–0	–4	–1	–1	–1	–5
Exchange rate differences	1	–8	1	–5	2	–13
Changes in the composition of the group and other changes	3	–4	–5	1	–3	–2
Closing balance	**307**	**290**	**633**	**589**	**940**	**879**
Gross carrying amount as at 31 December	1,479	1,346	2,408	2,305	3,886	3,651
Accumulated depreciation as at 31 December	–1,171	–1,055	–1,774	–1,716	–2,946	–2,771
Accumulated impairments as at 31 December	–1	–1	–1	–0	–1	–1
Net carrying value as at 31 December	**307**	**290**	**633**	**589**	**940**	**879**

Right-of-use assets relates to leased land and buildings, cars and other assets.

Changes in Right-of-use assets

	Property	Cars	Other leases	Total
	2019	2019	2019	2019
Opening balance	n/a	n/a	n/a	n/a
Effect of changes in accounting policy due to the implementation of IFRS 16	1,138	70	72	1,280
Additions	381	65	–2	444
Depreciation	–211	–40	–12	–262
Impairments	–0			–0
Remeasurements	29	1	0	30
Disposals	–18	–0	–0	–19
Exchange rate differences	8	–0	–1	7
Changes in the composition of the group and other changes	–4	0		–4
Closing balance	**1,323**	**96**	**57**	**1,476**
Gross carrying amount as at 31 December	1,503	135	69	1,707
Accumulated depreciation as at 31 December	–213	–40	–12	–265
Accumulated impairments as at 31 December	–0			–0
Accumulated remeasurement as at 31 December	33	1	0	34
Net carrying value as at 31 December	**1,323**	**96**	**57**	**1,476**

10 Intangible assets

Changes in intangible assets

	Goodwill		Software		Other		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	918	816	868	648	53	5	1,839	1,469
Additions	17	202	94	95		0	111	297
Capitalised expenses			285	286			285	286
Amortisation			–235	–204	–2	–5	–237	–209
Impairments			–61	–12	–0		–61	–12
Exchange rate differences	–28	–99	0	–5	–	0	–28	–104
Disposals			–1	0		–0	–1	0
Changes in the composition of the group and other changes			8	59	1	52	9	111
Closing balance	**907**	**918**	**958**	**868**	**52**	**53**	**1,916**	**1,839**
Gross carrying amount as at 31 December	907	918	2,608	2,359	61	60	3,575	3,338
Accumulated amortisation as at 31 December			–1,641	–1,487	–7	–5	–1,648	–1,492
Accumulated impairments as at 31 December			–9	–4	–2	–2	–11	–6
Net carrying value as at 31 December	**907**	**918**	**958**	**868**	**52**	**53**	**1,916**	**1,839**

Goodwill

Goodwill is allocated to groups of cash generating units (CGUs) as follows:

Goodwill allocation to group of CGUs

Group of CGU's	Method used for recoverable amount	Discount rate	Long term growth rate	Goodwill 2019	Goodwill 2018
Retail Netherlands	Values in use	6.10%	0.00%	30	14
Retail Belgium	Values in use	6.94%	0.00%	50	50
Retail Germany	Values in use	6.10%	0.00%	349	349
Retail Growth Markets[1]	Values in use	10.47%	3.34%	209	231
Wholesale Banking[1]	Values in use	7.29%	0.69%	268	274
				907	918

1 Goodwill related to Growth Countries is allocated across two groups of CGUs, EUR 209 million to Retail Growth Markets and EUR 61 million to Wholesale Banking (2018: EUR 230 million to Retail Growth Markets and EUR 67 million to Wholesale Banking).

Changes in the goodwill in 2019 mainly relate to the acquisition of 80% of the shares of Intersoftware Group B.V. The transaction resulted in recognition of EUR 16 million of goodwill which is fully allocated to Retail Netherland CGU.

In 2018, changes in the goodwill relate to the acquisition of 75% of the shares of Payvision Holding B.V. and 90% of the shares of Makelaarsland B.V. The acquisition of Payvision and Makelaarsland resulted in a recognition of goodwill of respectively EUR 188 million, allocated to Wholesale Banking, and EUR 14 million, allocated to Retail Netherland.

Other changes in goodwill of the CGU's Wholesale Banking and Retail Growth Markets relate to changes in currency exchange rates. Reference is made to Note 47 'Consolidated companies and businesses acquired and divested' for further information on the acquisitions that took place in 2018, 2019 and the goodwill recognised.

Methodology

Several methodologies are applied to arrive at the best estimate of the recoverable amount. In line with IFRS, the recoverable amount is determined as the higher of the fair value less costs of disposal and Value in Use (VIU). Fair value less costs of disposal is based on observable share prices (Level 1 inputs in the fair value hierarchy), observable Price-to-Book multiples of relevant peer banks (Level 2), or based on a discounted free cash flow model (Level 3). The VIU calculation is based on a Dividend Discount model using four year management approved plans. When estimating the VIU of a CGU, local conditions and requirements determine the capital requirements, discount rates, and terminal growth rates. These local conditions and requirements determine the ability to upstream excess capital and profits to ING Group. The discount rate calculation includes other inputs such as equity market premium, country risk premium, and long term inflation which are based on market sources and management's judgement. The long term growth rate for EU-countries is based on long-term risk-free rate by reference to the yield of a composite index consisting of Euro generic government bonds, with a maturity of 30 years. For other countries, the growth rate includes long term inflation rate obtained from market sources.

The recoverable amount exceeds the carrying value of the CGUs for 2019 and 2018 and therefore no impairment is required.

Sensitivity of key assumptions

Key assumptions in the goodwill impairment test model are the Price-to-Book ratios, level 1 inputs (e.g. share price of a listed subsidiary), and the local parameters for CET1, discount rate, and long term growth rates. The model was tested for sensitivity by changing the key parameters in the model to more conservative values. The sensitivity analysis did not trigger additional impairment considerations.

Software and Other intangible assets

Software, includes internally developed software amounting to EUR 741 million (2018: EUR 624 million).

In 2018, Changes in the composition of the group and other changes mainly relates to the recognition of intangible assets following the acquisition of Payvision. Reference is made to Note 47 'Consolidated companies and businesses acquired and divested' for further information on the acquisitions that took place in 2018 and the assets and liabilities recognised.

The carrying value of CGU Wholesale Banking includes EUR 20 million of intangibles with indefinite life which relates to acquired trade names in the payments and cash management business. The asset is deemed to have indefinite life because there is no foreseeable limit to the cash flows generated by those intangible assets.

No impairment of indefinite useful life asset was recognised in 2019 (2018: nil).

11 Other assets

Other assets by type

	2019	2018
Net defined benefit assets	709	527
Investment properties	46	54
Property development and obtained from foreclosures	98	124
Accrued assets	783	783
Amounts to be settled	2,835	4,248
Other	2,546	2,696
	7,018	**8,433**

Disclosures in respect of Net defined benefit assets are provided in Note 36 'Pension and other post-employment benefits'.

Accrued assets

Accrued assets relate to income to be received attributable to 2019 and amounts paid in advance in respect of costs chargeable to subsequent periods.

Amounts to be settled

Amounts to be settled include primarily transactions not settled at the balance sheet date. The nature of these transaction is short term and are expected to settle shortly after the closing date of the balance sheet.

Other

Other relates to various receivables in the normal course of business, amongst others, short term receivables relating to mortgage issuance and other amounts receivable from customers.

12 Assets and liabilities held for sale

Assets and liabilities held for sale includes disposal groups whose carrying amount will be recovered principally through a sale transaction rather than through continuing operations.

In December 2018, ING reached an agreement to sell part of the ING Lease Italy business and classified the this Italian lease business as Assets held for Sale (EUR 1.261 million). In the first 6 months of 2019 customers repaid EUR 100 million on outstanding. The sale of this Italian lease business was completed per 1 July 2019. The settlement price amounted to EUR 1.162 million, consisted of a EUR 368 million cash settlement, a EUR 20 million Deferred Purchase Price and a EUR 774 million Senior Loan facility for the portfolio of lease receivables. The deferred purchase price is linked to the performance of the sold portfolio and is reported under the financial assets mandatorily measured at fair value through profit and loss. The additional loss in 2019 amounted to EUR -2 million (2018: EUR -123 million).

Reference is made to Note 25 'Result on disposal of group companies' and to Note 47 'Consolidated companies and businesses acquired and divested'.

13 Deposits from banks

Deposits from banks include non-subordinated debt from banks, except for amounts in the form of debt securities.

Deposits from banks by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Non-interest bearing	107	22	73	412	180	434
Interest bearing	17,544	17,211	17,101	19,686	34,646	36,896
	17,651	**17,233**	**17,175**	**20,097**	**34,826**	**37,330**

Deposits from banks includes ING's participation in the targeted longer-term refinancing operations (TLTRO) of EUR 17.7 billion (2018: EUR 17.7 billion). The TLTRO aims to stimulate lending to the real economy in the Eurozone. The interest rate on the TLTRO's is fixed over the life of each operation at the benchmark rate of the European Central Bank.

14 Customer deposits

Customer deposits

	2019	2018[1]
Savings accounts	326,864	322,711
Credit balances on customer accounts	224,022	205,053
Corporate deposits	22,329	26,920
Other	1,140	1,044
	574,355	**555,729**

1 The prior periods have been updated to improve consistency and comparability.

Customer deposits by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Non-interest bearing	19,030	16,841	24,782	25,342	43,812	42,182
Interest bearing	159,546	155,910	370,997	357,635	530,543	513,546
	178,576	**172,751**	**395,779**	**382,977**	**574,355**	**555,729**

Savings accounts relate to the balances on savings accounts, savings books, savings deposits, and time deposits of private individuals.

15 Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss

	2019	2018
Trading liabilities	28,042	31,215
Non-trading derivatives	2,215	2,299
Designated at fair value through profit or loss	47,684	59,179
	77,942	**92,693**

Reference is made to Note 43 'Transfer of financial assets' for information on securities lending as well as sale and repurchase transactions included in Trading liabilities and Financial liabilities designated at fair value through profit or loss.

Trading liabilities

Trading liabilities by type

	2019	2018
Equity securities	193	355
Debt securities	1,201	5,363
Funds on deposit	5,322	3,968
Derivatives	21,325	21,528
	28,042	**31,215**

As at 31 December 2019, Trading liabilities include funds on deposit of EUR 4,556 million (2018: EUR 3,227 million) with regard to repurchase transactions.

Non-trading derivatives

Non-trading derivatives by type

	2019	2018
Derivatives used in:		
- fair value hedges	873	1,035
- cash flow hedges	339	458
- hedges of net investments in foreign operations	51	17
Other non-trading derivatives	953	791
	2,215	**2,299**

Reference is made to Note 39 'Derivatives and hedge accounting' for information on derivatives used for hedge accounting.

Other non-trading derivatives mainly includes interest rate swaps and foreign currency swaps for hedging purposes, but for which no hedge accounting is applied.

Designated at fair value through profit or loss

Designated at fair value through profit or loss by type

	2019	2018
Debt securities	8,053	8,216
Funds entrusted	39,386	50,650
Subordinated liabilities	246	313
	47,684	**59,179**

As at 31 December 2019, financial liabilities designated at fair value through profit or loss include funds entrusted of EUR 38,492 million (2018: EUR 49,010 million) with regard to repurchase transactions.

As at 31 December 2019, the change in the fair value of financial liabilities designated at fair value through profit or loss attributable to changes in credit risk is EUR 139 million (2018: EUR 18 million) on a cumulative basis. This change has been determined as the amount of change in fair value of the financial liability that is not attributable to changes in market conditions that gave rise to market risk (i.e. mainly interest rate risk based on yield curves).

The amount that ING Group is contractually required to pay at maturity to the holders of financial liabilities designated at fair value through profit or loss excluding repurchase agreements is EUR 8,634 million (2018: EUR 9,934 million).

16 Provisions

Provisions by type

	2019	2018
Reorganisation provisions	385	613
Other provisions	303	399
	688	**1,011**

Reorganisation provisions

Changes in reorganisation provisions

	2019	2018
Opening balance	613	1,097
Additions	56	53
Unused amounts reversed	–49	–49
Utilised	–234	–487
Other changes	–0	–2
Closing balance	**385**	**613**

In 2019 the addition to the reorganisation provision is mainly related to ING's Agile transformation in Germany and updates in existing reorganization provisions.

In 2018, changes in the reorganisation provisions were mainly attributable to existing initiatives following the digital transformation programmes of ING Bank. These initiatives are implemented over a period of several years and the estimate of the reorganisation provisions is inherently uncertain. The provision at the balance sheet date represents the best estimate of the expected redundancy costs and are expected to be sufficient to cover these costs.

Other provisions

Changes in other provisions

	Litigation		Other		Total	
	2019	2018	2019	2018	2019	2018
Opening balance	165	365	234	251	399	616
Effect of change in accounting policies			7	11	7	11
Additions	74	59	46	35	120	95
Interest			–5	1	–5	1
Unused amounts reversed	–31	–76	–38	–37	–68	–113
Utilised	–104	–186	–12	–28	–116	–214
Exchange rate differences	–1	–4	–0	1	–1	–3
Other changes	–0	6	–31	–0	–31	6
Closing balance	**102**	**165**	**201**	**234**	**303**	**399**

Reference is made to Note 46 'Legal proceedings' for developments in litigation provisions.

In 2019, Other provisions – other includes provisions of EUR 25 million (2018: EUR 42 million) that relate to credit replacement facilities and EUR 93 million (2018: EUR 80 million) that relate to non-credit replacement, off balance facilities.

As at 31 December 2019 amounts expected to be settled within twelve months, amount to EUR 146 million. The amounts included in Other provisions are based on best estimates with regard to amounts and timing of cash flows required to settle the obligation.

Further reference is made to Note 28 'Other operating expenses'.

17 Other liabilities

Other liabilities by type

	2019	2018
Net defined benefit liability	483	421
Other post-employment benefits	84	76
Other staff-related liabilities	526	473
Share-based payment plan liabilities	6	9
Other taxation and social security contributions	442	403
Rents received in advance	9	61
Costs payable	2,111	2,272
Amounts to be settled	4,741	6,098
Lease liabilities	1,507	n/a
Other	2,921	3,697
	12,829	**13,510**

Disclosures in respect of Net defined benefit liabilities are provided in Note 36 'Pension and other post-employment benefits'.

Other staff-related liabilities

Other staff-related liabilities includes vacation leave provisions, variable compensation provisions, jubilee provisions, and disability/illness provisions.

Costs payable

Costs payable relate to costs attributable to 2019, which will be paid in subsequent periods.

Amounts to be settled

Amounts to be settled include primarily transactions not settled at the balance sheet date. The nature of these transaction is short term and are expected to settle shortly after the closing date of the balance sheet.

Lease liabilities

As ING has implemented IFRS 16 Leases without restating comparatives, no Lease Liabilities were recognised in 2018. Reference is made to Note 1 'Accounting policies', 1.4.3. IFRS 16 'leases' – Impact of adoption.

The total cash outflow for leases in 2019 was EUR 271 million.

Other

Other relates mainly to balances on margin accounts or amounts payable to customers.

18 Debt securities in issue

Debt securities in issue relate to debentures and other issued debt securities with either fixed interest rates or interest rates based on floating interest rate levels, such as certificates of deposit and accepted bills issued by ING Group, except for subordinated items. Debt securities in issue do not include debt securities presented as Financial liabilities at fair value through profit or loss. ING Group does not have debt securities that are issued on terms other than those available in the normal course of business. The maturities of the debt securities are as follows:

Debt securities in issue – maturities	2019	2018
Fixed rate debt securities		
Within 1 year	26,871	32,626
More than 1 year but less than 2 years	10,358	7,766
More than 2 years but less than 3 years	9,527	10,267
More than 3 years but less than 4 years	6,321	8,228
More than 4 years but less than 5 years	2,836	6,288
More than 5 years	29,007	20,321
Total fixed rate debt securities	**84,920**	**85,496**
Floating rate debt securities		
Within 1 year	24,938	22,684
More than 1 year but less than 2 years	3,126	4,134
More than 2 years but less than 3 years	3,041	1,587
More than 3 years but less than 4 years	1,541	1,234
More than 4 years but less than 5 years	144	1,563
More than 5 years	816	3,053
Total floating rate debt securities	**33,608**	**34,255**
Total debt securities	**118,528**	**119,751**

In 2019 Debt securities in issue decreased by EUR 1.2 billion. This decrease is mainly attributable to a decrease in commercial paper of EUR 6.1 billion, matured savings certificates of EUR 1.2 billion, the redemption of RMBS (residential mortgage backed securities) of EUR 2.3 billion, partly offset by the issuance of long term maturity bonds of EUR 2.8 billion, covered bonds of EUR 2.9 billion and certificates of deposits of EUR 1.9 billion, and an increase in other Debt securities in issue of EUR 0.8 billion.

19 Subordinated loans

Subordinated loans by group companies

	2019	2018
ING Groep N.V.	13,069	10,355
ING Group companies	3,519	3,370
	16,588	**13,724**

Subordinated loans issued by ING Groep N.V. include bonds issued to raise Tier 1 and lower Tier 2 (CRD IV eligible) capital for ING Bank N.V. Under IFRS these bonds are classified as liabilities and for regulatory purposes, they are considered capital. Subordinated loans issued by ING Group companies comprise, for the most part, subordinated loans which are subordinated to all current and future liabilities of ING Bank N.V.

Changes in subordinated loans

	2019	2018
Opening balance	13,724	15,968
Effect of change in accounting policy due to the implementation of IFRS 9		241
New issuances	3,429	1,859
Repayments	–933	–4,646
Exchange rate differences and other	367	302
Closing balance	**16,588**	**13,724**

In 2019 ING Groep N.V. issued two Perpetual additional Tier 1 Contingent Convertible Capital Securities of USD 1.25 billion with first call date on 16 April 2024 and USD 1.5 billion with first call date on 16 November 2026. In addition, subordinated Tier 2 notes of EUR 1 billion have been issued on 13 November 2019.

In June 2019 ING redeemed USD 1 billion Tier 1 ING Perpetual Hybrid Capital Securities.

The average interest rate on subordinated loans is 4.38% (2018: 4.44%). The interest expense during the year 2019 was EUR 660 million (2018: EUR 711 million).

Equity

20 Equity

Total equity

	2019	2018	2017
Share capital and share premium			
- Share capital	39	39	39
- Share premium	17,078	17,050	17,006
	17,117	**17,088**	**17,045**
Other reserves			
- Revaluation reserve: Available-for-sale and other	n/a	n/a	3,447
- Revaluation reserve: Equity securities at FVOCI	1,580	1,914	n/a
- Revaluation reserve: Debt instruments at FVOCI	322	398	n/a
- Revaluation reserve: Cash flow hedge	1,208	604	263
- Revaluation reserve: Credit liability	–114	8	n/a
- Revaluation reserve: Property in own use	253	204	203
- Net defined benefit asset/liability remeasurement reserve	–336	–394	–400
- Currency translation reserve	–2,079	–2,043	–1,663
- Share of associates and joint ventures and other reserves	3,189	2,940	2,527
- Treasury shares	–10	–11	–15
	4,013	**3,621**	**4,362**
Retained earnings	29,866	28,339	27,022
Shareholders' equity (parent)	50,996	49,049	48,429
Non-controlling interests	893	803	715
Total equity	**51,889**	**49,851**	**49,144**

Share capital and share premium
Share capital

Share capital

	Ordinary shares (par value EUR 0.01)					
	Number x 1,000			Amount		
	2019	2018	2017	2019	2018	2017
Authorised share capital	14,729,000	14,729,000	14,729,000	147	147	147
Unissued share capital	10,832,266	10,837,272	10,843,210	108	108	108
Issued share capital	**3,896,734**	**3,891,728**	**3,885,790**	**39**	**39**	**39**

Changes in issued share capital

	Ordinary shares (par value EUR 0.01)	
	Number x 1,000	Amount
Issued share capital as at 1 January 2017	3,878,484	39
Issue of shares	7,306	
Issued share capital as at 31 December 2017	**3,885,790**	**39**
Issue of shares	5,938	
Issued share capital as at 31 December 2018	**3,891,728**	**39**
Issue of shares	5,006	
Issued share capital as at 31 December 2019	**3,896,734**	**39**

In 2019, ING Groep N.V. issued 5.0 million ordinary shares (2018: 5.9 million ordinary shares, 2017: 7.3 million). These issues were made in order to fund obligations arising from share-based employee incentive programmes.

In 2019, 2018 and 2017 respectively, ING Groep N.V. issued USD 2,750 million, nil and nil Perpetual Additional Tier 1 Contingent Convertible Capital Securities which can, in accordance with their terms and conditions, convert by operation of law into ordinary shares if the conditions to such conversion are fulfilled. As a result of this conversion, the issued share capital can increase by no more than 306 million ordinary shares. Reference is made to Note 19 'Subordinated loans'.

Ordinary shares
All ordinary shares are in registered form. No share certificates have been issued. Ordinary shares may be transferred by means of a deed of transfer. A transfer of ordinary shares requires written acknowledgement by ING Groep N.V. Ordinary shares are listed on various stock exchanges. The par value of ordinary shares is EUR 0.01 . The authorised ordinary share capital of ING Groep N.V. currently consists of 14,729 million ordinary shares. As at 31 December 2019, 3,897 million ordinary shares were issued and fully paid.

Ordinary shares held by ING Group (Treasury shares)
As at 31 December 2019, 0.9 million ordinary shares (2018: 1.1 million and 2017: 0.9 million) of ING Groep N.V. with a par value of EUR 0.01 are held by ING Groep N.V. or its subsidiaries. The obligations with regard to the existing stock option plan and the share plans will be funded either by cash or by newly issued shares at the discretion of ING Group.

Share premium

Share premium

	2019	2018	2017
Opening balance	17,050	17,006	16,950
Issue of shares	28	44	56
Closing balance	**17,078**	**17,050**	**17,006**

The increase in share premium, is a result of the issuance of ordinary shares related to share-based employee incentive programmes.

Other reserves

Revaluation reserves

Changes in revaluation reserve

	Equity securities at FVOCI			Debt instruments at FVOCI			AFS and other			Cash flow hedge			Credit liability			Property in own use		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Opening balance	1,914	n/a	n/a	398	n/a	n/a	n/a	3,447	3,830	604	263	777	8	n/a	n/a	204	203	204
Effect of change in accounting policy due to the implementation of IFRS 9		2,432			629			-3,447						-190				
Changes in credit liability reserve													-116	199				
Unrealised revaluations	137	-461		-43	-177				-293	604	342	-514				58	3	25
Realised gains/losses transferred to the statement of profit or loss				-33	-54				-90									
Realised revaluations transferred to retained earnings	-472	-56											-6			-9	-2	-26
Closing balance	**1,580**	**1,914**	**n/a**	**322**	**398**	**n/a**	**n/a**	**n/a**	**3,447**	**1,208**	**604**	**263**	**(114)**	**8**	**n/a**	**253**	**204**	**203**

Equity securities at FVOCI

In 2019, the unrealised revaluations of EUR 137 million are due to the revaluation of shares in Bank of Beijing EUR 35 million and shares in EquensWorldLine EUR 101 million. The EUR -472 million transfer of revaluation reserve to retained earnings is mainly related to the sale of shares in Kotak Mahindra Bank EUR -320 million and EquensWorldLine EUR -149 million.

In 2018, the Equity securities at FVOCI revaluation reserve decreased by EUR 517 million, mainly due to the revaluation of shares in Bank of Beijing EUR -549 million, partly offset by revaluation of shares in Kotak Mahindra Bank EUR 71 million.

Available-for-sale and other

As from 2018, due to implementation of IFRS 9, the revaluation results of Available-for-sale and other are reported in the FVOCI reserve.

In 2017, the Available-for-sale revaluation reserve decreased by EUR 383 million mainly due to the revaluation of shares in Bank of Beijing EUR -479 million, partly offset by revaluation of shares in Kotak Mahindra Bank EUR 302 million.

Cash flow hedge

ING mainly hedges floating rate lending with interest rate swaps. Due to decrease in interest rate yield curve in 2019 the interest rate swaps had a positive revaluation of EUR 604 million which is recognised in cah flow hedge reserve.

Net defined benefit asset/liability remeasurement reserve

Reference is made to Note 36 'Pension and other post-employment benefits'.

Currency translation reserve

Changes in currency translation reserve

	2019	2018	2017
Opening balance	–2,043	–1,663	–770
Unrealised revaluations	–134	71	192
Realised gains/losses transferred to the statement of profit or loss	–138		
Exchange rate differences	236	–451	–1,085
Closing balance	**–2,079**	**–2,043**	**–1,663**

Realised gains/losses transferred to the statement of profit or loss is related to the sale of shares in Kotak Mahindra Bank (EUR -119 million) and the effect of the merger transaction of TMB (EUR -18 million).

Unrealised revaluations relates to changes in the value of hedging instruments that are designated as net investment hedges. The hedging strategy is to hedge the CET1 ratio. The net increase of unrealized revaluations and Exchange rate differences of EUR 102 million is related to several currencies.

Share of associates, joint ventures and other reserves

Changes in share of associates, joint ventures and other reserves

	2019	2018	2017
Opening balance	2,940	2,527	2,235
Effect of change in accounting policy due to the implementation of IFRS 9		–28	
Result for the year	180	160	153
Transfer to/from retained earnings	69	280	139
Closing balance	**3,189**	**2,940**	**2,527**

Treasury shares

Changes in treasury shares

	Amount			Number		
	2019	2018	2017	2019	2018	2017
Opening balance	–11	–15	–8	1,137,701	944,257	600,634
Purchased/sold	1	4	–7	–218,314	193,444	343,623
Closing balance	**–10**	**–11**	**–15**	**919,387**	**1,137,701**	**944,257**

Retained earnings

Changes in retained earnings

	2019	2018	2017
Opening balance	28,339	27,022	24,371
Effect of change in accounting policy due to the implementation of IFRS 9		–390	
Transfer to/from other reserves	418	–211	–139
Result for the year	3,723	4,601	5,311
Dividend	–2,650	–2,607	–2,564
Employee stock options and share plans	13	19	21
Changes in composition of the group and other changes	23	–96	22
Closing balance	**29,866**	**28,339**	**27,022**

Changes in the composition of the group

In 2019 ING acquired the additional 23% of shares in Payvsion. Given that ING already had control over Payvision, the acquisition of the shares in 2019 represents a shareholder transaction and resulted in a transfer between Non-controlling interest and Retained earnings within Shareholders equity of EUR 24 million. Reference is made to Note 47, 'Consolidated companies and businesses acquired and divested', 'Acquisitions'.

Dividend

In 2019, a cash dividend of EUR 2,650 million (2018: EUR 2,607 million and 2017: EUR 2,564 million) was paid to the shareholders of ING Group.

For further information, reference is made to Note 30 'Dividend per ordinary share'.

Ordinary shares - Restrictions with respect to dividend and repayment of capital

The following equity components cannot be freely distributed: Revaluation reserves, Net defined benefit asset/liability remeasurement reserve, Currency translation reserve, Share of associates and joint ventures reserve and Other reserves including the part related to the former Stichting Regio Bank and the former Stichting Vakbondsspaarbank SPN.

