

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 2022

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 NV

(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 ⁽¹⁾
3.950% Fixed Rate Senior Notes due 2027	ING27	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
1.726% Callable Fixed-to-Floating Rate Senior Notes due 2027	ING27A	New York Stock Exchange
2.727% Callable Fixed-to-Floating Rate Senior Notes due 2032	ING32	New York Stock Exchange
Callable Floating Rate Senior Notes due 2027	ING27B	New York Stock Exchange
4.017% Callable Fixed-to-Floating Rate Senior Notes due 2028	ING28A	New York Stock Exchange
3.869% Callable Fixed-to-Floating Rate Senior Notes due 2026	ING26	New York Stock Exchange
4.252% Callable Fixed-to-Floating Rate Senior Notes due 2033	ING33	New York Stock Exchange
Callable Floating Rate Senior Notes due 2026	ING26A	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 3,726,539,476

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 whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C.7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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 2022 on Form 20-F



do your thing

Contents

Part I

	PRESENTATION OF INFORMATION	5
	CAUTIONARY STATEMENT WITH RESPECT TO FORWARD-LOOKING STATEMENTS	6
1	IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISORS	8
2	OFFER STATISTICS AND EXPECTED TIMETABLE	8
3	KEY INFORMATION	8
4	INFORMATION ON THE COMPANY	28
4A	UNRESOLVED STAFF COMMENTS	60
5	OPERATING AND FINANCIAL REVIEW AND PROSPECTS	61
6	DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES	76
7	MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS	107
8	FINANCIAL INFORMATION	109
9	THE OFFER AND LISTING	110
10	ADDITIONAL INFORMATION	111
11	QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK	116
12	DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES	117

Part II

13	DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES	120
14	MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS	120
15	CONTROLS AND PROCEDURES	120
16A	AUDIT COMMITTEE FINANCIAL EXPERT	122
16B	CODE OF ETHICS	122
16C	PRINCIPAL ACCOUNTANT FEES AND SERVICES	123
16D	EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES	124
16E	PURCHASES OF REGISTERED EQUITY SERVICES BY THE ISSUER AND AFFILIATED PURCHASERS	124
16F	CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT	126
16G	CORPORATE GOVERNANCE	126
16H	MINE SAFETY DISCLOSURE	127
16I	DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS	127

Part III

17	FINANCIAL STATEMENTS	128
18	FINANCIAL STATEMENTS	128
19	EXHIBITS	129

Additional information

	RISK MANAGEMENT	132
	SELECTED STATISTICAL INFORMATION ON BANKING OPERATIONS	212

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.

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 2022 Financial Statements 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 Financial Statements under IFRS-EU. A reconciliation between IFRS-EU and IFRS-IASB for shareholders' equity and net result is included in Note 1 'Basis of preparation and significant accounting policies' to the consolidated financial statements.

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

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 and customer behaviour, in particular economic conditions in ING's core markets, including changes affecting currency exchange rates and the regional and global economic impact of the invasion of Russia into Ukraine and related international response measures
- ongoing and residual effects of the Covid-19 pandemic and related response measures on economic conditions in countries in which ING operates
- changes affecting interest rate levels
- any default of a major market participant and related market disruption
- changes in performance of financial markets, including in Europe and developing markets
- fiscal uncertainty in Europe and the United States
- discontinuation of or changes in '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
- failures of banks falling under the scope of state compensation schemes
- non-compliance with or changes in laws and regulations, including those concerning financial services, financial economic crimes and tax laws, and the interpretation and application thereof
- geopolitical risks, political instabilities and policies and actions of governmental and regulatory authorities, including in connection with the invasion of Russia into Ukraine and related international response measures
- legal and regulatory risks in certain countries with less developed legal and regulatory frameworks
- prudential supervision and regulations, including in relation to stress tests and regulatory restrictions on dividends and distributions, (also among members of the group)
- ING's ability to meet minimum capital and other prudential regulatory requirements
- changes in regulation of US commodities and derivatives businesses of ING and its customers

- application of bank recovery and resolution regimes, including write-down and conversion powers in relation to our securities
- outcome of current and future litigation, enforcement proceedings, investigations or other regulatory actions, including claims by customers or stakeholders who feel misled or treated unfairly, and other conduct issues
- changes in tax laws and regulations and risks of non-compliance or investigation in connection with tax laws, including FATCA
- operational and IT risks, such as system disruptions or failures, breaches of security, cyber-attacks, human error, changes in operational practices or inadequate controls including in respect of third parties with which we do business
- risks and challenges related to cybercrime including the effects of cyberattacks and changes in legislation and regulation related to cybersecurity and data privacy
- changes in general competitive factors, including ability to increase or maintain market share
- inability to protect our intellectual property and infringement claims by third parties
- inability of counterparties to meet financial obligations or ability to enforce rights against such counterparties
- changes in credit ratings
- business, operational, regulatory, reputation, transition and other risks and challenges in connection with climate change and ESG-related matters
- inability to attract and retain key personnel
- future liabilities under defined benefit retirement plans
- failure to manage business risks, including in connection with use of models, use of derivatives, or maintaining appropriate policies and guidelines
- changes in capital and credit markets, including interbank funding, as well as customer deposits, which provide the liquidity and capital required to fund our operations, 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

Not applicable.

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

Summary of Risk factors

The following is a summary of the principal risk factors that could have a material adverse effect on the reputation, business activities, financial condition, results and prospects of ING. Please carefully consider all of the information discussed in this section "Risk Factors" for a detailed description of these risks.

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

- 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, including Russia and Ukraine, as well as by changes in customer behaviour in these regions, and an adverse change in any one region could have an impact on our business, results and financial condition.
- ING's business, results and financial condition have been, and may continue to be, adversely affected by the Covid-19 pandemic.
- Interest volatility and other interest rate changes may adversely affect our business, results and financial condition.
- The default of a major market participant could disrupt the markets and may have an adverse effect on our business, results and financial condition.
- 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.

- Discontinuation of interest rate benchmarks may negatively 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, may increase the risk of loans being impaired and have a negative effect on our results and financial condition.
- We may incur losses due to failures of banks falling under the scope of state compensation schemes.

Risks related to the regulation and supervision of the Group

- Non-compliance with laws and/or regulations concerning financial services or financial institutions, including with respect to financial economic crimes, could result in fines and other liabilities, penalties or consequences for us, which could materially affect our business and reduce our profitability.
- 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 additional legal and regulatory risk in certain countries where we operate with less developed or predictable legal and regulatory frameworks.
- We are subject to the regulatory supervision of the ECB and other regulators with extensive supervisory and investigatory powers.
- 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.
- Our US commodities and derivatives business is subject to CFTC and SEC regulation under the Dodd-Frank Act.
- We are subject to 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.

Risks related to litigation, enforcement proceedings and investigations and to changes in tax laws

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

- 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.
- We may be subject to US tax investigation if we fail to comply with our obligations as a Participating Financial Institution in respect of the Foreign Account Tax Compliance Act ("FATCA") and as a Qualified Intermediary in respect of other US tax regulations
- ING is exposed to the risk of claims from customers who feel misled or treated unfairly because of advice or information received.

Risks related to the Group's business and operations

- ING may be unable to meet internal or external aims or expectations with respect to ESG-related matters.
- ING may be unable to adapt its products and services to meet changing customer behaviour and demand, including as a result of ESG-related matters.
- ING's business and operations are exposed to physical risks, including as a direct result of climate change.
- ING's business and operations are exposed to transition risks related to climate change.
- Operational and IT 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 or outbreaks of communicable diseases may adversely impact our reputation, business and results.
- We are subject to increasing risks related to cybercrime and compliance with cybersecurity regulation.
- 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.
- 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.
- 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.
- 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.

- An inability to retain or attract key personnel 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 actual results and underlying actuarial assumptions and models.

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 may be unable to manage our risks successfully through derivatives.

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.
- 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.

Additional risks relating to ownership of ING shares

- Holders of ING shares may experience dilution of their holdings and may be impacted by any share buyback programme.
- 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 judgements against ING or the members of our Supervisory and Executive Boards or our officers.

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 as well as ING's reputation. 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.

Although the most material risk factors have been presented first within each category, the order in which the remaining risk factors are presented is not necessarily an indication of the likelihood of the risks actually materialising, of the potential significance of the risks or of the scope of any potential negative impact to our business, results, financial condition and prospects.

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

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, as well as by changes in customer behaviour in these regions, 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 37 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 Banking markets. In Wholesale Banking, we provide specialised lending, tailored corporate finance, debt and equity market solutions, payments & cash management, trade and treasury services. As a result, negative developments in financial markets and/or countries 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 inflation or deflation, interest rates, securities prices, credit spreads, liquidity spreads, exchange rates, consumer spending, changes in customer behaviour, climate change, business investment,

real estate values and private equity valuations, government spending the volatility and strength of the capital markets, political events and trends, supply chain disruptions, shortages, terrorism, pandemics and epidemics (such as the recent Covid-19 pandemic) 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 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”. All of these are factors in local and regional economies as well as in the global economy, and we may be affected by changes in any one of these factors in any one country or region, and more if more of these factors occur simultaneously and/or in multiple countries or regions or on a global scale.

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:

- inadequate reserves or provisions, in relation to which losses 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 our net result and equity; 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 could present risks of economic downturn. Though less material, we also derive substantial revenues in the following geographic regions: United States, Turkey, Poland and the remainder of Eastern Europe, Southern Europe, East Asia (primarily Singapore among others) and Australia. In an economic downturn affecting some or all of these jurisdictions, 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. Further, while the Covid-19 pandemic and related response measures have eased, the effects of these measures are still being felt in the financial performance and stability of certain of our business customers. As a result, their impact may continue to affect our business. We also have wholesale banking activities in both Russia and Ukraine, as well as investments in Russia, some of which are denominated in local currency. In response to Russia’s invasion of Ukraine, the international community imposed various punitive measures, including sanctions, capital controls, restrictions on SWIFT access and restrictions on central bank activity. These measures have significantly impacted, and may continue to significantly impact, Russia’s economy and have contributed to heightened instability in global markets and increased inflation due in part to supply chain constraints, as well as higher energy and commodity prices. Should prices remain elevated for an extended period, most businesses and households would be negatively impacted, and our business in Russia and Ukraine, as well as our broader business, may be adversely affected, including through spill-over risk to the entire wholesale banking portfolio (e.g. commodities financing, energy and utilities and energy-consuming clients).

Environmental and/or climate risks may also directly and indirectly impact ING, for example through (among other things) losses suffered as a result of extreme weather events, the impact of climate related transition risk on the risk and return profile or value of security or operations of certain categories of customer to which ING has exposure. In addition, these risks may also increase ING’s reputational and litigation risk if the economic activity that ING supports is not in line with community expectations or ING’s external commitments (this includes, but is not limited to, greenwashing risk).

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

ING’s business, results and financial condition have been, and may continue to be, adversely affected by the Covid-19 pandemic.

The Covid-19 pandemic and the related response measures introduced by various national and local governmental authorities (such as restrictions on social activity, travel, movement and certain economic activity) have had, and are expected to continue to have, adverse effects on global economic conditions, including inflation, depressed global economic growth, disrupted supply chains, manufacturing, tourism, reduced consumer spending, lower asset prices and higher unemployment levels, as well as increased volatility and uncertainty across the global economy and financial markets.

If these effects are prolonged, or if new Covid-19 variants emerge which require reimplementing of the response measures outlined above, the economies in which we and our customers and counterparties operate may experience heightened stress and an increased risk of recession, which may increase the risk of customer defaults and materially adversely affect ING’s business, results, financial condition and prospects.

Additionally, as of December 31, 2022, a significant portion of our staff continue to work from home on a full- or part-time basis. If due to illness, technical limitations or other restrictions, employees are unable to work or are not able to operate as effectively and efficiently remotely as they did in the office, this may adversely affect our business, results and financial condition.

In addition, a situation in which most or some of our employees continue working from home may raise operational risks, including with respect to information security, data protection, availability of key systems and infrastructure integrity. There is also a risk that we will not be effective in implementing regulatory or strategic change programs in the current environment. The Covid-19 pandemic has led to new banking behaviour from customers. There has been an increase in the digital behaviour of our customers leading to reduced traffic in branches. Over 95% of our customers now interact with us via digital channels only. This increased reliance on digital banking and remote working may increase the risk of cybersecurity breaches, loss of personal data and related reputational risk. If any of these risks were to materialise that may adversely affect our business, results and financial condition.

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. In response to rising inflation globally, central banks (including the ECB, the US Federal Reserve and the RBA and RBNZ) have begun to rapidly increase policy rates. This cycle is expected to continue throughout FY2023. This rapid rise in policy rates may result in:

- a decrease in the demand for loans;
- higher interest rates to be paid on customer deposits and on debt securities that we have issued or may issue on the financial markets from time to time to finance our operations, which would increase our interest expenses and reduce our results;
- changes to customer demand, particularly an increase in the attractiveness of certain products, such as fixed term deposits, which may lead to ING being required to pay higher rates on its liabilities;
- higher interest rates which can lead to lower investments prices and 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.

Further, a sustained increase in the inflation rate in our principal markets and related interest rate volatility may also reduce disposable income for households and may increase household and business financial stress, and therefore negatively affect our business, results and financial condition. A failure to accurately anticipate inflation on an ongoing basis and factor it into our product pricing assumptions may result in mispricing of our products, which could materially and adversely impact our results.

Despite the recent rise in policy rates, in which policy rates in various jurisdictions in which we operate have risen at a rapid pace as set out above, interest rates are still relatively low by historical standards and have been low for a prolonged period, which has resulted in, and may (if the expected rate rises do not materialise) 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 the Dutch Central Bank's ("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.

Each of the preceding risks, should they materialise, may adversely affect our business, results and financial condition.

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. Also 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. In addition, ING may also be faced with additional open market risk for which hedging or mitigation strategies may not be available or effective (either by hedges eliminated by defaulting counterparties, or reduce market liquidity). 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, levels of unemployment in certain countries, the availability and cost of credit, as well as credit spreads. In addition,

geopolitical issues, including trade tensions between the US and China, increasing protectionism between key countries, and issues with respect to the Middle East and North Korea may all contribute to adverse developments in the global capital markets and the economy generally. In addition, Russia's invasion of Ukraine and related international response measures have had, and are expected to continue to have, a negative impact on regional and global economic conditions, including heightened instability in global markets and increased inflation due in part to supply chain constraints, as well as higher energy and commodity prices. Should prices remain elevated for an extended period, most businesses and households would be negatively impacted, and our business in Russia and Ukraine, as well as our broader business, may be adversely affected, including through spill-over risk to our entire wholesale banking portfolio, in areas such as commodities financing, energy and utilities and energy-consuming clients.

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. 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 judgement 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.

Discontinuation of interest rate benchmarks may negatively affect our business, results and financial condition.

Changes to major interest rates benchmarks may negatively affect our business, including the level of net interest revenue. Financial markets have historically relied on Interbank Offered Rates ('IBORs') benchmarks, such as the London Interbank Offered Rate ('LIBOR'), the Euro Over Night Index Average ('EONIA') and the Euro Interbank Offered Rate ('EURIBOR'). While some interest benchmarks have been reformed and will continue to exist, such as EURIBOR, others such as EONIA, LIBOR and the Warsaw Interbank Offered Rate ('WIBOR') have been or will be replaced by recommended alternative rates. EONIA ceased to be published on 3 January 2022, and is succeeded by €STR. All GBP, JPY, CHF and EUR LIBOR settings ceased on 31 December 2021.

The most used USD LIBOR tenors will continue to be published until 30 June 2023 to support existing contracts, with the use of USD LIBOR for new contracts only allowed in limited circumstances.

Public authorities have recognised that many contracts do not contain reference to alternative rates, or reference inappropriate alternatives, or cannot be renegotiated or amended prior to the cessation of the relevant benchmark. In response the UK government has granted additional powers to the Financial Conduct Authority (FCA) to enable the temporary publication of a 'synthetic' LIBOR using a different methodology and inputs. The FCA used these powers to ensure GBP and JPY LIBOR continued to be available using this "synthetic" methodology for a limited time to assist in transition. The FCA has proposed a requirement for the LIBOR benchmark administrator to publish synthetic 1-, 3- and 6-month USD LIBOR until 30 September 2024 to support those contracts not transitioned by 30 June 2023. This proposal is currently in consultation. The U.S has also passed legislation to assist in benchmark transition covering most contracts governed by U.S law that involve USD LIBOR. The legislation has the effect, for those contracts that do not include suitable "fallback" rate provisions, of amending the contractual terms to switch to the recommended fallback rate for USD LIBOR (being the Secured Overnight Financing Rate), which is economically similar to synthetic LIBOR.

Additionally, in 2022 the Polish National Working Group published a roadmap indicating that the market should be prepared for a cessation of, among others, the WIBOR reference rate in 2025. It is expected that the reform will be completed by the end of 2024, with the offering of financial products using the new benchmark (WIRON) to progress gradually in 2023 and 2024.

The discontinuation of USD LIBOR, WIBOR and related interest rate benchmarks could result in a number of risks for the Group, its customers, and the financial services industry more widely. These risks include legal

risks and costs in relation to changes required to documentation for existing transactions. In addition to the heightened conduct and operational risks, the process of adopting new reference rates may expose the Group to an increased level of financial risk, such as potential earnings volatility resulting from contract modifications and changes in hedge accounting relationships.

It is not possible to determine the full impact of each of the USD LIBOR and WIBOR transitions on the Group. However, the experience gained, solutions put in place for the other LIBOR rates, and specific project team established to manage the transition of WIBOR, together with our investment in and ability to offer a wide range of products using the alternative rates of each of USD LIBOR and WIBOR, should help to limit any material adverse effect on our business, results and financial condition.

ING continues to monitor market developments and reform plans for other rates to anticipate the impact on our customers and any related risks.

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

Globally, inflation increased significantly during FY2022. If the increased in inflation are prolonged in our principal markets, this could 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,
- result in further customer defaults as interest rate rises flow through into payment stress for lower credit quality customers.

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 could be experienced in our principal markets adversely affecting our financial performance. 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, 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.

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'.

In February 2021, the European Commission issued a public consultation on the review of the bank crisis management and deposit insurance (CMDI) framework, with a focus on three EU legislative texts: the Bank Recovery and Resolution Directive (BRRD), the Single Resolution Mechanism Regulation (SRMR), and the Deposit Guarantee Schemes Directive (DGSD). The anticipated revision of the CMDI framework is part of the debate on the completion of the Banking Union and in particular its third and missing pillar EDIS. The consultation period ran until May 2021. It is uncertain when the next steps towards revision of the CMDI framework, including EDIS, can be expected.

Risks related to the regulation and supervision of the Group

Non-compliance with applicable laws and/or regulations, including with respect to financial economic crimes, could result in fines and other liabilities, penalties or consequences for us, which could materially affect our business and reduce our profitability.

ING has 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 45 '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 as well as ING's reputation. 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.

Furthermore, as a financial institution, we are exposed to the risk of unintentional involvement in criminal activity in connection with the commission of financial economic crimes, including with respect to sanctions and money laundering and the funding of terrorist and other criminal activities. The failure or perceived failure by us to comply with legal and regulatory requirements with respect to financial economic crimes may result in adverse publicity, claims and allegations, litigation and regulatory investigations and sanctions, which may have a material adverse effect on our business, results, financial condition and/or prospects in any given period. For further discussion of the impact of litigation, enforcement proceedings, investigations or other regulatory actions with respect to financial economic crimes, see “– We may be subject to litigation, enforcement proceedings, investigations or other regulatory actions, and adverse publicity” below.

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 financial regulation in the jurisdictions in which we conduct business. Regulation of the industries in which we operate is becoming more extensive and complex, while also attracting supervisory scrutiny. Compliance with applicable and new laws and regulations is resource-intensive, and may materially increase our operating costs. Moreover, these regulations intended to protect our customers, markets and society as a whole and can limit our activities, among others, through stricter net capital, market conduct and transparency requirements and restrictions on the businesses in which we can operate or invest.

Our revenues and profitability and those of our industry 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 effective. 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. In particular, we have wholesale banking activities in both Russia and Ukraine, as well as investments in Russia, some of which are denominated in local currency, and other counterparties located in Russia. 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 prudential 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 Single Supervisory Mechanism (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 authorities may also prohibit the Group from making dividend payments to shareholders or distributions to holders of its regulatory capital instruments if the Group fails to comply with regulatory requirements, in particular with supervisory actions, minimum capital requirements (including buffer requirements) or with liquidity requirements, or if there are shortcomings in its governance and risk management processes. A failure to comply with prudential or conduct regulations 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.

ING is subject to a variety of 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. In addition, such 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, or to adapt to changes in such requirements, may have a material adverse effect on our business, results and financial condition, and may require us to seek additional capital. Failures to meet minimum capital or other prudential requirements may also result in ING being prohibited from making payments on certain of our securities. 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.

Our affiliate ING Capital Markets LLC is registered with the Commodity Futures Trading Commission (CFTC) as a swap dealer and is subject to CFTC regulation of the off-exchange derivatives market pursuant to Title VII of the US Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank). Operating as a swap dealer requires compliance with CFTC regulatory requirements, which may be burdensome, impose additional compliance costs and could adversely affect the profitability of this business, as well as exposing ING to the risk of non-compliance with these regulations.

ING Capital Markets LLC is also registered with the SEC as a security-based swap dealer pursuant to Dodd-Frank and SEC regulations enacted thereunder with respect to security-based swaps and that became required on 1 November 2021. While ING Capital Markets LLC, as a security-based swap dealer, is required to comply with SEC rules with respect to most of these requirements, SEC rules have permitted an Alternative Compliance Mechanism that allows for compliance, subject to eligibility requirements, with CFTC capital and margin rules applying to swap dealers in lieu of SEC capital and margin rules applying to security-based swap dealers. ING Capital Markets LLC has elected to use the Alternative Compliance Mechanism. However, should ING Capital Markets LLC in the future be ineligible for the Alternative Compliance Mechanism it would be subject to SEC capital and margin security-based swap dealer rules instead of the CFTC capital and margin security-based swap dealer rules which could be more capital intensive. Registration as a security-based swap dealer requires compliance with SEC regulatory requirements, which may be burdensome, impose additional compliance costs and could adversely affect the profitability of this business, as well as exposing ING to the risk of non-compliance with these regulations.

In March 2023, ING Capital Markets LLC determined that errors in its calculation of its regulatory capital resulted in ING Capital Markets LLC holding less than the minimum capital required under CFTC rules during

prior periods and self-reported the issue to the CFTC and SEC. This issue could lead to regulatory investigations, enforcement actions and sanctions by the CFTC and/or SEC.

On 15 December 2021, the SEC proposed new rules that would for the first time impose public reporting requirements for some significant security-based swaps positions. The rules would apply even to trades between non-US counterparties, including ING Bank, provided that the issuer of the reference securities underlying the security-based swaps is organised in the US, the issuer of the reference securities underlying the security-based swaps has its principal place of business in the US, or the securities are in certain categories registered with the SEC.

These proposed regulations, if adopted in their current form, could constrain trading activity in security-based swaps. In addition, there are, or may be in the future, regulatory requirements or limitations related to other categories of equity derivatives, such as options or forwards, that could similarly constrain trading activity in such instruments as well. These various requirements and limitations with respect to equity derivatives generally could have a significant impact on the liquidity and utility of these markets, materially impacting ING's business in this market.

In addition, position limit requirements under Dodd-Frank applicable to the derivatives market generally for futures contracts based on any of 25 commodity futures contracts on physical commodities have been imposed by the CFTC. On 1 January 2023, these position limits were extended to certain positions in swaps that are "economically equivalent" to the enumerated futures contracts. The position limits on futures and related swaps could limit ING's position sizes in these futures contracts and similarly limit the ability of counterparties to utilise certain of our products to the extent hedging exemptions from the position limits are unavailable. In addition, position limits on swaps on the same physical commodities will become effective in January 2023, which could further limit the ability of ING and its counterparties to enter into such swaps. Such 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 reduce the size and profitability of our customer business. The imposition of these regulatory restrictions and requirements, could also result in reduced market liquidity, which could in turn increase market volatility and the risks and costs of hedging and other trading activities.