As at 31 December 2019, an amount of EUR 1,818 million (2018: EUR 1,638 million; 2017: EUR 1,478 million) related to the former Stichting Regio Bank and the former Stichting Vakbondsspaarbank SPN is included.

ING Groep N.V. is subject to legal restrictions regarding the amount of dividends it can pay to the holders of its ordinary shares. Pursuant to the Dutch Civil Code, dividends can only be paid up to an amount equal to the excess of the company's own funds over the sum of the paid-up capital and reserves required by law.

Moreover, ING Groep N.V.'s ability to pay dividends is dependent on the dividend payment ability of its subsidiaries, associates and joint ventures. ING Groep N.V. is legally required to create a non-distributable reserve insofar as profits of its subsidiaries, associates and joint ventures are subject to dividend payment restrictions which apply to those subsidiaries, associates and joint ventures themselves. Such restrictions may among others be of a similar nature as the restrictions which apply to ING Groep N.V., including minimum capital requirements that are imposed by industry regulators in the countries in which the subsidiaries, associates and joint ventures operate, or other limitations which may exist in certain countries.

Non distributable reserves, determined in accordance with the financial reporting requirements included in Part 9 of Book 2 of the Dutch Civil Code, from ING Group's subsidiaries, associates and joint ventures are as follows:

Non-distributable reserves	2019	2018	2017
ING Bank	8,397	7,603	7,603
Other	0	97	75
Non-distributable reserves	**8,398**	**7,700**	**7,678**

Furthermore there are restrictions to the ability of subsidiaries, associates and joint ventures to distribute reserves to ING Groep N.V. as a result of minimum capital requirements that are imposed by industry regulators in the countries in which the subsidiaries operate.

In addition to the legal and regulatory restrictions on distributing dividends from subsidiaries, associates and joint ventures to ING Groep N.V. there are various other considerations and limitations that are taken into account in determining the appropriate levels of equity in the Group's subsidiaries, associates and joint ventures. These considerations and limitations include, but are not restricted to, rating agency and regulatory views, which can change over time; it is not possible to disclose a reliable quantification of these limitations. For an overview of the minimal capital requirements of ING Group refer to the 'Capital Management' section.

Without prejudice to the authority of the Executive Board to allocate profits to reserves and to the fact that the ordinary shares are the most junior securities issued by ING Groep N.V., no specific dividend payment restrictions with respect to ordinary shares exist.

Furthermore, ING Groep N.V. is subject to legal restrictions with respect to repayment of capital to holders of ordinary shares. Capital may be repaid to the holders of ordinary shares pursuant to an amendment of ING Groep N.V.'s Articles of Association whereby the ordinary shares are written down.

Pursuant to the Dutch Civil Code, capital may only be repaid if none of ING Groep N.V.'s creditors opposes such a repayment within two months following the announcement of a resolution to that effect.

Cumulative preference shares (not issued)

Pursuant to the Articles of Association of ING Groep N.V. the authorised cumulative preference share capital consists of 4.6 billion cumulative preference shares, of which none have been issued. The par value of these cumulative preference shares is EUR 0.01.

The cumulative preference shares rank before the ordinary shares in entitlement to dividend and to distributions upon liquidation of ING Groep N.V.

The dividend on the cumulative preference shares will be equal to a percentage, calculated on the amount compulsorily paid up or yet to be paid up. This percentage shall be equal to the average of the Euro OverNight Index Average (EONIA) as calculated by the European Central Bank during the financial year for which the distribution is made; this percentage being weighted on the basis of the number of days for which it applies, and increased by 2.5 percentage points.

If, and to the extent that the profit available for distribution is not sufficient to pay the dividend referred to above in full, the shortfall will be made up from the reserves insofar as possible. If, and to the extent that, the dividend distribution cannot be made from the reserves, the profits earned in subsequent years shall first be used to make up the shortfall before any distribution may be made on shares of any other category.

ING Groep N.V.'s Articles of Association make provision for the cancellation of cumulative preference shares. Upon cancellation of cumulative preference shares and upon liquidation of ING Groep N.V., the amount paid up on the cumulative preference shares will be repaid together with the accrued dividend as well as any dividend shortfall in preceding years, insofar as this shortfall has not yet been made up.

No specific dividend payment restrictions with respect to the cumulative preference shares exist.

Notes to the Consolidated statement of profit or loss

21 Net interest income

Net interest income

	2019	2018	2017
Interest income on loans	19,028	18,966 [1]	18,338
Interest income on financial assets at fair value through OCI	615	554	n/a
Interest income on financial assets at amortised cost	673	780 [1]	n/a
Interest income on non-trading derivatives (hedge accounting)	4,319	4,497	n/a
Negative interest on liabilities	422	453	500
Total interest income using effective interest rate method	**25,056**	**25,249**	**n/a**
Interest income on financial assets at fair value through profit or loss	1,897	1,795	n/a
Interest income on investments	n/a	n/a	1,494
Interest income on trading derivatives	n/a	n/a	16,108
Interest income on other trading portfolio	n/a	n/a	1,028
Interest income on non-trading derivatives (no hedge accounting)	1,181	1,059 [1]	700 [1]
Interest income on non-trading derivatives (hedge accounting)	n/a	n/a	5,690
Interest income other	30	25	138
Total other interest income	**3,107**	**2,880**	**n/a**
Total interest income	**28,163**	**28,129**	**43,996**

	2019	2018	2017
Interest expense on deposits from banks	361	362	301
Interest expense on customer deposits	2,934	2,607	2,664
Interest expense on debt securities in issue	2,350	2,254	2,054
Interest expense on subordinated loans	660	711	784
Negative interest on assets	349	412	407
Interest expense on non-trading derivatives (hedge accounting)	4,615	4,826	5,946
Total interest expense using effective interest rate method	**11,268**	**11,171**	**n/a**
Interest expense on financial liabilities at fair value through profit or loss	1,695	1,578	n/a
Interest expense on trading derivatives	n/a	n/a	16,117
Interest expense on other trading liabilities	n/a	n/a	744
Interest expense on non-trading derivatives (no hedge accounting)	1,311	1,387 [1]	1,001 [1]
Interest expense on lease liabilities	25	n/a	n/a
Interest expense other	54	33	331
Total other interest expense	**3,084**	**2,997**	**n/a**
Total interest expense	**14,353**	**14,169**	**30,349**
Net interest income	**13,811**	**13,960**	**13,647**

1 The prior periods have been updated to improve consistency and comparability.

Total Net interest income of EUR 13,811 million (2018: EUR 13,960 million) includes interest income and expense for instruments calculated using the effective interest rate method and other interest income and interest expense. IFRS 9 resulted in changes to IAS 1 for the presentation of Interest income for instruments calculated using the effective interest rate method, which ING reports as a separate line item in the consolidated statement of profit or loss as from 2018.

To further enhance the relevance of the interest disclosures, ING Group changed its separate presentation since 2018 of interest (income and expenses) for trading derivatives, trading securities and trading loans / deposits (mainly repo's) to presenting the full fair value movements in 'Valuation results and net trading income'. The change in presentation is in line with the changed presentation of accrued interest in the balance sheet that is no longer separately presented, but included in the corresponding balance sheet item of the host contract.

The new interest presentation was applied prospectively together with the other presentation requirements of IFRS 9 as from 2018.

22 Net fee and commission income

Fee and commission income

	2019	2018	2017
Funds transfer	1,513	1,394	1,172
Securities business	603	618	532
Insurance broking	191	173	176
Asset management fees	205	170	116
Brokerage and advisory fees	611	584	548
Other	1,317	1,302	1,321
	4,439	**4,240**	**3,865**

Other, mainly consists of commission fees in respect of bank guarantees of EUR 202 million (2018: EUR 207 million; 2017: EUR 209 million), in respect of underwriting syndication loans of EUR 10 million (2018: EUR 4 million; 2017: EUR 52 million), in respect of structured finance fees of EUR 141 million (2018: EUR 129 million; 2017: EUR 136 million), and in respect of collective instruments distributed but not managed by ING of EUR 167 million (2018: EUR 165 million; 2017: EUR 165 million).

Fee and commission expenses

	2019	2018	2017
Funds transfer	659	597	437
Securities business	140	170	150
Insurance broking	2	2	4
Asset management fees	8	4	5
Brokerage and advisory fees	282	220	192
Other	481	448	367
	1,571	**1,442**	**1,155**

All of ING's net fee and commission income are in scope of IFRS 15 'Revenue from Contracts with Customers'. Reference is made to Note 34 'Segments' which includes net fee and commission income, as reported to the Executive Board and the Management Board Banking, disaggregated by line of business and by geographical segment.

23 Valuation results and net trading income

Valuation results and net trading income

	2019	2018	2017
Securities trading results	974	–722	656
Derivatives trading results	–998	540	59
Other trading results	117	116	62
Change in fair value of derivatives relating to			
– fair value hedges	–318	185	–184
– cash flow hedges (ineffective portion)	47	–19	44
– other non-trading derivatives	93	868	–301
Change in fair value of assets and liabilities (hedged items)	–518	–176	91
Valuation results on assets and liabilities designated at FVPL (excluding trading)	–358	366	–109
Foreign exchange transactions results	801	69	1,194
	–159	**1,227**	**1,512**

Securities trading results includes the results of market making in instruments such as government securities, equity securities, corporate debt securities, money-market instruments, and interest rate derivatives such as swaps, options, futures, and forward contracts. Foreign exchange transactions results include gains and losses from spot and forward contracts, options, futures, and translated foreign currency assets and liabilities. As from current year the other trading results are presented separately in this disclosure. Prior year figures are updated accordingly. Other trading results include the results of trading loans and funds entrusted.

The portion of trading gains and losses relating to trading securities still held as at 31 December 2019 amounts to EUR -82 million (2018: EUR 396 million; 2017: EUR -68 million).

Net trading income relates to trading assets and trading liabilities which include assets and liabilities that are classified under IFRS as Trading but are closely related to servicing the needs of the clients of ING. ING offers products that are traded on the financial markets to institutional clients, corporate clients, and governments. ING Group's trading books are managed based on internal limits and comprise a mix of products with results which could be offset. A significant part of the derivatives in the trading portfolio are related to servicing corporate clients in their risk management to hedge for example currency or interest rate exposures. From a risk perspective, the gross amount of trading assets must be considered together with the gross amount of trading liabilities, which are presented separately on the statement of financial position. However, IFRS does not always allow netting of these positions in the statement of financial position. Reference is made to Note 4 'Financial assets at fair value through profit or loss' and Note 15 'Financial liabilities at fair value through profit or loss' for information on trading liabilities.

The majority of the risks involved in security and currency trading is economically hedged with derivatives. The securities trading results are partly offset by results on these derivatives. The result of these derivatives is included in Derivatives trading results. The result on currency trading is included in foreign exchange transactions results.

In 2019, Derivatives trading results include EUR 39 million CVA/DVA adjustments on trading derivatives (2018: EUR -20 million; 2017: EUR 47 million).

'Valuation results and net trading income' include the fair value movements on derivatives (used for both hedge accounting and economically hedging exposures) as well as the changes in the fair value of assets and liabilities included in hedging relationships as hedged items. Reference is made to Note 39 'Derivatives and hedge accounting' for information on derivatives used for hedge accounting.

The fair value movements on the derivatives are influenced by changes in the market conditions, such as stock prices, interest rates and currency exchange rates. In addition, 'Valuation results and net trading income' include the results on assets and liabilities designated at fair value through profit or loss.

The Valuation results on assets and liabilities designated at fair value through profit or loss include fair value changes on certain issued debt securities. Valuation results on assets and liabilities designated at fair value through profit or loss were mainly due to changes in the fair value of financial liabilities driven by changes in market conditions as disclosed in Note 15 'Financial liabilities at fair value through profit or loss'.

In 2019, Valuation results on assets and liabilities designated at fair value through profit or loss (excluding trading) include fair value adjustments on own issued notes amounting to EUR -424 million (2018: EUR 302 million; 2017: EUR -107 million). In 2017, DVA adjustment on own issued notes amounting to EUR -79 million was included in Valuation results. Starting 2018, in accordance with IFRS 9, the DVA adjustment on own issued notes is recognised in Other Comprehensive Income 'Credit liability reserve'.

Compared to previous years, in 2019 Valuation results and net trading income do not include results on non-trading derivatives related to warrants on the shares of Voya and NN Group (2018:

EUR 90 million; 2017: EUR -52 million). As at 31 December 2018 ING no longer holds any warrants on the shares of Voya and NN Group.

Interest income from trading assets in 2019 amounted to EUR 15,187 million (2018: EUR 13,924 million). Interest expense from trading liabilities in 2019 amounted to EUR 14,922 million (2018: EUR 13,976 million).

'Valuation results and net trading income' are reflected in the Consolidated statement of cash flows in the line Result before tax - Adjusted for: other.

24 Investment income

Investment income	2019[1]	2018[1]	2017[1]
Dividend income	**115**	**102**	**80**
Realised gains/losses on disposal of debt instruments measured at FVOCI	46	77	n/a
Realised gains/losses on disposal of Available-for-sale debt securities	n/a	n/a	64
Impairments of Available-for-sale debt securities	n/a	n/a	
Reversal of impairments of Available-for-sale debt securities	n/a	n/a	3
Realised gains/losses and impairments of debt instruments measured at FVOCI	**46**	**77**	**67**
Realised gains/losses on disposal of Available-for-sale equity securities	n/a	n/a	48
Impairments of Available-for-sale equity securities	n/a	n/a	–6
Realised gains/losses and impairments of Available-for-sale equity securities	**n/a**	**n/a**	**42**
Income from and fair value gains/losses on investment properties	27	4	3
Investment income	**188**	**183**	**192**

1 The adoption of IFRS 9 led to new presentation requirements for 2019 and 2018; 2017 period amounts have not been restated.'.

In 2019, 2018 and 2017, Dividend income mainly consists of dividend received from ING's equity stake in Bank of Beijing.

Impairments and reversals of impairments on investments are presented within Investment income, which is part of Total income.

25 Result on disposal of group companies

Result on disposal of group companies	2019	2018	2017
Baring Private Equity Partners			1
ING Lease Italy	–2	–123	
ING Mauritius	119		
	117	**–123**	**1**

In 2019 the Result on disposal of group companies is mainly impacted by the sale of ING's stake in Kotak Mahindra Bank by ING Mauritius during 1Q 2019. ING Mauritius is in the process of being liquidated and consequently, the release of the currency translation reserve (CTA) and the release of the Net Investment Foreign Entities reserve resulted in a one-off gain of EUR 119 million.

The Result on disposal of group companies includes the result (fair value less cost to sell) on the sale of part of the ING Lease Italy business amounting to EUR -123 million, which was recognized in 2018 and a final result of EUR -2 million recognized in 2019.

In 2017 the Result on disposal of group companies included realised deferred profits on divestments in prior periods related to Baring Private Equity Partners

26 Other income

In 2019, Other income of EUR 252 million (2018: EUR 136 million; 2017: EUR 350 million) includes the recognition of EUR 79 million receivable related to the insolvency of a financial institution.

Furthermore, Other income includes income from subleasing right of use assets and gains or losses from sale and lease back transactions amounting to EUR 5 million as well as income from positive recovery of defaulted receivables of EUR 32 million. The remainder of the Other income is mainly impacted by positive results on the sale of loans and property and various other non-recurring results.

In 2017 an amount of EUR 121 million is included related to a tax charge at ING Australia Holdings Ltd., for which a full reimbursement is expected to be received from NN Group.

27 Staff expenses

Staff expenses

	2019	2018	2017
Salaries	3,572	3,287	3,273
Pension costs and other staff-related benefit costs	366	385	381
Social security costs	530	509	499
Share-based compensation arrangements	41	49	74
External employees	974	901	716
Education	64	87	76
Other staff costs	208	202	183
	5,755	**5,420**	**5,202**

Number of employees

	Netherlands			International			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Total average number of internal employees at full time equivalent basis	14,415	13,600	13,141	39,016	38,633	38,363	53,431	52,233	51,504

Share-based compensation arrangements include EUR 38 million (2018: EUR 46 million; 2017: EUR 69 million) relating to equity-settled share-based payment arrangements and EUR 3 million (2018: EUR 3 million; 2017: EUR 5 million) relating to cash-settled share-based payment arrangements.

Remuneration of senior management, Executive Board and Supervisory Board

Reference is made to Note 50 ‘Related parties’.

Stock option and share plans

ING Groep N.V. has granted option rights on ING Groep N.V. shares and conditional rights on shares to a number of senior executives (members of the Executive Board, general managers and other officers nominated by the Executive Board), and to a considerable number of employees of ING Group. The purpose of the option and share schemes, apart from promoting a lasting growth of ING Group, is to attract, retain and motivate senior executives and staff.

ING grants four types of share awards, deferred shares, performance shares and upfront shares, which form part of the variable remuneration offering via the Long term Sustainable Performance Plan (LSPP), as well as fixed shares. The entitlement to the LSPP share awards is granted conditionally. If the participant remains in employment for an uninterrupted period between the grant date and the vesting date, the entitlement becomes unconditional, with the exception of the upfront shares which are immediately vested upon grant. Additionally, a condition before vesting was applied to performance shares until 2018. As of 2019, this performance condition is no longer applicable. Upfront and deferred shares awarded to the Management Board members of ING Group as well as identified staff, have a retention obligation that must be adhered to upon vesting, a minimum retention of 12 months applies. ING has the authority to apply a hold back to awarded but unvested shares and a claw-back to vested shares.

In addition to the LSPP share awards, ING also pays a number of senior employees fixed shares. The number of shares are determined each month from a cash value that forms part of the employee fixed remuneration. The shares are immediately vested to the employee, but have a minimum holding requirement of two years before the employee can dispose of the shares. The fixed shares are not subject to holdback or clawback.

The share awards granted in 2019 relate to the performance year 2018. In 2019, no share awards (2018: 31,743; 2017: 54,768) were granted to the members of the Executive Board of ING Groep N.V., and 2,837 share awards (2018: 80,036; 2017: 104,449) were granted to the Management Board Banking (related to pre-board service period). To senior management and other employees 2,167,817 share awards (2018: 3,989,214; 2017: 4,846,903) were granted.

Every year, the ING Group Executive Board decides whether the option and share schemes are to be continued and, if so, to what extent. In 2010, the Group Executive Board decided not to continue the option scheme as from 2011. The existing option schemes will run off in the coming year as the option rights will expire in 2020.

The option rights are valid for a period of ten years. Option rights that are not exercised within this period, lapse. Option rights granted will remain valid until the expiry date, even if the option scheme is discontinued. The option rights are subject to certain conditions, including a pre-determined continuous period of service. The exercise prices of the options are the same as the quoted prices of ING Groep N.V. shares at the date on which the options are granted.

The obligations with regard to the existing stock option plan and the share plans will be funded either by cash or by newly issued shares at the discretion of ING Group.

Changes in option rights outstanding

	Options outstanding (in numbers)			Weighted average exercise price (in euros)		
	2019	2018	2017	2019	2018	2017
Opening balance	5,123,853	15,141,980	25,574,912	5.69	12.36	15.53
Exercised	–2,186,316	–827,755	–2,216,764	4.40	5.91	5.89
Forfeited	–45,852	–89,816	–168,007	7.01	8.09	14.26
Expired	–535,342	–9,100,556	–8,048,161	3.51	16.75	24.18
Closing balance	**2,356,343**	**5,123,853**	**15,141,980**	**7.35**	5.69	12.36

As per 31 December 2019, total options outstanding consists of 1,733,349 options (2018: 3,754,976; 2017: 10,156,219) relating to equity-settled share-based payment arrangements and 622,994 options (2018: 1,368,877; 2017: 4,985,761) relating to cash-settled share-based payment arrangements.

The weighted average share price at the date of exercise for options exercised during 2019 is EUR 10.89 (2018: EUR 13.65; 2017: 13.81). All option rights are vested.

Summary of stock options outstanding and exercisable

	Options outstanding and exercisable as at 31 December			Weighted average remaining contractual life			Weighted average exercise price		
Range of exercise price in euros	2019	2018	2017	2019	2018	2017	2019	2018	2017
0.00 – 5.00		1,930,068	2,294,423		0.21	1.21		2.88	2.88
5.00 – 10.00	2,356,343	3,193,785	3,754,542	0.22	1.21	2.21	7.35	7.38	7.38
10.00 – 15.00			110,086			0.71			14.35
15.00 – 20.00			8,982,929			0.21			16.84
	2,356,343	**5,123,853**	**15,141,980**						

All options outstanding are exercisable. As at 31 December 2019, the aggregate intrinsic value of options outstanding and exercisable is EUR 8 million (2018: EUR 19 million; 2017: EUR 59 million).

Cash received from stock option exercises for the year ended 31 December 2019 is EUR 7 million (2018: EUR 4 million; 2017: EUR 10 million).

Changes in share awards

	Share awards (in numbers)			Weighted average grant date fair value (in euros)		
	2019	2018	2017	2019	2018	2017
Opening balance	5,854,999	7,222,279	8,382,963	11.62	11.46	10.44
Granted	2,170,654	4,100,993	5,006,120	10.04	12.50	13.20
Performance effect	–	341,623	379,934	11.12	11.65	10.47
Vested	–3,945,020	–5,565,093	–6,328,318	11.23	12.05	11.40
Forfeited	–223,585	–244,803	–218,420	11.39	11.52	10.83
Closing balance	**3,857,048**	**5,854,999**	**7,222,279**	11.14	11.62	11.46

As at 31 December 2019 the share awards consists of 3,346,004 share awards (2018: 5,211,339; 2017: 6,416,705) relating to equity-settled share-based payment arrangements and 511,044 share awards (2018: 643,660; 2017: 805,574) relating to cash-settled share-based payment arrangements.

The fair value of share awards granted is recognised as an expense under Staff expenses and is allocated over the vesting period of the share awards. The fair value calculation takes into account the current stock prices, expected volatilities and the dividend yield of ING shares.

As at 31 December 2019, total unrecognised compensation costs related to share awards amount to EUR 15 million (2018: EUR 29 million; 2017: EUR 37 million). These costs are expected to be recognised over a weighted average period of 1.4 years (2018: 1.4 years; 2017: 1.4 years).

28 Other operating expenses

Other operating expenses

	2019	2018	2017
Regulatory costs	1,021	947	901
Audit and non-audit services	30	26	22
IT related expenses	759	779	737
Advertising and public relations	391	402	455
External advisory fees	416	358	353
Office expenses	325	564	587
Travel and accommodation expenses	140	179	178
Contributions and subscriptions	108	91	91
Postal charges	46	54	50
Depreciation of property and equipment[1]	551	312	319
Amortisation of intangible assets	237	209	179
Impairments and reversals on property and equipment and intangibles	59	19	18
Addition/(unused amounts reversed) of provision for reorganisations	6	4	–5
Addition/(unused amounts reversed) of other provisions	29	–13	167
Other	477	1,332	575
	4,598	**5,262**	**4,627**

1 Includes depreciation expenses of right-of-use assets as recognised under IFRS 16.

Regulatory costs

Regulatory costs represent contributions to the Deposit Guarantee Schemes (DGS), The Single Resolution Fund (SRF), local bank taxes and local resolution funds. Included in Regulatory costs for 2019, are contributions to DGS of EUR 362 million (2018: EUR 364 million; 2017: EUR 341 million) mainly related to the Netherlands, Germany, Belgium, Poland, and Spain and contributions to the SRF and local resolution funds of EUR 239 million (2018: EUR 208 million; 2017: EUR 179 million). In 2019 local bank taxes increased by EUR 45 million from EUR 375 million in 2018 to EUR 420 million (2017: EUR 381 million).

Audit and non-audit services

Total audit and non-audit services include the following fees for services provided by the Group's auditor.

Fees of Group's auditors

	2019	2018	2017
Audit fees	21	19	18
Audit related fees	2	1	1
Total [1]	**23**	**20**	**19**

1 The Group's auditors did not provide any non-audit services.

Fees as disclosed in the table above relate to the network of the Group's auditors and are the amounts related to the respective years, i.e. on an accrual basis. The increase in audit fees 2019 primarily relates to audit activities for the implementation of IFRS 16, new statutory audits and new IT systems in scope.

Tangible and Intangible impairments and reversals

Impairments and reversals of property and equipment and intangibles

	Impairment losses			Reversals of impairments			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Property and equipment	4	9	10	–6	–17	–24	–3	–8	–14
Property development	1	15	2				1	15	2
Software and other intangible assets	61	12	30	–0			61	12	30
(Reversals of) other impairments	**66**	**35**	**42**	**–7**	**–17**	**–24**	**59**	**19**	**18**

Impairment losses on software and intangible assets in 2019 relate to rescoping of IT transformation programs. 2018 and 2017 impairments include software that was impaired to its Value in Use, related to the acceleration of the Think Forward Strategy.

In 2018, impairment losses on property development mainly relate to impairments in Spain and Italy due to lower expected Net Realizable Values.

The reversals of impairments on property and equipment in both 2018 and 2017 relate to impairments previously recognised in the statement of profit or loss and mainly include impairments on property in own use that were reversed following the sale process of office buildings.

Addition/(unused amounts reversed) of provision for reorganisations

Included in Addition/(unused amounts reversed) provision for reorganisations in 2019, is an increase in relation to the reorganisation relating to ING's Agile transformation in Germany. Reference is made to Note 16 'Provisions'.

Addition/(unused amounts reversed) of other provisions

Included in Addition/(unused amounts reversed) of other provisions in 2019, are movements mainly in the litigation provision. Reference is made to Note 16 'Provisions' and Note 46 'Legal proceedings'.

Other

In 2018 Other operating expenses - Other included, amongst others, the settlement with the Dutch Public Prosecution Service of EUR 775 million. The settlement related to previously disclosed investigations regarding various requirements for client on-boarding and the prevention of money laundering and corrupt practices. Reference is made to Note 46 'Legal proceedings'.

29 Earnings per ordinary share

Earnings per ordinary share

	Amount (in EUR million)			Weighted average number of ordinary shares outstanding during the period (in millions)			Per ordinary share (in EUR)		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Basic earnings	3,903	4,761	5,464	3,894.8	3,888.9	3,882.8	1.00	1.22	1.41
Basic earnings from continuing operations	**3,903**	**4,761**	**5,464**				**1.00**	**1.22**	**1.41**
Effect of dilutive instruments:									
Stock option and share plans				0.5	1.5	2.8			
				0.5	**1.5**	**2.8**			
Diluted earnings	3,903	4,761	5,464	3,895.3	3,890.4	3,885.6	1.00	1.22	1.41
Diluted earnings from continuing operations	**3,903**	**4,761**	**5,464**				**1.00**	**1.22**	**1.41**

Dilutive instruments

Diluted earnings per share is calculated as if the stock options and share plans outstanding at the end of the period had been exercised at the beginning of the period and assuming that the cash received from exercised stock options and share plans is used to buy own shares against the average market price during the period. The net increase in the number of shares resulting from exercising stock options and share plans is added to the average number of shares used for the calculation of diluted earnings per share.

30 Dividend per ordinary share

Dividends to shareholders of the parent

	Per ordinary share (in EUR)	Total (in EUR million)
Dividends on ordinary shares:		
In respect of 2017		
- Interim dividend, paid in cash in August 2017	0.24	933
- Final dividend, paid in cash in May 2018	0.43	1,670
Total dividend in respect of 2017	**0.67**	**2,603**
In respect of 2018		
- Interim dividend, paid in cash in August 2018	0.24	934
- Final dividend, paid in cash in May 2019	0.44	1,714
Total dividend in respect of 2018	**0.68**	**2,648**
In respect of 2019		
- Interim dividend, paid in cash in August 2019	0.24	935
- Final dividend declared	0.45	1,754
Total dividend in respect of 2019	**0.69**	**2,689**

ING Groep N.V. is required to withhold tax of 15% on dividends paid.

31 Net cash flow from operating activities

The table below shows a detailed overview of the net cash flow from operating activities.

Cash flows from operating activities

in EUR million		2019	2018	2017
Cash flows from operating activities				
Result before tax		5,653	6,986	8,085
Adjusted for:	- Depreciation and amortisation	789	520	520
	- Addition to loan loss provisions	1,120	656	676
	- Other non-cash items included in result before tax	1,213	–1,763	703
Taxation paid		–2,345	–1,602	–1,691
Changes in:	– Loans and advances to banks, not available on demand	–1,338	–777	–3,126
	– Deposits from banks, not payable on demand	–2,574	566	6,320
	Net change in loans and advances to/ from banks, not available/ payable on demand	**–3,911**	**–211**	**3,194**
	– Trading assets	605	16,928	–1,612
	– Trading liabilities	–3,173	–7,018	–9,575
	Net change in Trading assets and Trading liabilities	**–2,568**	**9,910**	**–11,187**
	Loans and advances to customers	-16,687	-31,356	-21,390
	Customer deposits	18,040	19,709	18,291
	– Non-trading derivatives	1,072	–215	–2,239
	– Assets designated at fair value through profit or loss	–7	–725	441
	– Assets mandatorily at fair value through profit or loss	23,343	–6,968	n/a
	– Other assets	1,363	684	–430
	– Other financial liabilities at fair value through profit or loss	–12,235	10,522	–565
	– Provisions and other liabilities	–1,784	769	339
	Other	**11,752**	**4,067**	**–2,454**
Net cash flow from/(used in) operating activities		**13,055**	**6,915**	**–5,253**

32 Changes in liabilities arising from financing activities

Changes in liabilities arising from financing activities

	Debt securities in issue		Subordinated Loans		Lease liabilities		Total Liabilities from financing activities	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	119,751	96,086	13,724	15,968	n/a	n/a	133,475	112,054
Effect of change in accounting policy due to the implementation of IFRS 9/16	–	740	–	241	1,301		1,301	981
Cashflows:								
Additions	90,793	152,543	3,429	1,859	–		94,222	154,402
Redemptions / Disposals	-94,497	-131,170	-933	-4,646	-271		-95,700	-135,816
Non cash changes:								
Amortisation	135	85	1	13	25		161	98
Other	21	-0	26		443		490	-0
Changes in FV	1,018	-53	201	-73	–		1,220	-126
Foreign exchange movement	1,306	1,521	140	362	8		1,454	1,883
Closing balance	**118,528**	**119,751**	**16,588**	**13,724**	**1,507**	**n/a**	**136,622**	**133,475**

33 Cash and cash equivalents

Cash and cash equivalents

	2019	2018	2017
Treasury bills and other eligible bills	43	159	391
Deposits from banks/Loans and advances to banks	786	–2,617	–3,403
Cash and balances with central banks	53,202	49,987	21,989
Cash and cash equivalents at end of year	**54,031**	**47,529**	**18,977**

Treasury bills and other eligible bills included in cash and cash equivalents	2019	2018	2017
Treasury bills and other eligible bills included in trading assets	0	17	5
Treasury bills and other eligible bills included in AFS investments	n/a	n/a	386
Treasury bills and other eligible bills included in FVOCI		–0	n/a
Treasury bills and other eligible bills included in securities at AC	43	142	n/a
	43	**159**	**391**

Deposits from banks/Loans and advances to banks	2019	2018	2017
Included in cash and cash equivalents:			
– Deposits from banks	–8,519	–8,520	–8,563
– Loans and advances to banks	9,304	5,903	5,160
	786	**–2,617**	**–3,403**
Not included in cash and cash equivalents:			
– Deposits from banks	–26,307	–28,811	–28,258
– Loans and advances to banks	25,832	24,519	23,651
	–476	**–4,292**	**–4,607**
Total as included in the statement of financial position:			
– Deposits from banks	–34,826	–37,330	–36,821
– Loans and advances to banks	35,136	30,422	28,811
	310	**–6,909**	**–8,010**

Cash and cash equivalents includes deposits from banks and loans and advances to banks that are on demand.

Included in Cash and cash equivalents, are minimum mandatory reserve deposits to be held with various central banks. Reference is made to Note 42 'Assets not freely disposable' for restrictions on Cash and balances with central banks.

Segment reporting

34 Segments

a. General

ING Group's segments are based on the internal reporting structures by lines of business.

The Executive Board of ING Group and the Management Board Banking set the performance targets, approve and monitor the budgets prepared by the business lines. Business lines formulate strategic, commercial, and financial plans in conformity with the strategy and performance targets set by the Executive Board of ING Group and the Management Board Banking.

Recognition and measurement of segment results are in line with the accounting policies as described in Note 1 'Accounting policies'. Corporate expenses are allocated to business lines based on time spent by head office personnel, the relative number of staff, or on the basis of income, expenses and/or assets of the segment.

The following table specifies the segments by line of business and main sources of income of each of the segments:

Specification of the main sources of income of each of the segments by line of business

Segments of the Banking results by line of business	Main source of income
Retail Netherlands *(Market Leaders)*	Income from retail and private banking activities in the Netherlands, including the SME and mid-corporate segments, and the Real Estate Finance portfolio related to Dutch domestic mid-corporates. The main products offered are current and savings accounts, business lending, mortgages and other consumer lending in the Netherlands.
Retail Belgium *(Market Leaders)*	Income from retail and private banking activities in Belgium (including Luxembourg), including the SME and mid-corporate segments. The main products offered are similar to those in the Netherlands.
Retail Germany *(Challengers and Growth Markets)*	Income from retail and private banking activities in Germany (including Austria). The main products offered are current and savings accounts, mortgages and other customer lending.
Retail Other *(Challengers and Growth Markets)*	Income from retail banking activities in the rest of the world, including the SME and mid-corporate segments in specific countries. The main products offered are similar to those in the Netherlands.
Wholesale Banking	Income from wholesale banking activities. The main products are: lending, debt capital markets, working capital solutions, export finance, daily banking solutions, treasury and risk solutions, and corporate finance.

As of 1 January 2019, the Real Estate Finance portfolio related to Dutch domestic mid-corporates, which was included under Wholesale Banking, has been transferred to Retail Netherlands in order to define clearer roles and responsibilities. The presentation of previously reported underlying profit and loss amounts has been adjusted to reflect this change.

The geographical segments for the Banking results are presented on page F - 79.

Specification of geographical segments

Geographical segments	Main countries
The Netherlands	
Belgium	Including Luxembourg
Germany	Including Austria
Other Challengers	Australia, France, Italy, Spain, Portugal, Czech Republic, and UK Legacy and Other
Growth Markets	Poland, Romania, Turkey, Philippines and Asian bank stakes
Wholesale Banking Rest of World	UK, Americas, Asia and other countries in Central and Eastern Europe
Other	Corporate Line Banking and the run-off portfolio of Real Estate

ING Group evaluates the results of its banking segments using a financial performance measure called underlying result. Underlying result is used to monitor the performance of ING Group at a consolidated level and by segment. The Executive Board and the Management Board Banking consider this measure to be relevant to an understanding of the Group's financial performance, because it allows investors to understand the primary method used by management to evaluate the Group's operating performance and make decisions about allocating resources. In addition, ING Group believes that the presentation of underlying net result helps investors compare its segment performance on a meaningful basis by highlighting result before tax attributable to ongoing operations and the underlying profitability of the segment businesses. Underlying result is derived by excluding from IFRS the following: special items, adjustment of the EU 'IAS 39 carve out', the impact of divestments and Insurance Other.

Special items include items of income or expense that are significant and arise from events or transactions that are clearly distinct from the regular operating activities. Disclosures on comparative periods also reflect the impact of divestments. Insurance Other reflects (former) insurance related activities that are not part of the discontinued operations.

ING Group reconciles the total segment results to the total result of Banking using Corporate Line Banking. The Corporate Line Banking is a reflection of capital management activities and certain income and expenses that are not allocated to the banking businesses, including a higher VAT refund in 2019 as well as a EUR 119 million gain from the release of a currency translation reserve following the sale of ING's stake in Kotak Mahindra Bank and the recognition of a EUR 79 million receivable related to the insolvency of a financial institution (both recorded under income). Furthermore, the Corporate Line Banking includes the isolated legacy costs (mainly negative interest results) caused by the replacement of short-term funding with long-term funding during 2013 and 2014. ING Group applies a system of capital charging for its banking operations in order to create a comparable basis for the results of business units globally, irrespective of the business units' book equity and the currency they operate in.

Underlying result as presented below is a non-GAAP financial measure and is not a measure of financial performance under IFRS. Because underlying result is not determined in accordance with IFRS, underlying result as presented by ING may not be comparable to other similarly titled measures of performance of other companies. The underlying result of ING's segments is reconciled to the net result as reported in the IFRS Consolidated statement of profit or loss below. The information presented in this note is in line with the information presented to the Executive Board of ING Group and Management Board Banking.

This note does not provide information on the revenue specified to each product or service as this is not reported internally and is therefore not readily available.

b. ING Group

Reconciliation between IFRS and Underlying income, expenses and net result

	2019					2018					2017				
	Income	Expenses	Taxation	Non-Controlling interests	Net result[1]	Income	Expenses	Taxation	Non-Controlling interests	Net result[1]	Income	Expenses	Taxation	Non-Controlling interests	Net result[1]
Net result IFRS attributable to equity holder of the parent	**17,125**	**11,472**	**1,652**	**99**	**3,903**	**18,324**	**11,338**	**2,116**	**108**	**4,761**	**18,590**	**10,505**	**2,539**	**82**	**5,464**
Remove impact of:															
Special items[2]							–775			775	–121		–121		0
Insurance Other[3]						–89		1		–90	53		1		52
Adjustment of the EU 'IAS 39 carve out' [4]	1,181		303		878	–148		–90		–58	–817		–258		–559
Underlying[5]	**18,306**	**11,472**	**1,955**	**99**	**4,781**	**18,088**	**10,563**	**2,028**	**108**	**5,389**	**17,704**	**10,505**	**2,160**	**82**	**4,957**

1 Net result, after tax and non-controlling interests.
2 Special items in 2018 comprised a settlement agreement with the Dutch authorities on regulatory issues as announced on 4 September 2018.
Special items in 2017 comprised a tax charge at ING Australia Holdings Ltd related to the years 2013-2017, for which a full reimbursement is expected to be received from NN Group.
3 Insurance Other comprises the net result relating to warrants on the shares of Voya Financial and NN Group. In March 2018 ING sold its remaining part of warrants on the shares of Voya Financial. In November 2018 the warrant agreement between NN Group and ING was terminated.
4 ING prepares the Form 20-F in accordance with IFRS-IASB. This information is prepared by reversing the hedge accounting impacts that applied under the EU 'carve-out'
5 Underlying figures are derived from figures according to IFRS by excluding the impact of adjustment of the EU 'IAS 39 carve-out', special items and Insurance Other.

ING Group Total

	2019					2018					2017				
	ING Bank N.V.	Other Banking [1]	Total Banking	Legacy Insurance	Total	ING Bank N.V.	Other Banking [1]	Total Banking	Legacy Insurance	Total	ING Bank N.V.	Other Banking [1]	Total Banking	Legacy Insurance	Total
Underlying income															
Net interest income	14,074	4	14,079		14,079	13,949	–34	13,916		13,916	13,782	–68	13,714		13,714
Net fee and commission income	2,868	–0	2,868		2,868	2,803	–0	2,803		2,803	2,714	–0	2,714		2,714
Total investment and other income	1,352	8	1,360		1,360	1,350	19	1,369		1,369	1,259	17	1,277		1,277
Total underlying income	**18,295**	**12**	**18,306**		**18,306**	**18,102**	**–15**	**18,088**		**18,088**	**17,755**	**–51**	**17,704**		**17,704**
Underlying expenditure															
Operating expenses	10,343	9	10,353		10,353	9,920	–13	9,907		9,907	9,795	34	9,829		9,829
Additions to loan loss provision	1,120	0	1,120		1,120	656	0	656		656	676	0	676		676
Total underlying expenses	**11,463**	**9**	**11,472**		**11,472**	**10,576**	**–13**	**10,563**		**10,563**	**10,472**	**34**	**10,505**		**10,505**
Underlying result before taxation	**6,831**	**3**	**6,834**		**6,834**	**7,526**	**–2**	**7,524**		**7,524**	**7,283**	**–84**	**7,199**		**7,199**
Taxation	1,889	66	1,955		1,955	2,036	–8	2,028		2,028	2,182	–22	2,160		2,160
Non-controlling interests	99		99		99	108		108		108	82		82		82
Underlying net result	**4,843**	**–63**	**4,781**		**4,781**	**5,382**	**6**	**5,389**		**5,389**	**5,019**	**–62**	**4,957**		**4,957**
Special items						–775		–775		–775	0		0		0
Insurance Other									90	90				–52	–52
Adjustment of the EU 'IAS 39 carve out'	–878		–878		–878	58		58		58	559		559		559
Net result IFRS attributable to equity holder of the parent	**3,966**	**–63**	**3,903**		**3,903**	**4,665**	**6**	**4,672**	**90**	**4,761**	**5,578**	**–62**	**5,516**	**–52**	**5,464**

1 Comprises for the most part the funding charges of ING Groep N.V. (Holding).

c. Banking activities

Segments Banking by line of business

2019

	Retail Netherlands	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,541	1,907	1,579	2,787	3,794	470	14,079
– Net fee and commission income	674	374	268	423	1,135	–6	2,868
– Total investment and other income	290	161	138	298	369	103	1,360
Total underlying income	**4,505**	**2,442**	**1,985**	**3,509**	**5,298**	**568**	**18,306**
Underlying expenditure							
– Operating expenses	2,210	1,609	1,080	2,210	2,937	307	10,353
– Additions to loan loss provision	91	186	–53	364	532	–0	1,120
Total underlying expenses	**2,301**	**1,794**	**1,027**	**2,574**	**3,469**	**307**	**11,472**
Underlying result before taxation	**2,204**	**647**	**957**	**935**	**1,830**	**261**	**6,834**
Taxation	558	192	328	234	464	179	1,955
Non-controlling interests		0	3	82	14		99
Underlying net result	**1,646**	**455**	**627**	**619**	**1,352**	**82**	**4,781**
Special items							
Adjustment of the EU 'IAS 39 carve out'					–878		–878
Net result Banking	**1,646**	**455**	**627**	**619**	**474**	**82**	**3,903**
Net result Insurance Other							
Net result IFRS-IASB							**3,903**

2018

	Retail Netherlands[1]	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking[1]	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,749	1,830	1,671	2,690	3,686	290	13,916
– Net fee and commission income	664	371	225	395	1,152	–4	2,803
– Total investment and other income	335	169	76	230	673	–113	1,369
Total underlying income	**4,747**	**2,369**	**1,972**	**3,315**	**5,510**	**173**	**18,088**
Underlying expenditure							
– Operating expenses	2,220	1,610	1,027	2,033	2,771	247	9,907
– Additions to loan loss provision	–41	164	–27	350	210	–1	656
Total underlying expenses	**2,179**	**1,774**	**1,000**	**2,383**	**2,981**	**246**	**10,563**
Underlying result before taxation	**2,568**	**595**	**972**	**932**	**2,529**	**–72**	**7,524**
Taxation	626	199	324	200	633	47	2,028
Non-controlling interests		6	3	80	19		108
Underlying net result	**1,942**	**390**	**646**	**652**	**1,877**	**–119**	**5,389**
Special items						–775	–775
Adjustment of the EU 'IAS 39 carve out'					58		58
Net result Banking	**1,942**	**390**	**646**	**652**	**1,935**	**–894**	**4,672**
Net result Insurance Other							90
Net result IFRS-IASB							**4,761**

2017

	Retail Netherlands[1]	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking[1]	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,866	1,842	1,704	2,437	3,639	226	13,714
– Net fee and commission income	607	408	215	384	1,102	–3	2,714
– Total investment and other income	256	224	–28	207	919	–301	1,277
Total underlying income	**4,730**	**2,473**	**1,891**	**3,028**	**5,660**	**–78**	**17,704**
Underlying expenditure							
– Operating expenses	2,260	1,584	1,032	1,919	2,744	290	9,829
– Additions to loan loss provision	15	104	–10	284	282	1	676
Total underlying expenses	**2,275**	**1,688**	**1,022**	**2,203**	**3,026**	**291**	**10,505**
Underlying result before taxation	**2,455**	**785**	**869**	**825**	**2,634**	**–369**	**7,199**
Taxation	615	296	241	188	832	–13	2,160
Non-controlling interests		–2	2	67	15		82
Underlying net result	**1,839**	**491**	**625**	**569**	**1,788**	**–356**	**4,957**
Special items						0	0
Adjustment of the EU 'IAS 39 carve out'					559		559
Net result Banking	**1,839**	**491**	**625**	**569**	**2,347**	**–356**	**5,516**
Net result Insurance Other							–52
Net result IFRS-IASB							**5,464**

1 In 2019, the Dutch domestic midcorporates real estate finance portfolio transferred from Wholesale Banking to Retail Banking Netherlands. Comparative figures have been adjusted.

Geographical segments Banking

2019

	Netherlands	Belgium	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World	Other	Total Banking
Underlying income								
– Net interest income	4,213	2,233	2,122	1,808	1,606	1,636	461	14,079
– Net fee and commission income	994	533	315	283	299	451	–7	2,868
– Total investment and other income	119	233	169	16	411	301	111	1,360
Total underlying income	**5,325**	**2,999**	**2,606**	**2,107**	**2,316**	**2,388**	**566**	**18,306**
Underlying expenditure								
– Operating expenses	2,994	1,925	1,237	1,318	1,261	1,309	308	10,353
– Additions to loan loss provision	146	268	–40	171	271	303	–0	1,120
Total underlying expenses	**3,140**	**2,194**	**1,197**	**1,489**	**1,533**	**1,612**	**308**	**11,472**
Underlying result before taxation	**2,185**	**805**	**1,409**	**618**	**784**	**776**	**258**	**6,834**
Taxation	549	247	476	207	166	137	173	1,955
Non-controlling interests	–0	0	3		96			99
Underlying net result	**1,637**	**558**	**929**	**411**	**521**	**639**	**85**	**4,781**
Special items							–	–
Insurance Other							–	–
Adjustment of the EU 'IAS 39 carve out'	–273	–372	–232	–0				–878
Net result IFRS	**1,363**	**186**	**697**	**411**	**521**	**639**	**85**	**3,903**

2018

	Netherlands	Belgium [1]	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World [1]	Other	Total Banking
Underlying income								
– Net interest income	4,374	2,137	2,200	1,732	1,639	1,548	285	13,916
– Net fee and commission income	980	520	273	254	297	482	–4	2,803
– Total investment and other income	509	379	99	–92	333	245	–104	1,369
Total underlying income	**5,863**	**3,037**	**2,572**	**1,895**	**2,269**	**2,274**	**177**	**18,088**
Underlying expenditure								
– Operating expenses	2,929	1,932	1,171	1,217	1,175	1,222	263	9,907
– Additions to loan loss provision	–65	153	6	163	274	126	–1	656
Total underlying expenses	**2,863**	**2,085**	**1,176**	**1,380**	**1,449**	**1,347**	**262**	**10,563**
Underlying result before taxation	**3,000**	**952**	**1,396**	**515**	**820**	**927**	**–85**	**7,524**
Taxation	741	291	459	178	143	174	43	2,028
Non-controlling interests	1	6	3		98			108
Underlying net result	**2,258**	**655**	**935**	**337**	**580**	**753**	**–128**	**5,389**
Special items							–775	–775
Insurance Other							90	90
Adjustment of the EU 'IAS 39 carve out'	106	22	–72	2				58
Net result IFRS	**2,364**	**677**	**863**	**339**	**580**	**753**	**–813**	**4,761**

2017

	Netherlands	Belgium [1]	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World [1]	Other	Total Banking
Underlying income								
– Net interest income	4,537	2,110	2,172	1,527	1,515	1,625	227	13,714
– Net fee and commission income	871	521	269	232	316	507	–3	2,714
– Total investment and other income	445	480	–17	22	296	245	–193	1,277
Total underlying income	**5,853**	**3,111**	**2,424**	**1,781**	**2,127**	**2,377**	**31**	**17,704**
Underlying expenditure								
– Operating expenses	2,930	2,071	1,154	1,142	1,126	1,105	301	9,829
– Additions to loan loss provision	3	160	–15	201	241	85	1	676
Total underlying expenses	**2,933**	**2,231**	**1,140**	**1,344**	**1,367**	**1,190**	**301**	**10,505**
Underlying result before taxation	**2,920**	**880**	**1,285**	**437**	**760**	**1,188**	**–270**	**7,199**
Taxation	708	369	407	145	151	379	–1	2,160
Non-controlling interests	–	–2	2		82			82
Underlying net result	**2,212**	**512**	**875**	**292**	**527**	**808**	**–269**	**4,957**
Special items							0	0
Insurance Other							–52	–52
Adjustment of the EU 'IAS 39 carve out'	465	38	113	–58				558
Net result IFRS	**2,677**	**550**	**988**	**234**	**527**	**808**	**–321**	**5,464**

1 As from 2019, financials of Nordics locations (which are managed from Brussels(transferred from 'Wholesale Banking rest of the World' to 'Belgium'. Comparative figures have been adjusted.

35 Information on geographical areas

ING Group's business lines operate in seven main geographical areas: the Netherlands, Belgium, Rest of Europe, North America, Latin America, Asia and Australia. A geographical area is a distinguishable component of the Group engaged in providing products or services within a particular economic environment that is subject to risks and returns that are different from those of geographical areas operating in other economic environments. The geographical analyses are based on the location of the office from which the transactions are originated. The Netherlands is ING Group's country of domicile.

The tables below provide additional information, for the years 2019, 2018 and 2017 respectively, on names of principal subsidiaries and branches, nature of main activities and average number of employees on a full time equivalent basis by country/tax jurisdiction.

Additional information by country

Geographical area	Country/Tax jurisdiction	Name of principal subsidiary	Main (banking) activity	Average number of employees at full time equivalent basis			Total Income			Total assets			Result before tax			Taxation		
				2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Netherlands	Netherlands	ING Bank N.V.	Wholesale / Retail	14,415	13,600	13,141	5,198	6,130	6,396	267,368	259,387	239,342	1,397	1,973	2,940	437	738	812
Belgium	Belgium	ING België N.V.	Wholesale / Retail	7,694	8,248	8,893	2,277	2,838	3,041	121,813	120,287	119,068	291	898	1,093	142	285	455
	Luxemburg	ING Luxembourg S.A.	Wholesale / Retail	841	791	777	292	315	298	16,608	13,310	14,748	123	199	68	29	50	27
Rest of Europe	Poland	ING Bank Slaski S.A	Wholesale / Retail	8,968	8,829	8,664	1,344	1,229	1,119	37,220	33,040	29,976	533	525	444	141	128	112
	Germany	ING DiBa A.G.	Wholesale / Retail	4,639	4,625	4,587	2,141	2,315	2,477	147,642	144,861	138,185	1,032	1,203	1,405	355	397	448
	Romania	Branch of ING Bank N.V.	Wholesale / Retail	2,575	2,269	1,968	457	403	314	7,424	7,112	5,940	221	183	135	34	25	23
	Spain	Branch of ING Bank N.V.	Wholesale / Retail	1,233	1,201	1,135	706	600	509	26,118	23,757	23,858	249	195	97	72	71	25
	Italy	Branch of ING Bank N.V.	Wholesale / Retail	959	911	838	269	231	336	15,726	16,991	16,728	–39	–101	–4	4	–24	7
	UK	Branch of ING Bank N.V.	Wholesale	692	672	603	594	505	550	61,088	64,016	78,573	214	180	324	52	44	76
	France [1]	Branch of ING Bank N.V.	Wholesale / Retail	659	620	591	308	323	310	12,058	12,063	10,678	70	111	93	35	45	32
	Russia	ING Bank (Eurasia) Z.A.O.	Wholesale	293	277	270	93	82	136	1,499	1,449	1,607	68	25	78	22	3	20
	Czech Republic	Branch of ING Bank N.V.	Wholesale / Retail	339	306	245	88	106	–5	4,494	6,278	5,640	10	39	–55	2	10	–11
	Hungary	Branch of ING Bank N.V.	Wholesale	138	141	146	24	40	32	1,299	1,227	1,003	–7	5	–	2	3	2
	Slovakia	Branch of ING Bank N.V.	Wholesale	703	571	497	14	14	14	587	487	677	2	–0	2	–0	1	1
	Ukraine	PJSC ING Bank Ukraine	Wholesale	111	109	106	43	36	30	481	368	321	31	22	9	9	3	2
	Austria	Branch of ING DiBa A.G.	Wholesale / Retail	279	235	225	80	85	80	1,441	753	682	0	18	25	1	6	–1
	Bulgaria	Branch of ING Bank N.V.	Wholesale	68	69	70	12	9	9	358	360	268	2	–0	–2	–	–	–
	Ireland	Branch of ING Bank N.V.	Wholesale	48	47	43	71	68	57	2,575	2,868	2,337	58	65	47	8	8	6
	Portugal	Branch of ING Bank N.V.	Wholesale	12	11	11	18	18	14	899	905	667	14	13	9	4	4	3
	Switzerland	Branch of ING België N.V.	Wholesale	257	244	204	234	257	224	8,577	8,266	9,737	126	169	145	–36	35	38

1 Public subsidies received, as defined in article 89 of the CRD IV, amounts to EUR 0.3 million (2018: EUR 0.5 million; 2017: EUR 0.5 million).