Any of the foregoing factors, and any further regulatory developments with respect to commodities and derivatives, could have a material impact on our business, results and financial condition.

We are subject to 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 'Bank Recovery and Resolution Directive' (BRRD) as implemented in national legislation, such as the Dutch Financial Supervision Act. The SRM applies to banks that are supervised by the ECB under the SSM, with the aim of ensuring an orderly resolution of failing banks at minimum cost for taxpayers and the real economy. The BRRD establishes a common framework for the recovery and resolution of banks within the European Union, with the aim of providing supervisory authorities and resolution authorities with common tools and powers to address banking crises pre-emptively to safeguard financial stability and minimise taxpayers' exposure to losses. Any application of statutory write-down and conversion or other powers would not be expected to constitute an event of default under our securities entitling holders to seek repayment. If any of these powers were to be exercised in respect of ING, there could be a material adverse effect on both ING and on holders of ING 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.

Risks related to litigation, enforcement proceedings and investigations and to changes in tax laws

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 and/or financial institutions. 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" and "Our US commodities and derivatives business is subject to CFTC and SEC regulation under the Dodd-Frank Act" 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 employees 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. With respect to sanctions, beginning in February 2022, the EU, UK and the US, in a coordinated effort joined by several other countries, imposed a variety of new sanctions with respect to Russia and various Russia-related parties. Despite significant similarities between these Russia-related sanctions programmes, there are notable differences between the EU, UK and US sanctions programmes, which have evolved and may continue to evolve and have required ING to implement new control measures with related costs and risks of non-compliance. While various sanctions include grace periods before full compliance is required, there is no guarantee that ING will be able to implement all required procedures within the applicable grace periods. In addition, 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) and tax treaties (including the termination thereof) 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. On 7 June 2021, the Dutch government received a formal notice of termination of the Dutch-Russian tax treaty from Russia, and as a result, the tax treaty was terminated as of 1 January 2022. The termination of the Dutch-Russian tax treaty or any other similar developments may have adverse effects on ING and ING's customers.

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. In addition, 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 US tax investigation if we fail to comply with our obligations as a Participating Financial Institution in respect of the Foreign Account Tax Compliance Act (“FATCA”) and as a Qualified Intermediary in respect of other US tax regulations

Due to the nature of its business, ING is subject to various provisions of US tax law. These include FATCA, which requires ING to provide certain information for the US Internal Revenue Service (IRS), and the Qualified Intermediary (QI) requirements, which require withholding tax on certain US-source payments. Failure to comply with FATCA and/or QI requirements and regulations could 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.

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

Our products and services, including banking products and advice services for third-party products are exposed to claims from customers who might allege that they have received insufficient advice or misleading 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 and distribution 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, either at the purchase/execution of the product and/or through the life of the product. 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 may 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 45 ‘Legal proceedings’ to the consolidated financial statements.

Risks related to the Group’s business and operations

ING may be unable to meet internal or external aims or expectations with respect to ESG-related matters.

Environmental, Social and Governance (ESG) is an area of significant and increased focus for governments and regulators, investors, ING’s customers and employees, and other stakeholders or third parties (e.g., non-governmental organisations or NGOs). As a result, an increasing number of laws, regulations and legislative actions have been introduced to address climate change, sustainability and other ESG-related matters, including in relation to the financial sector’s operations and strategy. Such recent regulations include the EU Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy regulation and EU Green Bond Standards, which broadly focus on disclosure obligations, standardized definitions and classification frameworks for environmentally sustainable activities. These laws, regulations and legislative frameworks may directly and indirectly impact the business environment in which ING operates and may expose ING to significant risks; amongst others greenwashing risk.

National or international regulatory actions or developments may also result in financial institutions coming under increased pressure from internal and external stakeholders regarding the management and disclosure of their ESG risks and related lending and investment activities. ING may from time to time disclose ESG-related initiatives or aims in connection with the conduct of its business and operations. However, there is no guarantee that ING will be able to implement such initiatives or meet such aims within anticipated timeframes, or at all. ING may fail to fulfil internal or external ESG-related initiatives, aims or expectations, or may be perceived to fail to do so, or may fail to adequately or accurately report performance or developments with respect to such initiatives, aims or expectations. ING could therefore be criticised or held responsible for the scope of its initiatives or goals regarding such matters. In addition, ING might face requests for specific strategies, plans or commitments to address ESG-related matters, which may or may not be viewed as satisfactory to the relevant internal and external stakeholders (including NGOs). Any of these factors may have an adverse impact on ING’s reputation and brand value, or on ING’s business, financial condition and operating results.

ING may be unable to adapt its products and services to meet changing customer behaviour and demand, including as a result of ESG-related matters.

Customers or other counterparties may increasingly assess sustainability or other ESG-related matters in their economic decisions. For instance, customers may choose investment products or services based on

sustainability or other ESG criteria, or may look at a financial institution's ESG-related lending strategy when choosing to make deposits. To remain competitive and to safeguard its reputation, ING is required to continuously adapt its business strategy, products and services to respond to emerging, increasing or changing sustainability and other ESG-related demands from customers, investors and other stakeholders. However, there is no guarantee that ING's current or future products or services will meet applicable ESG-related regulatory requirements, customer preferences or investor expectations.

ING's business and operations are exposed to physical risks, including as a direct result of climate change.

ING's business and operations may be exposed to the impacts of physical risks arising from climate and weather-related events, including heatwaves, droughts, flooding, storms, rising sea levels, other extreme weather events or natural disasters, and to the impacts of physical risks arising from the environmental degradation, including loss of biodiversity, water or resources scarcity, pollution or waste management. Such physical risks could disrupt ING's business continuity and operations or impact ING's premises or property portfolio, as well as its customers' property, business or other financial interests. These risks could potentially result in impairing asset values, financial losses, declining creditworthiness of customers and increased defaults, delinquencies, write-offs and impairment charges in ING's portfolio, etc. In particular, changing climate patterns resulting in more frequent and extreme weather events, such as the severe flooding that occurred in Western Europe in July 2021, the long-lasting bushfires in Australia in February 2021 or the severe flooding in the eastern states of Australia in early 2022, could lead to unexpected business interruptions or losses for ING or its customers.

For a description of physical risks to our operations and business other than resulting from natural disasters as a result of climate change, see “–Operational and IT 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 or outbreaks of communicable diseases may adversely impact our reputation, business and results” below.

ING's business and operations are exposed to transition risks related to climate change.

The transition to a low carbon or net zero economy may give rise to risks and uncertainties associated with climate change-related laws, regulations and oversight, changing or new technologies, and shifting customer sentiment. For instance, ING may be required to change its lending portfolio to comply with new climate change-related regulations. As a result, it might be unable to lend to certain prospective customers, or might even lead to the termination of certain existing relationships with certain customers. This could result in claims or legal challenges from such customers against ING. This transition may also adversely impact the business and operations of ING's customers and other counterparties. If ING fails to adequately factor in such risks in its lending or other business decisions, ING could be exposed to losses.

The low carbon or net zero transition may also require ING to modify or implement new compliance systems, internal controls and procedures or governance frameworks. The integration and automation of internal governance, compliance, and disclosure and reporting frameworks across ING could lead to increased operational costs for ING and other execution and operational risks. The implementation cost of these systems may especially be higher in the near term as ING seeks to adapt its business, or address overlapping, duplicative or conflicting regulatory or other requirements in this fast-developing area. Furthermore, ING's ongoing implementation of appropriate systems, controls and frameworks increasingly requires ING to develop adequate climate change-related risk assessment and modelling capabilities (as there is currently no standard approach or methodology available), and to collect customer, third party or other data. There are significant risks and uncertainties inherent in the development of new risk modelling methodologies and the collection of data, potentially resulting in systems or frameworks that could be inadequate, inaccurate or susceptible to incorrect customer, third party or other data.

Any delay or failure in developing, implementing or meeting ING's climate change-related commitments and regulatory requirements may have a material adverse impact on our business, financial condition, operating results and reputation, and lead to climate change or ESG-related investigations, enforcement proceedings or litigation.

Operational and IT 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 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 and IT risks are inherent to our business. Our businesses depend on the ability to process and report 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. 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. 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, which is a specific risk to ING as a result of its strategic focus on technology and innovation, 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. 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, which is a specific risk to ING as a result of its strategic focus on technology and innovation. In particular, threats from Distributed Denial of Service ('DDoS'), targeted attacks (also called Advanced Persistent Threats) and ransomware have intensified 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 digitalised. 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.

Cybersecurity, customer data and data privacy have become the subject of increasing legislative and regulatory focus. The EU's second Payment Services Directive (PSD2) 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. 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 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 to challenge traditional banks. Developments in technology have 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, which may have a material adverse impact on our business, results and financial condition.

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 have an payment obligations to ING, or obligations to return 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 us 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. As a result of the Russian invasion of Ukraine and related international response measures, including sanctions and capital controls, we may be exposed to increased risk of default of counterparties located in Russia and Ukraine, counterparties of which the ultimate parent is located in Russia or may be considered effectively controlled or influenced through Russian involvement, and other counterparties in sectors affected by the response measures. Also liquidity or currency controls enforced by the Russian central bank may impact Russian companies' ability to pay. In addition, we have counterparty exposure to Russian entities in connection with foreign exchange derivatives for future receipt of foreign currencies against Russian rouble (RUB). Remaining at risk for ING Group at year-end 2022 is €0.3 billion local equity and €2.5 billion credit exposures booked outside of Russia, and €0.5 billion with clients in Ukraine. 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 liquidated 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 ECB 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. They can also have lower risk appetite for our debt notes, leading to lower purchases of (newly issued) debt notes. 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.

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.

Furthermore, ING'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.

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, and public and political scrutiny of, remuneration (especially in the Netherlands), may 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 10 June 2019, ING is required to hold a shareholder binding vote on ING's Executive Board remuneration policy and Supervisory Board remuneration policy at least every four years. Furthermore the shareholders have an advisory vote on ING's remuneration report annually. 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 actual results and underlying actuarial assumptions and models.

ING Group companies operate various defined benefit retirement plans covering the post-employment benefits of 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 and consumer price index. These assumptions are based on available market data 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 and costs associated with our defined benefit 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 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. As noted there, regulation of the industries in which we operates is becoming increasingly more extensive and complex, while also attracting supervisory scrutiny. Compliance failures may lead to changes in the laws and regulations governing the risk management practices and materially increase our operating costs.

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 realised or unrealised 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.

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 still relatively low by historical standards and have been since the financial crisis in 2008, interest rates are rising and we have experienced, and may continue to experience, increased funding costs due in part due to the withdrawal of perceived government support of financial 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 fund new and recurring business, 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 and risks 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. Also see under the heading "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". 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 (1) delay raising capital, (2) reduce, cancel or postpone payment of dividends on our shares, (3) 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 remain 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 to its shareholders and to fund all payments on its obligations, including debt service obligations.

ING Groep N.V.'s ability to obtain funds to meet its obligations depends on legal and regulatory restrictions applicable to ING Groep N.V.'s subsidiaries. Many of ING Groep N.V.'s direct and indirect subsidiaries,

including certain subsidiaries of ING Bank N.V., may be subject to laws that restrict dividend payments, as well as requirements with respect to capital and liquidity levels. For example, certain local governments and regulators have taken steps and may take further steps to “ring fence” or impose minimum internal total loss-absorbing capacity on the local affiliates of a foreign financial institution to protect clients and creditors of such affiliates in the event of financial difficulties involving such affiliates or the broader banking group. Increased local regulation and supervision have therefore limited and may in the future further limit the ability to move capital and liquidity among affiliated entities and between ING Groep N.V. and its direct and indirect subsidiaries, limit the flexibility to structure intercompany and external activities of ING as otherwise deemed most operationally efficient, and increase in the overall level of capital and liquidity required by ING on a consolidated basis.

Lower earnings of a local entity may also reduce the ability of such local entity to make dividends and distributions to ING Groep N.V. Other restrictions, such as restrictions on payments from subsidiaries or limitations on the use of funds in client accounts, may also apply to distributions to ING Groep N.V. from its subsidiaries.

ING Groep N.V. has also in the past guaranteed and may in the future continue to guarantee the payment obligations of some of its subsidiaries, including ING Bank N.V. Any such guarantees may require ING Groep N.V. to provide substantial funds or assets to its subsidiaries or the creditors or counterparties of these subsidiaries at a time when the guaranteed subsidiary is in need of liquidity to fund its own obligations.

Finally, ING Groep N.V., as the resolution entity of ING, has an obligation to remove impediments to resolution and to improve resolvability. Regulatory authorities have required and may continue to require ING to increase capital or liquidity levels at the level of the resolution entity or at particular subsidiaries. This may result in, among other things, the issuance of additional long-term debt issuance at the level of ING Groep N.V. or particular subsidiaries.

Additional risks relating to ownership of ING shares

Holders of ING shares may experience dilution of their holdings and may be impacted by any share buyback programme.

ING's AT1 Securities may, under certain circumstances, convert into equity securities. 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 without subscription rights, holders of ING shares may suffer dilutions. 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.

Any share repurchases could affect the price of our ordinary shares, ADSs or other securities and increase trading price volatility. The existence of a share buyback programme could also cause the price of our ordinary shares, ADSs or other securities to be higher than it would be in the absence of such a share buyback programme, and could potentially reduce the market liquidity of our ordinary shares, ADSs or other securities. There can be no assurance that any share buybacks will enhance shareholder value because the market price of our ordinary shares or ADSs may decline below the levels at which we repurchase any ordinary shares or ADSs.

In addition, ING cannot guarantee that any future share buyback programme will be fully consummated. The timing and amount of share repurchases pursuant to a share buyback programme will depend upon a number of factors, including market, business conditions, and the trading price of the our ordinary shares or ADSs. A share buyback programme may also be suspended or terminated at any time, and any such suspension or termination could negatively affect the trading price of, increase trading price volatility of or reduce the market liquidity of our ordinary shares, ADSs or other securities. Additionally, a share buyback programme could diminish our cash reserves, which may impact our ability to finance future growth and to pursue possible future strategic opportunities.

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, 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 US 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 US court, provided that such judgment (1) 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, (2) has not been rendered in violation of elementary principles of fair trial, (3) is not contrary to the public policy of the Netherlands, and (4) 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 recognised 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 US 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 US courts in civil and commercial matters, including judgments under the US 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 US 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). 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:

ING Groep N.V.
Bijlmerdreef 106
1102 CT Amsterdam
P.O. Box 1800,
1000 BV Amsterdam
The Netherlands
Telephone +31 20 563 9111

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 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'.

B. Business Overview

ING's purpose is to empower people to stay a step ahead in life and in business. Our updated strategy, introduced in 2022, is built around this purpose and making the difference for people and the planet. In a world that's constantly changing, we're digital and sustainability pioneers, adept at adapting to the trends impacting our business.

Our two overarching priorities are giving customers a superior customer experience (CX) and putting sustainability at the heart of what we do.

We also have four enabling priorities:

1. Providing seamless, digital services.
2. Using our scalable technology and operations.
3. Staying safe and secure.
4. Unlocking our people's full potential.

Giving customers a superior experience

We want to put customers at the centre, providing them with the superior experience that is our true source of differentiation. We believe that banking is a secondary need, and that financial products and services, for the most part, are commoditised. A superior customer experience is how we can stand out from the crowd.

The rapid digitalisation of society has huge impact on what customers expect from us. They don't just expect an experience that is digital and seamless, they expect a specific level and quality of experience. A digitally-enabled personal, easy, relevant and instant experience is now the base expectation of all customers, but we also realise that different types of customers have different needs and different ways of interacting with us.

Putting sustainability at the heart of what we do

We have a responsibility to society to define new ways of doing business that align with economic growth and social impact. Climate change is one of the world's biggest challenges, threatening both our planet and its people, many of whom also struggle with inequality, poor financial health and even a lack of basic human rights. We're determined to be a banking leader in building a sustainable future for customers, society and the environment. We want to lead by example by striving for net zero in our own operations. We also want to play our part in the low-carbon transformation that's necessary to achieve a sustainable future, aiming to steer our financing towards meeting global climate goals and working with clients to achieve their own sustainability goals. For more information go to our 'Sustainability at the heart' chapter.

Our enablers

Providing seamless, digital services

We know that we can make customers happy with robust, 'always-on' channels, data-enabled personalised experiences and digitalisation of processes with limited human intervention there where needed.

Using scalable technology and operations

A technology and operations foundation that is modular and scalable brings many benefits, including superior customer experience and safety, speeding up time-to-volume, shortening time-to-market, and lowering cost-to-serve.

Staying safe and secure

Trust is the starting point, the most basic requirement, for all stakeholders. That's especially true for a digital-first bank like ING. People trust us with their money and with their data. Keeping it safe, and maintaining this trust are crucial.

Unlocking our people's full potential

We want all employees to have skills and capabilities that equip them for the future. We also want to provide them with an excellent employee experience and promote a diverse, inclusive and vital culture where everyone feels they belong.

Superior customer experience

Customers expect an experience that's personal, easy, relevant and instant. What this looks like depends, of course, on the type of customer. For individual customers and small businesses our emphasis is predominantly on mobile banking, while for mid-corporate and Wholesale Banking clients it's all about personal relationships and superior sector and network expertise supported by seamless digital delivery.

As an organisation we need to be customer focused – after all, customers are who we're here for, our reason for being. And if we want customers to choose us for more of their banking needs, to become primary customers, we need to nurture relationships with them so that they choose ING before any other. At every step of their ING journey, customers should feel an emotional connection with us: that's how we win customers' hearts and their business. Banking is a relationship just like any other, and the best relationships are those in which people feel valued, confident, empowered and in control. In response to customers' changing expectations in today's always-on digital society, we've updated our customer experience principles. We want to provide customers with an experience that is personal, easy, relevant and instant.

Personal is about recognising customers as individuals and getting to know their needs, goals and challenges so they feel valued. For example, we should not ask for information twice when we interact with them, and we tailor messaging to their specific situation.

Easy is about taking the complexity out of banking, making it intuitive, transparent and understandable so customers feel confident. For example, we aim to clearly price products and services, we avoid complicated jargon and we're always accessible.

Relevant is about bringing value to customers, anticipating their needs and proactively providing the right insights, advice and solutions at the right time, making them feel empowered. For example, guiding them on difficult financial decisions, like re-financing a mortgage in an environment of rapidly increasing interest rates.

Instant is about having solutions at their fingertips that put the customer in the driver's seat of their finances and making them feel in control by allowing them, for instance, to switch seamlessly between self-service banking on the app and personal advice in a branch. Different groups of customers have different requirements. For Retail Banking and some Business Banking customers (i.e. consumers, the self-employed and small and medium-sized enterprises), the emphasis is on mobile, for both products and services. For Wholesale Banking (corporate clients) and Business Banking mid-corporates, the emphasis remains on deepening client relationships, with superior sector knowledge and networking expertise, relevant advice and tailored products, all supported by seamless digital delivery and services.

CX Day

On 15 November, ING held a global CX Day, with over 5,500 colleagues from across the bank joining together to come up with ways to make customer experiences personal, easy, relevant and instant. The event attracted employees from Retail Banking, Business Banking, Wholesale Banking and the support functions in 11 countries. Together, they identified over 1,000 improvements to delight our customers. Some of those improvements were implemented live on the day.

Retail Banking

For customers using Retail Banking products and services, ING wants to provide a seamless digital, mobile-first experience that's personal, easy, instant and relevant. We want to engage with our customers on mobile at every stage of their journey and provide more personalised products and services based on data-driven, relevant insights. Seamless end-to-end digital delivery of customer services is an enabler for a superior customer experience to earn, and keep, the primary relationship.

Earning 'primary relationships' with customers is an important driver for profitable growth. It leads to deeper relationships, greater customer satisfaction and ultimately customers choosing us for more of their banking needs. We want to be our customers' first partner for their financial business. In Retail Banking, primary customers have at least two active ING products. One of these should be a current account into which they deposit regular income.

Mobile-first

Reflecting customer demand, we are continuously improving our mobile capabilities. In 2022, over 58 percent of customers used mobile banking only (mobile device log in through the app or mobile device log in through the website) compared to 51 percent in 2021. High adoption of mobile banking is especially visible in Turkey (88 percent), Romania (74 percent), Spain (63 percent) and in the Netherlands (61 percent).

In the Netherlands, we increased our reach for iOS and Android users to 70 percent with a new method to fully onboard new customers via their mobile phone. The process takes about 10 minutes and customers can immediately start using the account afterwards. Our reach extends to all customers that can use mobile onboarding, i.e. customers with a Dutch passport, ID card or residence permit, those from other European Economic Area countries and refugees from Ukraine.

Visa Mobile is a new online payment method available for retail customers in Poland. Visa contactless and prepaid virtual card users may activate Visa Mobile in their ING mobile app. Customers can pay with their card without using the card's data, by entering the recipient's phone number and confirming payment in their ING mobile app. Payment is fast and secure. In Romania, ING became the first bank to digitalise the mortgage journey, launching 100 percent online financial pre-approval, directly from Romania's internet banking platform. Customers interested in a mortgage loan are able to find out the exact amount they can borrow without having to go to the bank.

At Interhyp, our online mortgage broker in Germany, the HOME platform digitalises the mortgage process for home buyers, advisors, brokers and bank partners. Interhyp customers can connect directly to real-estate portals, create financing scenarios and upload documents from their smartphones, speeding up the mortgage decision process. In Spain, we launched instant lending for customers that are new to the bank. This new service uses instant and automatic processes that provide a differentiated, quick and convenient lending solution.

Daily banking and savings

Everyday Roundup is a digital product that aims to make saving simpler at a time when customers may be financially vulnerable (due to the cost-of-living crisis). It is used by over 1.1 million customers in six countries (Poland, Australia, Germany, Romania, Turkey and, since 2022, Spain). It works by rounding up every transaction on a customer's current account and automatically transferring the difference to their savings account. ING in Australia, Germany and Turkey also have a round-up option for donations to charities. Similarly, Australia has a round-up option for mortgages, while Spain has a round-up option for investments.

Dealwise, a smart shopping platform (accessible in the banking app), is another initiative that encourages customers to save on their daily spending. It gives users access to discounts and cashback offers from participating merchants. Dealwise is available to customers in Romania, Germany and Belgium. Additionally,

in Spain, we updated our daily banking proposition, including the launch of a new, commitment-free account, that aims to increase new-to-bank customers, has a fully online and instant onboarding process, and has new services like e-commerce insurance and a subscriptions manager.

Remote advice

More customers are using remote video advice and digital self-service channels. We can connect with customers across multiple channels through ING's cloud-based customer interaction platform for phone, chat and video contacts. Our global customer interaction platform is used in seven countries to harmonise the experience and ensure customers receive the same services everywhere. Compared to last year, we doubled the number of remote advice video meetings and witnessed a rise in customers using the chat function on our websites and mobile apps while realising a reduction in branch traffic. As we continue to optimise our assisted channels, we are also reducing the number of ING branches, with 94 branches closed in 2022.

Investment products

ING customers have access to smart digital investment tools like My Money Coach in Italy, Naranja+ in Spain, Easy Invest in the Netherlands, Komfort-Anlage (Comfort Investing) in Germany and ING Self Invest in Belgium.

Insurance

ING has teamed up with insurance partners in various Retail Banking markets to offer customers insurance products via the ING app or website, based on the local needs within those markets. We offer insurance linked to loans as well as a range of standalone non-life insurance policies. In the Netherlands, we set-up a new distribution partnership with Dutch health insurer CZ. In Romania, we launched salary protection insurance offering customers financial support in case of job loss, prolonged medical leave or permanent invalidity. In Turkey, we introduced digital assistance for insurance and pension products, which led to one of the very first digital remote offers for pensions in the Turkish market. During 2022, we also set up new offers linked to our daily banking activities, including group travel insurance in Romania and online purchase and cash withdrawal protection in Poland.