Additional information by country (continued)

Geographical area	Country/Tax jurisdiction	Name of principal subsidiary	Main (banking) activity	Average number of employees at full time equivalent basis			Total Income			Total assets			Result before tax			Taxation		
				2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
North America	Canada	Payvision Canada Services Ltd.	Wholesale	1	1		3	3		1	2	2		0			0	–
	USA	ING Financial Holdings Corp.	Wholesale	626	617	564	813	736	724	45,521	61,440	42,873	366	343	371	118	61	134
Latin America	Brazil	Branch of ING Bank N.V.	Wholesale	89	88	78	43	35	47	2,921	1,974	1,184	27	16	16	6	9	4
	Colombia	ING Capital Colombia S.A.S.	Wholesale	3	3	2	1	1	1	2	2	2						
	Mexico	ING Consulting, S.A. de C.V.	Wholesale	8	8	8	1	1	1	2	2	2	–2	–2	–2			
Asia	China	Branch of ING Bank N.V.	Wholesale	89	86	81	35	37	35	2,031	2,107	2,298	7	3	7	–1	7	–2
	Japan	Branch of ING Bank N.V.	Wholesale	33	32	35	31	36	33	5,109	2,300	2,238	22	19	17	8	5	11
	Singapore	Branch of ING Bank N.V.	Wholesale	592	546	512	349	340	297	27,982	32,222	25,803	76	176	133	13	21	9
	Macau	Payvision Macau Ltd.	Wholesale			n/a		–	n/a		–	n/a		–	n/a		–	n/a
	Hong Kong	Branch of ING Bank N.V.	Wholesale	128	122	108	96	110	94	7,350	6,975	7,850	38	52	55	7	8	7
	Philippines	Branch of ING Bank N.V.	Wholesale/ Retail	1,420	878	604	25	17	18	412	395	322	–11	0	6	–5	3	2
	South Korea	Branch of ING Bank N.V.	Wholesale	79	80	82	60	55	55	5,457	4,299	4,602	25	14	21	7	3	6
	Taiwan	Branch of ING Bank N.V.	Wholesale	34	33	33	26	23	23	2,873	2,839	3,910	10	7	11	0	0	–
	Indonesia	PT ING Securities Indonesia	Wholesale	0	3	5	0	0	1	6	6	6	–0	–0	–			
	Malaysia	Branch of ING Bank N.V.	Wholesale	5	5	5	1	1		166	139	29	0	0	–1	0	0	
	India	Branch of ING Bank N.V.	Wholesale	–	–	–	0		1		1	2	0	–	1	0	–0	
	Turkey	ING Bank A.S.	Wholesale / Retail	4,074	4,709	5,221	677	678	741	9,927	11,521	13,798	304	245	267	66	50	54
	United Arabic Emirates	Branch of ING Bank N.V.	Wholesale	11	11	10	–1	–0		0	0		–2	–1	–2			
Australia	Australia	ING Bank (Australia) Ltd.	Wholesale / Retail	1,319	1,234	1,143	701	647	577	43,482	39,673	37,982	400	389	330	121	118	235
Other	Mauritius	ING Mauritius Ltd.	Investment Management				0	1	1	1	920	939	–0	1	–			
Total				53,431	52,233	51,504	17,125	18,324	18,590	888,520	884,603	843,878	5,653	6,986	8,085	1,652	2,116	2,539

2019

The relatively high tax charge of 31% in the Netherlands (compared to statutory rate of 25%) is mainly caused by the non-deductible Dutch bank tax (EUR 177 million) and the non-deductible AT1 interest expenses (EUR 276 million).

The relatively low tax charge in Switzerland is caused by a deferred tax benefit following a tax rate reduction in 2019.

2018

The relatively high tax charge of 37% in the Netherlands (compared to statutory rate of 25%) is mainly caused by non-deductible expenses of EUR 775 million upon the settlement agreement reached with the Dutch authorities on regulatory issues.

2017

Australia has a very high tax charge due to a tax charge at ING Australia Holdings Ltd related to the years 2007-2013, for which a full reimbursement is expected to be received from NN Group. Although the impact on net result was nil, this special item affected both the tax and 'other income' line in the Consolidated statement of profit or loss.
Due to the tax reforms in the US and Belgium, which resulted in a tax charge to record a reduction in deferred tax assets, the tax charge is significantly higher.
Austria, China, Singapore and Taiwan all have lower tax charges due to prior year adjustments.

Additional notes to the Consolidated financial statements

36 Pension and other post-employment benefits

Most group companies sponsor defined contribution pension plans. The assets of all ING Group's defined contribution plans are held in independently administered funds. Contributions are generally determined as a percentage of remuneration. For the defined contribution scheme in the Netherlands, the premium paid is also dependent on the interest rate developments and the methodology of the Dutch Central Bank for determining the ultimate forward rate. These plans do not give rise to provisions in the statement of financial position, other than relating to short-term timing differences included in other assets/liabilities.

ING Group maintains defined benefit retirement plans in some countries. These plans provide benefits that are related to the remuneration and service of employees upon retirement. The benefits in some of these plans are subject to various forms of indexation. The indexation is, in some cases, at the discretion of management; in other cases it is dependent upon the sufficiency of plan assets.

Annual contributions are paid to the funds at a rate necessary to adequately finance the accrued liabilities of the plans calculated in accordance with local legal requirements. Plans in all countries are designed to comply with applicable local regulations governing investments and funding levels.

ING Group provides other post-employment benefits to certain employees and former employees. These are primarily post-employment healthcare benefits and discounts on ING products provided to employees and former employees.

Statement of financial position - Net defined benefit asset/liability

Plan assets and defined benefit obligation per country

	Plan assets		Defined benefit obligation		Funded Status	
	2019	2018	2019	2018	2019	2018
The Netherlands	454	394	634	540	–180	–146
United States	277	222	275	224	3	–3
United Kingdom	1,887	1,703	1,184	1,179	703	524
Belgium	590	547	676	636	–85	–88
Other countries	168	154	383	334	–214	–181
Funded status (Net defined benefit asset/liability)	**3,377**	**3,019**	**3,151**	**2,913**	**226**	**106**
Presented as:						
- Other assets					709	527
- Other liabilities					–483	–421
					226	**106**

The most recent (actuarial) valuations of the plan assets and the present value of the defined benefit obligation were carried out as at 31 December 2019. The present value of the defined benefit obligation, and the related current service cost and past service cost, were determined using the projected unit credit method.

Changes in the fair value of plan assets for the period were as follows:

Changes in fair value of plan assets

	2019	2018
Opening balance	3,019	3,206
Interest income	70	66
Remeasurements: Return on plan assets excluding amounts included in interest income	274	–143
Employer's contribution	34	66
Participants contributions	2	3
Benefits paid	–126	–176
Exchange rate differences	104	–3
Closing balance	**3,377**	**3,019**
Actual return on the plan assets	**344**	**–77**

As at 31 December 2019 the various defined benefit plans did not hold any direct investments in ING Groep N.V. (2018: nil). During 2019 and 2018 there were no purchases or sales of assets between ING and the pension funds.

ING does not manage the pension funds and thus receives no compensation for fund management. The pension fund has not engaged ING in any swap or derivative transactions to manage the risk of the pension funds.

No plan assets are expected to be returned to ING Group during 2020.

Changes in the present value of the defined benefit obligation and other post-employment benefits for the period were as follows:

Changes in defined benefit obligation and other post-employment benefits

	Defined benefit obligation		Other post-employment benefits	
	2019	2018	2019	2018
Opening balance	2,913	3,140	76	87
Current service cost	28	39	–1	–4
Interest cost	65	61	3	2
Remeasurements: Actuarial gains and losses arising from changes in demographic assumptions	–6	2		
Remeasurements: Actuarial gains and losses arising from changes in financial assumptions	206	–153	7	–11
Participants' contributions	2	3	1	1
Benefits paid	–130	–179	–1	–1
Past service cost		0		
Exchange rate differences	73	2	1	2
Changes in the composition of the group and other changes	0	–1		
Closing balance	**3,151**	**2,913**	**84**	**76**

Amounts recognised directly in Other comprehensive income (equity) were as follows:

Changes in the net defined benefit assets/liability remeasurement reserve

	2019	2018
Opening balance	–394	–400
Remeasurement of plan assets	274	–143
Actuarial gains and losses arising from changes in demographic assumptions	6	–2
Actuarial gains and losses arising from changes in financial assumptions	–206	153
Taxation and Exchange rate differences	–15	–3
Total Other comprehensive income movement for the year	**58**	**6**
Closing balance	**–336**	**–394**

In 2019, EUR 274 million remeasurement of plan assets recognized as a gain in Other comprehensive income is driven by higher yields on investments. The EUR -206 million actuarial gains and losses arising from changes in financial assumptions in the calculation of the defined benefit obligation are mainly due to a decrease in discount rates.

The accumulated amount of remeasurements recognised directly in Other comprehensive income (equity) is EUR -378 million (EUR -336 million after tax) as at 31 December 2019 (2018: EUR -453 million; EUR -394 million after tax).

Amounts recognised in the statement of profit or loss related to pension and other staff related benefits are as follows:

Pension and other staff-related benefit costs

	Net defined benefit asset/liability			Other post-employment benefits			Other			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Current service cost	28	39	34	–1	–4	–3	1	22	–2	29	57	29
Net Interest cost	–5	–4	–4	3	2	3		0	1	–2	–2	
Effect of curtailment or settlement			–3					–1			–1	–3
Other												
Defined benefit plans	**23**	**35**	**27**	**2**	**–1**		**2**	**21**	**–1**	**26**	**54**	**26**
Defined contribution plans										340	331	355
										366	**385**	**381**

Determination of the net defined benefit asset/liability

The net defined benefit asset/liability is reviewed and adjusted annually. The assumptions used in the determination of the net defined benefit asset/liability and the Other post-employment benefits include discount rates, mortality rates, expected rates of salary increases (excluding promotion increases), and indexation. The rates used for salary developments, interest discount factors, and other adjustments reflect country-specific conditions.

The key assumption in the determination of the net defined benefit asset/liability is the discount rate. The discount rate is the weighted average of the discount rates that are applied in different regions where ING Group has defined benefit pension plans (weighted by the defined benefit obligation). The discount rate is based on a methodology that uses market yields on high quality corporate bonds of the specific regions with durations matching the pension liabilities as key input. Market yields of high quality corporate bonds reflect the yield on corporate bonds with an AA rating for durations where such yields are available. An extrapolation is applied in order to determine the yield to the longer durations for which no AA-rated corporate bonds are available. As a result of the limited availability of long-duration AA-rated corporate bonds, extrapolation is an important element of the determination of the discount rate. The weighted average discount rate applied for net defined benefit asset/liability for 2019 was 1.5% 2018: (2.3%) based on the pension plan in the Netherlands, Germany, Belgium, The United States of America, and the United Kingdom. The average discount rate applied for Other post-employment benefits was 3.3% 2018: (3.9%).

Sensitivity analysis of key assumptions

ING performs sensitivity analysis on the most significant assumptions: discount rates, mortality, expected rate of salary increase, and indexation. The sensitivity analysis has been carried out under the assumption that the changes occurred at the end of the reporting period.

The sensitivity analysis calculates the financial impact on the defined benefit obligation of an increase or decrease of the weighted averages of each significant actuarial assumption, all other assumptions held constant. In practice, this is unlikely to occur, and some changes of the assumptions may be correlated. Changes to mortality, expected rate of salary increase, and indexation would have no material impact on the defined benefit obligation. The most significant impact would be from a change in the discount rate. An increase or decrease in the discount rate of 1% creates an impact on the defined benefit obligation of EUR -443 million and EUR 561 million, respectively.

Expected cash flows

Annual contributions are paid to the funds at a rate necessary to adequately finance the accrued liabilities of the plans calculated in accordance with local legal requirements. Plans in all countries are designed to comply with applicable local regulations governing investments and funding levels. ING Group's subsidiaries should fund the cost of the entitlements expected to be earned on a yearly basis.

For 2020 the expected contributions to defined benefit pension plans are EUR 44 million.

The benefit payments for defined benefit and other post-employment benefits expected to be made by the plan between 2020-2024 are estimated to be between EUR 100 million and EUR 135 million per annum. From 2025 to 2029 the total payments made by the plan are expected to be EUR 882 million.

37 Taxation

Statement of financial position – Deferred tax

Deferred taxes are recognised on all temporary differences under the liability method using tax rates applicable in the jurisdictions in which ING Group is subject to taxation.

Changes in deferred tax

2019	Net liability (-) Net asset (+) 2018	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-) Net asset (+) 2019
Financial assets at FVOCI[1]	–118	23	–11	–1		–107
Investment properties	–6		–1	–0		–7
Financial assets and liabilities at FVPL[1]	632		314	2	–2	947
Depreciation	–23		5			–19
Cash flow hedges	–140	–199		2		–337
Pension and post-employment benefits	59	–14	2	–5		42
Other provisions	10		–1	–3		6
Loans and advances[1]	474	–1	18			491
Unused tax losses carried forward	51		5	5		61
Other	–160	16	–13	1	–0	–156
	778	**–176**	**318**	**2**	**–2**	**920**
Presented in the statement of financial position as:						
– Deferred tax liabilities	–180					–322
– Deferred tax assets	958					1,242
	778					**920**

1 The prior period has been updated to improve consistency and comparability.

IFRS 16 Leases (implemented per 1 January 2019) requires lessees to recognise right-of-use assets and lease liabilities on the balance sheet. The above table shows netted amounts which include in the row 'Other' a deferred tax amount for right-of-use assets of EUR 370 million (1 January 2019: EUR 320 million) and a deferred tax amount for lease liabilities of EUR -376 million (1 January 2019: EUR -323 million).

Financial assets and liabilities FVPL changes through net result in 2019 relates to the increase in fair value of derivatives due to decreased interest yield curves.

Changes in deferred tax

2018	Net liability (-) Net asset (+)	Effect of changes in accounting policies due to the implementation of IFRS 9	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-) Net asset (+) 2018
Financial assets FVOCI[1]	–663	157	113	273	4	–2	–118
Investment properties	–5			–1	0		–6
Financial assets and liabilities at FVPL[1]	1,082	–15		–453	17	1	632
Depreciation	–24			1	–0		–23
Cash flow hedges	–72		–76		7	1	–140
Pension and post-employment benefits	76		–12	–8	2	0	59
Other provisions	198	4		–187	–7	1	10
Loans and advances[1]	337	137	3	–5	–0	2	474
Unused tax losses carried forward	–8			61	–2	–0	51
Other	–178	45	–53	55	1	–31	–160
Total	**744**	**328**	**–25**	**–265**	**23**	**–27**	**778**
Presented in the statement of financial position as:							
– deferred tax liabilities	–362						–180
– deferred tax assets	1,106						958
	744						**778**

1 The prior period has been updated to improve consistency and comparability.

The deferred tax balance recorded under 'Other provisions' declined in 2018 by EUR 187 million change through net result of which EUR 90 million relates to the decline of the Belgian reorganisation provision.

Changes in the Composition of the Group and other changes include the deferred tax liability (EUR 30 million) regarding the acquisition of Payvision.

Deferred tax in connection with unused tax losses carried forward

	2019	2018
Total unused tax losses carried forward	1,685	1,773
Unused tax losses carried forward not recognised as a deferred tax asset	922	1,010
Unused tax losses carried forward recognised as a deferred tax asset	**764**	**763**
Average tax rate	21.4%	20.4%
Deferred tax asset	163	156

Total unused tax losses carried forward analysed by expiry terms

	No deferred tax asset recognised		Deferred tax asset recognised	
	2019	2018	2019	2018
Within 1 year	1	1		
More than 1 year but less than 5 years	4	2	17	2
More than 5 years but less than 10 years	92	83		1
Unlimited	824	923	746	759
	922	**1,010**	**764**	**763**

The above mentioned deferred tax of EUR 163 million (2018: EUR 156 million) and the related unused tax losses carried forward exclude the deferred tax liability recorded in the Netherlands with respect to the recapture of previously deducted UK tax losses in the Netherlands for the amount of EUR -102 million (2018: EUR -105 million).

Deferred tax assets are recognised for temporary deductible differences, for tax losses carried forward and unused tax credits only to the extent that realisation of the related tax benefit is probable.

Breakdown of certain net deferred tax asset positions by jurisdiction

	2019	2018
Italy	181	189
Philippines	7	
Slovakia	1	
	189	**189**

The table above include a breakdown of certain net deferred tax asset positions by jurisdiction for which the utilisation of the deferred tax asset is dependent on future taxable profits in excess of the profits arising from the reversal of existing taxable temporary differences whilst the related entities have incurred losses in either the current or the preceding year.

Statement of profit or loss – Taxation

Taxation by type

	Netherlands			International			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Current taxation	488	587	488	1,481	1,264	1,527	1,970	1,851	2,015
Deferred taxation	–51	151	324	–267	114	200	–318	265	524
	437	**738**	**812**	**1,214**	**1,379**	**1,727**	**1,652**	**2,116**	**2,539**

Reconciliation of the weighted average statutory income tax rate to ING Group's effective income tax rate

	2019	2018	2017
Result before tax from continuing operations	5,653	6,986	8,085
Weighted average statutory tax rate	25.8%	25.8%	27.5%
Weighted average statutory tax amount	**1,459**	**1,803**	**2,226**
Participation exemption	–49	–77	–45
Other income not subject to tax	–76	–70	–74
Expenses not deductible for tax purposes	237	346	156
Impact on deferred tax from change in tax rates	–57	50	55
Deferred tax benefit from previously unrecognised amounts			–4
Current tax from previously unrecognised amounts	48	28	66
Write-off/reversal of deferred tax assets	2	4	2
State and local taxes	72	25	47
Adjustment to prior periods	16	7	110
Effective tax amount	**1,652**	**2,116**	**2,539**
Effective tax rate	**29.2%**	**30.3%**	**31.4%**

The weighted average statutory tax rate in 2019 is equal to the rate of 25.8% in 2018. The weighted average statutory tax rate in 2018 is lower compared to 2017, due to a decrease in statutory income tax rates in the USA and Belgium in that year.

The effective tax rate of 29.2% in 2019 is higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes with respect to interest on additional Tier 1 securities and non-deductible bank tax in the Netherlands and regulatory expenses non-deductible for tax purposes in some other European countries.

The effective tax rate of 30.3% in 2018 is significantly higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes (tax amount: EUR 346 million).

This relatively high amount of non-deductible expenses is caused by the EUR 775 million settlement agreement reached with the Dutch Public Prosecution Service (tax amount: EUR 194 million).

The effective tax rate in 2017 was with 31.4% significantly higher than the weighted average statutory tax rate. This was caused by the following items:
- A relatively high amount of prior period tax adjustments which ING, for the most part is reimbursed by NN Group (reimbursement is included in the result before tax), recognised under ‘Adjustment to prior periods’;
- Impact on deferred tax positions following changes in the income tax rate in the USA and Belgium, recognised under ‘Impact on deferred tax from change in tax rates’; and
- The recapture of previously deducted UK tax losses in the Netherlands due to increased profitability in the United Kingdom, recognised under ‘Current tax from previously unrecognised amounts’.

Equity – Other comprehensive income

Income tax related to components of other comprehensive income

	2019	2018[1]	2017
Unrealised revaluations financial assets at fair value through other comprehensive income and other revaluations	11	90	103
Realised gains/losses transferred to the statement of profit or loss (reclassifications from equity to profit or loss)	12	23	20
Changes in cash flow hedge reserve	–199	–76	167
Remeasurement of the net defined benefit asset/liability	–14	–12	–25
Changes in fair value of own credit risk of financial liabilities at fair value through profit or loss	7	–33	
Exchange rate differences and other	7	–18	–12
Total income tax related to components of other comprehensive income	**–176**	**–25**	**253**

1 The prior period has been updated to improve consistency and comparability.

Tax Contingency

The contingent liability (also disclosed in note 45 ‘Contingent liabilities’) in connection with taxation in the Netherlands refers to a possible obligation arising from the deduction from Dutch taxable profit of losses incurred by ING Bank in the United Kingdom in previous years. The existence of this obligation will be confirmed only by the occurrence of future profits in the United Kingdom.

38 Fair value of assets and liabilities

a) Financial assets and liabilities

The following table presents the estimated fair values of ING Group’s financial assets and liabilities. Certain items per the statement of financial position are not included in the table, as they do not meet the definition of a financial asset or liability. The aggregation of the fair values presented below does not represent, and should not be construed as representing, the underlying value of ING Group.

Fair value of financial assets and liabilities

	Estimated fair value		Statement of financial position value	
	2019	2018	2019	2018
Financial assets				
Cash and balances with central banks	53,202	49,987	53,202	49,987
Loans and advances to banks	35,133	30,549	35,136	30,422
Financial assets at fair value through profit or loss				
– Trading assets	49,254	50,152	49,254	50,152
– Non-trading derivatives	2,257	2,664	2,257	2,664
– Assets mandatorily as at fair value through profit or loss	41,600	64,783	41,600	64,783
– Assets designated as at fair value through profit or loss	3,076	2,887	3,076	2,887
Financial assets at fair value through other comprehensive				
– Equity securities	2,306	3,228	2,306	3,228
– Debt securities	30,483	25,616	30,483	25,616
– Loans and advances	1,680	2,379	1,680	2,379
Securities at amortised cost	46,928	47,815	46,108	47,276
Loans and advances to customers	621,194	602,841	608,029	589,653
Other assets[1]	5,854	7,397	5,854	7,397
	892,966	**890,299**	**878,985**	**876,444**
Financial liabilities				
Deposits from banks	35,086	37,631	34,826	37,330
Customer deposits	575,055	556,127	574,355	555,729
Financial liabilities at fair value through profit or loss				
– Trading liabilities	28,042	31,215	28,042	31,215
– Non-trading derivatives	2,215	2,299	2,215	2,299
– Designated as at fair value through profit or loss	47,684	59,179	47,684	59,179
Other liabilities[2]	9,776	12,117	9,776	12,117
Debt securities in issue	118,844	119,893	118,528	119,751
Subordinated loans	17,253	13,519	16,588	13,724
	833,956	**831,980**	**832,014**	**831,345**

1 Other assets do not include, among others: (deferred) tax assets, net defined benefit asset, inventory, property development and property obtained from foreclosures.
2 Other liabilities do not include, among others: (deferred) tax liabilities, net defined benefit and related employee benefit liabilities, reorganisation and other provisions, other taxation, social security contributions and lease liabilities.

Valuation Methods

The estimated fair values represent the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is a market-based measurement, which is based on assumptions that market participants would use and takes into account the characteristics of the asset or liability that market participants would take into account when pricing the asset or liability. Fair values of financial assets and liabilities are based on quoted prices in active market where available. When such quoted prices are not available, the fair value is determined by using valuation techniques.

ING uses unadjusted quotes where available. Unadjusted quoted prices are primarily obtained from exchange prices for listed financial instruments. Where an exchange price is not available, quoted market prices in active markets may be obtained from independent market vendors, brokers, or market makers. In general, positions are valued at the bid price for a long position and at the offer price for a short position or are valued at the price within the bid-offer spread that is most representative of fair value at the date of valuation.

For certain financial assets and liabilities quoted market prices are not available. For these financial assets and liabilities, fair value is determined using valuation techniques. These valuation techniques range from discounting of cash flows to various valuation models, where relevant pricing factors including the market price of underlying reference instruments, market parameters (e.g. volatilities, correlations and credit ratings), and customer behaviour are taken into account. ING maximises the use of market observable inputs and minimises the use of unobservable input in determining the fair value. The fair value can be subjective dependent on the significance of the unobservable input to the overall valuation. All valuation techniques used are subject to internal review and approval. Data used in these valuation techniques are validated on a daily basis when possible.

When a group of financial assets and financial liabilities are managed on the basis of their net risk exposures, are measured the fair value of a group of financial assets or liabilities on net portfolio level.

Control framework

To determine whether the valuations based upon data inputs have led to an appropriate fair value, the process of independent price verification ('IPV') or price testing is applied. This is done to ensure the appropriate reflection of these valuations in balance sheet and the profit and loss accounts. IPV tests and confirms the reliability of the market data used in these valuations and can lead to adjustments in valuation. The IPV process is performed at least monthly or more frequently depending on the nature of the market or trading activity. Multiple data sources are used to the extent that such prices are available and taking into account cost-benefit ratio of retrieving such prices. Valuation differences between primary and secondary source data are assessed. When differences resulting from price testing exceed pre-approved thresholds, adjustments to the profit and loss shall be made. Differences and adjustments must be assessed individually, approved by the Local Parameter Committee, and reported back in the meeting minutes. In case a material difference in value is found through the IPV process, it must be fully understood what the underlying cause is for the difference, and if a systematic change is required (e.g. change of source). Pricing and price testing is applied at individual trade level and is organised at a desk level.

Valuation processes are governed by various governance bodies, which include Local Parameter Committees (LPC), Global Price Testing and Impairment Committee (GP&IC), Market Data Committee (MDC), Trading Pricing Model Committee (TPMC). All relevant committees meet on a quarterly basis or more frequent as required. Key valuation controls including product approval process (PARP), IPV, valuation adjustments, and model use is monitored.

The Global Price Testing and Impairment Committee is responsible for the oversight and the approval of the outcome of impairments (other loan loss provisions) and valuation- (price-testing) processes It oversees the quality and coherence of valuation methodologies and processes.. The TMPC is responsible for validating the appropriate models. Local Parameter Committees monitor the appropriateness of (quoted) pricing, any other relevant market info, as well as that of pricing models themselves related to the fair valued positions to which they are applied. LPC executes valuation methodology and processes at a local level. The Market Data Committee approves and reviews all pricing inputs for the calculation of market parameters.

Valuation Adjustments

Valuation adjustments are an integral part of the fair value. They are included as part of the fair value to provide better estimation of market exit value on measurement date. ING considers various valuation adjustments to arrive at the fair value including Bid-Offer adjustments, Credit Valuation Adjustments (CVA), Debt Valuation Adjustments (DVA), Model Risk Adjustments, Collateral Valuation Adjustment (CollVA), Funding Valuation Adjustment (FVA) and Exceptional Valuation Adjustments. The combination of Credit Valuation adjustment and Debt Valuation adjustment for derivatives is called Bilateral Valuation Adjustment (BVA).

- Bid-Offer adjustments are required to adjust mid-market values to appropriate bid or offer value in order to best represent the exit value, and therefore fair value. It is applicable to financial assets and liabilities that are valued at mid-price initially. In practice this adjustment accounts for the difference in valuation from mid to bid and mid to offer for long and short exposures respectively. In principle assets are valued at the bid prices and liabilities are valued at the offer price. For certain assets or liabilities, where market quoted price is not available, the price within the bid-offer spread that is most representative of fair value is used.
- Bilateral Valuation Adjustment (BVA) is the valuation component for the counterparty credit risk of the derivative contracts. It has bilateral nature, where both counterparty's credit risk and ING's own credit risks is taken into account. The calculation is based on the estimation of the expected exposure, the counterparties' risk of default, and taking into account the collateral agreements as well as netting agreements. The counterparties' risk of default is measured by probability of default and expected loss given default, which is based on market information including credit default swap (CDS) spread. Where counterparty CDS spreads are not available, relevant proxy spreads are used. Additionally, wrong-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty deteriorates) and right-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty improves) are included in the adjustment.