Measuring Retail Banking NPS

One of the ways we measure our progress is through the Net Promoter Score (NPS), which indicates customer satisfaction and loyalty (whether they would recommend ING to others) compared to selected peers in each market. 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 6). Our peers have been selected based on qualitative and quantitative criteria like size, brand strength, types of clients served and types of products and services. The yearly NPS score is an average of reported four quarter figures, based on a six months' rolling average. In 2022, ING enhanced its methodology from an average of two quarters to a six months' rolling average. The updated methodology concerns a refinement and does not significantly impact the NPS score and ING's ranking for 2021 and 2022. Our aim is to achieve a number one NPS ranking in all our Retail markets, with a 10-point lead over our main competitors. In 2022, ING ranked number one in five of 10 Retail markets. In these five markets, we have a 10-point lead on the nearest competitor. In Germany and Spain, ING's scoring improved on last year while Australia, Poland and Romania maintained their strong scores. ING ranks in the top-three in another four markets: the Netherlands and Luxembourg (ranked second) and Italy and Turkey (ranked third).

Closing of Retail businesses

In 2022, ING took the decision to close its Retail Banking operations in the Philippines. We concluded that the time to achieve the desired scale was too long and we decided to concentrate on our core markets. ING started its Retail Banking operations in late 2018 and retains a Shared Service Hub and Wholesale Banking presence in the country. In 2021, ING announced it would leave the Retail Banking market in France following a strategic review. In 2022, ING and Boursorama (a subsidiary of Société Générale) signed an agreement to offer services to ING customers in France. The contract allowed ING customers to join Boursorama and benefit from a simplified account opening process and exclusive offers. The agreement also includes the transfer to Boursorama of 'assurance-vie' (investment products) contracts, for which ING acts as a broker with Generali Vie. Home loans and consumer loans were not included in the agreement.

Business Banking

Business Banking is set up as a third pillar within ING Group and is a part of Retail Banking. While definitions can differ slightly per country, we've defined three customer segments using the following global framework:

Self-employed and micro companies: Independent professionals or small companies that employ up to 10 people and have a turnover up to one million euros.

SMEs: Small to medium-sized companies that employ between 10 and 250 people and have a turnover between one and 10 million euros.

Mid-corporates: Sophisticated larger companies employing more than 250 employees with a turnover of between 10 million and 250 million euros.

Business Banking serves 1.7 million customers and generates €3 billion in revenue across seven markets: the Netherlands, Belgium, Luxembourg, Poland, Romania, Turkey and Germany. Customers want to manage and grow their businesses in a constantly changing and increasingly complex world. Our aim is to empower them by providing all their financial solutions in one place and offering the right insights, products and services at the right time, to create an personal, easy, relevant and instant experience.

We apply a needs-based customer segmentation approach that differentiates between basic and more complex (specific) needs. This enables customers to 'self-serve' using our strong digital foundation, but also access remote and face-to-face advice, when needed. With digitalisation at the core of our strategy and to meet increased demand for digital solutions and self-service, our ambition is to serve over 80 percent of SMEs digitally. We focus our efforts on the most important interactions: KYC outreach for customer due diligence, onboarding, account opening and loan or card requests.

For example, in Germany, we launched our second lending product, Flexkredit, where Amazon sellers can easily make their loan application from the Amazon Marketplace seller portal (Seller Central). The disbursement and management of the product is via their online banking, Business Banking Home. If eligible, an offer is available within 48 hours. In Belgium, we offer customers, based on their financial situation, instant business credit within minutes, which is available the next working day. We inform them about this offer in our mobile banking app and on internet banking, including personalised eligibility and maximum credit availability details. For Polish customers, we have created a product offer page within their online banking listing products and services tailored to individual customer needs. Product recommendations for each customer can be directly acquired online.

As well as providing improved customer experiences through digitalisation and personalisation, we are putting sustainability at the heart of what we do with our efforts on climate action and financial health. We help customers to future-proof their businesses by offering sustainable financing alternatives. For example, we offer sustainable finance alternatives (loans and/or lease) for SMEs and mid-corporates in most Business Banking countries where we operate (the Netherlands, Belgium, Poland, Romania, Turkey and Luxembourg).

Wholesale Banking

In Wholesale Banking, we aim to empower clients by partnering with them to offer relevant financial solutions to their business needs across their value chains, and to support them through the 'ING difference', three major characteristics that offer particular value to clients:

1. **Our global reach**, with local experts: no matter where clients are, our network of experts offer them a seamless local experience with a global view.
2. **We're sector experts**: clients trust us to provide tailored solutions to meet their needs.
3. **We're sustainability pioneers**: we're not just leaders in sustainable finance, we work hand-in-hand with clients to address some of the most pressing issues in the world today.

We're driving growth by making the most of our strengths and broadening our value proposition to clients, while optimising our use of capital and enhancing financial performance. This is highlighted in deals such as that with GlobalConnect, a Nordic technology media and telecom (TMT) company. After ING co-advised on a sustainability-linked loan structure in 2021, GlobalConnect enhanced its sustainability strategy on ING's recommendations and ING ultimately supported them by securing the sole sustainability coordinator role on both their €2.7 billion existing and €1 billion incremental financing rounds. The ING difference is reflected in partnership initiatives such as leveraging ING's sector knowledge to lead a working group to design a climate-aligned finance agreement for steel. In 2022, we were proud to be one of six banks to sign up to the Sustainable STEEL Principles, which aims to help banks measure and report emissions associated with their steel loan portfolios compared to net-zero emissions pathways. Read more in the 'Sustainability at the heart' chapter.

In 2022, at the Global Finance magazine Sustainable Finance Awards ING won the global award for Outstanding Leadership in Sustainable Bonds for the second year running and the Sustainable Project Finance award for Western Europe. Our client segmentation model aligns our strengths with client needs and is an important element for deepening relationships. ING's way of working allows us to respond rapidly to our clients' changing needs and to close the gap between local and global specialists, making an impact in our markets.

During the year, we continued to combine our sector knowledge and financial expertise to support companies with tailored advisory and daily banking, in line with the client segmentation model. We aim to provide relevant advice, data-driven insights and customised, integrated solutions that make our clients day-to-day banking more efficient and support their business ambitions. Corporate clients also benefit from gains in speed, transparency, security and efficiency created by technologies such as blockchain and artificial intelligence.

Measuring Wholesale Banking NPS

A relationship NPS programme ran in 32 WB markets throughout 2022, it concerns a qualitative measure of the client experience and the quality of the relationship and how likely clients are to recommend ING. 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 6). In 2022, ING's relationship NPS score rose to an all-time high of 67 (on a scale of -100 to +100), from +59 in 2021, an increase of 13.5%. Increases were prevalent in most of the sectors and regions. The response rate increased to 71% from 62%.

Finding new ways to help customers stay a step ahead

ING has always prided itself on its innovative culture and considers this an important contributor to a superior customer experience. To keep surprising customers in a fast-moving competitive environment, we need to keep finding fresh ways to translate emerging trends and technologies into new business opportunities. In 2022, we announced a move to bring innovation closer to our Retail, Business Banking and Wholesale Banking business lines to create more impact for our innovation efforts. For incremental-type innovations that support our strategic priorities of CX and sustainability, such as digitalising processes, we believe this is better done within individual business lines where we are closer to the customer. Innovation projects like CoopID and Blacksmith, for instance, continue under Wholesale Banking's leadership.

In 2022, ING invested and partnered financial technology (fintech) companies via its venture capital arm, ING Ventures. One such investment was in SeMI Technologies, offering AI-powered search engine software to companies who want to make better use of their data. Other investments include Vault (cloud-based core banking technology), OpenFin (unified workspace solution for financial institutions) and Sardine (safer, faster payments). ING in Belgium also collaborated with Flowcast, an early warning system to predict when retail customers might go into financial distress.

ING announced in 2022 that it would phase out Yolt's business-to-business open banking operations following an evaluation that it was not feasible to achieve the preferred scale in their market within a reasonable time frame. The announcement followed the closure in 2021 of Yolt's personal finance management app. The phase-out process is expected to be completed in 2023.

Sustainability at the heart

Sustainability is at the heart of what we do because we believe we have a role in defining new ways of doing business that aligns economic growth with positive social and environmental impact. This includes aiming to bring our own operations in line with a low-carbon future and respecting and advancing human rights. As a global bank we can also have a positive impact, not just by mitigating harm, but by bringing aspects of climate change, biodiversity and human rights into our financing decisions and client dialogues.

ING takes a holistic approach to sustainability, with climate change mitigation, climate adaptation, climate and environmental risk, biodiversity, human rights, financial health, business ethics and other ESG issues all in scope.

As well as aiming to be a pioneer in defining new ways of doing business, ING wants to be a leader in building a sustainable future for customers, the environment and our company. How? By focusing on:

Climate action: We lead by example by striving for net zero in our own operations.

Collaboration: We work with clients to achieve their own sustainability goals, increasing our impact through partnerships and coalition-building.

Managing climate-related, environmental and social risk: We manage the most relevant environmental and social risks while fostering the protection of biodiversity and human rights across all of our relationships.

Financial health and inclusion: We're working to advance financial health and inclusion for customers and communities.

Empowering colleagues: We empower colleagues to contribute to it all. ING's sustainability efforts were recognised externally. In 2022, Sustainalytics assessed our management of environmental, social and governance (ESG) material risk again as 'strong' while investment research firm MSCI awarded ING an AA ESG rating for the third consecutive year. S&P rated our ESG practices for the second year in a row as 'strong'.

While we are committed to doing our part, we know that the world's problems cannot be solved by one sector, much less by one bank. We look to governments, for example, to direct and guide the change

needed to reach net zero by 2050. We believe that an inclusive approach is the only way we can make any meaningful positive impact. From climate to human rights and financial health, we seek to increase our impact through partnerships and coalition-building.

Climate action

We have defined four climate action objectives: to reach net zero in our own operations, to steer the most carbon-intensive parts of our portfolio towards net zero by 2050 or sooner, to finance and advise specific clients in line with a net-zero economy and to manage climate and environmental risks.

Aiming for net zero in our own operations

We aim to bring our business in line with the net-zero economy of the future and use our Environmental Programme to steer our progress towards this. Adjusting to the post-pandemic 'new normal', we have set a new mid-term target for 2025 to reduce our CO₂e emissions by 75 percent compared to our 2014 baseline, for emissions from scope 1, scope 2, and business travel scope 3.

We previously shared a scope 1 and scope 2 mid-term target of a 90 percent reduction by 2030. We plan to review this and publish a combined 2030 target for scope 1, scope 2 and scope 3 for business travel. Scope 1 covers our direct, controlled emissions from natural gas and heating oils, scope 2 covers our indirect emissions from the generation of purchased energy i.e. electricity and district heating, and scope 3 currently covers emissions in our value chain from business travel (air and car). We intend to review our scope 3 reporting to include new emission categories. As we conduct the review, we will likely set a new baseline year for our reporting.

ING buildings

For building emissions, we are committed to improving energy efficiency and reducing our emissions from heating systems. In 2022, we completed a net-zero assessment on major buildings, which will form the basis of our approach going forward.

Since 2014, ING has increased the percentage of renewable electricity sourced for our operations. In 2022, we further aligned with the reporting guidance of the RE100, a technical group that sets industry standards around corporate use of renewable electricity.

Business travel

In 2022 we launched a Green Travel Budget Programme to make employees aware of the CO₂e impact of their travel choices and encourage them to find greener options. We also updated global travel procedures

to restrict most air travel on short-haul distances where high-speed rail options exist as alternatives. This includes travel between Amsterdam, Brussels, London and Frankfurt.

Next to efforts to reduce air travel, in 2022 we also started procuring sustainable aviation fuel (SAF) and SAF certificates from our partners at Air France-KLM, Lufthansa Group, Neste and SkyNRG. Although we still report the emissions resulting from our flights the SAF and SAF certificates we purchased supported an in-sector reduction of approximately 3.2 kilotonnes of CO₂e emissions. In addition, we entered into a partnership with Singapore Airlines as part of our sourcing approach for 2023.

To limit the impact of car travel, we continued to electrify our fleet of leased cars. In 2022, ING in Belgium and the Netherlands announced that only fully electric vehicles (EVs) would be available in its range of new lease cars. Together, Belgium and the Netherlands represent 72 percent of our lease cars. Globally, we have an ambition to reach at least 90 percent EVs in our fleet by 2030. This ambition requires countries like the Netherlands and Belgium to reach 100 percent earlier, while accounting for EV infrastructure challenges in other countries.

Empowering clients on their road to net zero

In line with our objective to steer the most carbon-intensive parts of our portfolio towards net zero by 2050 or sooner, through our Terra approach, in 2021 we joined the Net-Zero Banking Alliance. This allows us to use our experience and knowledge to help standardise the way banks measure their alignment with climate goals and to base our approach on the most recent developments in each sector. We are convinced that all banks benefit from having an industry-wide standard for measuring the effectiveness and impact of their efforts as well as increasing transparency. We continue to collaborate with others to develop roadmaps and methodologies, including for hard-to-abate sectors.

Supporting the energy transition

While we engage with different stakeholders in our ambition to help create a low-carbon society, we believe that financial support for the energy transition could play the largest part in realising this ambition. Today, around 80 percent of the global energy mix is fossil-fuel based. Reducing that figure is vital in reaching society's net-zero emissions targets. Our approach to financing the energy sector balances three main societal interests: the need to decarbonise to fight climate change, the need for energy to remain accessible and affordable for people and companies, and the need for security of the energy supply.

Ultimately, building enough new renewable and low-carbon sources of energy will remove the need for fossil fuels and ING strongly supports the objective of this transition. However, fossil fuels currently play an important role in the global energy mix, considering the current availability of renewable and low-carbon sources, and the need to fulfil other, social, sustainable development goals. The global economy's reliance on fossil fuels, in particular a phase-out of coal for power generation, must reduce to significantly lower

levels over the next 10 to 15 years, according to the energy transition pathway set out in the International Energy Agency's Net-Zero Emissions by 2050 (NZE 2050) Scenario.

With our commitment to develop the Terra approach in 2018, ING set out to develop methodologies and science-based targets to enable steering of the most emissions-intensive parts of our loan book in line with the emissions levels required to meet the Paris Agreement goals. Methodologies and targets for power generation and upstream oil and gas portfolio alignment were set out in the 2019 and 2020 Terra progress reports respectively.

Next to our Terra approach, which lays out transition plans for the nine sectors we believe to have the most impact, we reinforced our commitments to supporting the energy transition in March, when we announced we would step up our renewables energy financing efforts. Our announcement included the aim of growing new commitments in this area by 50 percent by the end of 2025 for Wholesale Banking clients, compared to the baseline year of 2021. We also committed to end the provision of dedicated upstream finance to new oil and gas fields approved for development after 31 December 2021.

Phasing out coal, reducing oil and gas combustion and increasing renewable and low-carbon energy sources will not on their own solve the challenge of achieving a net-zero emissions world by 2050. Recognising that technology and new market developments are essential drivers of the energy transition, ING has established cross-sector and multi-disciplinary centres of expertise to support client investment in new energy systems. One important area is batteries, which address the inherent intermittency of renewable energy resources like wind and solar, as well as providing grid stabilisation services. We are also looking at other energy storage mediums like hydrogen, which have additional applications such as alternative fuel for transport and for energy-intensive industry. Finally, we are closely following the evolution of large-scale carbon-capture utilisation and storage (CCUS) which will be essential where fossil fuels are required in industrial processes that are needed for the global economy and for which there is currently no alternative.

Terra approach

We use our Terra approach to steer the most carbon-intensive parts of our loan book towards net zero by 2050. These are power generation, upstream oil and gas, automotive, shipping, aviation, steel, cement, residential mortgages and commercial real estate. Within Terra, we apply what we consider to be the best-fit methodology per sector, (our 'toolbox approach'), to measure and steer our loan book.

In 2022, to promote immediate action towards decarbonisation and to adhere to our Net-Zero Banking Alliance commitment, we set intermediate 2030 targets for all Terra sectors. Of the nine intermediate targets, eight are aligned with net-zero scenarios. A net-zero target for shipping will be set as soon as one is adopted under the Poseidon Principles, a financial industry framework for assessing climate alignment for the shipping sector.

In 2022, building on other sector-specific working groups like the Poseidon Principles, ING launched the Sustainable STEEL Principles, a solution for measuring and disclosing the 1.5 degree alignment of steel lending portfolios. This was developed with other banks and facilitated by the Rocky Mountain Institute's Center for Climate-Aligned Finance. The sector emits roughly seven percent of global CO2 emissions and is heavily dependent on coal. Chaired by ING, the principles provide a pathway to net-zero steelmaking by 2050 and have been incorporated into our Terra approach. ING started a similar initiative in the aluminium sector.

The process for reporting on Terra consists of several steps, most of them carried out by ING's Global Sustainability department in collaboration with colleagues in the front office. Internal data relating to our portfolio composition is made available soon after ING's year-end close in February. External data relating to climate performances is collected in or around April. External data is checked for consistency and matched with internal data. A year-on-year portfolio comparison is made to analyse fluctuations at company or asset level for each sector. This helps us to understand the drivers behind any changes, which can usually be attributed to the climate performance of clients, the composition of sector portfolios and improvements in methodologies. When necessary, scenarios and targets are updated in line with scientific updates to the decarbonisation pathways aimed at keeping global temperature rises within the necessary limits for a sustainable future.

Sustainable finance for Wholesale Banking clients

Advancing financing opportunities in line with a net-zero economy for Wholesale Banking clients is a strategic ambition, and by 2025 we aim to channel €125 billion annually to sustainable finance solutions. The Sustainable Finance team advises clients on translating their sustainability ambitions into their financing through sustainability-linked structures, green and social financing solutions, ESG rating advice, and other ESG advice.

In 2022, the Sustainable Finance team mobilised €101 billion, supported by a broad range of financial products linked to sustainability elements. Most of these were related to sustainability-linked loans (€39 billion), green bonds (€23 billion) and green loans (€17 billion). However, we believe that alongside volume, it is also the impact that measures the success of sustainable transactions. This, we believe, is shown in the additional products and services we develop for customers such as social loans and bonds, sustainable structured finance, sustainability-linked Schuldscheine and sustainable transaction services such as guarantees and supply chain finance.

The commitment to mobilise €125 billion annually makes a distinction between transactions where we are ESG lead, such as ESG coordinator or an ESG structuring role, and transactions where we do not fulfil such a position, like where we are part of a consortium of banks. Where we are one of several ESG leads or one of several participants, we record the pro-rata share of the total transaction amount, however, when we are the sole ESG lead on a transaction, we count the full transaction amount. For bonds, we make a distinction between active and passive bookrunner role. The reason for selecting this methodology is that if we are ESG

lead in a transaction, we can pro-actively engage with our clients on their sustainability strategy, so our impact is more significant than if we only participate. See [ing.com](https://www.ing.com) for more information about the methodology.

Moreover, we closed 491 sustainability deals (including sustainability loans and bonds, green loans and bonds, sustainable structured finance, social loans and bonds, and sustainable investments) at year end, up from 411 in 2021.

Green and social financing structures

We aim to accelerate the green economy by growing our green asset portfolio. Green financing solutions such as green bonds and loans form an integral part of that. For instance, we acted as sole green loan structurer in the construction of a transmission line for Champlain Hudson Power Express, ultimately owned by Blackstone; overall project costs were around USD 6 billion. The 545 km, fully buried transmission line should bring 1,250 MW of renewable hydropower from Quebec to New York City. The project is expected to be finalised in the first half of 2026. This is the largest volume mobilised for a green loan closed by ING to date.

Our sustainability efforts are also directed towards addressing social challenges. For example, ING acted as joint lead manager, joint bookrunner and joint social structuring adviser for Singapore-based healthcare real estate investment trust First REIT's SGD100 million social bond. This issuance, guaranteed by a trust fund of the Asian Development Bank, became Singapore's first-ever healthcare social bond and was awarded Best Social Bond in The Asset Triple A Country Awards for Sustainable Finance. We also acted as lead arranger, sustainability adviser and majority investor for Woori Card's Social Asset Backed Securities, valued at around €195 million. The transaction won the Best Sustainability Securitisation in The Asset Triple A Country (South Korea) Award for Sustainable Finance 2022.

Sustainability-linked structures

We incentivise clients who are shifting to more sustainable business models. Sustainability-linked loans (SLLs) link interest margins to a company's sustainability performance through mutually agreed KPIs. They are a way for ING to support, motivate and reward clients in their aim to become more sustainable. In 2017, ING coordinated the first syndicated sustainability-linked loan in the market for Philips. This loan was linked to the improvement of Philips' Sustainability ESG rating. In 2022, ING was the sustainability coordinator for turning this loan into a sustainability KPI-linked loan, with KPIs aligned to Philips' sustainability goals.

Since then, the popularity of SLLs has grown, as sustainability has played an increasingly significant role in corporate agendas. To date, syndicated SLLs valued at more than €1,000 billion have entered the market. ING closed 202 sustainability-linked loan transactions in 2022, compared to 147 in 2021. For US-based Compass Datacenters for example, ING structured a USD1.25 billion SLL with KPIs linked to environmental and social targets such as the reduction of energy and water consumption, female representation in the

construction workforce and the use of low-carbon concrete. ING also structured an SLL for Compass Datacenters in Europe.

To enable all market participants to clearly understand the characteristics of these loans, ING was part of a financial institutions working party that established a set of sustainability-linked loan principles (SLLPs). These are based around five components: the selection of KPIs, the calibration of sustainability performance targets (SPTs), loan characteristics, reporting and verification. SLL spin-offs include sustainability swaps, derivatives and sustainability-linked bonds that are related to the total sustainability profile of a company, not just for individual projects.

We also look for other ways to support clients taking steps to achieve their sustainability ambitions and anticipate the future economy. Many of these ambitions are based on innovative technologies, business models or client propositions that have a higher risk profile and are not yet suitable for standard financing solutions. ING Sustainable Investments helps clients with their sustainability goals by providing risk-bearing capital, offering a wide range of tailor-made financial solutions, including equity (investments) and subordinated debt.

In 2022, we invested in UK-based Eonic Technologies, which develops and licenses proprietary catalyst technology that uses CO₂ as a building block in manufacturing, reducing the carbon footprint of widely used day-to-day products. In addition, a consortium-led investment supported Singapore-based insect protein producer Nutrition Technologies to expand production, launch new products and create strategic partnerships. Transforming agricultural waste streams into insect-based feed products and fertiliser enables a more circular economy, while at the same time also helping reach emissions-reduction targets and improve food security.

In April 2022, the Dutch National Growth Fund provided a subsidy of €50 million to Zero Emissions Services (ZES), of which ING is a founding partner, to accelerate the introduction of docking stations, ship modifications and battery containers (ZESpacks), all of which will contribute to the electrification of inland vessels and a transition to net zero. ING has also become a shareholder in EIT InnoEnergy, the European innovation engine for sustainable energy that supports start-ups and commercially attractive technologies, and provides education. EIT InnoEnergy is supported by the European Institute of Innovation & Technology (EIT), a body of the European Union.

The Sustainable Structured Finance team supports clients by functioning as a laboratory for new sustainable technologies and business models in need of financing within the EMEA region. The team is involved in the origination, structuring and execution of structured finance transactions, with an emphasis on the circular economy, bio-chemicals, waste and water or any other project supporting sustainable development. The team also provides financing solutions to smaller-scale renewable energy projects in the Netherlands, such as 'ZonnepanelenDelen', a solar financing platform that offers non-recourse project finance of between €200,000 and €5 million to solar power projects undertaken by SMEs and project developers.

We also led a consortium of Dutch financial institutions in the construction of technology company Avantium's FDCA factory in Delfzijl, the Netherlands. This will be the first commercial FDCA factory in the world. FDCA is the key building block for the 100 percent plant-based, recyclable polymer PEF, a non-fossil-fuel-based alternative for PET.

Green bond framework

To support the strong growth of our sustainable finance portfolio, and to meet green funding needs, ING issues green bonds, supported by our green bond framework. The framework aligns with the International Capital Market Association's (ICMA) Green Bond Principles (GBP). We intend to allocate the proceeds of our green bonds to an Eligible Green Loan Portfolio of new and existing loans including renewable energy projects and green buildings. Other categories are clean transportation, pollution prevention and control, and sustainable water management.

Under this framework, ING Group and its subsidiaries can issue any debt security (such as senior bonds, subordinated bonds, covered bonds, commercial papers and medium-term notes) to finance and refinance assets and projects which contribute to the UN's Sustainable Development Goals and our own sustainability. ING established its sustainable debt strategy via the publication of the framework. Since then, we have continued to take steps to enhance our sustainable debt strategy and see it as an important tool in supporting the growth of our own sustainable finance portfolio.

In alignment with the ICMA's 2021 GBPs, the framework is presented through four pillars: use of proceeds, process for project evaluation and selection, management of proceeds and reporting. The framework also follows the recommendations of the Green Bond Principles regarding external review.

Product offerings for Retail and Business Banking customers

As a retail bank, we aim to help customers transition to a low-carbon environment. While we have provided sustainability products and services in Retail Banking since 2017, we have since introduced many more sustainable banking products across our markets, following a sustainable alternative products roadmap, to facilitate this transition. It is our aim to have sustainable alternatives for our main retail products in all markets by 2025.

In 2022, we adopted a net-zero scenario for the residential real-estate sector, replacing the beyond two-degree Celsius scenario previously used. The new scenario is guided by the EU's Carbon Risk Real Estate Monitor (CRREM) 1.5-degree Celsius scenario, a tool that enables the alignment of real estate portfolios against decarbonisation pathways. We use this tool for the six markets in scope. Our scenario is also directed by data for residential real estate derived from the International Energy Agency's global net-zero scenarios. In the new scenario, houses in our portfolio across these markets need to reach an average energy efficiency of 0.6 kg CO₂/m² by 2050, which is more ambitious than the previous 2.6 kg CO₂/m². By 2030, they need to reach an average energy efficiency of 19.7 kg CO₂/m². The scenario currently applies to

five of the six markets in scope: the Netherlands, Germany, Poland, Spain and Australia. Belgium is excluded from the target until the issue of data comparability with other markets can be solved.

In support of this ambition, in 2022 we further rolled out sustainable mortgage products, which stimulate more energy-efficient homes. Sustainable mortgages are part of our sustainable lending approach that we consider EU Taxonomy-eligible. After being introduced in Poland in 2021, sustainable mortgages are now also available in the Netherlands, Germany, Italy and Romania. We also offer sustainable consumer loans, with discounts related to the purpose of the loan, in Belgium, Romania, Poland, Turkey and Luxembourg. These loans can be used for housing, to improve the energy efficiency of homes, and for other activities such as purchasing sustainable mobility options.

In addition to lending products, we continue to provide customers with a range of tools and platforms that can support them in their renovation efforts. These include the homeQgo platform in the Netherlands, as well as a renovation calculator tool that ING makes available to customers in Germany in partnership with KfW bank.

In 2022, we also launched a carbon footprint calculator in our Dutch app that enables customers to view spending-related CO2 emissions in their bank statements. The calculator is live for 500,000 customers. In the Netherlands, Romania and Turkey, we also provide customers with renewable, recyclable or virtual bank cards, which help lower the impact of our banking products on plastic waste.

We are also helping Business Banking customers make their businesses future-proof by offering sustainable financing alternatives. We now offer sustainable finance alternatives (loans and/or lease) for SMEs and mid-sized corporates in most of the countries where we operate. We aim to reach €1 billion new production of sustainable financing annually in the Netherlands in 2025.

In 2022, we brought four new loans to market, bringing our total offering of loans supporting customers with sustainable activities to nine. In Poland, a sustainability improvement loan was launched after a pilot in the Netherlands. Similar to its Wholesale Banking counterpart, this type of loan incentivises business customers to reduce their environmental impact by improving their sustainability scores and ratings and reducing their CO2 emissions.

Sustainability loans were launched in both Romania and Turkey. In Romania, we implemented a framework to identify and customise sustainable transactions for customers. As a result, ING in Romania granted its first sustainable credit for entrepreneurs, financing renewable energy and circular economy projects. One of the most notable examples is a sustainable loan granted to Promateris, manufacturers of sustainable products and solutions for the circular economy, to develop extra production capacity. The new facilities will produce biodegradable and compostable raw materials with applications in the packaging, food service and waste management sectors.

Next to our financing alternatives, we also supported Business Banking customers with a range of tools to support their sustainability journeys. In our real-estate financing business in Netherlands, we continued to offer access to an ESG improvement platform.

Sustainable investing services

ING is a signatory to the UN-backed Principles for Responsible Investment and as a provider of investor services to our Retail Banking customers we are committed to incorporating environmental, social and governance (ESG) issues into investment decisions, policies and processes that underpin these services.

We have been reporting on sustainable investing services (SIS) for a decade. Over the past two years, new regulations and definitions of sustainable investing have been introduced, such as the EU Taxonomy and the Sustainable Financial Disclosure Regulation (SFDR). For this year, the reported numbers continue to be derived from our own internal ING methodology. Our SIS are provided based on a methodology that has been developed by ING to assess different kinds of investment instruments, from company-level equity to funds and portfolios, using a diverse set of ESG criteria.

During 2022, ING's SIS applied to our biggest sustainable investment markets: the Netherlands, Belgium, Luxembourg, and Germany, with total sustainable investments valued at €14.6 billion, down from €15.7 billion in 2021. The drop was influenced by the overall market performance of equities and bonds, which decreased by 12 percent on average. Sustainable portfolios averaged a 15 percent decrease due to the absence of high-performing sectors such as oil and defence. However, €1.6 billion was added to the value of sustainable investments in 2022 as one of the four main investment strategies in the Netherlands took a more sustainable approach.

Belgium narrowed its scope on sustainable investment services, excluding the exposure on sustainable funds that are invested via funds of funds unless those assets represented over 85 percent of the funds of funds portfolio. As a result, numbers for 2021 and 2020 were updated for 2021 from €19.2 billion to €15.7 billion, and for 2020 from €13.2 billion to €11.2 billion. Our services cover all asset classes including dedicated portfolios, investment funds and structured products, available in brokerage, advisory and discretionary management propositions.

For investment funds, we apply quantitative and qualitative screening. The quantitative screen is conducted to understand the ESG profile of the asset and the fund manager. It covers nine ESG categories across policies, selection methodology and governance. The qualitative screen consists of an interview with the fund manager focused on their assessment and ESG approach. In a final step, we validate the fund's investments against our sustainable investing criteria. This approach applies to funds from active managers, but also to structured products or index funds. We understand that the policies of external investment funds will not fully align with the ING policy, preference is given to investment funds whose sustainability policy is most in line with that of ING.

Within discretionary management propositions, we also perform a company-level analysis, which integrates both positive and negative ESG screening. Positive screening is based on a company score that incorporates the company's ESG risk management, the evolution of that risk and the management of adverse impacts on society and the environment by the company. We invest only in companies that belong to the top 70 percent in their sector, when it comes to ESG performance. Applying negative screening means that we exclude companies with severe negative corporate conduct. We also exclude companies whose revenues from products or services that have a negative environmental or societal impact are higher than five percent (for production) or 10 percent (for distribution). Excluded companies operate in the following sectors: alcohol, coal, controversial weapons, fur, gambling, non-conventional gas, oil, tobacco, and weapons. We aim to follow this same screening process for international financial institutions and semi-sovereigns.

Our sovereign-level analysis integrates several sustainability factors such as social issues, environmental performance, corruption, endorsement of international treaties and the adverse impacts of these sovereigns on environment and society. By combining best-in-class scores with minimum requirements, we define the eligibility of a sovereign for our sustainable investment portfolios. More detailed information on the screening process can be found on [ing.com](https://www.ing.com).

As regulations and market standards constantly evolve, ING is investigating various ways of categorising and reporting on SIS and we are monitoring regulatory developments. We believe that transparency, uniformity and collaboration are needed from all market participants, to create a meaningful reporting standard for customers, which can easily be benchmarked against other investments.

Integration of the EU Taxonomy regulation

The European Commission introduced the EU Taxonomy in 2021 as part of the Green Deal strategy and the Commission's action plan on financing sustainable growth. With six environmental objectives, the Taxonomy aims to channel capital flows to support the transition, help generate sustainable and inclusive growth and prevent greenwashing. In 2022, we started reporting within the EU Taxonomy framework over the financial year of 2021. An update on the 2022 financial can be found under 'Environmental, social and governance risk' in the 'Risk management' section of this report.

ING sees the EU Taxonomy as an opportunity to re-evaluate balance sheet assets and increase transparency on environmentally sustainable products with the aim of reaching the Paris agreement's target of net zero by 2050. The strategic priority, 'Putting sustainability at the heart of what we do' further emphasises our own sustainability ambitions and we strive to continuously integrate regulatory measures with these ambitions. It is important to recognise that our own efforts such as the Terra approach and our sustainable finance products and services differ in scope from the EU Taxonomy. We believe that both approaches need to be harmonised in the future.

In 2022, we categorised our lending efforts to corporate clients in different product categories. Before financing clients, we assess them on environmental and social risk criteria as defined by our own risk appetite statement. Our work with specific clients is based on the opportunity to develop tailored sustainable products with them, such as sustainability-linked loans with company-specific KPIs.

We continuously explore new ways to support clients in a sustainable way and align with the principles of the Loan Market Association, the ICMA for green, social and sustainability-linked financial products and the EU Taxonomy. We also proactively inform clients about aligning their business activities with the Taxonomy and have started to incorporate published technical screening criteria into our loan assessment processes.

Collaboration

No one sector, much less one bank, has the ability to solve the world's problems. We believe that an inclusive approach is the only way we can make any meaningful positive impact. From climate to human rights and financial health, we seek to increase our sustainability impact through partnerships and coalition-building.

In 2022, alongside ongoing involvements with, for example, the 2 degree Investing Initiative, the UN-led Collective Commitment to Climate Action and the Net-Zero Banking Alliance, we collaborated with peer banks under the UNEP-FI Principles of Responsible Banking alliance, co-leading a working group that developed a set of standard indicators for financial health and financial inclusion for banks.

Following this, we started piloting the application of some of these indicators in the Netherlands, Spain and Romania. In the Netherlands, this included starting a context assessment and a baseline analysis on several of the indicators. Through these pilots, we aim to improve our customer segmentation and targeting of financial health actions. More information about our progress towards the PRB Commitment to Financial Health and Inclusion can be found on [ing.com](https://www.ing.com).

Dutch collaborations in the area of financial health also continued with Queen Máxima's work as UN ambassador for Inclusive Finance for Development, the debt prevention organisation Schuldhulproute, the Financial Health Index and the National Coalition for Financial Health, launched in 2022.

Managing climate-related, environmental and social risk

Assessing and managing the risks associated with a transition to net zero is critical. As climate risk becomes increasingly relevant, many banks are evaluating the potential negative impacts it could have on their business. Both transition risk, which can arise from changes in policy, law, technology and the market, and event-driven or longer-term physical risk, caused by events such as drought, flooding and extreme weather, could impact the economy, clients and therefore our business. Even after implementing measures to help

mitigate the effects of climate change, physical risks could continue to occur since climate change is actual. Therefore, these risks need to be well understood and managed. The way we do this, as well as an explanation of the different risks involved, our performance and results, can be found in the 'Risk management' section.

Environmental and Social Risk (ESR) policy framework

ING's ESR policy framework helps us make informed choices about how, where and with who we do business. In 2022, the ESR framework was updated to reflect several minor amendments following the last comprehensive review cycle that took place in June 2021. The new release includes, among amendments to restrictions in the tobacco value chain, additional clarity on some of the requirements for the ESR client assessment process concerning specific group of companies. It also includes the required ESR due diligence for public authority entities. As well as restrictions, the ESR policy also sets guiding principles for biodiversity and human rights.

Biodiversity

According to the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES), the rate of species extinction is accelerating with grave impacts on people around the world. IPBES estimates that around one million animal and plant species are now threatened with extinction, many within decades. If the rapid decline of biodiversity continues, the livelihood of many businesses is at stake. The agricultural sector, for example, depends on healthy ecosystems, and the construction and pharmaceutical sectors both need access to natural resources to prosper. This can have an impact for banks.

Through our ESR policy framework, ING identifies and manages risks related to biodiversity loss. Our processes focus on avoiding a negative impact on biodiversity, where possible, and minimising impact that cannot be avoided. We also engage with clients to find and finance opportunities to do business in a way that respects nature.

Also through the framework, we apply strict ethical and environmental criteria to financing decisions. We don't finance projects that directly impact high-value ecosystems, such as UNESCO heritage sites, Ramsar wetland sites or areas designated for protection by the International Union for the Conservation of Nature (IUCN I and II areas). In addition, our screening criteria include enhanced due diligence for transactions that can impact rich biodiversity areas and ecosystems. In 2022, we expanded our due diligence to include 'key biodiversity areas', which are host to critical populations of the world's most threatened species.

To ensure employees understand the impact of biodiversity loss on business, we introduced two learning modules in 2022. The first, an internal video explaining biodiversity loss, why it is relevant to customers and to ING, what we are doing to protect biodiversity and how employees can help. It is part of a sustainability

learning offering, available to the entire company. The second module was co-developed with the Biodiversity Working Group of the Dutch Sustainable Finance Platform, which is hosted by De Nederlandsche Bank. The e-learning is available on the platform's website.

Reducing deforestation is a priority for protecting biodiversity and can make major contributions to climate mitigation. We engage with clients around the world, active in cattle, palm oil, soy, wood, cocoa and coffee, calling on them to put in place no-deforestation and no-ecosystem conversion policies and commitments and to work towards full traceability in their supply chains.

To restore biodiversity globally, all stakeholders need to work together. That's why ING is an active member of external partnerships and initiatives. We work with peers and expert organisations to further develop the TNFD framework, which we intend to use as guidance in future reporting. ING is also a member of the finance workstream of the EU Business@Biodiversity platform, an EU-led initiative that aims to support financial institutions in integrating biodiversity risks and opportunities.

ING is a signatory of the Equator Principles, a financial industry benchmark for determining, assessing and managing environmental and social risk in projects. Projects financed under the Equator Principles framework that have an impact on natural ecosystems, are expected to carefully manage that impact. We have strict criteria in place to apply this framework, ensuring that biodiversity impact is not only avoided and minimised where possible in these projects, but also restored.

Human rights

We believe every person, everywhere, has the right to be treated with dignity and have their interests considered equally. ING and our clients have the potential to impact human rights through our operations and business relationships. Our impact is on different levels: how we do business, and with who we do business, not only as an employer but also through our supply chains.

We work to influence and support business partners to respect human rights in multiple ways. Our ESR policy framework includes an overarching policy on human rights to guide us when assessing clients and the transactions we finance. We also act on a variety of environmental, climate and social topics as well as highlighting their interconnectivity. For example, our approach acknowledges that biodiversity loss negatively impacts people's human rights, affecting their access to food, water, sanitation, culture, property, a healthy environment and more.

In 2022, we published a Human Rights Review 2021/2022 where we disclosed our most severe human rights issues in Retail Banking with an emphasis on individual customers (discrimination, financial distress and privacy abuses). We also provided updates on the management of our most severe human rights issues in our own operations (work-related stress and discrimination). We also developed a tool for analysing the

human rights impact within our portfolio. We are currently piloting this tool and looking into ways to implement it as part of ING's existing processes.

We continue our human rights efforts in line with the UN Guiding Principles on Business and Human Rights (UNGPR) as well as the OECD Guidelines for Multinational Enterprises. We do this by understanding regional and portfolio risks, engaging with clients, using financial leverage when needed, and being cognisant of human rights impacts when engaging with stakeholders. We consulted with human rights and civil society organisations in drawing up our ESR policy review.

Via platforms that set standards on this topic, ING aims to be transparent about our progress in the hope that others will join us and strive to be a step ahead of broader expectations. Read more in 'Environmental, social and governance risk' in 'Risk management'. The transition to a green economy may impact people. Transitioning out of fossil fuels may result in stranded assets and consequently affect surrounding communities. It could also increase energy poverty for vulnerable people reliant on fossil fuels. We recognise that as the world transitions from a carbon-intensive economy into a green economy, we must collectively acknowledge the needs of people, especially the most vulnerable.

Financial health and inclusion

Part of ING's purpose to empower people to stay a step ahead in life and in business means helping customers and society stay a step ahead of the challenges they're facing. One of the ways we can make a difference here is by aiming to advance financial health and inclusion for customers and communities.

Financially healthy people can contribute to a healthy economy and help drive social progress. At the same time, money is a leading cause of stress for people with half of European households struggling to make ends meet. According to the group European Pensions, one-third are unable to face unexpected financial expenses and close to 40 percent are not saving for retirement.

ING is committed to empowering customers and the community towards improved financial health, a state in which an individual, household, micro, small or medium-sized enterprise can manage their current financial obligations and have confidence in their financial future. This includes managing day-to-day finances to meet short-term needs, the capacity to absorb financial shocks (resilience), the capacity to reach future goals, and feeling secure and in control of finances (confidence).

According to a financial health working group convened by the UN Secretary-General's Special Advocate for Inclusive Finance for Development, having financial health as a business purpose contributes to happier, more engaged customers with greater financial resilience, better management of day-to-day finances, an enhanced ability to set future goals, and improved confidence, security and control of finances. ING is part of this working group: the Special Advocate has showcased our approach as best practice.

Financial health can also be seen from a human rights perspective. Everyone has a basic right to be a full member of the economy and live life in a financially dignified way. ING strives to make sure it does not discriminate by giving customers different levels of essential information. We aim for our information to be comprehensible and accessible for all.

Advancing customers' financial health and inclusion

ING has built a financial health framework consisting of three pillars. For each pillar, best practices are shared between business units with the goal of learning from each other. Similar projects are running in several countries but tailored to local circumstances. Examples include a project in Spain on the avoidance of overdraft, which is now also running in Germany.

Other examples are campaigns in Germany, the Netherlands and Romania which aim to stimulate those with hardly any savings to adopt a savings habit and, if possible, to build a savings buffer. Tracking each project to measure effectiveness, we introduced 15 new financial health projects in Spain, Germany, Romania, Turkey, Australia and the Netherlands in 2022, reaching two million customers.

Financial inclusion, the first pillar, is about everyone who meets the bank's criteria having access to banking products and digital adoption, including those with seeing or hearing difficulties - what we refer to as 'leaving no one behind'. It also means that people have effective access to all types of financial products, not just basic ones. To achieve this, we want to create equal opportunities and make sure products, services and facilities are accessible to everyone and we want to engage people to effectively use them. Examples of this include voice-activated ATMs in Poland, the Netherlands and Turkey, and a bank card with a notch so the visually impaired can insert them correctly, in the Netherlands and Belgium. The card is also designed to support customers with limited hand functionality. In Australia, we provide phone banking for customers with speech or hearing impairments via the government's National Relay Service. Sign language services are available in some bank branches in Poland.

ING also started a programme to align digital channels in all EU Retail Banking countries with the EU's Web Content Accessibility Guidelines standard (WCAG 2.1). For example, in the Netherlands, the 'MijnING' app is accessible with a voice-over to transfer money or to get current account insights. Examples of improving digital inclusion include ING in Belgium partnering with Beego to help customers become digital by providing 'digibuddies' (computer science students) to assist them. And in Australia, more than 100,000 customers over 55 have received information to improve their digital awareness and skills. Financial inclusion will be included in the ING Compliance framework under the Client Protection Framework we are developing, as we want to uphold the same standards across the globe.

The second pillar of our financial health framework is about making sure that people's monthly expenses don't exceed their income, and having healthy levels of debt and financial resilience. Everyday Round Up for example encourages customers in Poland, Australia, Turkey, Germany, Spain and Romania to build savings.

We continue to partner with apps like Minna, which displays customer subscriptions in one place, and Dealwise, a shopping platform that gathers cashback deals and discounts in one place.

In 2022, ING in Spain introduced Money Up!, which aims to provide financial peace of mind by giving customers a clearer view of their income and expenses, with intuitive, customisable tools to improve their finances and make better informed decisions.

Skyrocketing energy costs and inflation, partly stemming from the war in Ukraine, had a significant effect on families across Europe and beyond. The cost-of-living crisis meant that many people struggled to pay their bills. ING assisted impacted Dutch customers (and non-customers), via a campaign directing them to www.geldfit.nl/energie to help manage their situation. In September 2022, more people were referred to Geldfit than in the whole of 2020 and 2021 combined.

The third pillar of our financial health framework is helping customers with their financial planning. In Germany, a personal budget tool is available for customers to plan and control expenses as well as discover potential savings. In Belgium, Easy self-invest gives customers access to information from ING investment experts and allows them to start investing with only small amounts of money.

Supporting financial health in the community

In 2022, the war in Ukraine resulted in months of escalating devastation and displacement for children and their families. Not only were children among the many killed, wounded or deeply traumatised, but their access to school, healthcare and other basic services was severely interrupted. In response to the crisis, ING, together with colleagues and clients, donated more than €6.5 million to UNICEF's emergency response and more than €7.5 million to local charities supporting people impacted by the war in Ukraine and in countries receiving refugees.

Both the Covid-19 pandemic and the war in Ukraine exposed and deepened existing inequalities. As a result of the war and soaring food and energy prices, the UN Development Programme noted that a staggering 71 million more people around the world experienced poverty in 2022. According to Ipsos research carried out in December 2022, people not just in the EU, but globally, listed cost-of-living as their biggest concern.

Our approach to community investment adapts to these changing needs. Through a combination of global and local funding, we support programmes that contribute to an inclusive economy, one where everyone can participate. In 2022, ING, together with colleagues and clients, donated an additional €13 million to a range of social programmes, €9 million of which was specifically focused on building financial health in communities, covering the areas of future-proof employment, financial capabilities and social enterprises.

As examples of supporting employment, in 2022 the ING Netherlands Foundation partnered with Hack your Future to train former refugees to become IT professionals and help them find jobs. It worked with Jong Ondernemen to increase opportunities for students to enter employment, and Springplank, which was set up to guide homeless people towards employment, housing, and financial capability. In Italy, we continued to partner with Fondazione Mondo Digitale to provide training for around 6,000 people, especially women, in digital and job-orientation skills. In Germany we partnered with MentorMe, a mentoring programme that supports vulnerable women in the job market. Mentees are matched with ING mentors for one year. In Belgium, we worked with the King Baudouin Foundation to fund projects that strengthen digital inclusion, helping people develop digital skills and ensuring that digital products and services are accessible to all. ING customers get involved by helping to choose which projects receive additional funding.

ING also initiated projects that assist with financial capabilities. In the Netherlands for example, the ING Netherlands Foundation supported Money Start to provide education on debt prevention while the Youth Perspective Fund helps young people to become debt-free. In Spain, together with Nantik Lum, we supported the CREA Salud Financiera programme to improve the financial health of women that are, or are at potential risk of, socio-economic exclusion. In Luxembourg, we worked with Jonk Entrepreneuren to inspire and prepare young people aged nine to 25 for entrepreneurship and employment. Twelve programmes provided hands-on learning in entrepreneurship, work readiness and financial literacy.

As examples of projects focused on social enterprise, in Romania, together with Impact Hub, we empower charitable associations with entrepreneurial education and guidance to help them improve interventions, generate alternative sources of funding and develop scalable solutions that increase their social impact.

Next to these examples, we also provided funding to projects in Australia, the Czech Republic, France, Poland and the United States.

Empowering employees on sustainability

Putting sustainability at the heart of what we do means making sure employees are fully engaged on this topic. We aim to give them the relevant knowledge, skills, and mindset to put sustainability into practice both inside and outside the workplace.

In 2022, to further develop awareness around sustainability, we hosted global and national webinars and townhalls addressing sustainability topics such as climate action, climate risk, human rights and biodiversity. In the Netherlands, we held 'Let's talk sustainability' events, where ING experts, partners and employees came together to discuss relevant sustainability topics. In addition, a global sustainability e-learning was made available to empower employees with sustainability-related knowledge and skills. It included foundational and advanced learning modules. Some of these were developed specifically for ING, while others were provided by partners. Additional learnings on climate risk and biodiversity were included,

in cooperation with the Dutch Banking Association (NVB). On an expert level, where employees required further skills, we provided online and offline training on sustainable finance, as well as environmental and social risk.

ESG governance

In March 2022, we updated our ESG governance approach, integrating and aligning ESG governance with existing business-as-usual governance of the bank. This allows us to steer holistically across ESG on themes like climate, biodiversity, human rights and financial health. As a result, ESG is now a regular topic on the MBB agenda. Our global head of Sustainability reports directly to ING's CEO. Sustainability/ESG leads in major countries have a functional line to the global head of Sustainability to create a stronger connection between global and local actions.