- ING applies Debt Valuation Adjustment (DVA) to own issued financial liabilities that are measured at fair value through profit or loss, if the credit risk component has not been included in the prices. In the DVA calculation, the default probability of the institution are estimated based on the ING Funding spread.
- Model risk adjustments reduce the risk of possible financial losses resulting from the use of a mis-specified, misapplied, or incorrect implementation of a model.
- Collateral Valuation Adjustment (CollVA) is a derivative valuation adjustment capturing specific features of CSA (Credit Support Annex) with a counterparty that the regular valuation framework does not capture. Non-standard CSA features may include deviations in relation to the currency in which ING posts or receives collateral, deviations in remuneration rate on collateral which may pay lower or higher rate than overnight rate or even no interest at all. Other deviations can be posting securities rather than cash as collateral.
- ING applies an additional 'Funding Valuation Adjustment' (FVA) to address the funding costs associated with the collateral funding asymmetry on uncollateralized or partially collateralized derivatives in the portfolio. This adjustment is based on the expected exposure profiles of the uncollateralized or partially collateralized OTC derivatives and market-based funding spreads.
- Exceptional Valuation Adjustments - Exceptional valuation adjustments are valuation adjustments of temporary nature and are subject to approval of GP&IC.

The following methods and assumptions were used by ING Group to estimate the fair value of the financial instruments:

a.1) Financial assets

Cash and balances with central banks

The carrying amount of cash approximates its fair value.

Loans and advances to banks

The fair values of receivables from banks are generally based on quoted market prices or, if unquoted, on estimates based on discounting future cash flows using available market interest rates including appropriate spreads offered for receivables with similar characteristics, similar to Loans and advances to customers described below.

Financial assets at fair value through profit or loss, Financial assets at fair value through other comprehensive income and Securities at amortised cost

Derivatives

Derivatives contracts can either be exchange-traded or over the counter (OTC). The fair value of exchange-traded derivatives is determined using quoted market prices in an active market and those derivatives are classified in Level 1 of the fair value hierarchy. For those instruments not actively traded, fair values are estimated based on valuation techniques. OTC derivatives and derivatives trading in an inactive market are valued using valuation techniques because quoted market prices in an active market are not available for such instruments. The valuation techniques and inputs depend on the type of derivative and the nature of the underlying instruments. The principal techniques used to value these instruments are based on (amongst others) discounted cash flows option pricing models and Monte Carlo simulation. These valuation models calculate the present value of expected future cash flows, based on 'no-arbitrage' principles. These models are commonly used in the financial industry. Inputs to valuation models are determined from observable market data where possible. Certain inputs may not be observable in the market, but can be determined from observable prices via valuation model calibration procedures. The inputs used include for example prices available from exchanges, dealers, brokers or providers of pricing, yield curves, credit spreads, default rates, recovery rates, dividend rates, volatility of underlying interest rates, equity prices, and foreign currency exchange rates. These inputs are determined with reference to quoted prices, recently executed trades, independent market quotes and consensus data, where available.

For uncollateralised OTC derivatives, ING applies Credit Valuation Adjustment to correctly reflect the counterparty credit risk in the valuation. See section CVA/DVA/BVA for more details regarding the calculation.

Equity securities
The fair values of publicly traded equity securities are based on quoted market prices when available. Where no quoted market prices are available, fair value is determined based on quoted prices for similar securities or other valuation techniques.

The fair value of private equity is based on quoted market prices, if available. In the absence of quoted prices in an active market, fair value is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects, price, earnings comparisons and revenue multiples, and by reference to market valuations for similar entities quoted in an active market.

Debt securities
Fair values for debt securities are based on quoted market prices, where available. Quoted market prices may be obtained from an exchange, dealer, broker, industry group, pricing service, or regulatory service. The quoted prices from non-exchange sources are assessed to determine if they are tradable prices. This distinction determines where it falls in the fair value hierarchy.

If quoted prices in an active market are not available, fair value is based on an analysis of available market inputs, which may include consensus prices obtained from one or more pricing services or by a valuation technique that discounts expected future cash flows using a market interest rate curves, referenced credit spreads, maturity of the investment, and estimated prepayment rates where applicable.

Loans and advances to customers
For loans and advances that are repriced frequently and have had no significant changes in credit risk, carrying amounts represent a reasonable estimate of the fair value. The fair value of other loans is estimated by discounting expected future cash flows using a discount rate that reflects credit risk, liquidity, and other current market conditions. The fair value of mortgage loans is estimated by taking into account prepayment behaviour. Loans with similar characteristics are aggregated for calculation purposes.

Other assets
The other assets are stated at their carrying value which is not significantly different from their fair value.

a.2) Financial liabilities
Deposits from banks
The fair values of payables to banks are generally based on quoted market prices or, if not available, on estimates based on discounting future cash flows using available market interest rates and credit spreads for payables to banks with similar characteristics.

Customer deposits
The carrying values of customer deposits with an immediate on demand features approximate their fair values. The fair values of deposits with fixed contractual terms have been estimated based on discounting future cash flows using the interest rates currently applicable to deposits of similar maturities.

Financial liabilities at fair value through profit or loss
The fair values of securities in the trading portfolio and other liabilities at fair value through profit or loss are based on quoted market prices, where available. For those securities not actively traded, fair values are estimated based on internal discounted cash flow valuation techniques using interest rates and credit spreads that apply to similar instruments. Reference is made to Financial assets at fair value through profit or loss above.

Other liabilities
The other liabilities are stated at their carrying value which is not significantly different from their fair value.

Debt securities in issue

The fair value of debt securities in issue is generally based on quoted market prices, or if not available, on estimated prices by discounting expected future cash flows using a current market interest rate and credit spreads applicable to the yield, credit quality and maturity.

Subordinated loans

The fair value of publicly traded subordinated loans are based on quoted market prices when available. Where no quoted market prices are available, fair value of the subordinated loans is estimated using discounted cash flows based on interest rates and credit spreads that apply to similar instruments.

a.3) Fair value hierarchy

ING Group has categorised its financial instruments that are either measured in the statement of financial position at fair value or of which the fair value is disclosed, into a three level hierarchy based on the priority of the inputs to the valuation. The fair value hierarchy gives the highest priority to (unadjusted) quoted prices in active markets for identical assets or liabilities and the lowest priority to valuation techniques supported by unobservable inputs. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide reliable pricing information on an ongoing basis. The fair value hierarchy consists of three levels, depending upon whether fair values were determined based on (unadjusted) quoted prices in an active market (Level 1), valuation techniques with observable inputs (Level 2) or valuation techniques that incorporate inputs which are unobservable and which have a more than insignificant impact on the fair value of the instrument (Level 3). Financial assets in Level 3 include for example illiquid debt securities, complex derivatives, certain complex loans (for which current market information about similar assets to use as observable, corroborated data for all significant inputs into a valuation model is not available), and asset backed securities for which there is no active market and a wide dispersion in quoted prices.

Observable inputs reflect market data obtained from independent sources. Unobservable inputs are inputs which are based on the Group's own assumptions about the factors that market participants would use in pricing an asset or liability, developed based on the best information available in the market. Unobservable inputs may include volatility, correlation, spreads to discount rates, default rates and recovery rates, prepayment rates, and certain credit spreads. Transfers into and transfers out of fair value hierarchy levels are made on a quarterly basis.

Level 1 – (Unadjusted) quoted prices in active markets

This category includes financial instruments whose fair value is determined directly by reference to (unadjusted) quoted prices in an active market that ING Group can access. A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer markets, brokered markets, or principal to principal markets. Those prices represent actual and regularly occurring market transactions with sufficient frequency and volume to provide pricing information on an ongoing basis. Transfers out of Level 1 into Level 2 or Level 3 occur when ING Group establishes that markets are no longer active and therefore (unadjusted) quoted prices no longer provide reliable pricing information.

Level 2 – Valuation technique supported by observable inputs

This category includes financial instruments whose fair value is based on market observables other than (unadjusted) quoted prices. The fair value for financial instruments in this category can be determined by reference to quoted prices for similar instruments in active markets, but for which the prices are modified based on other market observable external data or reference to quoted prices for identical or similar instruments in markets that are not active. These prices can be obtained from a third party pricing service. ING analyses how the prices are derived and determines whether the prices are liquid tradable prices or model based consensus prices taking various data as inputs.

For financial instruments that do not have a reference price available, fair value is determined using a valuation technique (e.g. a model), where inputs in the model are taken from an active market or are observable, such as interest rates and yield curves observable at commonly quoted intervals, implied volatilities, and credit spreads.

If certain inputs in the model are unobservable, the instrument is still classified in this category, provided that the impact of those unobservable inputs on the overall valuation is insignificant. The notion of significant is particularly relevant for the distinction between Level 2 and Level 3 assets and liabilities. ING Group has chosen to align the definition of significant with the 90% confidence range as captured in the prudent value definition by EBA. Unobservable parameters are shifted down and upwards to reach this 90% confidence range. The same 90% confidence range is applied to model uncertainty. If the combined change in asset value resulting from the shift of the unobservable parameters and the model uncertainty exceeds the threshold, the asset is classified as Level 3. A value change below the threshold results in a Level 2 classification.

Valuation techniques used for Level 2 assets and liabilities range from discounting of cash flows to various industry standard valuation models such as option pricing model and Monte Carlo simulation model, where relevant pricing factors including the market price of underlying reference instruments, market parameters (volatilities, correlations, and credit ratings), and customer behaviour are taken into account.

Level 3 – Valuation technique supported by unobservable inputs

This category includes financial instruments whose fair value is determined using a valuation technique (e.g. a model) for which more than an insignificant part of the inputs in terms of the overall valuation are not market observable. This category also includes financial assets and liabilities whose fair value is determined by reference to price quotes but for which the market is considered inactive. An instrument in its entirety is classified as Level 3 if a significant portion of the instrument's fair value is driven by unobservable inputs. Unobservable in this context means that there is little or no current market data available from which to derive a price that an unrelated, informed buyer would purchase the asset or liability at.

Financial instruments at fair value

The fair values of the financial instruments were determined as follows:

Methods applied in determining fair values of financial assets and liabilities (carried at fair value)

	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Financial Assets								
Financial assets at fair value through profit or loss								
- Trading assets	13,228	13,041	35,852	36,617	174	494	49,254	50,152
- Non-trading derivatives			2,249	2,636	8	27	2,257	2,664
- Assets mandatorily at fair value through profit or loss	22	141	40,196	63,601	1,381	1,042	41,600	64,783
- Assets designated as at fair value through profit or loss	203	147	1,628	1,665	1,244	1,075	3,076	2,887
Financial assets at fair value through other comprehensive income	32,165	27,218	343	1,256	1,961	2,749	34,468	31,223
	45,618	**40,547**	**80,269**	**105,775**	**4,768**	**5,387**	**130,655**	**151,709**
Financial liabilities								
Financial liabilities at fair value through profit or loss								
– Trading liabilities	1,446	5,706	26,401	25,387	195	122	28,042	31,215
– Non-trading derivatives			2,105	2,219	110	80	2,215	2,299
– Financial liabilities designated as at fair value through profit or loss	1,081	1,166	46,419	57,305	184	708	47,684	59,179
	2,527	**6,872**	**74,924**	**84,911**	**490**	**910**	**77,942**	**92,693**

In 2019, the decrease in financial assets mandatorily at fair value through profit or loss, mainly relates to reverse repurchase transactions for which the valuation technique is supported by observable inputs.

In 2019 there were no significant transfers between level 1 and 2 and no significant changes in valuation techniques.

Changes in Level 3 Financial assets

	Trading assets		Non-trading derivatives		Financial assets mandatorily at FVPL		Financial assets designated at FVPL		Financial assets at FVOCI		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	494	1,104	27	85	1,042		1,075	365	2,749	480	5,387	2,034
Effect of change in accounting policy due to the implementation of IFRS 9						1,653		–1		3,446		5,097
Realised gain/loss recognised in the statement of profit or loss during the period [1]	40	–54	–21	109	–63	10	–6	–20	–15	1	–66	45
Revaluation recognised in other comprehensive income during the period [2]									155	–131	155	–131
Purchase of assets	28	359		2	1,494	1,154	360	731	11	85	1,893	2,331
Sale of assets[3]	–53	–120	–3	–166	–832	–1,677	–212		–680	–557	–1,780	–2,521
Maturity/settlement[3]	–11	–42			–461	–78	–35		–212	–330	–719	–450
Reclassifications	–279				279				3	2	4	2
Transfers into Level 3	26	85	4		9		63			–0	103	85
Transfers out of Level 3	–72	–839			–88	–37			–53	–249	–214	–1,125
Exchange rate differences	1				–1	17			1	3	1	20
Changes in the composition of the group and other changes					2				1	–1	3	–1
Closing balance	**174**	**494**	**8**	**27**	**1,381**	**1,042**	**1,244**	**1,075**	**1,961**	**2,749**	**4,768**	**5,387**

1 Net gains/losses were recorded as 'Valuation results and net trading income' in the statement of profit or loss. The total amounts includes EUR 43 million of unrealised gains and losses recognised in the statement of profit or loss.
2 Revaluation recognised in other comprehensive income is included on the line 'Net change in fair value of debt instruments at fair value through other comprehensive income'.
3 Prior period of Financial assets at FVOCI has been updated to improve consistency and comparability.

In 2019 the amounts reported on the line reclassifications relate to syndicated loans reclassed From trading assets to financial assets mandatory at FVPL.

Changes in Level 3 Financial liabilities

	Trading liabilities		Non-trading derivatives		Financial liabilities designated as at fair value through profit or loss		Available-for-sale investments	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	122	1,073	80	68	708	101	910	1,242
Effect of change in accounting policy due to the implementation of IFRS 9				4				4
Realised gain/loss recognised in the statement of profit or loss during the period[1]	102	-67	-16	8	32	1	118	-58
Issue of liabilities	72	42	46		35	545	154	587
Early repayment of liabilities	-30	-87	-0		-10	-20	-40	-106
Maturity/settlement	-32	-37			-479	-11	-511	-49
Reclassifications								
Transfers into Level 3	13	39			49	92	62	131
Transfers out of Level 3	-52	-844			-150		-202	-844
Exchange rate differences		-0				-0		-0
Changes in the composition of the group and other changes		2						2
Closing balance	**195**	**122**	**110**	**80**	**184**	**708**	**490**	**910**

1 Net gains/losses were recorded as 'Valuation results and net trading income' in the statement of profit or loss. The total amount includes EUR 115 million of unrealised gains and losses recognised in the statement of profit or loss.

In 2019 and 2018, financial liabilities mainly repo's were transferred out of Level 3 mainly due to the valuation not being significantly impacted by unobservable inputs.

Recognition of unrealised gains and losses in Level 3

Amounts recognised in the statement of profit or loss relating to unrealised gains and losses during the year that relates to Level 3 assets and liabilities are included in the line item 'Valuation results and net trading income' in the statement of profit or loss.

Unrealised gains and losses that relate to 'Financial assets at fair value through other comprehensive income' (2019 and 2018) are included in the Revaluation reserve – Equity securities at fair value through other comprehensive income or Debt Instruments at fair value through other comprehensive income (2019 and 2018).

Level 3 Financial assets and liabilities

Financial assets measured at fair value in the statement of financial position as at 31 December 2019 of EUR 131 billion includes an amount of EUR 4.8 billion (3.6%) which is classified as Level 3 (31 December 2018: EUR 5.4 billion, being 3.6%). Changes in Level 3 from 31 December 2018 to 31 December 2019 are detailed above in the table Changes in Level 3 Financial assets.

Financial liabilities measured at fair value in the statement of financial position as at 31 December 2019 of EUR 78 billion includes an amount of EUR 0.5 billion (0.6%) which is classified as Level 3 (31 December 2018: EUR 0.9 billion, being 1.0%). Changes in Level 3 from 31 December 2018 to 31 December 2019 are disclosed above in the table 'Changes in Level 3 Financial liabilities'.

Financial assets and liabilities in Level 3 include both assets and liabilities for which the fair value was determined using (i) valuation techniques that incorporate unobservable inputs as well as (ii) quoted prices which have been adjusted to reflect that the market was not actively trading at or around the balance sheet date. Unobservable inputs are inputs which are based on ING's own assumptions about the factors that market participants would use in pricing an asset or liability, developed based on the best information available in the circumstances. Unobservable inputs may include volatility, correlation, spreads to discount rates, default rates and recovery rates, prepayment rates, and certain credit spreads. Valuation techniques that incorporate unobservable inputs are sensitive to the inputs used.

Of the total amount of financial assets classified as Level 3 as at 31 December 2019 of EUR 4.8 billion (31 December 2018: EUR 5.4 billion), an amount of EUR 2.5 billion (52.6%) (31 December 2018: EUR 3.4 billion, being 63.2%) is based on unadjusted quoted prices in inactive markets. As ING does not generally adjust quoted prices using its own inputs, there is no significant sensitivity to ING's own unobservable inputs.

Furthermore, Level 3 financial assets includes approximately EUR 1.3 billion (31 December 2018: EUR 1.1 billion) which relates to financial assets that are part of structures that are designed to be fully neutral in terms of market risk. Such structures include various financial assets and liabilities for which the overall sensitivity to market risk is insignificant. Whereas the fair value of individual components of these structures may be determined using different techniques and the fair value of each of the components of these structures may be sensitive to unobservable inputs, the overall sensitivity is by design not significant.

The remaining EUR 1.0 billion (31 December 2018: EUR 0.8 billion) of the fair value classified in Level 3 financial assets is established using valuation techniques that incorporates certain inputs that are unobservable.

Of the total amount of financial liabilities classified as Level 3 as at 31 December 2019 of EUR 0.5 billion (31 December 2018: EUR 0.9 billion), an amount of EUR 0.2 billion (39.3%) (31 December 2018: EUR 0.7 billion, being 82.0%) is based on unadjusted quoted prices in inactive markets. As ING does not generally adjust quoted prices using its own inputs, there is no significant sensitivity to ING's own unobservable inputs.

Furthermore, Level 3 financial liabilities includes approximately EUR 0.1 billion (31 December 2018: EUR 0.1 billion) which relates to financial liabilities that are part of structures that are designed to be fully neutral in terms of market risk. As explained above, the fair value of each of the components of these structures may be sensitive to unobservable inputs, but the overall sensitivity is by design not significant.

The remaining EUR 0.2 billion (31 December 2018: EUR 0.1 billion) of the fair value classified in Level 3 financial liabilities is established using valuation techniques that incorporates certain inputs that are unobservable.

The table below provides a summary of the valuation techniques, key unobservable inputs and the lower and upper range of such unobservable inputs, by type of Level 3 asset/liability. The lower and upper range mentioned in the overview represent the lowest and highest variance of the respective valuation input as actually used in the valuation of the different financial instruments. Amounts and percentages stated are unweighted. The range can vary from period to period subject to market movements and change in Level 3 position. Lower and upper bounds reflect the variability of Level 3 positions and their underlying valuation inputs in the portfolio, but do not adequately reflect their level of valuation uncertainty. For valuation uncertainty assessment, reference is made to section Sensitivity analysis of unobservable inputs (Level 3)

Valuation techniques and range of unobservable inputs (Level 3)

	Assets		Liabilities		Valuation techniques	Significant unobservable inputs	Lower range		Upper range	
	2019	2018	2019	2018			2019	2018	2019	2018
At fair value through profit or loss										
Debt securities	920	807		3	Price based	Price (%)	0%	0%	121%	105%
					Net asset value	Price (%)	n/a	0%	n/a	0%
					Present value techniques	Credit spread (bps)	n/a	131	n/a	131
					Loan pricing model	Credit spread (bps)	n/a	n/a	n/a	n/a
Equity securities	146	162	1		Price based	Price	0	0	5,475	5,475
Loans and advances	1,576	1,047		15	Price based	Price (%)	0%	1%	104%	102%
					Present value techniques	Price (%)	n/a	100%	n/a	100%
						Credit spread (bps)	1	19	250	550
(Reverse) repo's	3	481	1	424	Present value techniques	Price (%)	4%	3%	4%	4%
Structured notes			184	284	Price based	Price (%)	83%	77%	124%	108%
					Net asset value	Price (%)	n/a	n/a	n/a	n/a
					Option pricing model	Equity volatility (%)	13%	13%	20%	34%
						Equity/Equity correlation	0.6	0.6	0.8	0.9
						Equity/FX correlation	-0.5	-0.7	0.3	0.5
						Dividend yield (%)	2%	1%	4%	5%
						Interest rate volatility (%)	n/a	49	n/a	86
						IR/IR correlation	n/a	0.8	n/a	0.8
					Present value techniques	Implied correlation	n/a	(0.7)	n/a	0.7
Derivatives										
– Rates	13	57	68	39	Option pricing model	Interest rate volatility (bps)	17	23	137	300
						Interest rate correlation	n/a	0.8	n/a	0.8
						IR/INF correlation	n/a	n/a	n/a	n/a
					Present value techniques	Reset spread (%)	2%	2%	2%	2%
						Prepayment rate (%)	n/a	n/a	n/a	n/a
						Inflation rate (%)	n/a	n/a	n/a	n/a
						Credit spread (bps)	n/a	46	n/a	46
– FX	1				Present value techniques	Inflation rate (%)	n/a	n/a	n/a	n/a
					Option pricing model	FX volatility (bps)	5		8	
– Credit	102	67	183	86	Present value techniques	Credit spread (bps)	2	8	11,054	364
						Implied correlation	n/a	0.7	n/a	0.7
						Jump rate (%)	12%	12%	12%	12%
					Price based	Price (%)	n/a	n/a	n/a	n/a
– Equity	42	68	50	54	Option pricing model	Equity volatility (%)	4%	4%	84%	94%
						Equity/Equity correlation	-	0.2	-	0.9
						Equity/FX correlation	-0.6	-0.80	0.6	0.5

Valuation techniques and range of unobservable inputs (Level 3)

	Assets		Liabilities		Valuation techniques	Significant unobservable inputs	Lower range		Upper range	
	2019	2018	2019	2018			2019	2018	2019	2018
						Dividend yield (%)	0%	0%	13%	13%
– Other	3	2	3	5	Option pricing model	Commodity volatility (%)	11%	12%	53%	79%
						Com/Com correlation	0.3	0.3	0.9	0.9
						Com/FX correlation	-0.5	-0.5	-0.3	-0.5
At fair value through other comprehensive income										
– Debt					Price based	Price (%)	n/a	n/a	n/a	n/a
– Loans and advances	1,680	2,379			Present value techniques	Prepayment rate (%)	6%	6%	6%	6%
– Equity	282	317			Present value techniques	Credit spread (bps)	n/a	3.2	n/a	3.2
						Inflation rate (%)	3%	3%	3%	3%
						Price	1	-	187	-
						Other	n/a	63	n/a	80
Total	**4,768**	**5,387**	**490**	**910**						

Non-listed equity investments

Level 3 equity securities mainly include corporate investments, fund investments and other equity securities which are not traded in active markets. In the absence of an active market, fair values are estimated on the basis of the analysis of fund managers reports, company's financial position, future prospects, and other factors, considering valuations of similar positions or by the reference to acquisition cost of the position. For equity securities best market practice will be applied using the most relevant valuation method.

All non-listed equity investments, including investments in private equity funds, are subject to a standard review framework which ensures that valuations reflect fair values.

Price

For securities where market prices are not available fair value is measured by comparison with observable pricing data from similar instruments. Prices of 0% are distressed to the point that no recovery is expected, while prices significantly in excess of 100% or par are expected to pay a good yield.

Credit spreads

Credit spread is the premium above a benchmark interest rate, typically LIBOR or relevant Treasury instrument, required by the market participant to accept a lower credit quality. Higher credit spreads indicate lower credit quality and a lower value of an asset.

Volatility

Volatility is a measure for variation of the price of a financial instrument or other valuation input over time. Volatility is one of the key inputs in option pricing models. Typically, the higher the volatility, the higher value of the option. Volatility varies by the underlying reference (equity, commodity, foreign currency and interest rates), by strike, and maturity of the option. The minimum level of volatility is 0% and there is no theoretical maximum.

Correlation

Correlation is a measure of dependence between two underlying references which is relevant for valuing derivatives and other instruments which have more than one underlying reference. For example, correlation between underlying equity names may be a relevant input parameter for basket equity option pricing models. High positive correlation (close to 1) indicates strong positive (statistical) relationship between underlyings, implying they typically move in the same direction. High negative correlation, on the other hand, implies that underlyings typically move in opposite directions.

Interest rates

Examples of interest rate related unobservable inputs are prepayment rates, reset rates and inflation rates.
Prepayment rate and reset spread are key inputs to mortgage linked prepayment swaps valuation. Prepayment rate is the estimated rate at which mortgage borrowers will repay their mortgages early, e.g. 5% per year. Reset spread is the future spread at which mortgages will re-price at interest rate reset dates.

Inflation rate is a key input to inflation linked instruments. Inflation linked instruments protect against price inflation and are denominated and indexed to investment units. Interest payments would be based on the inflation index and nominal rate in order to receive/pay the real rate of return. A rise in nominal coupon payments is a result of an increase in inflation expectations, real rates, or both. As markets for these inflation linked derivatives are illiquid, the valuation parameters become unobservable.

Dividend yield

Dividend yield is an important input for equity option pricing models showing how much dividends a company is expected to pay out each year relative to its share price. Dividend yields are generally expressed as an annualised percentage of share price.

Sensitivity analysis of unobservable inputs (Level 3)

Where the fair value of a financial instrument is determined using inputs which are unobservable and which have a more than insignificant impact on the fair value of the instrument, the actual value of those inputs at the balance date may be drawn from a range of reasonably possible alternatives. In line with market practice the upper and lower bounds of the range of alternative input values reflect a 90% level of valuation certainty. The actual levels chosen for the unobservable inputs in preparing the financial statements are consistent with the valuation methodology used for fair valued financial instruments.

If ING had used input values from the upper and lower bound of this range of reasonably possible alternative input values when valuing these instruments as of 31 December 2019, then the impact would have been higher or lower as indicated below. The purpose of this disclosure is to present the possible impact of a change of unobservable inputs in the fair value of financial instruments where unobservable inputs are significant to the valuation.

As ING has chosen to apply a 90% confidence level for its IFRS valuation of fair valued financial instruments, the downward valuation uncertainty has become immaterial, whereas the potential upward valuation uncertainty, reflecting a potential profit, has increased.

In practice valuation uncertainty is measured and managed per exposure to individual valuation inputs (i.e. risk factors) at portfolio level across different product categories. Where the disclosure looks at individual Level 3 inputs the actual valuation adjustments may also reflect the benefits of portfolio offsets.

Because of the approach taken, the valuation uncertainty in the table below is broken down by related risk class rather than by product.

In reality some valuation inputs are interrelated and it would be unlikely that all unobservable inputs would ever be simultaneously at the limits of their respective ranges of reasonably possible alternatives. Therefore it can be assumed that the estimates in the table below show a greater fair value uncertainty than the realistic position at year end assuming normal circumstances/normal markets.

Also, this disclosure does not attempt to indicate or predict future fair value movement. The numbers in isolation give limited information as in most cases these Level 3 assets and liabilities should be seen in combination with other instruments (for example as a hedge) that are classified as Level 2.

The possible impact of a change of unobservable inputs in the fair value of financial instruments at fair value through other comprehensive income are estimated to be immaterial.