The ESG Committee, set up in 2022, assists the SB with matters relating to ESG, including, but not limited to, the development and integration of ESG across the company and its strategy. The ESG Committee also assists the SB by monitoring and advising on relevant ESG developments. In addition, we have created an ESG Sounding Board comprised of senior leaders from across the organisation and including representatives from Legal, Investor Relations and Corporate Strategy. The Sounding Board helps guide the development and implementation of our strategy for ESG topics as well as monitoring and reporting on our progress. We follow the recommendations of the Taskforce for Climate-related Financial Disclosure in our governance and reporting. We believe this new approach increases our effectiveness, efficiency and accountability as we strive to be a banking leader in building a sustainable future for customers, our company, society, and the environment.

Taxation

Our taxation policies and performance are key elements under the governance pillar of our ESG framework. We are mindful that every aspect of our business, including our approach to tax, has an impact on society. We have therefore chosen to formalise our approach to clarify our views on responsible tax behaviour and tax governance.

Our tax principles, which are applicable worldwide, mirror ING's values of integrity, honesty, prudence and responsibility. These values are the main drivers for our relationship with tax authorities and for the adoption of tax transparency as standard practice.

As a global bank, we play a crucial role in fighting financial crime and protecting the financial system from harmful behaviour. This includes criminal activities such as tax evasion, but also aggressive tax avoidance, which although not illegal can be damaging to the communities in which we operate. We aim not to facilitate such activities. We also believe in the principle that tax should follow business, so profits are

allocated to the countries where business value is created. It is our policy to comply with domestic and international laws and regulations, taking account of both the letter and the spirit of the law, as well as standards such as the OECD guidelines for multinational enterprises, and we apply the arm's length principle.

Wherever we operate, we seek to establish and maintain an open and constructive dialogue with local tax authorities and other government bodies, based on the disclosure of all relevant facts and circumstances. In this dialogue we seek to provide clarity and establish certainty on all relevant local tax components in advance. We are transparent about our approach to tax and our tax position. In formulating this approach, we have taken account of the interests of our stakeholders, including (tax) authorities, non-governmental organisations, customers, shareholders and society in general.

Disclosures are made in accordance with relevant domestic regulations, as well as applicable reporting requirements and standards such as the International Financial Reporting Standards. Since 2015, each ING annual report has contained a country-by-country overview of the result (before tax) and the total corporate income tax charge per tax jurisdiction. ING also submits, annually, a similar type of overview to tax authorities which enhances their insight into our tax position. In 2022, ING was ranked third in the Association of Investors for Sustainable Development (VBDO's) yearly Tax Transparency Benchmark.

It is our policy not to advise clients on taxation matters. Clients remain responsible for their own tax position.

ING joined the Dutch Tax Governance Code developed by the Confederation of Netherlands Industry and Employers (known as VNO-NCW). ING embraces the principles of the code and will work consciously to comply with the targets set, as laid out in our Tax Governance Code. This is available on ing.com in the Compliance section under About Us. The financial information in the Tax Governance Code is recorded under notes to the consolidated financial statements in this annual report (see note 35, Information on geographical areas and note 37, Taxation).

Tax policies, procedures and a tax control framework have been implemented to support management in mitigating potential tax risks in a prudent manner. Internal monitoring, control and reporting of tax-related risks takes place on a continuous basis with annual reporting to the board and various other stakeholders. For SOx 404 purposes (section 404 of the Sarbanes-Oxley Act), an 'effectiveness of internal control statement' with respect to tax controls has been provided. Tax risk management is subject to Corporate Audit testing and evaluation. As part of the tax risk assessment, if applicable, the potential use of (tax) incentives and/or subsidies is considered acceptable to the extent explicitly intended by the authorities.

In all countries in which ING is present, it is ING's position to be cooperatively tax compliant. This implies being transparent about, and disclosing, relevant tax risks towards tax authorities. Tax risks not only refer to ING's own tax position, but also our role as gatekeeper for the financial system as well risks in relation to our customers. In this respect, we have integrated a tax integrity assessment in our overall customer risk assessment process.

How we are making the difference

ING is making the difference by concentrating on two overarching strategic priorities: giving customers a superior experience and putting sustainability at the heart of what we do. To put these into practice, and to make that difference for all customers, we have defined four enablers: providing seamless digital services, using scalable technology and operations, staying safe and secure, and unlocking our people's full potential.

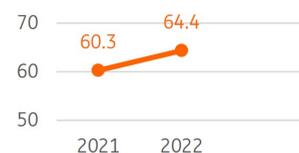
Channel availability ¹

Retail Banking ²
Netherlands & Belgium
99.38%

Wholesale Banking ³
Interactive payment channel
99.97%

Wholesale Banking ⁴
Host-to-host connection channel
99.99%

Digi Index Score (%)



Average of STP (straight-through-processing) rates of 341 Retail customer journeys; STP rate is the percentage of a customer journey that is handled without manual intervention.

¹ For details regarding the measurement of this KPI, we refer to paragraph "Digital access"

² Weighted average availability during prime time (6:30 - 01:00); based on number of primary customers per country for channels: Internet banking Private Individual, Internet Business Banking and Mobile Banking App.

³ and ⁴ Average availability 24x7, measured frequently per hour, excluding planned changes

Providing seamless digital services

In a world where accelerating digitalisation is one of the main global trends impacting banking, customers are spending more and more time online. That's why we want to make their lives easier by giving them a seamless digital service. Putting the customer at the centre remains our core strategy.

Customers deserve a personal, easy, relevant and instant experience at every touchpoint, from the way we communicate and onboard them to how we provide products and handle customer requests. ING facilitates this by developing, maintaining and enhancing personalised, reliable digital services that are available 24/7. Developing, maintaining and enhancing these basics provides the foundation for providing a superior customer experience, and in turn this will help us achieve our ambition of becoming the number-one bank for NPS in all ING countries.

Our emphasis continues to be on mobile and we are further improving our mobile capabilities. In 2022, 71 percent of our communication was personalised. As well as helping customers to make more informed financial decisions, personalising customer interactions helps boost mobile sales. In 2022, 58 percent of customers only engaged with us via mobile apps, up from 51 percent in 2021.

We use data analytics and machine learning to personalise digital services for customers. Given the importance of data for offering personal and relevant services, data security and privacy protection are crucial.

By digitalising key customer journeys we are enabling a superior customer experience at a reduced cost-to-serve, while measuring impact through NPS and cost efficiency. In 2022, our Digi Index Score was 64 percent, a figure that reflects the average of straight through processing (STP) rates of key customer journeys i.e. those that are handled without manual intervention. By 2025, we aim to reach a Digi Index Score of over 75 percent.

Data analytics

We use advanced analytics and machine learning to extract insights from data to personalise customer experiences, making the difference for both customers and colleagues. Our ambition as part of our strategy of seamless, digital/scalable operations is to increase our STP rate to facilitate a smoother customer experience. Call reduction and further digitalisation of our processes are a part of this. We have further invested in our chatbot, callbot and virtual assistant capabilities and now have active chatbots in Belgium, Italy, the Netherlands, Poland, Spain and Turkey, deflecting up to 40 percent of incoming chat volume automatically. Guided by chat and callbots, customers can now learn how to resolve issues themselves using the ING mobile app. Other benefits for customers include less waiting time if they want to speak to an agent because more chats and calls are handled through digital solutions, and it is easier for them to find quick answers to simple questions, even outside regular business hours. ING uses machine learning

techniques to understand a customer's intent and thereby make it possible to respond in a more personal way to the customer request.

Analytics is also used to help create a safe and secure environment within the bank. Analytics has contributed to a bank-wide anti-fraud programme, supporting the reduction of fraud damage for both customers and ING. This was realised through machine learning models for certain fraud 'modus operandi'. We also use our AI insights and expertise to fight financial and economic crime. Our advanced AI model allows us to detect financial and economic crime better and earlier.

In addition, ING is a partner of the Kickstart AI initiative in the Netherlands, which aims to solve real business problems with the use of AI. This year, we joined other member companies in tackling the food waste challenge and improving the demand forecasting model at Delhaize Belgium that helps balance product availability and waste.

Scalable technology and operations

Reflecting our role as a digital first bank and to enable a superior customer experience, ING believes that scalable technology and operations are the foundation for becoming a successful digital bank and therefore have made this an integral part of our strategy. Standardisation and automation give us a shorter time to market, quicker time to volume, consistently high quality and improved productivity. Scalable technology and operations also help us attract and retain talent by offering employees the opportunity to not only work with technology but also collaborate across countries and make an impact globally. By creating foundational and scalable capabilities and services, we allow the business to grow at marginal costs.

Scalable technology

Our scalable technology strategy provides a foundation for the modular components we use to build and operate propositions. It allows ING countries to introduce propositions more quickly and easily, while providing the opportunity to add local flavour.

The technology is divided into three parts: ING's private cloud infrastructure (IPC), our engineering pipeline (OnePipeline) and our banking technology platform, with its extendable and reusable services and components. Given its flexibility and scalability, ING has chosen for a hybrid cloud strategy, i.e. using public cloud providers in addition to IPC. Cloud computing is an important component for scaling our digital capabilities. IPC is where we store and manage applications and data such as channel applications, core bank systems and other banking applications. We measure IPC adoption by the percentage of physical cores in IPC compared to the total number of physical cores in data centres globally. By the end of 2022, we ran 52 percent of our workloads on (private) cloud. By 2025, we expect that figure to have risen to at least 70 percent.

OnePipeline, our continuous integration and delivery pipeline, provides engineers with a consistent and secure global capability to develop, test and deploy software. We invest heavily in infrastructure, test and risk automation. Today, about 48 percent of applications are maintained through the pipeline. We measure the pipeline's adoption by the numbers of applications onboarded to the pipeline (used to develop and deploy to production), compared to the total number of applications registered in our IT management platform across all ING entities. We exclude those applications where a pipeline is not applicable, such as no-code or SaaS applications. Our ambition is to have 90 percent of applications on OnePipeline by 2025.

Touchpoint is part of our banking technology platform. In 2022, approximately 60 percent of customer logins used Touchpoint. By 2025, we expect that figure to be over 90 percent. By using common architecture and shared services, engineers can create propositions without the 'heavy lifting'. Touchpoint provides modularity and a set of reusable shared services, freeing up capacity for engineers to create more value for customers and employees. We measure customer online traffic on the platform through the consumption of Touchpoint authentication services, represented by the number of Touchpoint-enabled unique customer authentications against the total number of unique customer authentications (Retail countries/Wholesale Bank).

Payment & Settlement Services

In 2022, as part of our strategy, we have bundled our strategic payments and settlement services (PSS) into a new unit under CTO (Chief Technology Office). This unit covers the full scope of payment and settlement services for Retail and Wholesale Banking and benefit from our scalable tech and ops. It provides high quality and efficient payment, settlement, and open banking services, leveraging our scalable payment and settlement solutions.

Through an increased focus on these payment and settlement services, we allow our business to provide a superior customer experience. We aim to further consolidate most of our payment services on this platform, improving quality and reducing price per transaction. As of 2022, PSS processed well over three billion transaction (65 percent of total volume) through our central payment engines.

Scalable operations

Our scalable operations are driven by digitalisation and capability hubs. These focus on becoming fully STP, leveraging expertise and using scale and sharing productive, quality services across the ING network.

Capability hubs provide shared solutions to ING Bank worldwide. The hubs are mainly located in the Netherlands, Poland, Romania, Slovakia and the Philippines. In 2022, 32 percent of operations were carried out with the support of these hubs, compared to 23 percent in 2021. Our aim for 2025, is to have at least 50 percent of operational work carried out by the hubs.

By digitalising client contacts, accelerating remote advice and increasing the use of chatbots, inbound calls to contact centres were reduced by 12 percent in 2022. We aim for 30 percent in 2025, which we expect will represent an annual gross cost saving of around €50 million. Similarly, by automating and centralising our KYC activities this year, we reached 49 percent of know your customer (KYC) in our hubs and expect to increase that to 60 percent by 2025 through more consolidation, automation and straight-through processing.

Staying safe and secure

Trust is the starting point, the most basic requirement, for all stakeholders. That's especially true for a digital-first bank like ING. People trust us with their money and with their data. Keeping it safe, and maintaining this trust is crucial (see also 'Risk management').

Digital access

In a digital society, customers expect to have round-the-clock access to digital channels including their banking services. To live up to their expectations, we strive to provide uninterrupted access to our banking services. In Retail Banking in 2022, our digital channel availability for the Netherlands and Belgium was 99.38%. For Wholesale Banking clients worldwide, the availability for our Inside Business payments channel was 99.97% and for our Inside Business Connect channel (file transfer) the availability was 99.99%. These figures are based on outputs of availability monitoring processes, which are run with a high frequency per hour. The 2022 results are in line with the 2021 channel availability results.

Anti-money laundering and KYC

Knowing who we do business with helps to protect our clients, ING and the financial system against financial economic crimes. As part of our continuing anti-money laundering (AML) efforts, we carry out customer due-diligence checks and monitoring transactions for unusual or suspicious activities. We also assess the projects and companies we finance for environmental and social risks and aim to steer clear of activities in certain sectors or industries that could be harmful to people or the environment. In 2022, we strengthened our KYC with, for example, increased staff, upscaled skills and additional local requirements where needed. Read more about KYC and AML in 'Compliance risk' in 'Risk management'.

Cyberthreat landscape

As a gatekeeper to the financial system, we have an important role in protecting society against crime. Cybercrime remains a continuous threat to companies in general and to financial institutions in particular. Ransomware is still one of the prime threats, with phishing the most common way that attackers gain access to a company's system or network. Other high-ranking threats are attacks against availability, or

Distributed Denial of Service (DDoS) attacks. However, the geopolitical situation resulted in increased awareness of cybersecurity threats, resulting in more attention for the global cybersecurity domain. While we still observe an increase in the number of threats, we also see a wider range of ways that attackers infiltrate company systems, such as exploiting unresolved vulnerabilities, notably 'zero-day exploits', i.e. vulnerabilities that are exploited before a patch is available.

Cybersecurity incidents

During 2022, one attack impacted our availability of digital services in Germany. Channels were unavailable for less than two hours. No other cybersecurity incidents were identified in 2022 that resulted in significant operational downtime, data theft or financial loss.

Different types of cyberthreats are not only relevant for the financial industry, but are increasingly hitting their supply chains. ING continues to invest in cybersecurity capabilities in all domains (prevention, detection, response and recovery).

Preventative measures

Being cybercrime resilient is a high priority. We continuously test our IT and organisational resilience, and perform crisis management and red-team exercises to improve our response to DDoS and targeted attacks. Cybersecurity risks from supplier's monitored and mitigation is initiated where needed. ING maintains a strong global cybercrime alliance within the financial industry and government institutions to monitor trends.

ING recognises the value of an effective regulatory framework and is in favour of cybersecurity being led more by actual cyberthreats and principles and less by prescriptive rule-based compliance. The adoption of threat-led penetration testing in the EU's new Digital Operational Resilience Act, which also ensures continuity of business, is a good example. Testing critical systems on real-life threats helps entities to gain insights. Our staff awareness and training programme is regularly updated with the latest cybercrime trends and prevention measures.

We have a responsible disclosure procedure for security researchers that may find issues in our business applications or infrastructure.

Identity and access management (IAM)

Identity and access management (IAM) is an important element in our control framework to prevent and mitigate the risk of unauthorised access to IT systems and the data processed and stored therein. ING has IAM global processes and controls in place which are periodically reviewed and tested. For more information go to 'Non-financial risk section' in 'Risk management'.

Fraud landscape

Types of fraud are also evolving. As the digital world continuously changes, fraudsters have become more international and their modus operandi more complex. Customers are being deceived in increasingly sophisticated ways. Online fraud has become a societal problem and in several countries banks have collaborated with governments, law enforcement entities and other sectors to find innovative ways to prevent and detect fraud. ING has an important role to play in preventing and detecting fraud in the digital world and wants to minimise the impact of fraud losses and the number of fraud victims.

We recognise this transformation in the fraud landscape with developments high on our agenda. We changed our fraud programme to improve its ability to monitor and react to fraud incidents and to adapt quickly to new fraud methods in a cost-efficient organisation. The global head of Fraud now reports directly to the global COO, and we have implemented a global delivery organisation (tribe) that brings detection and response services to all countries. This tribe uses several sources of information, and is able to assess whether a payment is done by a customer or by a fraudster. Also, we appointed a global head of fraud investigations and introduced innovative ways to share best practices across domains and countries.

Over 2022, we experienced an increase in the number of fraud incidents, but were able to respond quickly and adequately, resulting in a reduction of fraud losses compared to last year. The main modus operandi continues to be the phishing of customer credentials and fraudulent credit card transactions. We also see that authorised push payment fraud (e.g. impersonation of a bank employee) has become an important category to focus on. We are increasingly collaborating with peers and other relevant sectors, such as telecoms companies. More information can be found in the Risk management chapter.

Data privacy, protection and ethics

Customers trust us with confidential information and their personal data. It's important that we maintain that trust and keep their data safe from loss or misuse. In an environment that's increasingly open and connected, we must be ever more vigilant. ING is bound by global and local data protection laws, which can differ from country to country. We are transparent about what we do with the personal data of customers, employees, suppliers and business partners.

Our approach can be summarised as 'the right people use the right data for the right purpose'. In line with the EU's general data protection regulation (GDPR), we aim to only process personal data to support our business and in line with applicable legislation. Data controllers or processors who want to transfer personal data outside of the European Economic Area (EEA) must ensure that the data subject is granted a level of protection equivalent to that guaranteed by GDPR. More information can be found in the Privacy Statement on our website.

In 2021, following the Schrems II ruling by the EU's Court of Justice in 2020 on the lawfulness of Privacy Shield, the EU-US personal data transfer mechanism, ING launched its own transfer impact assessment with necessary updates made to standard contractual clauses: contracts in scope were completed by the end of 2022. Financial institutions need to walk the fine line between privacy protection and fostering data sharing. Again, countries differ in their approach. At EU level, there is a clear regulatory trend towards more data portability and more data sharing. Under the Digital Markets Act, Big Tech will be required to facilitate data portability and we expect a future proposal to establish PSD2-like data portability for finance.

In addition to complying with regulatory requirements around data use, ING assesses potential ethical questions, taking into account the rights and interests of our stakeholders, to verify whether we use data in a responsible way. Global and local data ethics councils guide our ethical decision-making and help to apply data ethics consistently.

As ethical standards can evolve over time, we closely monitor regulatory compliance, societal developments and potential new requirements to gain an 'outside-in' view on data ethics. We have assessed the impact of the EU's upcoming artificial intelligence legislation related to ethics and established an appropriate implementation plan. Everything we do is guided by ING's Orange Code, which describes the values and behaviours that underpin our way of working, and which puts integrity above all. Read more in 'Compliance risk', in the Risk management chapter. Building on the Orange Code is ING's Global Code of Conduct. We encourage employees to speak up when they are confronted with unethical or illegal behaviour and provide a variety of reporting channels, including via their manager, local compliance officer or an ING whistleblower reporting officer. ING also has external and anonymous whistleblower channels. We take great care to protect the identity of whistleblowers and the confidentiality of their reports to protect them against potential retaliation. We believe that trust, integrity and ethical behaviour are at the core of any reliable business. They go hand in hand with satisfied customers.

Unlocking our people's full potential

Ultimately, we are making the difference through the activities and actions of our people. We seek to attract, develop and retain the best people by creating an environment where they can unlock their full potential. ING's sustained success is founded on the continued commitment of our talented people. We unlock our people's full potential by ensuring all employees have skills and capabilities that equip them for the future, by promoting a diverse, inclusive and vitalised culture, where everyone feels they belong, and by providing an excellent employee experience.

In the past few years, our people have faced unprecedented challenges during the global pandemic. It has fundamentally changed the way people view their lives and has shifted employee expectations significantly. The hybrid way of working has worked well for ING. The pandemic allowed us to accelerate our digitalisation, we collectively pulled together and employees continued to deliver for our customers.

We continue to support our people by offering hybrid working to make sure they have the autonomy to better balance their professional and personal lives. Eighty-five percent of our people strongly endorse hybrid working.

We care about giving our people this flexibility, especially since the changing dynamics following the pandemic has led to a change in employee expectations. It is important that our people feel supported and that, as well as a competitive total reward package, they receive good development opportunities and autonomy. This is reflected in our people offer, which is intended to create clarity on what we offer, and what we ask in return.

It matters to us that our people are engaged and that we have an open dialogue with them. We use a continuous listening approach, our Organisational Health Index (OHI), to get an ongoing sense of how our people are doing and how they feel and we make sure we act on that feedback. A full OHI was held in October, with a record number of participants: over 41,000 people, or 69% of our total workforce. On a global level, more colleagues indicated that they had clarity on our strategy, shared ING's vision and felt included in decision-making. Risk management remained one of our strongest practices and saw further improvement since 2021. We will use the outcomes of this survey to define action plans and priorities for 2023.

As well as making sure our people are engaged, we aim to unlock our people's full potential by focusing on three elements: 'skills and learning', 'diversity, inclusion and vitality', and 'employee experience'.

Skills and learning

We want to attract, develop and retain the skills we need to deliver great performance. In 2022, we provided new tools to upskill and reskill our people, built the capabilities of our leaders and developed the pipeline of leaders for the future.

Upskilling our workforce

We want to equip our people to grow, upskill and reskill themselves, so that both our people and our business have the capabilities that are needed now and in the future. Together with an external partner, we launched a programme to boost learning content to 30 ING countries and the four ING Hubs (Philippines, Poland, Romania, Slovakia). It offers a wide range of learning courses in My Learning – ING's open, digital learning platform that gives employees access to our complete learning offering in one location.

ING wants to be an organisation where learning and development play a major role and where our people feel supported in developing themselves. This is part of our culture. Development increased by 13%, with 1,317,760 courses completed and 1,509,938 learning hours undertaken. Over 44% of all learning completed

was not mandatory, with more people than ever electing to learn new skills and build capabilities relevant to their job roles and functions.

At ING, we care about everyone being able to unlock their full potential and want to make sure all our people can access learning and development. We made learning solutions more accessible by implementing new guidelines for all required learning. We seek to provide digital services and workplace tools that promote disability inclusion and meet accessibility requirements set out in the Web Content Accessibility Guidelines (WCAG) 2.1. The WCAG is now our reference standard for all mandatory learning. We continued to embed this further into all content created for ING.

Building leaders for the future

To have strong leaders and an equally strong pipeline, we completed our annual succession review of the top 400 roles in the bank. We launched a new programme to accelerate leaders' readiness for bigger, global roles. Fifty-four percent of the talented participants in this programme were women and 10 countries were represented. We continued to build our internal talent pipeline through our early careers approach. We hired 81 trainees under our International Talent Programme under eight tracks: WB, Retail Banking, IT, Finance, Risk, HR, Operations & Change and Analytics.

We continued to strengthen our leadership offering through our Leadership Experience, which aims to develop greater leaders and better managers who can engage and grow talent and enhance team performance, and the Leadership Fundamentals programme, which aims to develop the foundational skills managers need to help themselves and their teams to be successful. Some 840 managers joined the Leadership Experience and over 390 colleagues from 25 countries participated in the fully digital programme of our Leadership Fundamentals.

Diversity, inclusion and vitality

ING is committed to attracting, developing and retaining a workforce that reflects the customers and communities we serve. We believe that a diverse, inclusive and thriving culture makes people want to join and stay, and helps create an atmosphere where people can speak up, making us safer and more secure as a bank.

We introduced a 70% principle in 2018, which means we strive for no group or level to be comprised of more than 70% of the same gender, nationality or age group.

In addition to the broader benefits of a more gender-diverse senior management team – for our business, employees and customers – increasing representation of women in senior management is foundational to addressing our gender pay gap (i.e. the difference between the average remuneration of men and women), something ING committed itself to in 2022.

We deepened our focus on gender diversity by introducing a new target of at least 30% female representation in our senior management by 2025 and 35% in 2028. In 2022, that figure was 29%. The variable pay of our MBB is linked to delivery of these internal targets on gender diversity. We also defined 'senior management' consistently, in line with our Global Job Architecture (GJA, ING's global job catalogue).

To make sustainable improvements in gender diversity in senior management, we are changing how we hire, progress and retain talented women, with a bank-wide action plan introduced in 2022. For instance, by the end of 2022, we put a requirement in place with external recruitment firms to provide gender diverse candidate lists. We also use a structured and objective hiring process and aim to ensure our talent identification, succession, performance and reward processes are equitable and mitigate the risk of gender bias. We also created a more gender-inclusive and family-friendly workplace. We promote support for parental leave and flexible working to make sure all parents have the chance to be successful professionally while managing their family lives. The pandemic has showed us that our people continued to deliver for our customers and that flexible working enhances the lives of employees – especially those with care-giving responsibilities – and this matters to us. This is why we remain an advocate of hybrid working and give our people that flexibility.

To build a strong internal pipeline of talented women into leadership roles, we support and nurture top talent. We introduced a new leadership acceleration programme, with a 54 (female)/46 (male) percent gender split in the participant group and content that addresses gender-specific barriers to progression. We monitor the gender balance in our succession pipelines. We also extended targets to increase gender representation from our current top senior management roles to the leadership pipeline below. To understand women's experiences of ING, we launched a new, globally consistent exit survey, which will be analysed by gender, to identify the reasons for leaving and to make sure we take action to prevent regrettable loss of female talent.

To understand the experiences of all our employees, we use the OHI survey and psychological safety index. We identify different experiences based on gender and other organisational and personal demographics and then delve deeper to determine further actions. One of the ways we create a more equal and inclusive workplace is through external and independent review. ING is one of the 418 firms recognised in the 2022 Bloomberg Gender Equality Index (GEI). The Index offers public companies the opportunity to disclose information on how they promote gender equality across five separate areas: female leadership and talent pipeline, equal pay and gender pay parity, inclusive culture, sexual harassment policies, and pro-women brand. In 2022, ING scored 70.35%, a small improvement on the 70.26% score from 2021. This is the seventh year we have been included in the listing with feedback guiding our future actions.

In addition to our action on gender diversity, 32 thriving employee networks help us advance our diversity and inclusion efforts. These networks raise awareness and create connection, focusing on gender, LGBTIQ+, race and ethnicity, cultural diversity, accessibility and age. To celebrate the diversity of our global workforce, we held our fourth consecutive Global D&I Day, with 26 countries participating in over 120 events.

ING is a founding partner of Workplace Pride, dedicated to improving the lives of lesbian, gay, bisexual, transgender, intersex, and queer (LGBTIQ+) people in workplaces worldwide. Its activities include the Workplace Pride Global Benchmark. In 2022, ING scored 78.8% and was recognised as a Workplace Pride Ambassador.

Vitality

We care about our people. We seek to encourage and support healthy and effective working, so they can deliver on ING's strategic priorities and thrive in life. Our approach to this has developed since the pandemic as our way of working has evolved.

We seek to embed vitality in our working culture and promote healthy working habits. We offer employee assistance programmes, toolkits for managers and employees, and various locally tailored programmes to support the physical and mental vitality of our people. We also promote learning content on vitality topics on our My Learning platform. To reinforce this priority, we have also created a new leadership position. Our global head of Vitality works across our bank-wide network to enhance the vitality and resilience of our people.

Many vitality initiatives are locally driven and specifically tailored to local needs. For instance, the My vitality platform, launched in the Netherlands, Belgium and Luxembourg in 2020. It inspires and supports over 7,500 registered users with high-impact programmes on physical, mental, emotional energy and purpose. In total, My vitality users registered over 4.8 million km via smart devices in walking, running, cycling, swimming and any other way to move forward.

In Germany, Turkey, the UK and the US, local initiatives were introduced including workshops on physical and mental vitality, sport events and health check-ups.

The situation in Ukraine required support for many colleagues, especially those in Eastern European countries. Since the war started, ING has organised fundraising, arranged support for employees and offered assistance programmes to employees and their families. Additionally, employees in the countries neighbouring Ukraine voluntarily hosted colleagues and their family members.

Employee experience

Providing a superior customer experience is a strategic priority. This matters just as much for employees and we are therefore focused on continuing to improve our employee experience. We aim to provide personal, easy, and efficient services that encourage our people to unlock their full potential and be the best they can be. In 2022, we continued to digitalise our people services with a new virtual assistant (available for employees 24/7 in the Netherlands, Poland hubs and Manila hubs) and the introduction of our HR system Workday to 60% of all employees. We also continued to review and improve critical moments in the

employee journey such as onboarding and international assignments. We started to focus on high-volume services such as expense reimbursements, job changes and people recruitment, which are major contributors to a superior employee experience. Finally, we continued to safely manage our HR operations to protect employee data and keep people processes compliant.

Competition

ING is a global financial institution with a strong European base, offering Retail and Wholesale Banking services to 37 million customers in over 40 countries. ING's purpose is to empower people to stay a step ahead in life and in business.

ING's Retail business includes the Business Banking segment and serves customers ranging from individuals to small and medium-sized businesses and mid-corporate clients. ING offers these customers a full range of banking products and services, covering payments, savings, mortgages, insurance, investments and secured and unsecured lending. The Wholesale Banking business provides corporate clients (large companies and multinationals) and financial institutions with advisory value propositions such as specialised lending, tailored corporate finance, sustainable and sustainability-linked financing and debt and equity-market solutions. It also offers daily banking services such as payments and cash management and trade and treasury services.

There is substantial competition in the countries in which we do business for the types of wholesale banking, retail banking, business banking and other products and services we provide. This competition is most pronounced in more mature Retail markets such as the Netherlands, Belgium and Germany, the rest of Western Europe and Australia. Our largest market is the Netherlands, where our main competitors are ABN AMRO and Rabobank.

In recent years, competition has increased in emerging markets such as Asia and Central and Eastern Europe. Financial services companies from more developed countries see these markets as offering higher growth potential, while local institutions have become more sophisticated and competitive and have proceeded to form alliances, mergers or strategic relationships with our competitors.

Our competitive landscape is transforming as society becomes increasingly digitalised and ever more reliant on technology and the online economy – a trend amplified by the Covid-19 pandemic, which accelerated the shift to mobile banking and contactless payments. Our main competitors are no longer just other banks.

The opening up of the European payments market under the PSD2 directive is a significant competitive development. It is creating a more crowded, uneven playing field as third-party payment providers and fintechs enter this lucrative area once dominated by banks. These new entrants have operating models that

are not burdened with potentially costly legacy operations. They are less regulated than banks and use technology and advanced data and analytic tools to lower cost to serve and speed up processes.

Advances in technology are accelerating the use of new business models, for example in retail payments, peer-to-peer lending, foreign exchange and low-cost investment advisory services. New solutions offered by rapidly evolving incumbents, challengers and new entrants, especially with respect to payment services and products, have disrupted the financial services sector and had led to the emergence of disintermediation.

In this competitive landscape, where banking products and services have mostly become commodified, the main differentiator is customer experience. For consumers, this means a seamless, mobile-first digital experience that's safe, easy, smart and personal. Businesses too want to benefit from gains in speed, transparency, security and efficiency created by technologies such as blockchain and artificial intelligence. Winners will be those with a strong trusted brand and a superior digital experience, taking the effort out of managing finances and offering personalised, real-time advice, products and services for all financial needs.

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

The Single Supervisory Mechanism (“SSM”) is the first pillar of the Banking Union and has been operational since 4 November 2014. The SSM is composed of the European Central Bank (“ECB”) and the national competent authorities of the participating EU member states. The main aims of European banking supervision are to ensure the safety and soundness of the European banking system, increase financial integration and stability and ensure consistent supervision. Under the SSM, the ECB is ING Group’s and ING Bank’s principal prudential supervisor. The ECB is amongst others responsible for tasks such as market access, compliance with capital and liquidity requirements and governance arrangements. National competent authorities, including the Dutch Central Bank (De Nederlandsche Bank or “DNB”) 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.

The SSM is complemented by the second pillar of the Banking Union, the Single Resolution Mechanism (“SRM”), which comprises the Single Resolution Board (“SRB”) and the national resolution authorities. The SRM is fully responsible for the resolution of banks within the Eurozone since 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 of 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.

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 EDIS proposal as well as certain accompanying risk reduction measures are still being discussed in the European Parliament and in the Council. In February 2021, the European Commission issued a public consultation on the review of the bank crisis management and deposit insurance (CMDI) framework, with a focus on three EU legislative texts: the Bank Recovery and Resolution Directive (BRRD), the Single Resolution Mechanism Regulation (SRMR), and the Deposit Guarantee Schemes Directive (DGSD). The anticipated revision of the CMDI framework is part of the debate on the completion of the Banking Union and in particular its third and missing pillar EDIS. The consultation period ran until May 2021. The EC has announced its intention to publish a CMDI legislative proposal in early 2023.

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 financial 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, Dallas (Texas) and Houston (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 State of 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 CFTC as a swap dealer and the SEC as a security-based swap dealer and another of which is registered with the SEC 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 ING subsidiary, ING Capital Markets LLC, is registered as a swap dealer and subject to a statutory regulatory regime and CFTC rules and oversight. As a registered entity, it is subject to, among others, business conduct, record-keeping and reporting requirements, as well as margin requirements and capital requirements. In that regard, because ING Capital Markets LLC is not subject to regulation by a prudential regulator, it is required to comply with the CFTC’s capital requirements. In addition to the obligations imposed on registrants (such as swap dealers), other requirements relating to reporting, clearing, and on-facility trading have been imposed for much of the off-exchange derivatives market. It is possible that some of these compliance requirements, especially the newly-implemented capital requirements and an increased scope of applicability for initial margin requirements, will increase the costs of and restrict participation in the derivative markets. This could have the effect of restricting 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.

Compliance with the provisions of the Dodd-Frank Act and SEC regulations enacted thereunder with respect to security-based swaps became required on 1 November 2021. This resulted in ING Capital Markets LLC registering as a security-based swap dealer with the SEC. The SEC has adopted regulations, among others, establishing registration, reporting, risk management, business conduct, and margin and capital requirements for security-based swaps. While ING Capital Markets LLC, as a security-based swap dealer, is required to comply with SEC rules with respect to most of these requirements, SEC rules have permitted an “Alternative Compliance Mechanism” that allows for compliance, subject to eligibility requirements, with CFTC capital and margin rules applying to swap dealers in lieu of SEC capital and margin rules applying to security-based swap dealers. ING Capital Markets LLC has elected to use the Alternative Compliance Mechanism. However, should ING Capital Markets LLC in the future be ineligible for the “Alternative Compliance Mechanism” it would be subject to SEC capital and margin security-based swap dealer rules instead of the CFTC capital and margin security-based swap dealer rules.

ING Capital Markets LLC’s recent registration with the SEC as a security-based swap dealer along with the impact of these regulations to the industry may increase operational costs, reduce trading activity and market liquidity, and increase volatility of the relevant markets. It will also result in a substantial portion or all of ING’s security-based swap activities with U.S. persons being conducted through ING Capital Markets LLC.

In March 2023, ING Capital Markets LLC determined that errors in its calculation of its regulatory capital resulted in ING Capital Markets LLC holding less than the minimum capital required under CFTC rules during prior periods. ING Capital Markets LLC has remediated the regulatory capital shortfall, including by way of closing or transferring outstanding positions. The remediation efforts have not resulted in any material monetary loss to ING Capital Markets LLC. See “Risk Factors – Our US commodities and derivatives business is subject to CFTC and SEC regulation under the Dodd-Frank Act” for more information.

On 15 December 2021, the SEC proposed new rules that would for the first time impose public reporting requirements for some significant security-based swaps positions. The rules would apply even to trades between non-U.S. counterparties, including ING Bank, provided that the issuer of the reference securities underlying the security-based swaps is organized in the U.S., the issuer of the reference securities underlying the security-based swaps has its principal place of business in the U.S., or the securities are in certain categories registered with the SEC. These proposed regulations, if adopted in their current form, could constrain trading activity in security-based swaps. In addition, there are, or may be in the future, regulatory requirements or limitations related to other categories of equity derivatives, such as options or forwards, that could similarly constrain trading activity in such instruments as well. These various requirements and limitations with respect to equity derivatives generally could have a significant impact on the liquidity and utility of these markets, materially impacting ING’s business in this market.

In addition, position limits requirements have been imposed by the CFTC for uncleared swaps referencing any of twenty-five commodity futures contracts on physical commodities. In addition, on 1 January 2023, these position limits were extended to certain positions in swaps that are “economically equivalent” to the enumerated futures contracts. The position limits on futures and related swaps could limit ING’s position sizes in these swaps referencing specified physical commodities and similarly limit the ability of counterparties to utilize certain of our products to the extent hedging exemptions from the position limits are unavailable.

The Dodd-Frank Act also created a new agency, the Financial Stability Oversight Council (“FSOC”), an interagency 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.

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 principal 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 the 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 including certain sovereign exposures 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 (LR). 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 has 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 “other SII” (O-SII) since 2011. DNB requires ING Group to hold a 2.5% O-SII Buffer in addition to the capital conservation buffer and the countercyclical buffer described above.

CRR /CRD 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 CRD IV regime entered into effect in August 2014 in the Netherlands, but not all requirements were implemented all at once. Having started in 2014, the requirements have been gradually tightened, mostly before 2019, until the Basel III migration process was completed.

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.

CRR II / CRD V and BRRD II

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 CRD 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. CRDV was implemented in Dutch law in 2020. The Banking Reform Package updates the framework of harmonized rules established following the financial crisis of 2008 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 introduction of a leverage ratio requirement of 3% and a leverage ratio buffer requirement of 50% of the G-SIB buffer requirement (applicable per 1 January 2023), a binding Net Stable Funding (NSFR) ratio based on the Basel NSFR standard but including adjustments with regard to e.g. pass-through models and covered bonds issuance, 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. 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.

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. In July 2019, the ECB published the 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 the end-to-end process and governance around internal models as well as an increase of risk weighted assets (RWA).

In 2020, the last TRIM ECB inspection ended. Most of the remedial actions triggered by the TRIM assessments resulted in the redevelopment of the credit risk models and were addressed. The resolution of remaining remedial actions is ongoing and is linked mainly to the implementation timelines of the CRR III/CRD I.

CRR “quick fix” in response to the Covid-19 pandemic

On 26 June 2020 Regulation (EU) 2020/873 of the European Parliament and of the Council of 24 June 2020 amending Regulations CRR as regards certain adjustments in response to the COVID-19 pandemic (commonly referred to as CRR “quick fix”) was published.

The CRR ‘quick fix’ introduced certain adjustments to the CRR, including temporary measures and measures that early adopt changes in the regulations that were intended to become effective at a future date. This notably included reduced capital requirement for certain exposures to small- and medium sized enterprises (SMEs), a more favourable prudential treatment for certain software assets, one year delay in the application of the leverage ratio buffer requirement of 50% of the G-SIB buffer (to 1 January 2023). Also, the

'quick fix' extended by 2 years transitional arrangements for mitigating the impact on own funds of the introduction of IFRS 9 (Article 473a (8) of CRR).

Final Basel III reforms

In December 2017 the Basel Committee finalised its Basel III post-crisis reforms with the publication of the revisions to the prudential standards for credit, operational and credit valuation adjustment (CVA) risk as well as the introduction of an output floor. This package of reforms aims to increase consistency in risk-weighted asset calculations and improve the comparability of banks' capital ratios. The use of internal models will be reduced and the standardised approaches will be made more risk-sensitive and granular.

Following a one-year deferral due to COVID-19, these reforms will take effect from 1 January 2023 and will be phased in over five years. The implementation of the EU/Basel III reforms will have impact on ING's risk-weighted assets and capital ratios, but it is expected that other new banking regulations and model reviews bring forward a significant part of this impact before the EU implementation date.

CRR III / CRD VI

On 27 October 2021, the European Commission published a legislative proposal to review the EU's CRD/CRR framework. The review consists of the following legislative elements: a proposal to amend CRD V, a proposal to amend CRR II, and a separate, targeted proposal to amend CRR II in the area of resolution (the so-called 'daisy chain'-proposal). The package is now being negotiated by the Council of the EU and the European Parliament.

This proposed legislative review's key aim is to implement the final Basel III framework – agreed at the end of 2017 – in the EU. It is meant to ensure banks remain resilient and capable of withstanding future crises. The proposed revisions mainly relate to the prudential standards for credit, market, operational and credit valuation adjustment (CVA) risk as well as the introduction of an output floor. Key changes comprise the reduced use of internal models and more risk-sensitive and granular standardised approaches. It aims to increase consistency in risk-weighted asset calculations and improve comparability of bank capital ratios. The Commission's proposal remains close to the 2017 Basel agreement, but in some areas (often temporarily) includes targeted measures to account for specificities of the EU banking sector. These measures relate to topics such as the calculation of the output floor, lending to unrated corporates, specialized lending, property lending and counterparty credit risk. The European Commission expects that overall risk-weighted assets will not increase significantly, on average, less than 10% for EU banks at the end of the transition period.

The proposed implementation date by the European Commission is set at 1 January 2025 for most provisions under review, with a phase-in period for the output floor of five years. This is two years later than

the BCBS's deadline. The European Commission also proposes a number of other targeted transitional requirements, phasing out by 2032 at the latest.

It should be noted that final substance and timing of this review are still uncertain.

Capital requirements applicable to ING Group at a consolidated level

In accordance with the CRR the minimum Pillar I capital requirements applicable to ING Group are: a Common Equity Tier 1 (CET1) ratio of 4.5%, a Tier 1 ratio of 6% and a Total capital ratio of 8% of risk-weighted assets.

In 2020, as a reaction to the COVID-19 pandemic, relevant regulators introduced a number of changes to the Pillar II capital requirements and the capital buffer requirements applicable to ING, including structural reductions. The structural reductions of these capital requirements reflect the application of Art.104a in CRD V, which allowed ING to replace CET1 capital with additional Tier 1 / Tier 2 securities to meet Pillar II requirement, and a reduction in the overall systemic buffer (i.e. the Systemic Risk Buffer plus the highest of the O-SII and G-SII buffer) by the Dutch National Bank from 3% to 2.5%. Similarly, various competent authorities changed or removed their Countercyclical Buffer (CCyB) requirements as a response to COVID-19 pandemic. Recently, however, various authorities began to increase the CCyB again, including De Nederlandsche Bank (DNB; for exposures in the Netherlands) and Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin; for exposures in Germany). DNB announced an increase of the CCyB to 1% from May 2023 with an intention to increase it to 2% by May 2024 (in line with the revised countercyclical capital buffer framework DNB intends to apply a 2% CCyB in a standard risk environment). BaFin decided to set the CCyB at 0.75% from February 2023. Other authorities announced increases too.

The CET1 requirement, including buffers, for ING Group at a consolidated level was 10.58% as end of 2022. This requirement is the sum of a 4.5% Pillar I requirement, a 0.98% Pillar II requirement, a 2.5% Capital Conservation Buffer (CCB), a 0.10% Countercyclical Buffer (CCyB) (based on 31 December 2022 positions) and a 2.5% O-SII buffer that is set separately for Dutch systemic banks by the Dutch Central Bank (De Nederlandsche Bank). This requirement excludes the Pillar II guidance, which is not disclosed.

The Maximum Distributable Amount (MDA) trigger level stood at 10.58% as end of 2022 for CET1, 12.41% for Tier 1 Capital and 14.85% for Total Capital (after the application of Art.104a of CRDV). ING Group met these requirements. In the event that ING Group breaches the MDA level, ING will face restrictions on dividend payments, AT1 instruments coupons and payment of variable remuneration.

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 and other banks to build up loss-absorbing and recapitalization 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 2022, ING Group received an updated formal notification from De Nederlandsche Bank (DNB) of its MREL requirements. The MREL requirement has been established to ensure that banks in the European Union have sufficient own funds and eligible liabilities to absorb losses and to recapitalize bank in the case of a resolution. The MREL requirement is set for ING Group at a consolidated level, as determined each year by the Single Resolution Board (SRB). The following MREL requirements for ING Group were applicable as of 31 December 2022: 22.29% of RWA, and 5.97% of LR exposure (intermediate MREL targets set by SRB).

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% of the resolution group's RWA or 6% of the leverage ratio exposure measure—applied immediately. The higher requirement—18% and 6.75%, respectively—came into effect as of 1 January 2022. As a G-SII ING is required to meet the TLAC requirement alongside the other minimum regulatory requirements set out in EU regulation.

On top of MREL and TLAC RWA requirements, ING Group is required to meet the Combined Buffer Requirement (CBR) of 5.10% of CET1 (as of 31 December 2022). ING Group met these requirements. If ING Group breaches the CBR on top of MREL/TLAC (M-MDA), ING may face restrictions on dividend payments, AT1 instruments coupons and payment of variable remuneration.

Apart from the requirements for the Group on a consolidated level, the internal MREL requirements are also set for individual ING subsidiaries in EU.

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) prepare and assess management actions that can reduce or mitigate the impact of adverse scenarios.

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 2021 EU-wide stress test conducted by the EBA in cooperation with the European Central Bank (ECB) and the European Systemic Risk Board (ESRB). The baseline scenario was developed by the ECB and the adverse stress test scenario by the ESRB, both cover a three-year time horizon (2021-2023).

The 2021 EU-wide stress test exercise was carried out applying a static balance sheet assumption as of December 2020, and therefore does not take into account current or future business strategies and management actions. 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 remains. Under the hypothetical baseline scenario and EBA's methodological instructions, ING Group would have a fully loaded common equity Tier 1 capital ratio (CET1) of 16.06% in 2023. Under the hypothetical adverse scenario and EBA's methodological instructions, ING Group would have a fully loaded CET1 ratio of 10.99% in 2023. ING Group published an actual CET1 ratio of 15.45% per 31 December 2020 (a reference date for the stress test), and 14.47% per 31 December 2022. The next EBA EU-wide stress test will be held in 2023.

An emerging topic in the area of stress testing are climate risk analyses. ING started with climate risk stress testing in 2019 to assess the effect of transition risk and physical risk on the financial position of ING Group. In 2022, ING participated in the ECB Climate Risk Stress Test – the first regulatory climate risks stress test wherein ING took part. The stress test consisted of three modules to test our capabilities for assessing climate risk. The test consisted of three modules to test our capabilities for assessing climate risk:

- Questionnaire. A qualitative assessment was made of ING's climate risk stress testing framework, including its governance, design, and usage.
- Peer benchmark. Information about ING's interest and fee income was provided for specific sectors, for those countries that are understood to be sensitive to transition risk and that are associated with financed GHG emissions. Revenues, loan volumes and scope 1, 2 and 3 GHG emissions were also reported for the top 15 clients per sector.
- Bottom-up stress test. Six individual stress tests were performed, based on a uniform methodology and on the scenarios of the Network for Greening the Financial System. Three transition risk stress tests were

also carried out: two short-term tests covering credit risk and market risk, and one long-term test covering credit risk. Two physical risk stress tests were performed: one for the impact of droughts and heat, and one for the impact of floods. Lastly, a qualitative assessment was made for non-financial and reputational risks.

ING has used the data gathered and the models developed for the ECB exercise as a starting point for enhancing our internal climate risk stress test capabilities. An internal climate risk stress test was executed in 2022 and included the full credit risk portfolio as well as other risk types like interest rate risk in the banking book (IRRBB) and operational risk. This stress test will be used for our Internal Capital Adequacy Assessment Process (ICAAP).

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). Based on 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 to pay 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'. In February 2021, the European Commission issued a public consultation on the review of the bank crisis management and deposit insurance (CMDI) framework, with a focus on three EU legislative texts: the Bank Recovery and Resolution Directive (BRRD), the Single Resolution Mechanism Regulation (SRMR), and the Deposit Guarantee Schemes Directive (DGSD). The anticipated revision of the CMDI framework is part of the debate on the completion of the Banking Union and in particular its third and missing pillar EDIS. The consultation period ran until May 2021. It is uncertain when the next steps towards revision of the CMDI framework, including EDIS, can be expected.

Payment Services Directive 2 (PSD2) and Instant Payments

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 continues the trend towards enhancing the security around the making of payments, e.g. by the introduction of strong customer authentication. To perform its PSD2 review, the European Commission has launched a consultation in May 2022. The EBA has issued an Opinion on PSD2 in response to the Commission's Call for Advice. The Commission is expected to publish a report on the implementation of PSD2 at the end of June 2023. The Commission may also propose amendments to the existing Directive.