Sensitivity analysis of Level 3 instruments

	Positive fair value movements from using reasonable possible alternatives		Negative fair value movements from using reasonable possible alternatives	
	2019	2018	2019	2018
Fair value through profit or loss				
Equity (equity derivatives, structured notes)	35	60		4
Interest rates (Rates derivatives, FX derivatives)	40	43		
Credit (Debt securities, Loans, structured notes, credit derivatives)	10	39		
	85	**142**	**–**	**4**

Other financial instruments

The fair values of the financial instruments carried at amortised cost in the statement of financial position, but for which fair values are disclosed are determined as follows:

Methods applied in determining fair values of financial assets and liabilities (carried at amortised cost)

	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Financial Assets								
Loans and advances to banks[1]	728	445	11,469	7,152	20,570	20,742	32,767	28,339
Loans and advances to customers[1]	165	138	12,622	14,656	588,063	567,016	600,850	581,810
Securities at amortised cost	43,784	43,550	2,304	3,024	840	1,242	46,928	47,815
	44,677	**44,132**	**26,395**	**24,832**	**609,473**	**589,000**	**680,545**	**657,964**
Financial liabilities								
Deposits from banks [1]		128	23,900	24,433	6,589	7,314	30,490	31,875
Customer deposits [1]	5,666	6,695	18,003	26,645	20,760	22,172	44,429	55,512
Debt securities in issue	57,563	47,985	42,638	52,194	18,642	19,713	118,844	119,893
Subordinated loans	14,552	10,840	2,701	2,679			17,253	13,519
	77,781	**65,648**	**87,243**	**105,951**	**45,992**	**49,199**	**211,016**	**220,799**

1 Financial assets and liabilities that are on demand are excluded from the fair value hierarchy as their fair value approximates the carrying value.

b) Non-financial assets and liabilities

ING Group's non-financial assets comprise Investments in associates and joint ventures, Property in own use, Investment property as included in the statement of financial position in the line items Investments in associates and joint ventures, Property and equipment, and Other assets respectively.

Investments in associates and joint ventures are accounted for using the equity method. For further information, reference is made to Note 8 'Investments in associates and joint ventures'. Other non-financial assets (Property in own use, and Investment properties) are recognised at fair value at the balance sheet date.

As at 31 December 2019, the estimated fair value of Property in own use and Investment property amounts to EUR 757 million (2018: EUR 780 million) and EUR 46 million (2018: EUR 54 million) respectively and is categorised as Level 3 of the fair value hierarchy on the basis of methods applied in determining the fair values.

Amounts recognised in the statement of profit or loss relating to unrealised gains and losses during the year that relate to Level 3 non-financial assets are included in the statement of profit or loss as follows:

- Impairments on Property in own use are included in Other operating expenses - Impairments and reversals on property and equipment and intangibles ; and
- Changes in the fair value of Investment property are included in Investment income.

Unrealised gains and losses on Property in own use are included in the Revaluation reserve – Property in own use reserve.

For amounts recognised in the Statement of profit or loss and other changes in non-financial assets during the year, reference is made to Note 9 'Property and equipment' and Note 11 'Other assets'.

As at 31 December 2019, ING Group has no non-financial liabilities measured at fair value (2018: none).

39 Derivatives and hedge accounting

Use of derivatives

ING Group uses derivatives for economic hedging purposes to manage its asset and liability portfolios and structural risk positions. The primary objective of ING Group's hedging activities is to manage the risks which arises from structural imbalances in the duration and other profiles of its assets and liabilities. The objective of economic hedging is to enter into positions with an opposite risk profile to an identified risk exposure to reduce that exposure. The main risks which are being hedged are interest rate risk and foreign currency exchange rate risk. These risks are primarily hedged with interest rate swaps cross currency swaps and foreign exchange forwards/swaps.

ING Group uses credit derivatives to manage its economic exposure to credit risk, including total return swaps and credit default swaps, to sell or buy protection for credit risk exposures in the loan, investment, and trading portfolios. Hedge accounting is not applied in relation to these credit derivatives.

Hedge accounting

Derivatives that qualify for hedge accounting under IFRS are classified and accounted for in accordance with the nature of the instrument hedged and the type of IFRS hedge model that is applicable. The three models applicable under IFRS are: fair value hedge accounting, cash flow hedge accounting, and hedge accounting of a net investment in a foreign operation. How and to what extent these models are applied are described under the relevant headings below. The company's detailed accounting policies for these three hedge models are set out in paragraph 1.6 'Financial instruments' of Note 1 'Basis of preparation and accounting policies'.

IBOR transition

Following the decision by global regulators to seek alternatives for current critical benchmarks in use in various jurisdiction in order to comply with the EU Benchmarks Regulation, the IBOR transition program of ING was initiated in 2018 to prepare the Group for the reform.

Reference is made to note Risk management/ IBOR Transition for more information on to what rates ING is exposed and on how ING is managing the transition to alternative benchmark rates. At the reporting date, ING Group assessed the extent to which hedge relationships are subject to uncertainties driven by the IBOR reform.
ING applies fair value and cash flow hedge accounting in accordance with IAS 39, and interest rate and foreign currency risks are designated as hedged risks in various micro and macro models. Except for EONIA and EUR LIBOR all IBOR's in scope of ING's program are a component of either hedging instrument and/or hedged item where the interest rate and/or foreign currency risk are the designated hedged risk. The hedged exposures are mainly loan portfolio's, issued debt securities and purchased debt instruments.

ING Group early adopted the amendments to IAS 39 issued in September 2019 to these hedging relationships directly affected by IBOR reform. This excludes EURIBOR hedges as EURIBOR is Benchmarks Regulation compliant.

LIBOR indexed fair value and cash flow hedges are expected to be directly affected by the uncertainties arising from the IBOR reform. In particular, uncertainties over the timing and amount of the replacement rate may impact the effectiveness and highly probable assessment.

For these affected fair value and cash flow hedge relationships ING Group assumes that the LIBOR based cash flows from the hedging instrument and hedged item will remain unaffected.
The same assumption is used while assessing the likelihood of occurrence of the forecast transaction that are subject to cash flow hedges. The cash flow hedges directly impacted by the

IBOR reform still meet the highly probable requirement assuming the respective LIBOR benchmark on which the hedged cash flows are based are not altered as a result of the reform.
The following table contains details of the gross notional amounts of hedging instruments as at 31 December 2019 that are used in the Group's hedge accounting relationships for which the amendments to IAS39 were applied:

Hedging instruments in EUR

Benchmark	Notional Amount
USD LIBOR	45,496
GBP LIBOR	2,184
JPY LIBOR	2,922
CHF LIBOR	313

Approximately 68% of the above notional amounts have a maturity date beyond 2021.

The notional amounts of the derivative hedging instruments (in above table) provide a close approximation of the extent of the risk exposure ING manages through these hedging relationships.

Fair value hedge accounting

ING Group's fair value hedges principally consist of interest rate swaps that are used to protect against changes in the fair value of fixed-rate instruments due to movements in market interest rates. ING Group's approach to manage market risk, including interest rate risk, is discussed in 'Risk management –Market risk'. ING Group's exposure to interest rate risk is disclosed in paragraph 'Interest rate risk in banking book'.

By using derivative financial instruments to hedge exposures to changes in interest rates, ING Group also exposes itself to credit risk of the derivative counterparty, which is not offset by the hedged item. ING Group minimises counterparty credit risk in derivative instruments by clearing most of the derivatives through Central Clearing Counterparties. In addition ING Group only enters into transactions with high-quality counterparties and requires posting collateral.

ING Group applies fair value hedge accounting on micro level in which one hedged item is hedged with one or multiple hedging instruments. Micro fair value hedge accounting is mainly applied on issued debt securities and purchased debt instruments for hedging interest rate risk.

Before fair value hedge accounting is applied by ING Group, ING Group determines whether an economic relationship between the hedged item and the hedging instrument exists based on an evaluation of the quantitative characteristics of these items and the hedged risk that is supported by quantitative analysis. ING Group considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING Group evaluates whether the fair value of the hedged item and the hedging instrument respond similarly to similar risks. In addition ING is mainly using regression analysis to assess whether the hedging instrument is expected to be and has been highly effective in offsetting changes in the fair value of the hedged item.

ING Group uses the following derivative financial instruments in a fair value hedge accounting relationship:

Gross carrying value of derivatives designated under fair value hedge accounting

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December				
Hedging instrument on interest rate risk				
– Interest rate swaps	5,133	5,486	3,222	4,085
– Other interest derivatives	87	70	78	65

The derivatives used for fair value hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' for EUR 524 million (2018: EUR: 650 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 873 million (2018: EUR 1,035 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For our main currencies the average fixed rate for interest rate swaps used in fair value hedge accounting are 2.98% (2018: 1.76%)for EUR and 3.55% (2018: 3.38%) for USD.

The following table shows the net notional amount of derivatives designated in fair value hedging, split into the maturity of the instruments. The net notional amounts presented in the table are a combination of payer (-) and receiver (+) swaps.

Maturity derivatives designated in fair value hedging

As at 31 December 2019	Less than 1 month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
Hedging instrument on interest rate risk									
– Interest rate swaps	–59	612	6,394	12,936	7,637	7,195	3,266	16,494	54,475
– Other interest	–20	–22	58	–242	–404	–290	–44	1,075	110
As at 31 December 2018									
Hedging instrument on interest rate risk									
- Interest rate swaps	467	511	869	13,531	8,826	6,806	8,337	9,983	49,331
– Other interest	–11	–53	–101	–55	–228	–325	–325	–51	–1,148

Gains and losses on derivatives designated under fair value hedge accounting are recognised in the statement of profit or loss. The effective portion of the fair value change on the hedged item is also recognised in the statement of profit or loss. As a result, only the net accounting ineffectiveness has an impact on the net result.

Hedged items included in a fair value hedging relationship

	Carrying amount of the hedged items Assets	Carrying amount of the hedged items Liabilities	Accumulated amount of fair value hedge adjustment on the hedged item included in the carrying amount of the hedged item Assets	Accumulated amount of fair value hedge adjustment on the hedged item included in the carrying amount of the hedged item Liabilities	Change in fair value used for measuring ineffectiveness for the period	Change in fair value hedge instruments	Hedge ineffectiveness recognised in the statement of profit or loss gain (+) / loss (-)
As at 31 December 2019							
– Amounts due from banks					–0		
– Debt securities at fair value through other comprehensive income	23,281		n/a		357		
– Loans at FVOCI			n/a				
– Loans and advances to customers	959		75		31		
– Debt instruments at amortised cost	6,133		429		356		
– Debt securities in issue		62,236		2,706	–1,018		
– Subordinated loans		14,970		261	–201		
– Amounts due to banks		8,783		38	1		
– Customer deposits and other funds on deposit		299		2	–12		
– Discontinued hedges			688	7			
Total	**30,373**	**86,288**	**1,192**	**3,014**	**–487**	**504**	**18**
As at 31 December 2018							
Interest rate risk							
– Amounts due from banks					–1		
– Debt securities at fair value through other comprehensive income	18,471		n/a		1		
– Loans at FVOCI	–0		n/a				
– Loans and advances to customers	2,909		273		–134		
– Debt instruments at amortised cost	16,843		687		–91		
– Debt securities in issue		55,081		1,659	53		
– Subordinated loans		12,799		53	57		
– Amounts due to banks		17,717		55	–52		
– Customer deposits and other funds on deposit		193		–0	–11		
– Discontinued hedges			272				
Total	**38,223**	**85,790**	**1,232**	**1,767**	**–176**	**185**	**8**

The main sources of ineffectiveness are:

- differences in maturities of the hedged item(s) and hedging instrument(s);
- different interest rate curves applied to discount the hedged item(s) and hedging instrument(s);
- differences in timing of cash flows of the hedged item(s) and hedging instrument(s).

Additionally, for portfolio (macro) fair value hedges of ING Group's fixed rate mortgage portfolio, ineffectiveness also arises from the disparity between expected and actual prepayments (prepayment risk).

There were no other sources of ineffectiveness in these hedging relationships.

Cash flow hedge accounting

ING Group's cash flow hedges mainly consist of interest rate swaps and cross-currency swaps that are used to protect against the exposure to variability in future cash flows on non-trading assets and liabilities that bear interest at variable rates or are expected to be refunded or reinvested in the future. The amounts and timing of future cash flows, representing both principal and interest flows, are projected for each portfolio of financial assets and liabilities, based on contractual terms and other variables including estimates of prepayments. These projected cash flows form the basis for identifying the notional amount subject to interest rate risk or foreign currency exchange rate risk that is designated under cash flow hedge accounting.

ING Group's approach to manage market risk, including interest rate risk and foreign currency exchange rate risk, is discussed in 'Risk management – Credit risk and Market risk'. ING Group determines the amount of the exposures to which it applies hedge accounting by assessing the potential impact of changes in interest rates and foreign currency exchange rates on the future cash flows from its floating-rate assets and liabilities. This assessment is performed using analytical techniques.

As noted above for fair value hedges, by using derivative financial instruments to hedge exposures to changes in interest rates and foreign currency exchange rates, ING Group exposes itself to credit risk of the derivative counterparty, which is not offset by the hedged items. This exposure is managed similarly to that for fair value hedges.

Gains and losses on the effective portions of derivatives designated under cash flow hedge accounting are recognised in Other Comprehensive Income. Interest cash flows on these derivatives are recognised in the statement of profit or loss in 'Net interest income' consistent with the manner in which the forecasted cash flows affect net result. The gains and losses on ineffective portions of such derivatives are recognised immediately in the statement of profit or loss in 'Valuation results and net trading income'.

ING Group determines an economic relationship between the cash flows of the hedged item and the hedging instrument based on an evaluation of the quantitative characteristics of these items and the hedged risk that is supported by quantitative analysis. ING Group considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING Group evaluates whether the cash flows of the hedged item and the hedging instrument respond similarly to the hedged risk, such as the benchmark interest rate of foreign currency. In addition (for macro FX hedging relationships) a regression analysis is performed to assess whether the hedging instrument is expected to be and has been highly effective in offsetting changes in the fair value of the hedged item.

ING Group uses the following derivative financial instruments in a cash flow hedge accounting relationship:

Gross carrying value of derivatives used for cash flow hedge accounting

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December 2019				
Hedging instrument on interest rate risk				
– Interest rate swaps	2,615	2,848	5,757	3,664
Hedging instrument on combined interest and FX rate risk				
– Cross currency interest rate derivatives	358	158	204	154

The derivatives used for cash flow hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' EUR 677 million (2018: EUR 1,012 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 339 million (2018: EUR 458 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For the main currencies the average fixed rate for interest rate swaps used in cash flow hedge accounting are 0.54% (2018: 1.21%)for EUR, 2.38% (2018: 2.53%)for PLN, 2.51% (2018: 2.49%) for USD and 1.50% (2018: 1.97%) for AUD. The average currency exchange rates for cross currency swaps used in cash flow hedge accounting is for EUR/USD 1.11 (2018: 1.14) and for EUR/AUD 1.55 (2018: 1.52).

The following table shows the net notional amount of derivatives designated in cash flow hedging split into the maturity of the instruments. The net notional amounts presented in the table are a combination of payer (+) and receiver (-) swaps.

Maturity derivatives designated in cash flow hedging

As at 31 December 2019	Less than 1 month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
Hedging instrument on interest rate risk									
– Interest rate swaps	–401	580	–2,591	–6,512	–5,541	–5,788	–5,364	–23,009	–48,627
Hedging instrument on combined interest and FX rate risk									
– Cross currency interest rate derivatives		–1,098	–2,068	–5,044	–2,509	–1,473	3	104	–12,086
As at 31 December 2018									
Hedging instrument on interest rate risk									
– Interest rate swaps	–107	–2,546	–7,107	–5,591	–9,883	–7,928	–8,980	–29,629	–71,771
Hedging instrument on combined interest and FX rate risk									
– Cross currency interest rate derivatives	5	48	–601	–4,461	–5,622	–2,647	–793	–239	–14,311

The following table shows the cash flow hedge accounting impact on profit or loss and comprehensive income:

Cash flow hedging – impact of hedging instruments on the statement of profit or loss and other comprehensive income

	Change in value used for calculating hedge ineffectiveness for the period	Carrying amount cash flow hedge reserve at the end of the reporting period	Amount reclassified from CFH reserve to profit or loss	Cash flow is no longer expected to occur	Change in value of hedging instrument recognised in OCI	Hedge ineffectiveness recognised in the statement of profit or loss, gain (+) / loss (-)
As at 31 December 2019						
Interest rate risk on;						
– Floating rate lending	–940	1,395	357			
– Floating rate borrowing	133	–198	–201			
– Other	–211	169	53			
– Discontinued hedges		316	–112			
Total interest rate risk	**–1,018**	**1,682**	**97**		**851**	**44**
Combined interest and FX rate risk on;						
– Floating rate lending	–22	–42	–498			
– Floating rate borrowing	12	15	–12	–1		
– Other	1	–1	–4			
– Discontinued hedges			–3			
Total combined interest and Fx	**–10**	**–28**	**–517**	**–1**	**475**	**3**
Total cash flow hedge	**–1,028**	**1,654**	**–420**	**–1**	**1,326**	**47**
As at 31 December 2018						
Interest rate risk on;						
– Floating rate lending	–540	730	280	–2		
– Floating rate borrowing	51	5	–47			
– Financial assets at FVOCI						
– Highly probable forecast transaction						
– Other	–72	101	34			
– Discontinued hedges			–25	2		
Total interest rate risk	**–561**	**836**	**242**	**–1**	**231**	**–18**
Combined interest and FX rate risk on;						
– Floating rate lending	53	–60	–377			
– Floating rate borrowing	–35	47	–1			
– Financial assets at FVOCI						
– Highly probable forecast transaction						
– Other		–0	–1			
– Discontinued hedges						
Total combined interest and Fx	**18**	**–13**	**–378**		**347**	**–1**
Total cash flow hedge	**–543**	**823**	**–137**	**–1**	**578**	**–19**

The main sources of ineffectiveness for cash flow hedges are:

- differences in timing of cash flows of the hedged item(s) and hedging instrument(s);
- mismatches in reset frequency between hedged item and hedging instrument.

As a result of interest rate developments in 2019 ING Group de-designated cash flow hedge accounting portfolios with a total notional value of approximately EUR 25 billion.

Hedges of net investments in foreign operations

A foreign currency exposure arises from a net investment in subsidiaries that have a different functional currency from that of ING Group. The risk arises from the fluctuation in spot exchange rates between the functional currency of the subsidiaries and ING Group's functional currency, which causes the amount of the net investment to vary in the consolidated financial statements of ING Group. This risk may have a significant impact on ING Group's financial statements. ING Group's policy is to hedge these exposures only when not doing so be expected to have a significant impact on the regulatory capital ratios of ING Group and its subsidiaries.

ING Group's net investment hedges principally consist of derivatives (including currency forwards and swaps) and non-derivative financial instruments such as foreign currency denominated funding. When the hedging instrument is foreign currency denominated debt, ING Group assesses effectiveness by comparing past changes in the carrying amount of the debt that are attributable to a change in the spot rate with past changes in the investment in the foreign operation due to movement in the spot rate (the offset method).

Gains and losses on the effective portions of derivatives designated under net investment hedge accounting are recognised in Other Comprehensive Income. The balance in equity is recognised in the statement of profit or loss when the related foreign subsidiary is disposed. The gains and losses on ineffective portions are recognised immediately in the statement of profit or loss.

ING Group has the following derivative financial instruments used for net investment hedging;

Gross carrying value of derivatives used for net investment hedging

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December				
– FX forwards and futures	23	51	41	16
– Other FX derivatives	0	-	0	0

The derivatives used for net investment hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' EUR 23 million (2018: EUR 41 million) respectively 'Financial liabilities at fair value through profit or loss – Non trading derivatives' EUR 51 million (2018: EUR 17 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For ING Group's main currencies the average exchange rates used in net investment hedge accounting for 2018 are EUR/USD 1.12 (2018: 1.18), EUR/PLN 4.30 (2018: 4.26), EUR/AUD 1.61 (2018: 1.58) and EUR/THB 34.79 (2018: 38.15).

The following table shows the notional amount of derivatives designated in net investment hedging split into the maturity of the instruments:

Maturity derivatives designated in net investment hedging

As at 31 December 2019	Less than 1 month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
– FX forwards and futures	–3,179	–999	–54						–4,232
– Other FX derivatives									
As at 31 December 2018[1]									
– FX forwards and futures	–3,444	–853		–54					–4,351
– Other FX derivatives	–0								–0

1 The prior period has been updated to improve consistency and comparability.

The effect of the net investment hedge accounting in the statement of profit or loss and other comprehensive income is as follows:

Net investment hedge accounting – Impact on statement of profit or loss and other comprehensive income

As at 31 December 2019	Change in value used for calculating hedge ineffectiveness for the period	Carrying amount net investment hedge reserve at the end of the reporting period	Hedged item affected statement of profit or loss	Change in value of hedging instrument recognised in OCI	Hedge ineffectiveness recognised in the statement of profit or loss, gain(+) / Loss(-)
Investment in foreign operations	134	440	44	–134	0
Discontinued hedges		–210			
As at 31 December 2018					
Investment in foreign operations	–71	540	-	71	2
Discontinued hedges	0	-210	-	0	0

40 Assets by contractual maturity

Amounts presented in these tables by contractual maturity are the amounts as presented in the statement of financial position and are discounted cash flows. Reference is made to 'Risk Management – Funding and liquidity risk'.

Assets by contractual maturity

2019	Less then 1 month [1]	1-3 months	3-12 months	1-5 years	Over 5 years	Maturity not applicable	Total
Cash and balances with central banks	53,202						53,202
Loans and advances to banks	22,820	3,100	5,090	3,729	397		35,136
Financial assets at fair value through profit or loss							
– Trading assets	12,754	6,589	8,469	8,240	13,203		49,254
– Non-trading derivatives	110	161	215	998	773		2,257
– Mandatorily at fair value through profit or loss	22,645	13,784	2,357	1,010	1,645	159	41,600
– Designated as at fair value through profit or loss	259	126	1,004	442	1,245		3,076
Financial assets at fair value through other comprehensive income							
– Equity securities						2,306	2,306
– Debt securities	216	175	1,146	14,528	14,419		30,483
– Loans and advances	26	36	202	627	788		1,680
Securities at amortised cost	1,005	916	5,930	24,556	13,701		46,108
Loans and advances to customers	55,138	18,586	45,871	180,972	307,462		608,029
Intangible assets			127	506		1,283	1,916
Other assets [2]	4,618	369	1,049	1,177	1,251	46	8,511
Remaining assets (for which maturities are not applicable) [3]						4,962	4,962
Total assets	**172,793**	**43,842**	**71,460**	**236,784**	**354,885**	**8,756**	**888,520**

1 Includes assets on demand.
2 Includes Other assets, Assets held for sale, and Current and Deferred tax assets as presented in the Consolidated statement of financial position.
3 Included in remaining assets for which maturities are not applicable are property and equipment, and investments in associates and joint ventures. Due to their nature remaining assets consist mainly of assets expected to be recovered after more than 12 months.

Assets by contractual maturity

2018	Less then 1 month [1]	1-3 months	3-12 months	1-5 years	Over 5 years	Maturity not applicable	Total
Cash and balances with central banks	49,987						49,987
Loans and advances to banks	15,864	3,693	4,830	5,599	437		30,422
Financial assets at fair value through profit or loss							
– Trading assets	15,815	6,032	8,123	9,276	10,906		50,152
– Non-trading derivatives	274	323	173	1,059	835		2,664
- Mandatorily at fair value through profit or loss	48,240	9,047	5,325	1,238	723	210	64,783
- Designated at fair value through profit or loss	265	208	784	635	994		2,887
Financial assets at fair value through other comprehensive income							
- Equity securities						3,228	3,228
- Debt securities	272	234	1,597	13,409	10,103		25,616
- Loans and advances	42	97	254	1,023	962		2,379
Securities at amortised cost	1,126	2,537	2,737	22,169	18,708		47,276
Loans and advances to customers	55,736	17,689	39,213	176,448	300,567		589,653
Intangible assets			120	481		1,238	1,839
Other assets [2]	6,894	165	2,447	637	497	214	10,854
Remaining assets (for which maturities are not applicable) [3]						2,861	2,861
Total assets	**194,516**	**40,024**	**65,604**	**231,974**	**344,732**	**7,751**	**884,603**

1 Includes assets on demand.
2 Includes Other assets, Assets held for sale, and Current and Deferred tax assets as presented in the Consolidated statement of financial position.
3 Included in remaining assets for which maturities are not applicable are property and equipment, and investments in associates and joint ventures. Due to their nature remaining assets consist mainly of assets expected to be recovered after more than 12 months.

41 Liabilities by maturity

The tables below include all financial liabilities by maturity based on contractual, undiscounted cash flows. Perpetual liabilities are included in column 'Maturity not applicable'. Furthermore, the undiscounted future coupon interest on financial liabilities payable is included in a separate line and in the relevant maturity bucket. Derivative liabilities are included on a net basis if cash flows are settled net. For other derivative liabilities the contractual gross cash flow payable is included.

Non-financial liabilities are included based on a breakdown of the amounts per the statement of financial position, by expected maturity. Reference is made to the liquidity risk paragraph in 'Risk Management – Funding and liquidity risk' for a description on how liquidity risk is managed.

Liabilities by maturity

2019	Less than 1 month [1]	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Adjustment [2]	Total
Deposits from banks	9,903	847	12,011	10,280	1,965		–180	34,826
Customer deposits	540,544	13,892	13,784	3,646	2,381		108	574,355
Financial liabilities at fair value through profit or loss								
– Other trading liabilities	4,666	646	436	568	333		68	6,717
– Trading derivatives	1,589	1,492	3,312	7,771	7,011		151	21,325
– Non-trading derivatives	379	91	152	616	440		539	2,215
– Designated at fair value through profit or loss	27,048	10,467	1,885	2,938	5,089	7	251	47,684
Debt securities in issue	2,616	13,278	35,915	36,895	26,592		3,231	118,528
Subordinated loans				1,780	7,455	6,941	411	16,588
Lease liabilities	16	39	161	668	643	–	–21	1,507
Financial liabilities	**586,762**	**40,753**	**67,656**	**65,160**	**51,909**	**6,948**	**4,557**	**823,745**
Other liabilities [3]	7,916	820	2,361	728	1,061			12,886
Non-financial liabilities	**7,916**	**820**	**2,361**	**728**	**1,061**	**-**	**-**	**12,886**
Total liabilities	**594,677**	**41,573**	**70,017**	**65,888**	**52,970**	**6,948**	**4,557**	**836,631**
Coupon interest due on financial liabilities	574	692	1,482	5,790	4,355	379		13,271

1 Includes liabilities on demand.
2 This column reconciles the contractual undiscounted cash flows on financial liabilities to the statement of financial position values. The adjustments mainly relate to the impact of discounting, and for derivatives, to the fact that the contractual cash flows are presented on a gross basis (unless the cash flows are actually settled net).
3 Includes Other liabilities, Current and deferred tax liabilities, and Provisions as presented in the Consolidated statement of financial position.