In October 2022, the Commission adopted a legislative proposal to make instant payments in euro available to European citizens and businesses. The proposal aims to ensure that instant payments in euro are affordable, secure and without hindrance across the Union.

Benchmarks Regulation

Benchmarks, such as the London Interbank Offered Rate ('LIBOR'), the Euro Overnight Index Average ('EONIA'), the Warsaw Interbank Offered Rate ('WIBOR'), the Canadian Dollar Offered Rate ('CDOR') and other interest rates, as well as commodity benchmarks (or other types of rates and indices which are deemed to be 'benchmarks'), have been either discontinued or are the subject of ongoing national and international regulatory reform.

In 2016, the EU adopted a Regulation (the 'Benchmarks Regulation' or 'BMR') on indices used in the EU as benchmarks in financial contracts and financial instruments. The Benchmarks Regulation became effective on 1 January 2018.

The BMR among others requires that supervised entities may only use benchmarks in the EU if these benchmarks are provided by administrators that are registered with the European Securities and Markets Authority ('ESMA').

Benchmarks that are based on input from contributors shall have a code of conduct in place designed primarily to ensure reliability of input data, governing issues such as conflicts of interest, internal controls and benchmark methodologies. Financial contracts and financial instruments in which benchmarks are used by supervised entities require to have robust fall back wording included in their documentation.

For qualitative and quantitative disclosures on IBOR transition refer to "Additional information – ING Group Risk Management – Market Risk" and Note 39 'Derivatives and hedge accounting'.

KYC Requirements

Financial institutions continue to face new and increasingly complex regulatory requirements, contributing to increasing costs of compliance, in the context of heightened regulatory scrutiny. Generally, we expect the scope and extent of regulations in the jurisdictions in which we operate to continue to increase.

The evolving regulatory landscape drives the need for continuous change in the various processes, procedures and systems of the bank. Where the timeline for implementation of new or revised requirements is sometimes quite short, this presents challenges to financial institutions in general, but especially in relation to IT development. In addition, in some instances, the complexity of the regulatory landscape gives rise to potential tension between applicable laws and regulations at a local and/or global level. For example, there seems to be no full uniformity within the European Union (EU) about the proper application, interpretation and/or execution of restrictive measures under EU sanctions against Russia (imposed as per February this year, and updated from time to time since then, as further described in the below paragraph on 'Sanctions related developments'). Another example is the potential tension between data privacy (GDPR) and AML/CFT and anti-corruption laws and regulations; including the requirement to share information relating to financial crime concerns to manage risk exposure across the group, while complying with the legislative requirements relating to data, which can differ significantly depending on jurisdiction.

ING is focussed on continuing to embed processes and procedures reflecting applicable requirements within the bank, including in our IT systems and data sources, in a robust and sustainable way; driving a business environment which is compliant by design and desire. The bank also executes ongoing training and awareness to develop its people to have the right knowledge and skills.

In addition, ING aims to continuously monitor regulatory developments, as well as considering emerging and evolving risks. This supports assessment of the risks that ING may be exposed to and of the associated controls and processes ING has in place, so we can appropriately manage these risks in accordance with our risk appetite. For example, the volatile price and increased use of virtual assets, accompanied by the continuing growth of virtual assets service providers is a theme in that continued to attract regulatory attention for potential money laundering, tax and sanctions evasion and terrorist financing.

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, as well as the Crimea region.

ING Group 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 Group. ING Group may receive loan repayments, duly authorised by the relevant competent authorities where prescribed by applicable laws. For the calendar year 2022, ING Group had revenues of approximately USD 40,000. No net profit is made as there were no repayments made in 2022.

Sanctions related developments

Russia's invasion of Ukraine has fundamentally changed the global political landscape, resulting in a world-wide response, whereby new and significant sanctions packages were imposed against Russia and Belarus since the end of February 2022. These new sanctions add to existing sanctions imposed on Russia since the 2014 annexation of Crimea.

More than 3000 new sanctions have been implemented. The unprecedented velocity and scope of sanctions imposed by the international community has resulted in a highly complex and changing compliance environment for global financial institutions.

The international community is leveraging their sanction tools in response to the escalation of Russia's invasion of Ukraine, however sanction measures of the US, UK and EU can differ in their scope and these differences present complex operational and legal challenges for business that operate globally or facilitate global trade and payment activities. These complexities and challenges require careful navigation. The scope of the restrictive measure are broad, ranging from prohibitions and restrictions which target specific industries, or types of business or activity, to asset freeze sanctions which target specifically listed/ designated corporates, private individuals, and certain legal structures and entities owned and/or controlled by these targeted individuals.

Accordingly, as part of ING's Know Your Customer and compliance risk governance and procedures, ING is continuously monitoring the situation to stay abreast on all relevant updates to implement effective and appropriate additional control measures and to manage the increased risk and financial impacts of these developments.

Operationally, the impact of these enhancements has resulted in the need for additional staff members to review and apply greater scrutiny of transactions alerted for heightened risk of non-compliance with applicable sanctions.

For additional information regarding regulatory developments, see also this Form 20-F 2022, under "Additional Information – ING Group Risk Management- Compliance Risk".

ESG Reporting Regulations

ESG metrics and disclosures are an increasing focus for businesses as they respond to a wave of scrutiny from all manner of stakeholders, from investors and regulators to employees and customers. There's an expectation that ESG disclosures will comply with mandatory and voluntary reporting requirements and be reliable, verifiable and comparable to allow those stakeholders to make decisions that matter to them.

Non-Financial Reporting Directive (NFRD)

Since 2018, companies like ING within the scope of the NFRD (Directive 2014/95/EU) have been required to disclose information on non-financial matters (environmental, social and employee matters, human rights, bribery and corruption). The objective of the NFRD is to improve the quality and quantity of corporate non-financial information reporting.

Under the NFRD, large, listed companies, banks and insurance companies ('public interest entities') with more than 500 employees are required to publish reports on the policies they implement in relation to social responsibility and treatment of employees; respect for human rights; anti-corruption and bribery; and diversity on company boards (in terms of age, gender, educational and professional background). In particular, the NFRD requires companies to disclose information about their business models, policies (including implemented due diligence processes), outcomes, risks and risk management, and KPIs relevant to the business.

Corporate Sustainability Reporting Directive (CSRD)

The CSRD (directive (EU) 2022/2464) was published in December 2022 and should be transposed into national law by 6 July 2024. It profoundly revises the non-financial reporting requirements as the CSRD is designed to bring sustainability reporting on par with financial reporting over time and monitor the progress of companies' behaviors. With the CSRD, the existing sustainability matters of environmental, social and governance reporting will be expanded and standardized. Its aims are to:

- harmonize and improve the quality of information published by undertakings, particularly environmental, social and governance information (sustainability-related information);
- provide financial undertakings, investors and the general public with relevant, comparable and reliable sustainability information;
- encourage investment that supports the transition to a sustainable economy in line with the European Green Deal.

Undertakings subject to the CSRD will be required to provide more information than under the NFRD. Undertakings falling within its scope will be required to include the following disclosures in their management report:

- information necessary to understand the undertaking's impacts on sustainability matters, that is, environmental, social and governance matters; and
- information necessary to understand how sustainability matters affect the undertaking's development, performance and position (double materiality).

The first-time application for undertakings such as ING that are already subject to reporting under the NFRD is for financial years beginning on or after 1 January 2024. These companies will be later joined by large non-listed companies (2025), SMEs (2026) and certain European subsidiaries of non-EU groups. Although the objective is to have a similar level of assurance for financial and sustainability reporting, a progressive approach is taken. Therefore, at this stage, the CSRD 'only' requires a 'limited' assurance from the auditors. ING Group, as well as some of its subsidiaries are to disclose sustainability related information in its Management Board report.

European Sustainability Reporting Standards (ESRS)

In November 2022, European Financial Reporting Advisory Group (EFRAG) has submitted a first set of 12 draft European Sustainability Reporting Standards (ESRS) to the European Commission. The Commission is expected to adopt this first set of standards by June 2023. Companies, like ING, will have to apply the standards over financial year 2024, for reports published in 2025.

At this stage, the first set of draft ESRS specify the new sustainability reporting requirements based on the CSRD, covering the full range of sustainability matters (Environment, Social and Governance). The overall architecture of the first set of ESRS is designed to ensure that sustainability information is reported in the companies' management report in a carefully articulated manner and is based on the following reporting structure:

1. Governance: the governance processes, controls and procedures used to monitor and manage impacts, risks and opportunities
2. Strategy: how the undertaking's strategy and business model(s) interact with its material impacts, risks and opportunities, including the strategy for addressing them
3. Impact, risk and opportunity management: the process(es) by which impacts, risks and opportunities are identified, assessed and managed through policies and actions
4. Metrics and targets: how the undertaking measures its performance, including progress toward the targets it has set

The current first set of draft standards only includes the cross-cutting and sector-agnostic standards. Sector-specific and SME-proportionate standards are still being developed and will be submitted for a separate public consultation as soon as possible.

The cross-cutting standards consist of:

- ESRS 1 which prescribes the mandatory concepts and principles to be applied when preparing sustainability statements under the CSRD.
- ESRS 2 is on general, strategy, governance, and materiality assessment disclosure requirements.

The topical standards consist of:

- Environment topical standards (ESRS E1–E5) outline disclosure requirements for companies to report on matters related to climate change, pollution, water and marine resources, biodiversity and ecosystems, and resource use and circular economy.
- Social topical standards (ESRS S1–S4) provide a framework for entities to report on topics related to their own workforce, the workers in their value chains, the communities impacted by their operations and the consumers and end-users of their products or services.
- Governance topical standards (ESRS G1–G2) set out disclosure requirements that seek to enhance users' understanding of a company's governance structure, its internal control and risk management system, the company's strategy and approach, and the processes, procedures and performance in relation to their business conduct.

EU Taxonomy

The EU Taxonomy regulation, issued in 2020, is a classification system, establishing a list of 'environmentally sustainable' economic activities. The EU Taxonomy provides companies, investors and policymakers with appropriate definitions for which economic activities can be considered 'environmentally sustainable'. In this way, it creates security for investors and protect private investors from greenwashing. For an economic activities to be recognized as 'environmentally sustainable', it should meet the following technical screening criteria:

- Substantially contributing to one of the six EU environmental objectives:
 - Climate change mitigation
 - Climate change adaptation
 - Sustainable use and protection of water and marine resources
 - Circular economy
 - Pollution prevention and control
 - Protection and restoration of biodiversity and ecosystems
- Doing no harm to any of the other 5 objectives, and
- Meeting minimum safeguards, including OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights

At this stage, only the Climate delegated acts have been published which provides the detailed technical screening criteria to be met for the Climate Change Mitigation and Climate Change Adaptation environmental objectives. This delegated act is applicable since January 2022 and has been adjusted by a complementary delegated act on nuclear and gas energy activities applicable as of January 2023. The second delegated act for the remaining 4 objectives is expected to be published in 2023.

For disclosures requirements, a delegated act supplementing Article 8 of the Taxonomy Regulation is applicable since January 2022. Article 8 of the Taxonomy Regulation requires companies falling within the scope of the existing NFRD – and the additional companies brought under the scope of the proposed CSRD – to report on the extent to which their activities are sustainable. Article 8 of the EU Taxonomy Regulation aims to increase transparency in the market and help prevent greenwashing by providing information to investors about the environmental performance of assets and economic activities of financial and non-financial undertakings covered by NFRD. This delegated act specifies the content, methodology and presentation of information to be disclosed concerning the proportion of environmentally sustainable economic activities in their business, investments, or lending activities. Within the scope of Article 8 delegated act, all NFRD non-financial companies will have to determine the parts of their turnover, capital and operating expenditures that are eligible and aligned with the EU Taxonomy. Financial companies do reuse the disclosed information from NFRD companies to determine their Key Performance Indicators (KPIs) such as the Green Asset Ratio (GAR). Credit institutions such as ING should follow the below listed disclosures requirements:

- From 1 January 2022 (reference date: 31 December 2021): only disclose (i) the proportion in their total assets of exposures to Taxonomy non-eligible and Taxonomy-eligible economic activities; (ii) the proportion in their total assets of the exposures to central governments, central banks, and supranational issuers, derivatives and undertakings that are not in-scope entities, together with (iii) certain qualitative information for the previous financial year.
- From 1 January 2024 (reference date: 31 December 2023): disclose 5 quantitative templates including the GAR and accompanying qualitative information.
- 1 January 2026: in addition to previous requirements, need to report on the Taxonomy-alignment of their trading book and fees and commissions for non-banking activities.

Pillar 3 ESG Disclosures

Article 449a of Regulation (EU) No 575/2013 (CRR) requires large institutions with securities traded on a regulated market of any Member State to disclose prudential information on environmental, social and governance risks, including physical risks and transition risks, as defined in the report referred to in Article 98(8) of Directive 2013/36/EU. Article 434a CRR mandates the EBA to develop draft implementing technical standards (ITS) specifying uniform formats and associated instructions for the disclosure of this information.

The ITS on Pillar III disclosures on Environmental, Social and Governance (ESG) risks was adopted by the European Commission in November 2022, published in the Official Journal of the EU in December 2022 with

a first reporting date in 2023 (reference date: 31 December 2022). The ESG Pillar 3 requires credit institutions such as ING to disclose the following information:

- Climate risks: how climate change may exacerbate other risks within banks balance sheets.
- Mitigating actions: what mitigating actions banks have in place to address those risks, including financing activities that reduce carbon emissions.
- Green Asset ratio and Banking Book Taxonomy Alignment ratio: to understand how banks are financing activities that will meet the publicly agreed Paris agreement objectives of climate change mitigation and adaptation based on the EU taxonomy of green activities.

The EBA ESG Pillar 3 requirements features (i) a set of 10 quantitative templates that request banks to disclose climate-related risks and actions to mitigate them, together with exposure to green assets and (ii) qualitative information on their ESG strategies, governance and risk management arrangements with regard to ESG risk. It should be noted that the EBA ESG Pillar 3 requirements will become binding following a phased-in approach, with a transitional period for certain disclosures until 2025 (reference date: 31 December 2024).

SEC Climate-Related Disclosures

In March 2022, the Securities and Exchange Commission (SEC) proposed rule changes that would require registrants like ING to disclose information about (1) the registrant's governance of climate-related risks and relevant risk management processes; (2) how any climate-related risks identified by the registrant have had or are likely to have a material impact on its business and consolidated financial statements, which may manifest over the short-, medium-, or long-term; (3) how any identified climate-related risks have affected or are likely to affect the registrant's strategy, business model, and outlook; and (4) the impact of climate-related events (severe weather events and other natural conditions) and transition activities on the line items of a registrant's consolidated financial statements, as well as on the financial estimates and assumptions used in the financial statements.

New disclosures would also require the disclosure of scope 1 and scope 2 greenhouse gas (GHG) emissions and for some registrant's scope 3 emissions. Large accelerated and accelerated filers, like ING, would be required to obtain assurance on scope 1 and scope 2 GHG emissions, on a phased basis. Adoption of the rules would also be phased, starting with large, accelerated filers.

The consultation period is closed, and a final rule is expected in 2023. The timing around these new disclosure requirements is uncertain at this stage.

For additional information regarding regulatory developments, see also this Form 20-F 2022, under "Additional Information – ING Group Risk Management- Environmental, social and governance Risk".

For a description of our segments including a breakdown of total revenues by category for the last three financial years, refer to Item 5. "Operating and financial review and prospects - Segment reporting".

C. Organisational structure

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 banking and other subsidiaries.

Reference is made to Exhibit 8 "List of subsidiaries of ING Groep N.V." for a list of principal subsidiaries of ING Groep. N.V. 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.

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 16 '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

Despite the initial threat posed by the omicron variant of Covid-19, the world economy started 2022 with a strong economic recovery to the point where many advanced economies returned to levels of output seen prior to the pandemic. This was mainly driven by catch-up demand for consumer services as households spent more on leisure in the first quarters of reopening. In some cases, like the Netherlands, the pre-pandemic level of GDP was quickly surpassed.

With economies reopening, a surge in economic activity in the first half of the year was met by high inflation rates, mainly related to the energy crisis. The war in Ukraine and related energy crisis was the most dominant factor in the global economy in 2022. It pushed up inflation dramatically in Europe, to levels not seen for decades. It has also added to shortages that were already plaguing the European economy.

This caused pain among businesses and consumers alike and rapidly slowed the eurozone to stagnation, bordering on recession. The US also battled a surge in prices and China continued to struggle economically due to the continued impact of Covid-related lockdowns and a struggling real estate sector. The UK battled financial instability after the Truss Government's mini-budget and the budget cuts announced afterwards.

High inflation also prompted a strong response from central banks worldwide. The Fed led the global interest rate hike cycle, but the ECB also made quick moves towards normalisation of interest rate policy. Ending net purchases in the ECB's Pandemic Emergency Purchase Programme and Asset Purchase Programme was

followed by rapid rate hikes over the course of the second half of 2022, which turned into the most aggressive hike cycle ever by the ECB. This had a marked impact on the financing environment globally with investment appetite slowing for both households and corporates.

Other material events and uncertainties that have an impact on our operating results are:

- Climate change
- Financial crime
- Cybercrime
- Inflation
- Fluctuations in equity markets, interest rates and foreign exchange rates

For further information on regulatory changes 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".

Climate change risk

ING is aware of the risks associated with climate change and how these can impact customers and their financial health. This includes physical risk and transition risk. Physical risk can be acute, such as flood and wildfires, or chronic, such as increased temperature and rising sea levels. Transition risk can be driven by policy, technological or market changes as we shift towards a low-carbon global economy and potentially lead to stranded assets.

Financial crime risk

We're committed to fulfilling our role as a gatekeeper to the financial system, to protect customers, society and our bank from the corrosive effects of financial crimes such as money laundering, terrorist financing, bribery and corruption, sanctions evasion and tax offences. It's our intention to not just comply with applicable laws and regulations in relation to financial crime, but also to continue to strengthen our financial crime control framework in a robust and sustainable way to prevent, detect and respond to illicit activity.

We continue to seek to harness new and innovative technological capabilities to create a safer environment for customers, our bank and society. In 2022, we further adjusted our financial crime risk appetite and framework of policies and procedures to reflect changes in the risk environment and responded to external developments.

We also sought to further empower our people with the skills and knowledge to fight financial crime, sharing insights with them about emerging and evolving threats (including in relation to financial crime risks linked to or heightened by the Covid-19 pandemic) and enhancing our training framework.

Fighting financial crime and protecting the integrity of the financial system is a challenge for all banks, given the constantly changing environment and pace at which criminals evolve their methods. We believe we can be more effective in our efforts if we collectively join forces and share intelligence with other banks and with national, European and international authorities and law enforcement to combat financial crime. We therefore continue to proactively participate in public-private partnerships, such as Transaction Monitoring Netherlands and Germany's Anti-Financial Crime Alliance, and to collaborate with other banks. Read more in 'How we are making the difference' and 'Compliance risk'.

Cybercrime

Cybercrime remains a continuous threat to companies in general and to financial institutions in particular. Both the frequency and the intensity of attacks are increasing on a global scale. The sophistication and implications of ransomware attacks are growing concerns.

Continuous enhancement of the control environment, to protect from and detect and respond to e-banking fraud, distributed denial of service (DDoS), targeted attacks and more specific ransomware attacks remains one of the highest priorities. Additional controls 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. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration across the globe with financial industry peers, law enforcement authorities, government (e.g. National Cybersecurity Centre) and Internet Service Providers (ISPs). See also 'How we are making the difference' and 'Non-financial risk'.

Inflation risk

Inflation rates accelerated across the globe at the beginning of 2022, fuelled by the war in Ukraine. Inflationary pressure prompted an adjustment in monetary policy by major central banks and led to rising interest rates and tighter global financial conditions.

The mix of high inflation and rising interest rates further deteriorated macro-financial conditions, aggravating pre-existing vulnerabilities for both businesses and households, which were recovering from the economic consequences of the Covid-19 pandemic, and ultimately increasing banks' credit risk. Against this background while ING took additional provisions throughout 2022, it also benefited from the significantly higher interest rates.

EU member-state governments introduced several supporting measures to cushion the rise in energy prices and inflation. These measures, in conjunction with the reduced fiscal space resulting from pandemic-related support measures and the normalisation of the monetary policy stance, increased sovereign vulnerabilities in financially weaker countries.

Fluctuations in markets

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. 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 (which includes local country versus international transactions) 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, Romanian Leu, Korean Won, 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 Common Equity Tier 1 ratio (CET1).

Consolidated result of operations

ING Group monitors and evaluates the performance of ING Group at a consolidated level and by segment using results based on figures according to IFRS as adopted by the European Union (IFRS-EU). 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 results in accordance with IFRS-EU helps investors compare its segment performance on a meaningful basis by highlighting result before tax attributable to ongoing operations and the profitability of the segment businesses. IFRS-EU result is derived by including the impact of the IFRS-EU 'IAS 39 carve out' adjustment compared to IFRS-IASB.

The IFRS-EU 'IAS 39 carve-out' adjustment relates to fair value portfolio hedge accounting strategies for the mortgage and savings portfolios in the Benelux, Germany and Other Challengers that are not eligible under IFRS-IASB. As no hedge accounting is applied to these mortgage and savings portfolios under IFRS-IASB, the fair value changes of the derivatives are not offset by fair value changes of the hedge items (mortgages and savings).

Segment Reporting

The published 2022 financial statements 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 reconciled 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 Banking segment, and in the geographical split of the segments in the Netherlands, Belgium, Germany and Other Challengers. Reference is made to Note 1 'Basis of preparation and significant accounting Policies' for a reconciliation between IFRS-EU and IFRS-IASB.

ING Group's segments are based on the internal reporting structure by lines of business.

The Executive Board of ING Group and the Management Board Banking (together the Chief Operating Decision Maker (CODM)) 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 CODM.

Recognition and measurement of segment results are in line with the accounting policies as described in Note 1 'Basis of preparation and significant accounting policies'. The results for the period for each reportable segment are after intercompany and intersegment eliminations and are those reviewed by the CODM to assess performance of the segments. 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. Total assets by country, as presented in Note 36 'Information on geographical areas', does not include intercompany balances and reconciles to the total assets in the consolidated statement of financial position of ING Group.

The following overview 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.

Corporate Line

In addition to these segments, ING Group reconciles the total segment results to the total result using Corporate Line. The Corporate Line is a reflection of capital management activities and certain income and expense items that are not allocated to the banking businesses. Furthermore, the Corporate Line 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. In 2022, results in the Corporate Line were impacted by the application of hyperinflation accounting in the consolidation of our subsidiary in Turkey.

Income in 2022 included a hyperinflation accounting impact of EUR -279 million and a net TLTRO impact of EUR 16 million, while previous year was supported by a EUR 143 million net TLTRO impact and the recognition of a EUR 72 million receivable related to the insolvency of a financial institution. The decline was partly compensated by higher income from foreign currency ratio hedging, mainly on US dollar and the Polish zloty. Expenses in 2022 included a hyperinflation impact of EUR 30 million and a EUR 32 million impairment loss related to the goodwill allocated to Turkey, while previous year had included EUR 87 million of regulatory costs due to an incidental 50% increase in the Dutch bank tax.

Total Operations

The following table sets forth the contribution of ING's business lines and the corporate line to the net result for each of the years 2022, 2021 and 2020.