Liabilities by maturity

2018	Less than 1 month [1]	1–3 month	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Adjustment [2]	Total
Deposits from banks	10,506	1,068	1,940	21,571	2,242		2	37,330
Customer deposits[4]	515,094	17,354	16,086	4,695	2,500			555,729
Financial liabilities at fair value through profit or loss								
– Other trading liabilities	4,075	1,318	1,465	888	1,655		286	9,687
– Trading derivatives	1,711	1,873	3,680	6,855	6,035		1,374	21,528
– Non-trading derivatives	458	312	252	988	866		–577	2,299
– Designated at fair value through profit or loss	34,914	11,753	4,115	3,519	4,921		–43	59,179
Debt securities in issue	4,066	20,961	30,282	41,068	21,413		1,961	119,751
Subordinated loans			0	1,713	6,497	5,339	176	13,724
Lease liabilities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Financial liabilities	**570,824**	**54,639**	**57,820**	**81,297**	**46,129**	**5,339**	**3,180**	**819,228**
Other liabilities [3]	10,560	899	2,455	1,044	566			15,524
Non-financial liabilities	**10,560**	**899**	**2,455**	**1,044**	**566**	-	-	**15,524**
Total liabilities	**581,384**	**55,538**	**60,275**	**82,341**	**46,695**	**5,339**	**3,180**	**834,751**
Coupon interest due on financial liabilities[4]	842	659	1,719	5,626	3,839	287		12,971

1 Includes liabilities on demand.
2 This column reconciles the contractual undiscounted cash flows on financial liabilities to the statement of financial position values. The adjustments mainly relate to the impact of discounting, and for derivatives, to the fact that the contractual cash flows are presented on a gross basis (unless the cash flows are actually settled net).
3 Includes Other liabilities, Current and deferred tax liabilities, and Provisions as presented in the Consolidated statement of financial position
4 Prior period amounts for coupon interest have been updated to improve consistency and comparability.

42 Assets not freely disposable

The assets not freely disposable consist primarily of Loans and advances to customers pledged to secure Debt securities in issue, deposits from the Dutch Central Bank and other banks. They serve to secure margin accounts and are used for other purposes required by law. The assets not freely disposable are as follows:

Assets not freely disposable

	2019	2018
Banks		
– Cash and balances with central banks	1,382	1,471
– Loans and advances to banks	6,337	4,373
Financial assets at fair value through profit or loss	614	449 [1]
Financial assets at fair value through OCI	240	253 [1]
Securities at amortised cost	189	627 [1]
Loans and advances to customers	75,755	74,352
Other assets	908	734
	85,425	**82,258**

1 The prior period amounts have been updated to improve consistency and comparability.

In addition, in some jurisdictions ING Bank N.V. has an obligation to maintain a reserve with central banks. As at 31 December 2019, the minimum mandatory reserve deposits with various central banks amount to EUR 9,975 million (2018: EUR 9,359 million).

Loans and advances to customers that have been pledged as collateral for Debt securities in issue and for liquidity purposes, amount in The Netherlands to EUR 45,530 million (2018: EUR 46,320 million), in Germany to EUR 13,222 million (2018: EUR 12,143 million), in Belgium EUR 11,298 million (2018: EUR 11,894 million), in Australia to EUR 4,150 million (2018: EUR 2,638 million) and in the United States to EUR 1,010 million (2018: EUR 1,183 million).

The table does not include assets relating to securities lending as well as sale and repurchase transactions. Reference is made to Note 43 'Transfer of financial assets'.

43 Transfer of financial assets

The majority of ING's financial assets that have been transferred, but do not qualify for derecognition are debt instruments used in securities lending or sale and repurchase transactions.

Transfer of financial assets not qualifying for derecognition

	Securities lending				Sale and repurchase			
	Equity		Debt		Equity		Debt	
	2019	2018	2019	2018	2019	2018	2019	2018
Transferred assets at carrying amount								
Financial assets at fair value through profit or loss	2,542	2,962	1,974	1,170	1,682	2,396	9,538	7,134 [2]
Financial assets at fair value through other comprehensive income			193	168			6	325
Loans and advances to customers								
Securities at amortised cost			195	142			734	910
Associated liabilities at carrying amount[1]								
Deposits from banks	n/a	n/a	n/a	n/a				
Customer deposits	n/a	n/a	n/a	n/a				
Financial liabilities at fair value through profit or loss	n/a	n/a	n/a	n/a	1,619	2,373	3,805	2,225

1 The table includes the associated liabilities which are reported after offsetting, compared to the gross positions of the encumbered assets.
2 The prior period amount has been updated to improve consistency and comparability.

Included in the table above, are the carrying amounts of transferred assets under repurchase agreements, and securities lending that do not qualify for derecognition.

The table above does not include assets transferred to consolidated securitisation entities as the related assets remain recognised in the consolidated statement of financial position.

44 Offsetting financial assets and liabilities

The following tables include information about rights to offset and the related arrangements. The amounts included consist of all recognised financial instruments that are presented net in the statement of financial position under the IFRS offsetting requirements (legal right to offset and intention to net settle) and amounts presented gross in the statement of financial position but subject to enforceable master netting arrangements or similar arrangement.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

2019					Related amounts not offset in the statement of financial position		
Statement of financial position line item	Financial instrument	Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities offset in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Financial instruments	Cash and financial instru-ments received as collateral	Net amount
Loans and advances to banks	Reverse repurchase, securities borrowing and similar agreements	868		868	21	738	109
		868		**868**	**21**	**738**	**109**
Financial assets at fair value through profit or loss							
Trading assets	Derivatives	19,766	–3,851	15,914	13,725	3	2,186
Trading and Non-trading	Reverse repurchase, securities borrowing and similar agreements	57,328	–20,545	36,783	50	36,553	181
		77,094	**–24,396**	**52,698**	**13,774**	**36,556**	**2,368**
Non-trading derivatives	Derivatives	54,689	–53,321	1,368	1,167		201
		54,689	**–53,321**	**1,368**	**1,167**		**201**
Loans and advances to customers	Debit balances on customer accounts	169,313	–166,624	2,689	1,422	813	454
		169,313	**–166,624**	**2,689**	**1,422**	**813**	**454**
Other items where offsetting is applied in the statement of financial position		**9,787**	**–9,423**	**364**	**15**		**349**
Impact of enforceable master netting arrangements or similar arrangements [1]	Derivatives				–4,380	3,965	415
	Other				–3		3
					–4,383	**3,965**	**418**
Total financial assets		**311,750**	**–253,764**	**57,986**	**12,016**	**42,072**	**3,898**

1 The line ‘Impact of enforceable master netting agreements or similar arrangements’ contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

2018 Statement of financial position line item	Financial instrument	Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities offset in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments received as collateral	Net amount
Loans and advances to banks	Reverse repurchase, securities borrowing and similar agreements	1,947		1,947		1,838	109
	Other	0	–0	0			0
		1,947	**–0**	**1,947**		**1,838**	**109**
Financial assets at fair value through profit or loss							
Trading assets	Derivatives	17,181	–1,012	16,168	14,664	2	1,502
Trading and non-trading	Reverse repurchase, securities borrowing and similar agreements	76,983	–18,337	58,647	1,102	57,304	240
		94,164	**–19,349**	**74,815**	**15,766**	**57,307**	**1,742**
Non-trading derivatives	Derivatives	41,263	–39,648	1,615	1,520	–0	96
Loans and advances to customers	Reverse repurchase, securities borrowing and similar agreements	223	–223				
	Debit balances on customer accounts	161,730	–159,596	2,134	1,166	605	363
		161,953	**–159,819**	**2,134**	**1,166**	**605**	**363**
Other items where offsetting is applied in the statement of financial position		5,705	–5,193	512	1		510
Impact of enforceable master netting arrangements or similar arrangements[1]	Derivatives				–5,041	3,518	1,523
	Other				–0		0
					–5,041	**3,518**	**1,523**
Total financial assets		**305,032**	**–224,008**	**81,023**	**13,412**	**63,267**	**4,344**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

2019		Gross amounts of recognised financial liabilities	Gross amounts of recognised financial assets offset in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments pledged as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Deposits from banks	Repurchase, securities lending and similar agreements	26		26	26	21	–21
		26		**26**	**26**	**21**	**–21**
Customer deposits	Repurchase, securities lending and similar agreements						
	Corporate deposits	5,783	–5,432	351			351
	Credit balances on customer accounts	175,490	–161,193	14,297	1,419		12,878
		181,273	**–166,624**	**14,649**	**1,419**		**13,230**
Financial liabilities at fair value through profit or loss							
Trading liabilities	Derivatives	20,935	–3,842	17,093	16,073	6	1,014
Trading and Non-trading	Repurchase, securities lending and similar agreements	56,818	–20,545	36,273	50	35,787	436
		77,752	**–24,386**	**53,366**	**16,123**	**35,793**	**1,450**
Non-trading derivatives	Derivatives	55,194	–53,823	1,371	1,177	191	3
Other items where offsetting is applied in the statement of financial position		9,200	–8,930	269	11		258
Impact of enforceable master netting arrangements or similar arrangements [1]	Derivatives				–6,731	7,620	–889
	Other				–8		8
					–6,739	**7,620**	**–881**
Total financial liabilities		**323,445**	**–253,764**	**69,681**	**12,016**	**43,625**	**14,040**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

2018		Gross amounts of recognised financial liabilities	Gross amounts of recognised financial assets offset in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments pledged as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Deposits from banks	Repurchase, securities lending and similar agreements	36	–36	–0			–0
	Other	0	–	0	0		–
		37	**–36**	**0**	**0**		**–0**
Customer deposits	Repurchase, securities lending and similar agreements	224	–186	37		37	
	Corporate deposits	9,567	–9,078	489			489
	Credit balances on customer accounts	161,552	–150,518	11,034	1,166	4	9,864
		171,343	**–159,782**	**11,561**	**1,166**	**42**	**10,353**
Financial liabilities at fair value through profit or loss							
Trading liabilities	Derivatives	17,105	–1,021	16,084	15,301	2	781
	Repurchase, securities lending and similar agreements	**64,324**	**–18,337**	**45,987**	**1,102**	**44,801**	**85**
	Other						
		81,429	**–19,357**	**62,071**	**16,403**	**44,803**	**866**
Non-trading derivatives	Derivatives	42,675	–41,198	1,477	1,312	178	–13
Other items where offsetting is applied in the statement of financial position		4,353	–3,634	718	–4		723
Impact of enforceable master netting arrangements or similar arrangements [1]	Derivatives				–5,464	5,773	–309
	Other				–0		0
					–5,464	**5,773**	**–309**
Total financial liabilities		**299,836**	**–224,008**	**75,827**	**13,412**	**50,796**	**11,619**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

45 Contingent liabilities and commitments

In the normal course of business, ING Group is party to activities where risks are not reflected in whole or in part in the consolidated financial statements. In response to the needs of its customers, the Group offers financial products related to loans. These products include traditional off-balance sheet credit-related financial instruments.

Contingent liabilities and commitments

	Less than 1 month		1-3 months		3-12 months		1-5 years		Over 5 years		Maturity not applicable		Total	
	2019	2018	2019	2018	2019	2018[2]	2019	2018	2019	2018	2019	2018	2019	2018[2]
Contingent liabilities in respect of														
– Guarantees [1]	11,441	12,644	1,187	891	3,373	3,475	6,355	3,536	5,146	5,710			27,502	26,256
– Irrevocable letters of credit	9,770	10,346	4,987	4,499	1,259	998	322	374	3	3			16,340	16,220
– other	57	53					75	115					131	168
	21,268	**23,043**	**6,174**	**5,389**	**4,631**	**4,473**	**6,752**	**4,026**	**5,149**	**5,713**			**43,974**	**42,644**
Guarantees issued by ING Groep N.V.									319	364			319	364
Irrevocable facilities	64,036	63,499	2,289	2,699	16,766	13,731	30,152	32,717	6,760	6,876			120,002	119,522
	85,304	**86,541**	**8,462**	**8,088**	**21,397**	**18,204**	**36,905**	**36,743**	**12,228**	**12,954**			**164,296**	**162,530**

1 The prior period has been updated to improve consistency and comparability of the amounts per maturity of guarantees.
2 ING in the Netherlands offers credit facilities to clients, linked to ING current accounts. After a review of the product conditions in 2019, it has been concluded that these facilities are irrevocable and therefore reported as such above. The prior period has been updated to improve consistency and comparability.

Guarantees relate both to credit and non-credit substitute guarantees. Credit substitute guarantees are guarantees given by ING Group in respect of credit granted to customers by a third party. Many of them are expected to expire without being drawn on and therefore do not necessarily represent future cash outflows. In addition to the items included in contingent liabilities, ING Group has issued guarantees as a participant in collective arrangements of national industry bodies and as a participant in government required collective guarantee schemes which apply in different countries.

Irrevocable letters of credit mainly secure payments to third parties for a customer's foreign and domestic trade transactions in order to finance a shipment of goods. ING Group's credit risk in these transactions is limited since these transactions are collateralised by the commodity shipped and are of a short duration.

Other contingent liabilities include acceptances of bills and are of a short-term nature. Other contingent liabilities also include contingent liabilities resulting from the operations of the Real Estate business including obligations under development and construction contracts. Furthermore other contingent liabilities include a contingent liability in connection with a possible Dutch tax obligation that relates to the deduction from Dutch taxable profit for losses incurred by ING Bank in the United Kingdom in previous years. The existence of this obligation will be confirmed only by the occurrence of future profits in the United Kingdom.

ING Group has issued certain guarantees as participant in collective arrangements of national banking funds and as a participant in required collective guarantee schemes. For example, ING Bank N.V. provided a guarantee to the German Deposit Guarantee Fund ('Einlagensicherungsfonds' or ESF) under section 5 (10) of the by-laws of this fund, where ING Bank N.V. indemnifies the Association of German Banks Berlin against any losses it might incur as result of actions taken with respect to ING Germany. The ESF is a voluntary collective guarantee scheme for retail savings and deposits in excess of EUR 100,000.

As at 31 December 2019, ING Groep N.V. guarantees various US dollar debentures (that mature between 2023 and 2036) which were issued by a subsidiary of Voya Financial Inc. In the Shareholder's agreement between ING Groep N.V. and Voya Financial Inc. it is agreed that the aggregate outstanding principal amount of the debentures will be reduced to nil as at 31 December 2019 (2018: EUR 87 million).

Per the Shareholder's agreement, the decrease in the aggregate outstanding principal shall be deemed to have been reduced to the extent of collateral deposited by Voya Financial Inc. As at 31 December 2019, EUR 331 million (2018: EUR 233 million) was pledged to ING Groep N.V. as collateral.

Irrevocable facilities mainly constitute unused portions of irrevocable credit facilities granted to corporate clients. Many of these facilities are for a fixed duration and bear interest at a floating rate. ING Group's credit risk and interest rate risk in these transactions is limited. The unused portion of irrevocable credit facilities is partly secured by customers' assets or counter-guarantees by the central governments and exempted bodies under the regulatory requirements. Irrevocable facilities also include commitments made to purchase securities to be issued by governments and private issuers.

46 Legal proceedings

ING Group and its consolidated subsidiaries are involved in governmental, regulatory, arbitration and legal proceedings and investigations in the Netherlands and in a number of foreign jurisdictions, including the U.S., involving claims by and against them which arise in the ordinary course of their businesses, including in connection with their activities as lenders, broker-dealers, underwriters, issuers of securities and investors and their position as employers and taxpayers. In certain of such proceedings, very large or indeterminate amounts are sought, including punitive and other damages. While it is not feasible to predict or determine the ultimate outcome of all pending or threatened governmental, regulatory, arbitration and legal proceedings and investigations, ING is of the opinion that some of the proceedings and investigations set out below may have or have in the recent past had a significant effect on the financial position, profitability or reputation of ING and/or ING and its consolidated subsidiaries.

Settlement Agreement: On 4 September 2018, ING announced that it had entered into a settlement agreement with the Dutch Public Prosecution Service relating to previously disclosed investigations regarding various requirements for client on-boarding and the prevention of money laundering and corrupt practices. Under the terms of the settlement agreement ING paid a fine of €675 million and €100 million for disgorgement. In connection with the investigations, ING had also received information requests from the US Securities and Exchange Commission (SEC). As ING announced on 5 September 2018, ING has received a formal notification from the SEC that it has concluded its investigation. In the letter dated 4 September 2018 the Division of Enforcement states that, based on information as of the date thereof, it does not intend to recommend an SEC enforcement action against ING. Following the entry into the settlement agreement, ING has experienced heightened scrutiny from authorities in various countries. ING is also aware, including as a result of media reports, that other parties may, among other things, seek to commence legal proceedings against ING in connection with the subject matter of the settlement, have filed or may file requests to reconsider the prosecutor's decision to enter into the settlement agreement with

ING and not to prosecute ING or (former) ING employees in court, or have filed or may file requests for disciplinary proceedings against ING employees based on the Dutch "Banker's oath.

Findings regarding AML processes: As previously disclosed, after its September 2018 settlement with Dutch authorities concerning Anti-Money Laundering matters, and in the context of significantly increased attention on the prevention of financial economic crime, ING has experienced heightened scrutiny by authorities in various countries. The interactions with such regulatory and judicial authorities have included, and can be expected to continue to include, onsite visits, information requests, investigations and other enquiries. Such interactions, as well as ING's internal assessments in connection with its global enhancement programme, have in some cases resulted in satisfactory outcomes, and also have resulted in, and may continue to result in, findings, or other conclusions which may require appropriate remedial actions by ING, or may have other consequences. ING intends to continue to work in close cooperation with authorities as it seeks to improve its management of non-financial risks in terms of policies, tooling, monitoring, governance, knowledge and behaviour.

Also as previously disclosed in March 2019, ING Italy was informed by the Banca d'Italia of their report containing their conclusions regarding shortcomings in AML processes at ING Italy, which was prepared based on an inspection conducted from October 2018 until January 2019. ING Italy has been engaged in discussions with Banca d'Italia and Italian judiciary authorities. In February 2020 the Italian court confirmed and approved a plea bargain agreement with the Italian judiciary authorities. As a consequence, ING Italy has paid an administrative fine and disgorgement of profit. In addition, in February 2020 the Banca d'Italia imposed an administrative fine on ING Italy. Both amounts were already provisioned for in 2019.

In line with the enhancement programme announced in 2018, ING Italy is taking steps intended to improve processes and management of compliance risks as required by the Banca d'Italia. In consultation and in agreement with the Banca d'Italia, ING Italy has agreed that it will refrain from taking on new customers during further discussions on the enhancement plans with the Banca d'Italia. ING Italy will continue to fully serve existing clients in Italy and is working hard to address the shortcomings and resolve the issues identified.
ING announced steps in September 2018 to enhance its management of compliance risks and embed stronger awareness across the whole organisation. This programme started in 2017 and includes enhancing KYC files and working on various structural improvements in compliance policies, tooling, monitoring, governance, knowledge and behaviour.

Tax cases: Because of the geographic spread of its business, ING may be subject to tax audits, investigations and procedures in numerous jurisdictions at any point in time. Although ING believes that it has adequately provided for all its tax positions, the ultimate resolution of these audits, investigations and procedures may result in liabilities which are different from the amounts recognised. ING has also identified issues in connection with its U.S. tax information reporting and withholding obligations in respect of prior periods. ING has agreed with the US Internal Revenue Service ("IRS") to resolve these issues by paying the tax owed. ING has made the payment out of the provision it had already recognised.

Litigation regarding products of a former subsidiary in Mexico: Proceedings in which ING is involved include complaints and lawsuits concerning the performance of certain interest sensitive products that were sold by a former subsidiary of ING in Mexico. A provision has been taken in the past.

SIBOR – SOR litigation: In July 2016, investors in derivatives tied to the Singapore Interbank Offer Rate ("SIBOR") filed a U.S. class action complaint in the New York District Court alleging that several banks, including ING, conspired to rig the prices of derivatives tied to SIBOR and the Singapore Swap Offer Rate ("SOR"). The lawsuit refers to investigations by the Monetary Authority of Singapore ("MAS") and other regulators, including the U.S. Commodity Futures Trading Commission ("CFTC"), in relation to rigging prices of SIBOR- and SOR based derivatives. In October 2018, the New York District Court issued a decision dismissing all claims against ING Group and ING Capital Markets LLC, but leaving ING Bank, together with several other banks, in the case, and directing plaintiffs to file an amended complaint consistent with the Court's rulings. In October 2018, plaintiffs filed such amended complaint, which asserts claims against a number of defendants but none against ING Bank (or any other ING entity), effectively dismissing ING Bank from the case. In December 2018, plaintiffs sought permission from the Court to file a further amended complaint that names ING Bank as a defendant. In July 2019, the New York District Court granted the defendants' motion to dismiss and denied leave to further amend the complaint, effectively dismissing all remaining claims against ING Bank. In November 2019, plaintiffs filed an appeal against this judgment.

Claims regarding accounts with predecessors of ING Bank Turkey: ING Bank Turkey has received numerous claims from (former) customers of legal predecessors of ING Bank Turkey. The claims are based on offshore accounts held with these banks, which banks were seized by the Savings Deposit Insurance Fund (SDIF) prior to the acquisition of ING Bank Turkey in 2007 from OYAK. SDIF has also filed various lawsuits against ING Bank Turkey to claim compensation from ING Bank Turkey, with respect to amounts paid out to offshore account holders so far. At this moment it is not possible to assess the outcome of these procedures nor to provide an estimate of the (potential) financial effect of these claims.

Interest rate derivatives claims: ING is involved in several legal proceedings in the Netherlands with respect to interest rate derivatives that were sold to clients in connection with floating interest rate loans in order to hedge the interest rate risk of the loans. These proceedings are based on several legal grounds, depending on the facts and circumstances of each specific case, inter alia alleged breach of duty of care, insufficient information provided to the clients on the product and its risks and other elements related to the interest rate derivatives that were sold to clients. In some cases, the court has ruled in favour of the claimants and awarded damages, annulled the interest rate derivative or ordered repayment of certain amounts to the claimants. The total amounts that need to be repaid or compensated in some cases still need to be determined. ING may decide to appeal against adverse rulings. Although the outcome of the pending litigation and similar cases that may be brought in the future is uncertain, it is possible that the courts may ultimately rule in favour of the claimants in some or all of such cases. Where appropriate a provision has been taken. The aggregate financial impact of the current and future litigation could become material.

As requested by the AFM, ING has reviewed a significant part of the files of clients who bought interest rate derivatives. In December 2015, the AFM concluded that Dutch banks may have to re-assess certain client files, potentially including certain derivative contracts that were terminated prior to April 2014 or other client files. As advised by the AFM, the Minister of Finance appointed a Committee of independent experts (the “Committee”) which has established a uniform recovery framework for Dutch SME clients with interest rate derivatives. ING has adopted this recovery framework and has reassessed individual files against this framework. ING has taken an additional provision for the financial consequences of the recovery framework. In 2017, ING has informed the majority of the relevant clients whether they are in scope of the recovery framework, and thus eligible for compensation, or not. Because implementation by ING of the uniform recovery framework encountered delay, ING has previously offered advance payments to customers out of the existing provision. As of December 2018, all customers in scope of the uniform recovery framework have received an offer of compensation from ING (including offers of no compensation). As of 1 July 2019, the required process under the uniform recovery framework had been completed for approximately 99% of all customers in scope.

ING is awaiting feedback from the independent dispute committee on one file for which the relevant client opted for a 'binding advice' procedure. Hearings with the independent dispute committee took place in November and December 2019. It is not clear when the committee will present its verdict.

Interest surcharges claims: ING received complaints and was involved in litigation with natural persons (natuurlijke personen) in the Netherlands regarding increases in interest surcharges with respect to several credit products, including but not limited to commercial property (commercieel verhuurd onroerend goed). ING has reviewed the relevant product portfolio. The provision previously taken has been reversed for certain of these complaints. All claims are dealt with individually. Thus far, the courts have ruled in favour of ING in each case, ruling that ING was allowed to increase the interest surcharged based upon the essential obligations in the contract.

Criminal proceedings regarding cash company financing: In June 2017, a Belgian criminal Court ruled that ING Luxembourg assisted third parties in 2000 to commit a tax fraud in the context of the purchase of the shares of a cash company. The Court convicted ING Luxembourg, among others, and ordered ING to pay a penal fine of EUR 120,000 (suspended for half of the total amount). The court also ordered ING Luxembourg jointly and severally with other parties, to pay EUR 31.48 million (together with any interest payable under applicable law) to the bankruptcy trustee of the cash company. In July 2017, ING Luxembourg filed an appeal against this judgment. A settlement with all the civil parties involved was reached in mid-2018. However, this settlement does not apply to the criminal conviction of ING Luxembourg. In January 2020, the Court of Appeal of Antwerp reformed the first judgment: ING Luxemburg benefitted from an "opschorting van de uitspraak/suspension du prononcé" which means that the conviction has been upheld, but no penal sanction has been pronounced (penalties suspended). ING Luxembourg is analyzing the judgement.

Mortgage expenses claims: ING Spain has received claims and is involved in procedures with customers regarding reimbursement of expenses associated with the formalisation of mortgages. In most court proceedings in first instance the expense clause of the relevant mortgage contract has been declared null and ING Spain has been ordered to reimburse all or part of the applicable expenses. The courts in first instance have applied in their rulings different criteria regarding the reimbursement of expenses. ING Spain has filed an appeal against a number of these court decisions. ING Spain has also been included, together with other Spanish banks, in two class actions filed by customer associations. The outcome of the pending litigation and similar cases that may be brought in the future is uncertain. A provision has been taken. However, the aggregate financial impact of the current and future litigation could change. In February 2018, the Spanish Supreme Court ruled that Stamp Duty (Impuesto de Actos Jurídicos Documentados) expenses are chargeable to the customer, while in October 2018 it ruled that Stamp Duty is chargeable to the banks. In November 2018, the Spanish Supreme Court clarified the issue regarding Stamp Duty by stating that this tax should be borne by the customer. As for the remaining types of the expenses, in January 2019, the Spanish Supreme Court issued several decisions that stated that the client and the bank each have to bear half of the notary and management company costs and that registry costs have to be borne in full by the bank. Allocation of valuation costs between the bank and the customer were not addressed by the Spanish Supreme Court decisions and remain uncertain.

Imtech claim: In January 2018, ING Bank received a claim from Stichting ImtechClaim.nl and Imtech Shareholders Action Group B.V. on behalf of certain (former) shareholders of Imtech N.V. (“Imtech”). Furthermore, on 28 March 2018, ING Bank received another claim on the same subject matter from the Dutch Association of Stockholders (Vereniging van Effectenbezitters, “VEB”). Each of the claimants allege inter alia that shareholders were misled by the prospectus of the rights issues of Imtech in July 2013 and October 2014. ING Bank, being one of the underwriters of the rights issues, is held liable by the claimants for the damages that investors in Imtech would have suffered. ING Bank responded to the claimants denying any and all responsibility in relation to the allegations made in the relevant letters. In September 2018, the trustees in the bankruptcy of Imtech claimed from various financing parties, including ING, payment of what the security agent has collected following bankruptcy or intends to collect, repayment of all that was repaid to the financing parties, as well as compensation for the repayment of the bridge financing. At this moment it is not possible to assess the outcome of these claims nor to provide an estimate of the (potential) effect of these claims.

Mexican Government Bond litigation: A class action complaint was filed adding ING Bank N.V., ING Groep N.V., ING Bank Mexico S.A. and ING Financial Markets LLC (“ING”) as defendants to a complaint that had previously been filed against multiple other financial institutions. The complaint alleges that the defendants conspired to fix the prices of Mexican Government Bonds. ING is defending itself against the allegations. Currently, it is not possible to provide an estimate of the (potential) financial effect of this claim. On 30 September 2019, the relevant court dismissed the antitrust complaint, finding that the plaintiffs had failed to identify any facts that links each defendant to the alleged conspiracy. On 9 December 2019, the plaintiffs filed an amended complaint removing all ING entities as defendants on the condition that the ING entities enter into a tolling agreement for the duration of two years. The relevant ING entities subsequently entered into a tolling agreement, which provides that the statute of limitations will not be tolled for the two year duration of the agreement. Should the plaintiffs discover any evidence of potential involvement by ING in the activities alleged in the complaint, ING could be brought back into the litigation.

47 Consolidated companies and businesses acquired and divested

Acquisitions

In May 2019 ING acquired 80% of the shares of Intersoftware Group B.V., Findata Access B.V. and Unitrust B.V. (ISW Group) for a total consideration of EUR 18 million. The acquisition of ISW Group resulted in the recognition of goodwill of EUR 17 million.

In 2018 ING Bank obtained control over Payvision Holding B.V. (Payvision) by acquiring 75% of its shares. The share purchase agreement included a put option exercisable by the original shareholders and a call option exercisable by ING for the remaining 25% shares. The put and call option led to the recognition of a financial liability with initial recognition through shareholders' equity of EUR 87 million. In November 2019 ING Bank agreed to purchase the remaining 25% shares in three tranches between November 2019 and April 2020 for a total consideration of EUR 90 million. This resulted in the remeasurement of the financial liability to EUR 90 million. A stake of 23% was purchased in 2019 which reduced the outstanding financial liability. As at 31 December 2019 the ownership interest of ING Bank was 98% with an outstanding financial liability of EUR 7 million to acquire the remaining shares. Given that ING Bank already had control over Payvision, the acquisition of the shares in 2019 represents a shareholder transaction and resulted in a transfer between Non-controlling interest and Shareholders equity of EUR 24 million.

The purchase price of Payvision in 2018 included contingent consideration in the form of future milestone payments. A total of EUR 16 million was paid in 2019.

Divestments

In July 2019 ING completed the sale of part of the ING Lease Italy business. The settlement price amounted to EUR 1.162 million, consisted of a EUR 368 million cash settlement, a EUR 20 million Deferred Purchase Price and a EUR 774 million Senior Loan facility for the portfolio of lease receivables. The deferred purchase price is linked to the performance of the sold portfolio and is reported under the financial assets mandatorily measured at fair value through profit and loss. The additional loss in 2019 amounted EUR -2 million (2018: EUR -123 million). The Italian lease business was reported as Assets Held for Sale as at 31 December 2018 and previously included in the business line segment Wholesale Banking and geographical segment Other Challengers.

Reference is made to Note 12 'Assets and liabilities held for sale' and Note 25 'Result on the disposal of group companies'.

48 Principal subsidiaries, investments in associates and joint ventures

For the majority of ING's principal subsidiaries, ING Groep N.V. has control because it either directly or indirectly owns more than half of the voting power. For subsidiaries in which the interest held is below 50%, control exists based on the combination of ING's financial interest and its rights from other contractual arrangements which result in control over the operating and financial policies of the entity.

For each of the subsidiaries listed, the voting rights held equal the proportion of ownership interest and consolidation by ING is based on the majority of ownership.

For the principal investments in associates and joint ventures ING Group has significant influence but not control. Significant influence generally results from a shareholding of between 20% and 50% of the voting rights, but also the ability to participate in the financial and operating policies through situations including, but not limited to one or more of the following:

- Representation on the board of directors;

- Participation in the policymaking process; and
- Interchange of managerial personnel.

The principal subsidiaries, investments in associates and joint ventures of ING Groep N.V. and their statutory place of incorporation or primary place of business are as follows:

Principal subsidiaries, investments in associates and joint ventures

			Proportion of ownership and interest held by the group	
			2019	2018
Subsidiary	**Statutory place of Incorporation**	**Country of operation**		
ING Bank N.V.	Amsterdam	the Netherlands	100%	100%
Bank Mendes Gans N.V.	Amsterdam	the Netherlands	100%	100%
ING Belgium S.A./N.V.	Brussels	Belgium	100%	100%
ING Luxembourg S.A.	Luxembourg City	Luxembourg	100%	100%
ING-DiBa AG	Frankfurt am Main	Germany	100%	100%
ING Bank Slaski S.A.[1]	Katowice	Poland	75%	75%
ING Financial Holdings Corporation	Delaware	United States of America	100%	100%
ING Bank A.S.	Istanbul	Turkey	100%	100%
ING Bank (Australia) Ltd	Sydney	Australia	100%	100%
ING Commercial Finance B.V.	Amsterdam	the Netherlands	100%	100%
ING Groenbank N.V.	Amsterdam	the Netherlands	100%	100%
Investments in associates and joint ventures				
TMB Bank Public Company Ltd[2]	Bangkok	Thailand	23%	30%

1 The shares of the non-controlling interest stake of 25% are listed on the Warsaw Stock Exchange, for summarised financial information we refer to 'Note 35 'Information on geographical areas.

2 Reference is made to Note 8 Investments in Associates and Joint Ventures.

49 Structured entities

ING Group's activities involve transactions with various structured entities (SE) in the normal course of its business. A structured entity is an entity that has been designed so that voting or similar rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. ING Group's involvement in these entities varies and includes both debt financing and equity financing of these entities as well as other relationships. Based on its accounting policies, as disclosed in the section Principles of valuation and determination of results of these financial statements, ING establishes whether these involvements result in no significant influence, significant influence, joint control or control over the structured entity.

The structured entities over which ING can exercise control are consolidated. ING may provide support to these consolidated structured entities as and when appropriate. However, this is fully reflected in the consolidated financial statements of ING Group as all assets and liabilities of these entities are included and off-balance sheet commitments are disclosed.

ING's activities involving structured entities are explained below in the following categories:

1. Consolidated ING originated securitisation programmes;
2. Consolidated ING originated Covered bond programme (CBC);
3. Consolidated ING sponsored Securitisation programme (Mont Blanc);
4. Unconsolidated Securitisation programme; and
5. Other structured entities.

1. Consolidated ING originated securitisation programmes

ING Group enters into liquidity management securitisation programmes in order to obtain funding and improve liquidity. Within the programme ING Group sells ING originated assets to a structured entity. The underlying exposures include residential mortgages in the Netherlands, Belgium, Spain, Italy and Australia and SME Loans in Belgium.

The structured entity issues securitised notes (traditional securitisations) which are eligible collateral for central bank liquidity purposes. In most programmes ING Group acts as investor of the securitised notes. ING Group continues to consolidate these structured entities if it is deemed to control the entities.

The structured entity issues securitisation notes in two or more tranches, of which the senior tranche obtains a high rating (AAA or AA) by a rating agency. The tranche can subsequently be used by ING Group as collateral in the money market for secured borrowings.

ING Group originated various securitisations, as at 31 December 2019, these consisted of approximately EUR 57 billion (2018: EUR 66 billion) of senior and subordinated notes, of which approximately EUR 4 billion (2018: EUR 5 billion) were issued externally. The underlying exposures are residential mortgages and SME loans. Apart from the third party funding, these securitisations did not impact ING Group's Consolidated statement of financial position and profit or loss.

In 2019, there are no non-controlling interests as part of the securitisation structured entities that are significant to ING Group. ING Group for the majority of the securitisation vehicles provides the funding for the entity except for EUR 4 billion (2018: EUR 5 billion).

In addition ING Group originated various securitisations for liquidity management optimisation purposes. As at 31 December 2019, these consisted of approximately EUR 3 billion (2018: EUR 4 billion) of senior secured portfolio loans, which have been issued to ING subsidiaries in Germany. The underlying exposures are senior loans to large corporations and financial institutions, and real estate finance loans, mainly in the Netherlands. These securitisations did not impact ING Group's consolidated statement of financial position and profit or loss.

2. Consolidated ING originated Covered bond programme (CBC)

ING Group has entered into a covered bond programme. Under the covered bond programme ING issues bonds. The payment of interest and principal is guaranteed by the ING administered structured entities, ING Covered Bond Company B.V., and ING SB Covered Bond Company B.V. In order for these entities to fulfil their guarantee, ING legally transfers mainly Dutch mortgage loans originated by ING. Furthermore ING offers protection against deterioration of the mortgage loans. The entities are consolidated by ING Group.

Covered bond programme

	Fair value pledged mortgage loans	
	2019	2018
Dutch Covered Bond Companies	24,297	24,336
	24,297	**24,336**

In addition, subsidiaries of ING in Germany, Belgium and Australia also issued covered bonds with pledged mortgages loans of approximately EUR 16 billion (2018: EUR 14 billion) in total.

In general, the third-party investors in securities issued by the structured entity have recourse only to the assets of the entity and not to the assets of ING Group.

3. Consolidated ING sponsored Securitisation programme (Mont Blanc)

In the normal course of business, ING Group structures financing transactions for its clients by assisting them in obtaining sources of liquidity by selling the clients' receivables or other financial assets to a Special Purpose Vehicle (SPV). The senior positions in these transactions may be funded by the ING administered multi seller Asset Backed Commercial Paper (ABCP) conduit Mont Blanc Capital Corp. (rated A-1/P-1). Mont Blanc Capital Corp. funds itself externally in the ABCP markets.

In its role as administrative agent, ING Group facilitates these transactions by acting as administrative agent, swap counterparty and liquidity provider to Mont Blanc Capital Corp. ING Group also provides support facilities (i.e. liquidity) backing the transactions funded by the conduit. The types of asset currently in the Mont Blanc conduit include trade receivables, consumer finance receivables, car leases and residential mortgages.

ING Group supports the commercial paper programmes by providing Mont Blanc Capital Corp. with short-term liquidity facilities. Once drawn these facilities bear normal credit risk.

The liquidity facilities, provided to Mont Blanc are EUR 1,631 million (2018: EUR 1,173 million). The drawn liquidity amount is nil as at 31 December 2019 (2018: nil).

The standby liquidity facilities are reported under irrevocable facilities. All facilities, which vary in risk profile, are granted to the Mont Blanc Capital Corp. subject to normal ING Group credit and liquidity risk analysis procedures. The fees received for services provided and for facilities are charged subject to market conditions.

4. Unconsolidated Securitisation programme

In 2013 ING transferred financial assets (mortgage loans) for an amount of approximately EUR 2 billion to a newly established special purpose vehicle (SPV). The transaction resulted in full derecognition of the financial assets from ING's statement of financial position. The derecognition did not have a significant impact on net result. Following this transfer ING continues to have two types of on-going involvement in the transferred assets: as counterparty to the SPE of a non-standard interest rate swap and as servicer of the transferred assets. ING has an option to unwind the transaction by redeeming all notes at their principal outstanding amount, in the unlikely event of changes in accounting and/or regulatory requirements that significantly impact the transaction. The fair value of the swap held by ING at 31 December 2019 amounted to EUR (45) million (2018: EUR (33) million); fair value changes on this swap recognised in the statement of profit or loss in 2019 were EUR 12 million (2018: EUR 8 million). Service fee income recognised, for the role as administrative agent, in the statement of profit or loss in 2019 amounted to EUR 2 million (2018: EUR 2 million). The cumulative income recognised in profit or loss since derecognition amounts to EUR 15 million.

5. Other structured entities

In the normal course of business, ING Group enters into transactions with structured entities as counterparty. Predominantly in its structured finance operations, ING can be instrumental in facilitating the creation of these structured entity counterparties. These entities are generally not included in the consolidated financial statements of ING Group, as ING facilitates these transactions as administrative agent by providing structuring, accounting, funding, lending, and operation services.

ING Group offers various investment fund products to its clients. ING Group does not invest in these investment funds for its own account nor acts as the fund manager.

50 Related parties

In the normal course of business, ING Group enters into various transactions with related parties. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operating decisions. Related parties of ING Group include, among others, its subsidiaries, associates, joint ventures, key management personnel, and various defined benefit and contribution plans. For post-employment benefit plans, reference is made to Note 36 'Pension and other postemployment benefits'. Transactions between related parties include rendering or receiving of services, leases, transfers under finance arrangements and provisions of guarantees or collateral. All transactions with related parties took place at conditions customary in the market. There are no significant provisions for doubtful debts or individually significant bad debt expenses recognised on outstanding balances with related parties.

Subsidiaries

Transactions with ING Groep N.V.'s main subsidiaries

	2019	2018
Assets	44,242	34,902
Liabilities	163	140
Income received	1,103	629
Expenses paid	9	26

Transactions between ING Groep N.V. and its subsidiaries are eliminated on consolidation. Reference is made to Note 48 'Principal subsidiaries' for a list of principal subsidiaries and their statutory place of incorporation.

Assets from ING's subsidiaries mainly comprise long-term funding. Liabilities to ING's subsidiaries mainly comprise short-term deposits.

Associates and joint ventures

Transactions with ING Group's main associates and joint ventures

	Associates		Joint ventures	
	2019	2018	2019	2018
Assets	96	54		–0
Liabilities	97	98	6	1
Off-balance sheet commitments	29	120		–
Income received	11	2		

Assets, liabilities, commitments, and income related to Associates and joint ventures result from transactions which are executed as part of the normal Banking business.

Key management personnel compensation

Transactions with key management personnel (Executive Board, Management Board Banking and Supervisory Board) are transactions with related parties.

In 2019 and 2018, three members of the Executive Board of ING Groep N.V. were also members of the Management Board Banking. The members of the Management Board Banking are considered to be key management personnel and their compensation is therefore included in the tables below.

Key management personnel compensation (Executive Board and Management Board Banking)

2019 in EUR thousands	Executive Board of ING Groep N.V. [3]	Management Board Banking [1,4]	Total
Fixed Compensation			
– Base salary	4,587	3,847	8,434
– Collective fixed allowances [2]	1,167	937	2,104
– Pension costs	78	94	172
– Severance benefits			
Variable compensation			
– Upfront cash		361	361
– Upfront shares	247	378	625
– Deferred cash		541	541
– Deferred shares	371	566	937
– Other			
Total compensation	**6,450**	**6,724**	**13,174**

1 Excluding members that are also members of the Executive Board of ING Groep N.V. One Management Board Banking member was appointed to the Executive Board during the year .
2 The collective fixed allowances consist of two savings allowances applicable to employees in the Netherlands; an individual savings allowance of 3.5% and a collective savings allowance to compensate for loss of pension benefits with respect to salary in excess of EUR 107,539.
3 In 2019 one member of the Executive Board left and one member joined. The table includes their compensation earned in the capacity as board member and in addition an advisor fee for the period in which the activities were transferred to the successor.
4 One member left ING during the year. The table includes compensation earned in the capacity as board member..

In addition to above remuneration the members of the Executive Board and Management Board Banking receive other emoluments, such as Company Car, Travel and Accident Insurance, personnel discount on financial products, of EUR 0.4 million in total (2018: EUR 0.3 million).

Key management personnel compensation (Executive Board and Management Board Banking)

2018 in EUR thousands	Executive Board of ING Groep N.V.	Management Board Banking [1]	Total
Fixed Compensation			
– Base salary	4,157	3,672	7,829
– Collective fixed allowances [2]	1,191	990	2,181
– Pension costs	78	103	181
– Severance benefits[3]	602		602
Variable compensation[4]			
– Upfront cash			
– Upfront shares			
– Deferred cash			
– Deferred shares			
– Other			
Total compensation	**6,028**	**4,765**	**10,793**

1 Excluding members that are also members of the Executive Board of ING Groep N.V
2 The collective fixed allowances consist of two savings allowances applicable to employees in the Netherlands; an individual savings allowance of 3.5% and a collective savings allowance to compensate for loss of pension benefits with respect to salary in excess of EUR 105,075.
3 Following the settlement agreement and in consultation with the Supervisory Board, the CFO stepped down from his position as member of the Executive Board of ING Group on 7 February 2019. In line with applicable regulations a severance payment was granted. The Supervisory Board has set the severance pay at a level of 50% of fixed annual pay.
4 No variable remuneration for 2018, as the members of the Executive Board and Management Board Banking volunteered to forfeit their entitlement to variable remuneration immediately, following the settlement agreement with the Dutch Public Prosecution Service as announced by ING on 4 September 2018.

Key management personnel compensation (Supervisory Board)

in EUR thousands	2019	2018
Total compensation	1,045	1,032

The table above shows the fixed remuneration, expense allowances and attendance fees for the Supervisory Board for 2019 and 2018.

Loans and advances to key management personnel

	Amount outstanding 31 December		Weighted average interest rate		Repayments	
in EUR thousands	2019	2018	2019	2018	2019	2018
Executive Board members	2,402	2,681	1.4%	1.8%	97	
Management Board Banking	350	550	2.6%	2.3%		
Supervisory Board members						
Total	**2,752**	**3,231**			97	

Number of ING Groep N.V. shares and stock options to key management personnel

	ING Groep N.V. shares		Stock options on ING Groep N.V. shares	
in numbers	2019	2018	2019	2018
Executive Board members	172,523	226,639	46,198	68,467
Management Board Banking	147,713	159,393	–	27,240
Supervisory Board members	54,065	54,065		–
Total number of shares and stock options	**374,301**	**440,097**	**46,198**	**95,707**

Key management personnel compensation is generally included in Staff expenses in the statement of profit or loss. The total remuneration of the Executive Board and Management Board Banking is disclosed in the table above. Under IFRS, certain components of variable remuneration are not recognised in the statement of profit or loss directly, but are allocated over the vesting period of the award. The comparable amount recognised in Staff expenses in 2019 and included in Total expenses in 2019, relating to the fixed expenses of 2019 and the vesting of variable remuneration of earlier performance years, is EUR 11 million in 2019 (2018: EUR 12 million).

51 Subsequent events

There are no subsequent events to report.

52 Capital management

Objectives

Group Treasury ("GT") Capital Management, part of Balance Sheet & Capital Management, is responsible for maintaining the adequate capitalisation of ING Group and ING Bank entities, to manage the risk associated with ING's business activities. This involves not only managing, planning and allocating capital within ING Group, ING Bank and its various entities, but also helping to execute necessary capital market transactions, term (capital) funding and risk management transactions. ING takes an integrated approach to assess the adequacy of its capital position in relation to its risk profile and operating environment. This means GT Capital Management takes into account both regulatory and internal, economic based metrics and requirements as well as the interests of key stakeholders such as shareholders and rating agencies.

ING applies the following main capital definitions:

- Common Equity Tier 1 capital (CET1) - is defined as shareholders' equity less regulatory adjustments. CET1 capital divided by risk-weighted assets equals the CET1 ratio.
- Tier 1 capital – is defined as CET1 capital including Additional Tier 1 (hybrid) securities and other regulatory adjustments. Tier 1 capital divided by risk-weighted assets equals the Tier 1 capital ratio.
- Total capital – is Tier 1 capital including subordinated Tier 2 liabilities and regulatory adjustments. Total capital divided by risk-weighted assets equals the Total capital ratio.
- Common Equity Tier 1 ratio ambition –is built on potential impact of a standardised and pre-determined 1-in-10-year stress event (i.e. at a 90% confidence level with a 1-year horizon).
- Leverage ratio – is defined as Tier 1 capital divided by the total exposure amount.

Capital Developments

The capital position remained robust in 2019 reflecting strong profitability with a lower risk weight and complemented with the optimisation of the capital structure. At both the consolidated and entity level, ING has sufficient buffers to withstand certain adverse scenarios without breaching currently applicable and likely future requirements.

The CET1 ratio at the end of the year improved as risk-weighted assets increased due to volume growth and model impacts, effects that were offset by profit retention and positive risk migration. ING continues to maintain a strong and high quality capital level. ING Groep N.V. has a Common Equity Tier 1 ratio of 14.6% as at 31 December 2019 versus a current CRR/CRD IV solvency requirement of 11.83%.

The Group's Tier 1 ratio (including grandfathered securities) increased to 16.7%, as of 31 December 2019. Compared with previous year, the Total capital ratio (including grandfathered securities) increased from 18.4% to 19.1%.

ING Bank N.V. has a CET1 ratio of 13.1%, thereby complying with CRR/CRD IV solvency requirements. ING Bank N.V. paid EUR 2,819 million of dividend to ING Group in 2019. The Tier 1 ratio (including grandfathered securities) increased from 14.5% to 15.1%, primarily reflecting developments in ING Bank's CET1 ratio. The Banks's total capital ratio (including grandfathered securities) increased from 17.2% to 17.9%.

ING Group capital position according to CRR/CRD IV

	2019	2018
Shareholders' equity[4]	53,769	50,932
Interim profit not included in CET1 capital [1]	–1,754	–1,712
Other adjustments	–4,464	–3,776
Regulatory adjustments	–6,217	–5,489
Available common equity Tier 1 capital	**47,552**	**45,443**
Additional Tier 1 securities [2]	6,916	5,339
Regulatory adjustments additional Tier 1	51	48
Available Tier 1 capital	**54,519**	**50,831**
Supplementary capital Tier 2 bonds [3]	8,943	8,248
Regulatory adjustments Tier	–1,158	–1,136
Available Total capital	**62,303**	**57,943**
Risk weighted assets	326,414	314,149
Common equity Tier 1 ratio	14.57%	14.47%
Tier 1 ratio	16.70%	16.18%
Total capital ratio	19.09%	18.44%

1) The interim profit not included in CET1 capital as per 31 December 2019 (EUR 1,754 million) includes EUR 42 million for 4Q 2019.(Full Year 2019: EUR 2,689 million).
2) Including EUR 5,312 million which is CRR/CRD IV-compliant (2018: EUR 2,833 million) and EUR 1,604 million to be replaced as capital recognition is subject to CRR/CRD IV grandfathering rules (2018: EUR 2,506 million).
3) Including EUR 8,789 million which is CRR/CRD IV-compliant (2018: EUR 8,079 million), and EUR 153 million to be replaced as capital recognition is subject to CRR/CRD IV grandfathering rules (2018: EUR 168 million).
4) Shareholders' equity is determined in accordance with IFRS-EU.

In accordance with the applicable regulation, credit and operational risk models used in the capital ratios calculations are not audited.

Dividend

ING Group's dividend policy aims to pay a progressive dividend that will reflect considerations including expected future capital requirements, growth opportunities available to the Group, net earnings, and regulatory developments. The Executive Board proposes to pay a total cash dividend of EUR 2,689 million, or EUR 0.69 per ordinary share, over the financial year 2019. This is subject to the approval of shareholders at the Annual General Meeting in April 2020.
Taking into account the interim dividend of EUR 0.24 per ordinary share paid in August 2019, the final dividend will amount to EUR 0.45 per ordinary share and will be paid fully in cash. The total amount of EUR 1,754 million is completely covered by the remaining balance of "interim profits not included in CET1 capital" at year-end 2019.

Processes for managing capital

Besides assessing capital adequacy, ING also ensures the availability of sufficient capital above the set targets and limits for ING Group and ING Bank. Additionally, GT Capital Management ensures adherence to the set limits and targets by planning and executing capital management transactions. The ongoing assessment and monitoring of capital adequacy is embedded in the capital planning process within the ICAAP framework. As part of the dynamic business planning process, ING prepares a capital and funding plan on a regular basis for all its material businesses and assesses continuously the timing, need and feasibility for capital management actions in scope of its execution strategy. Sufficient financial flexibility should be preserved to meet important financial objectives. ING's risk appetite statements set targets and are at the foundation of the capital plan. These limits are cascaded to the different businesses in line with our risk management framework.

Adverse planning and stress testing are integral components of ING's risk and capital management framework. It allows us to (i) identify and assess potential vulnerabilities in our businesses, business model, portfolios or operating environment; (ii) understand the sensitivities of the core assumptions used in our strategic and capital plans; and (iii) improve decision-making and business steering through balancing risk and return following a foresighted and prudent management approach. In addition to internal stress test scenarios reflecting the outcomes of the annual risk assessment, ING also participates in regulatory stress test exercises. ING participated in the 2018 EU-wide stress test conducted by EBA.

Regulatory requirements

Capital adequacy and the use of required regulatory capital are based on the guidelines developed by the Basel Committee on Banking Supervision (The Basel Committee) and the European Union Directives, as implemented by the Dutch Central Bank (Dutch Central Bank until 3 November 2014, the ECB thereafter) for supervisory purposes. In 2010, the Basel Committee issued new solvency and liquidity requirements that superseded Basel II. The minimum requirements, excluding buffers, for the CET 1 ratio is 4.5%, the minimum Tier 1 requirement is 6% and the Total capital ratio is 8% of risk-weighted assets.

The CET1 requirement for ING Group at a consolidated level was set at 11.83% in 2019. This requirement is the sum of a 4.5% Pillar I requirement, a 1.75% Pillar II requirement, a 2.5% Capital Conservation Buffer (CCB), a 0.08% Countercyclical Buffer (based on December 2019 positions) and the 3.0% Systemic Risk Buffer (SRB) that are set separately for Dutch systemic banks by the Dutch Central Bank (De Nederlandsche Bank). Due to changes in the Countercyclical Buffer setting in some jurisdictions, ING expects an increase to 0.24% in 2020 (based on 4Q 2019 positions). This requirement excludes the Pillar II capital guidance, which is not disclosed.

The Maximum Distributable Amount (MDA) trigger level stood at 11.83% in 2019, based on stable Pillar II capital requirements. In the event that ING Group breaches the MDA level, ING may face restrictions on dividend payments, AT1 instruments coupons and bonus payments.

Ratings

Main credit ratings of ING at 31 December 2019						
	Standard & Poor's		Moody's		Fitch	
	Rating	Outlook	Rating	Outlook	Rating	Outlook
ING Groep N.V.						
Long-term	A-	Stable	Baa1	Stable	A+	Stable
ING Bank N.V.						
Long-term	A+	Stable	Aa3	Stable	AA-	Stable
Short-term	A-1		P-1		F1+	

ING's key credit ratings and outlook are shown in the table above. Each of these ratings reflects only the view of the applicable rating agency at the time the rating was issued, and any explanation of the significance of a rating may be obtained only from the rating agency.

A security rating is not a recommendation to buy, sell or hold securities and each rating should be evaluated independently of other ratings. There is no assurance that any credit rating will remain in effect for any given period of time or that a rating will not be lowered, suspended or withdrawn entirely by the rating agency if, in the rating agency's judgment, circumstances so warrant. ING accepts no responsibility for the accuracy or reliability of the ratings.