Total operations							
1 January to 31 December 2022 Amounts in millions of euros	Retail Banking Netherlands	Retail Banking Belgium	Retail Banking Germany	Retail Other	Wholesale Banking	Corporate Line	Total
Income:							
- Net interest income	2,888	1,668	1,666	2,726	4,260	550	13,756
- Net fee and commission income	892	511	437	535	1,217	-6	3,586
- Total investment and other income	417	-32	69	402	849	-486	1,219
Total income	4,196	2,147	2,172	3,663	6,325	58	18,561
Expenditure:							
- Operating expenses	2,115	1,786	1,140	2,516	3,114	529	11,199
- Additions to loan loss provision	67	139	131	302	1,220	2	1,861
Total expenditure	2,182	1,924	1,271	2,818	4,334	531	13,060
Result before taxation	2,014	223	901	845	1,991	-473	5,502
Taxation	540	72	202	257	581	73	1,725
Non-controlling interests			3	47	52	1	102
Net result IFRS-EU	1,474	151	696	541	1,358	-546	3,674
Adjustment of the EU 'IAS 39 carve-out'					8,451		8,451
Net result IFRS-IASB	1,474	151	696	541	9,810	-546	12,126

Total operations								Total operations							
1 January to 31 December 2021 Amounts in millions of euros	Retail Banking Netherlands	Retail Banking Belgium	Retail Banking Germany	Retail Other	Wholesale Banking	Corporate Line	Total	1 January to 31 December 2020 Amounts in millions of euros	Retail Banking Netherlands	Retail Banking Belgium	Retail Banking Germany	Retail Other	Wholesale Banking	Corporate Line	Total
Income:								Income:							
- Net interest income	3,290	1,747	1,447	2,712	4,151	267	13,615	- Net interest income	3,511	1,816	1,587	2,760	3,718	212	13,604
- Net fee and commission income	771	519	497	530	1,197	3	3,517	- Net fee and commission income	681	413	437	412	1,069	-1	3,011
- Total investment and other income	201	209	65	361	568	-45	1,359	- Total investment and other income	279	145	93	89	609	-192	1,022
Total income	4,262	2,475	2,009	3,602	5,916	226	18,490	Total income	4,471	2,373	2,117	3,261	5,396	18	17,637
Expenditure:								Expenditure:							
- Operating expenses	2,403	1,667	1,174	2,452	2,926	570	11,192	- Operating expenses	2,236	1,737	1,110	2,469	3,218	383	11,153
- Additions to loan loss provision	-76	225	49	202	117	0	516	- Additions to loan loss provision	157	514	57	593	1,351	2	2,675
Total expenditure	2,326	1,892	1,223	2,654	3,042	570	11,708	Total expenditure	2,393	2,251	1,167	3,063	4,568	385	13,828
Result before taxation	1,936	583	786	949	2,874	-345	6,782	Result before taxation	2,078	122	950	199	827	-367	3,809
Taxation	499	146	252	212	703	65	1,877	Taxation	523	51	331	105	295	-58	1,246
Non-controlling interests	0	0	4	98	26	0	128	Non-controlling interests	-1		4	55	20		78
Net result IFRS-EU	1,437	437	529	639	2,144	-410	4,776	Net result IFRS-EU	1,556	71	615	39	512	-308	2,485
Adjustment of the EU 'IAS 39 carve-out'					1,174		1,174	Adjustment of the EU 'IAS 39 carve-out'					-234		-234
Net result IFRS-IASB	1,437	437	529	639	3,318	-410	5,951	Net result IFRS-IASB	1,556	71	615	39	278	-308	2,250

Year ended 31 December 2022 compared to year ended 31 December 2021

Without application of the EU 'IAS 39 carve-out', ING's net result increased by EUR 6,175 million, or 103.8%, to EUR 12,126 million compared with EUR 5,951 million in 2021. The net result was affected by a EUR 8,451 million positive 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 Spain, versus EUR 1,174 million in 2021. These fair value changes were mainly caused by changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

ING's IFRS-EU net result (when applying the EU 'IAS 39 Carve-out') declined to EUR 3,674 million from EUR 4,776 million in 2021, fully due to higher net additions to loan loss provisions, which had been at a very low level in 2021. The effective tax rate in 2022 was 31.4%, up from 27.7% in 2021. The higher effective tax rate was caused by the impact of the following non-deductible items for corporate income tax purposes in 2022: hyperinflation accounting loss in Turkey, impairments on TTB and interest expenses in various countries.

Income was supported by a growing primary customer base and an increase in lending and deposits. Our global retail customer base (excluding France, after the announced exit from the retail market) remained flat at 37.2 million, but even more customers chose ING as their primary bank. In 2022, we gained 585,000 primary customers, bringing the total number to 14.6 million, which was 4% higher than at year-end 2021 (excluding France). Net core lending growth (which is growth in customer lending adjusted for currency impacts and excluding Treasury and the run-off portfolios) was EUR 18.2 billion in 2022, and net core deposits growth was EUR 25.1 billion.

In our profit or loss, we saw the benefits of the rising rate environment, which boosted net interest income. This was on top of the structurally higher fee base, resulting from our efforts to diversify income. All these positive developments were largely offset, however, by several exceptional income items in 2022 (including the impact of Turkey hyperinflation, a mortgage moratorium in Poland and the unwinding of a deposits hedge in Belgium and our TLTRO-related derivative position), resulting in an income growth of 0.4% to EUR 18,561 million.

Net interest income rose 1.0% to EUR 13,756 million. The increase was driven by higher margins on liabilities, following the return of positive interest rates in 2022. This was only partly offset by lower margins on mortgages and other lending, as client rates generally track the higher cost of funds with a delay and prepayments on mortgages declined. After ECB's decision to change the conditions for the TLTRO programme, we had to unwind our TLTRO-related derivative position. Combined with the remaining TLTRO benefit until 23 November 2022, this led to a net TLTRO impact of EUR -87 million compared to a net benefit of EUR 483 million in 2021. Net interest income in 2022 also included a EUR -343 million impact from new regulation in Poland for mortgages. ING's full year net interest margin declined to 1.34% from 1.39% in 2021. Excluding TLTRO in both years and the impact of the Polish moratorium, the net interest margin showed an increase of 5 basis points year-on-year.

Net fee and commission income rose 2.0% to EUR 3,586 million. Fee income for daily banking products strongly increased, reflecting growth in primary customers, an increase in payment package fees and new service fees. Lending fees also increased, driven by lending growth in Wholesale Banking. This was partly offset by lower fees from investment products and from Global Capital Markets, reflecting adverse market conditions.

Total investment and other income decreased to EUR 1,219 million in 2022 from EUR 1,359 million in 2021. This included the largest part of the impact of Turkey hyperinflation, EUR -288 million to unwind a macro fair value hedge of deposits in Belgium (of which EUR -247 million in Retail Banking and EUR -41 million in Wholesale Banking) and EUR 165 million of impairments on our stake in TTB, while 2021 had included a EUR 72 million recognition of a receivable recorded in Corporate Line. Other income in 2022 was supported by a EUR 125 million gain from the transfer of our investment business in France, a EUR 67 million gain from a legacy entity in Belgium and income from the sale of a non-performing loan portfolio in Spain.

Operating expenses increased by EUR 7 million, or 0.1%, to EUR 11,199 million. Expenses in 2022 included EUR 1,250 million of regulatory costs, slightly lower than in the previous year. Expenses in 2022 furthermore included EUR 325 million of incidental items, largely related to restructuring provisions and impairments and also including EUR 75 million for adding the interest-on-interest effect to the compensation for customers on certain Dutch consumer credit products. Incidental items in 2021 had amounted to EUR 522 million, mainly reflecting a EUR 180 million provision for the compensation to Dutch customers with certain consumer credit products and redundancy provisions and impairments related to the announced exit of the retail banking markets in France and the Czech Republic. Excluding regulatory costs and incidental items, expenses were up 2.3%, impacted by high inflation, which was mainly visible in staff costs. This was partly offset by continued cost-efficiency measures and earlier actions taken to change the footprint. The cost/income ratio was 60.3% versus 60.5% in 2021.

Net additions to loan loss provisions increased to EUR 1,861 million, or 29 basis points of average customer lending, compared with only EUR 516 million, or 8 basis points, in 2021. Risk costs in 2022 were heavily impacted by the Russian invasion in Ukraine, which led to a net addition of EUR 533 million on our Russia-related exposure. The remainder was mainly due to an increase in Stage 3 individual risk costs, particularly in Wholesale Banking, and new overlays to reflect the risks from secondary impacts, such as an increase in energy prices, higher interest rates and inflation, as well as supply chain disruptions.

Year ended 31 December 2021 compared to year ended 31 December 2020

Without application of the EU 'IAS 39 carve-out', ING's net result increased by EUR 3,701 million, or 164.5%, to EUR 5,951 million compared with EUR 2,250 million in 2020. The net result was affected by a EUR 1,174 million positive 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 the Czech Republic, versus a EUR 234 million negative contribution in 2020. These fair value changes were mainly caused by changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

ING's IFRS-EU net result (when applying the EU 'IAS 39 Carve-out') rose to EUR 4,776 million from EUR 2,485 million in 2020. The effective tax rate in 2021 was 27.7%, down from 32.7% in 2020. The lower effective tax rate was mainly caused by the reduced impact of non-deductible amounts, whereas 2020 had included the non-deductible impairments on goodwill and on our stake in TTB (previously referred to as TMB).

The result before tax increased 78.1% to EUR 6,782 million in 2021 from EUR 3,809 million in 2020, predominantly due to lower risk costs reflecting improved macroeconomic indicators, as well as higher income. Net core lending growth (adjusted for currency impacts, and excluding Treasury and the run-off portfolios) was EUR 30.6 billion, and net core deposits growth was EUR 10.3 billion. At year-end, the global retail customer base declined to 38.2 million, mainly by exiting the Austrian and Czech retail banking markets. The number of primary customers, however, rose during the year by 481,000 to 14.3 million.

Income rose 4.8% to EUR 18,490 million in 2021 from EUR 17,637 million in 2020. Income was supported by the recognition of a EUR 483 million conditional TLTRO III benefit, which also included the impact of the retroactive adjustment in the ECB funding rate as from 24 June 2020. The increase in income was mainly in Wholesale Banking, due to higher revenues in all product groups, while the higher income in Corporate Line was supported by the recognition of EUR 72 million receivable related to the insolvency of a financial institution in the Netherlands and higher interest results from foreign currency ratio hedging. Income at Retail Banking slightly increased as strong growth in fee income and the impact of the impairment on ING's equity stake in TTB recorded in 2020, was largely offset by the continued margin pressure on liabilities.

Net interest income increased 0.1% to EUR 13,615 million, and was supported by the EUR 483 million conditional TLTRO III benefit. Higher interest results were recorded on lending products (driven by a higher total lending margin), but also in Treasury, Financial Markets and Corporate Line. These increases were offset by lower revenues on current accounts and savings, reflecting continued liability margin pressure. ING Bank's overall net interest margin declined to 1.39% from 1.43% in 2020.

Net fee and commission income increased 16.8% to EUR 3,517 million from EUR 3,011 million in 2020. In Retail Banking, net fee and commission income rose by EUR 374 million, or 19.2%. This increase was mainly in daily banking, reflecting higher packages fees, recovery of payment transactions and new fee introductions, as well as higher fees from investment products due to new account openings, a higher number of trades and higher assets under management. Total fee income in Wholesale Banking increased by EUR 128 million, or 12.0%, mainly in Trade & Commodity Finance as a result of higher average oil prices as well as increased daily banking fees and higher fee income in Global Capital Markets and Corporate Finance.

Total investment and other income rose to EUR 1,359 million in 2021 from EUR 1,022 million in 2020. The increase was mainly caused by the recognition of a EUR 72 million receivable (recorded in Corporate Line) related to the expected recovery of the insolvency of a financial institution in the Netherlands, while previous year included the EUR 230 million impairment on ING's equity stake in TTB (recorded in Retail Banking) as well as a EUR 58 million decrease of the NN Group indemnity receivable following the settlement of a tax dispute in Australia, which was offset by an comparable amount in the tax line (recorded in Corporate Line).

Operating expenses increased by EUR 39 million, or 0.3%, to EUR 11,192 million. Expenses in 2021 included EUR 1,265 million of regulatory costs, up from EUR 1,105 million in previous year, among others due to an incidental 50% increase in the Dutch bank tax for 2021. Expenses in 2021 furthermore included EUR 522 million of incidental items, mainly reflecting a EUR 180 million provision for compensation to Dutch customers with certain consumer credit products, redundancy provisions and impairments related to the announced exit of the retail banking markets in France and the Czech Republic, the accelerated closure of branches in the Netherlands, and some other impairments. Incidental items in 2020 amounted to EUR 673 million, mainly reflecting EUR 310 million of goodwill impairments and several restructuring provisions and

impairments related to the review of activities and measures announced (including those on Wholesale Banking and the Maggie project). Expenses excluding regulatory costs and incidental items increased by EUR 30 million, or 0.3%, as the impact of collective-labour-agreement (CLA) salary increases and higher performance-related expenses and IT costs was largely offset by the impact of continued cost-efficiency measures. The cost/income ratio was 60.5% in 2021 versus 63.2% in 2020.

Net additions to loan loss provisions declined to EUR 516 million, or 8 basis points of average customer lending, compared with EUR 2,675 million, or 43 basis points, in 2020. Risk costs in 2021 were primarily driven by additions to Stage 3 provisions and included several model updates in Retail Belgium as well as additional provisioning from updated recovery scenarios of existing, mainly Wholesale Banking clients, reflecting uncertainty on recovery scenarios and valuation in certain asset classes. Provisioning in Stage 1 and 2 was reduced, mainly due to releases from management adjustments taken in previous year. It further reflects clients being removed from the watch list and moving back to Stage 1.

Retail Netherlands

Retail Netherlands			
Amounts in millions of euros	2022	2021	2020
Income:			
Net interest income	2,888	3,290	3,511
Net fee and commission income	892	771	681
Investment income and other income	417	201	279
Total income	4,196	4,262	4,471
Expenditure:			
Operating expenses	2,115	2,403	2,236
Additions to the provision for loan losses	67	-76	157
Total expenditure	2,182	2,326	2,393
Result before tax	2,014	1,936	2,078
Taxation	540	499	523
Non-controlling interests	0	0	-1
Net result IFRS-IASB	1,474	1,437	1,556

Year ended 31 December 2022 compared to year ended 31 December 2021

The net result of Retail Netherlands increased by EUR 37 million, or 2.6%, to EUR 1,474 million in 2022 from EUR 1,437 million in 2021.

The result before tax of Retail Netherlands increased 4.0% to EUR 2,014 million from EUR 1,936 million in 2021. This increase was attributable to lower expenses, mainly due to lower incidental cost items, partly offset by lower income and limited risk costs, after a net release in 2021.

Total income declined by EUR 66 million to EUR 4,196 million, fully due to a net TLTRO impact of EUR -78 million compared to a EUR 53 million benefit in 2021. Excluding TLTRO, income rose 1.5%. Net interest income excluding TLTRO declined 8.4% due to lower margins on lending products, reflecting the lengthening of the duration of the book and lower prepayment penalties. This was partly offset by higher liabilities income as margins improved and volumes increased. Net core lending (which excludes Treasury products and a EUR 0.8 billion decline in the Westland Utrecht Bank run-off portfolio) grew by EUR 3.0 billion in 2022, of which EUR 2.2 billion was in residential mortgages and EUR 0.8 billion in other lending. Net core deposits growth (excluding Treasury) was EUR 12.9 billion, mainly in savings accounts. Net fee and commission income strongly increased by EUR 121 million, or 15.7%, mainly due to higher fee income from daily banking products, supported by increased fees for payment packages and new service fees for business banking. Investment and other income rose by EUR 216 million, mainly attributable to higher results from Treasury-related products.

Operating expenses declined to EUR 2,115 million from EUR 2,403 million in 2021, mainly due to a drop in incidental cost items. 2022 included a EUR 75 million provision for adding the interest-on-interest effect to the compensation for customers on certain Dutch consumer credit products, while 2021 had contained EUR 289 million of incidental costs. Excluding these incidental items, expenses declined by EUR 73 million, or 3.5%, mainly driven by lower staff and office-space-related expenses, as well as lower regulatory costs.

The net addition to loan loss provisions was EUR 67 million, or 4 basis points of average customer lending, compared to a net release of EUR 76 million, or -5 basis points, in the previous year. The limited net additions in 2022 were mainly related to business lending and consumer lending, while risk costs for the mortgage portfolio were negligible.

Year ended 31 December 2021 compared to year ended 31 December 2020

The net result of Retail Netherlands decreased by EUR 119 million, or 7.6%, to EUR 1,437 million in 2021 from EUR 1,556 million in 2020.

The result before tax declined 6.8% to EUR 1,936 million from EUR 2,078 million in 2020. This decline was caused by lower income mainly due to lower margins on customer deposits combined with higher expenses which included several incidental cost items, partly offset by lower risk costs.

Total income declined by EUR 209 million, or 4.7%, to EUR 4,262 million compared with EUR 4,471 million in 2020. Net interest income declined 6.3%, despite the recognition of a EUR 53 million conditional TLTRO III benefit and an increased charging on negative interest rates. This decline was predominantly due to

continued margin pressure on savings and current accounts combined with lower interest results from lending products. Net core lending (which excludes Treasury products and a EUR 1.1 billion decline in the WUB run-off portfolio) grew by EUR 0.8 billion in 2021, of which EUR 1.5 billion was in residential mortgages and EUR -0.7 billion in other lending. Net core deposits growth (excluding Treasury) was EUR 14.8 billion, predominantly in current accounts. Net fee and commission income increased by EUR 90 million, or 13.2%, mainly due to higher fee income in daily banking products, supported by increased fees for payment packages, and higher fees on investment products. Investment and other income was EUR 78 million lower, mainly attributable to lower results from Treasury-related products.

Operating expenses rose by EUR 167 million, or 7.5%, to EUR 2,403 million from EUR 2,236 million in 2020. The increase was mainly due to a EUR 180 million provision for compensation to customers with certain consumer credit products, and EUR 109 million of redundancy provisions and costs related to the retail advice organization in the Netherlands and the accelerated closure of branches, while 2020 included EUR 29 million of provisions. Excluding these incidental items, expenses declined by EUR 93 million, or 4.2%, mainly due to lower external staff costs and lower allocated group overhead expenses, partly offset by increased regulatory costs.

The addition to loan loss provisions was a net release of EUR 76 million, or -5 basis points of average customer lending, compared with a net addition of EUR 157 million, or 10 basis points, in previous year. In 2021, net releases in the mortgage and business lending portfolios, more than offset a net addition in the consumer lending portfolio.

Retail Belgium

Retail Belgium			
Amounts in millions of euros	2022	2021	2020
Income:			
Net interest income	1,668	1,747	1,816
Net fee and commission income	511	519	413
Investment income and other income	-32	209	145
Total income	2,147	2,475	2,373
Expenditure:			
Operating expenses	1,786	1,667	1,737
Additions to the provision for loan losses	139	225	514
Total expenditure	1,924	1,892	2,251
Result before tax			
	223	583	122
Taxation	72	146	51
Net result IFRS-IASB	151	437	71

Year ended 31 December 2022 compared to year ended 31 December 2021

The net result of Retail Belgium (including ING's retail operations in Luxembourg) declined by EUR 286 million to EUR 151 million in 2022 from EUR 437 million in 2021.

The result before tax of Retail Belgium declined to EUR 223 million compared with EUR 583 million in 2021. The decline was almost fully due to an impact of EUR -247 million to unwind a macro fair value hedge and EUR 97 million of incidental expenses in 2022.

Income fell by EUR 328 million to EUR 2,147 million from EUR 2,475 million in 2021. Net interest income was 4.5% lower at EUR 1,668 million, including a net TLTRO impact of EUR -29 million compared to a EUR 76 million benefit in 2021. Excluding TLTRO, interest result rose 1.6%, driven by higher liabilities income as margins improved, partly offset by margin compression on lending products due to higher funding costs. Net core lending (excluding Treasury) increased by EUR 3.6 billion in 2022, of which EUR 1.4 billion was in mortgages, and EUR 2.2 billion in other lending. Net core deposits (excluding Treasury) were flat on 2021, as an increase in savings and deposits was offset by a decline in current accounts. Net fee and commission income decreased by EUR 8 million, or 1.5%, as lower fees on investment products were only partly compensated by price increases for payment packages. Investment and other income dropped by EUR 241 million, due to the EUR -247 million impact of the hedge unwinding in 2022 and a EUR 25 million capital gain

on the sale of an associate in the prior year, partly offset by a EUR 67 million gain from a legacy entity in 2022.

Operating expenses increased by EUR 119 million and included EUR 97 million of incidental costs which were mostly restructuring costs related to the optimisation of the branch network. Excluding these incidental items, cost growth was limited to 1.3% as the impact of automatic salary indexation could largely be compensated by FTE reductions and lower IT expenses.

The net addition to the provision for loan losses decreased to EUR 139 million, or 15 basis points of average customer lending. In 2021, the net addition had been EUR 225 million, equivalent to 25 basis points. The decline year-on-year was driven by lower risk costs in the mortgage and consumer lending portfolios.

Year ended 31 December 2021 compared to year ended 31 December 2020

The net result of Retail Belgium (including ING in Luxembourg) increased by EUR 366 million to EUR 437 million in 2021 from EUR 71 million in 2020.

The result before tax of Retail Belgium rose to EUR 583 million, compared with EUR 122 million in 2020. The increase was attributable to lower risk costs, combined with higher income and lower expenses.

Income rose by EUR 102 million, or 4.3%, to EUR 2,475 million from EUR 2,373 million in 2020. Net interest income was 3.8% lower at EUR 1,747 million, despite the recognition of a EUR 76 million conditional TLTRO III benefit and the introduction of negative interest rates. The decline reflects lower margins on savings and current accounts and lower interest result from lending products. Net core lending (excluding Treasury) increased by EUR 0.4 billion in 2021, of which EUR 0.9 billion was in mortgages, and EUR -0.5 billion in other lending. Net core deposits (excluding Treasury) declined by EUR 2.6 billion, predominantly in savings and deposits. Net fee and commission income rose by EUR 106 million, or 25.7%, mainly driven by higher daily banking fees and the strong performance in investment products. Investment and other income increased by EUR 64 million, mainly due to positive treasury-related fair value adjustments and a EUR 25 million capital gain on the sale of an associate.

Operating expenses declined by EUR 70 million, mainly due to a EUR 43 million goodwill impairment and EUR 40 million of restructuring costs, both recorded in 2020. Excluding these incidental items, expenses increased by 0.8%, mainly due to higher regulatory costs, partly offset by lower staff expenses.

The addition to the provision for loan losses declined to EUR 225 million, or 25 basis points of average customer lending, from EUR 514 million, or 57 basis points, in 2020. Risk costs in 2021 mainly included collective provisioning to accommodate for an update of models and Stage 3 additions for specific files, partly offset by a partial release of management adjustment applied in 2020.

Retail Germany

Retail Germany			
Amounts in millions of euros	2022	2021	2020
Income:			
Net interest income	1,666	1,447	1,587
Net fee and commission income	437	497	437
Investment income and other income	69	65	93
Total income	2,172	2,009	2,117
Expenditure:			
Operating expenses	1,140	1,174	1,110
Additions to the provision for loan losses	131	49	57
Total expenditure	1,271	1,223	1,167
Result before tax			
Taxation	202	252	331
Non-controlling interests	3	4	4
Net result IFRS-IASB	696	529	615

Year ended 31 December 2022 compared to year ended 31 December 2021

The net result of Retail Germany (including ING's retail operations in Austria until the sale in December 2021) increased by EUR 167 million, or 31.6%, to EUR 696 million in 2022 from EUR 529 million in 2021.

The result before tax increased 14.6% to EUR 901 million compared with EUR 786 million in 2021, driven by higher income and lower expenses, partly offset by increased risk costs.

Total income rose 8.1% to EUR 2,172 million from EUR 2,009 million in 2021. Net interest income increased 15.1%, supported by significantly higher margins on liabilities. The increase was only partly offset by lending margin pressure, a EUR 35 million lower net TLTRO impact (EUR -19 million in 2022 compared to a EUR 16 million benefit in 2021) and the impact of the discontinuation of ING's Retail Banking activities in Austria in the previous year. In 2022, net core lending growth (which excludes Treasury products and the Austrian run-off portfolio as from the second quarter of 2021) was EUR 6.1 billion, almost entirely in residential mortgages. Net core deposits rose by EUR 0.8 billion as a net outflow in the first half of the year was followed by a strong inflow in the second half of the year. Net fee income declined by EUR 60 million, or 12.1%, mainly in investment products after a record-high level in 2021, partly compensated by higher fees from daily banking. Investment and other income increased by EUR 4 million, as a EUR 26 million one-off

loss related to the transfer of our retail operations in Austria recorded in 2021 was partly offset by lower Treasury-related revenues in 2022.

Operating expenses decreased by EUR 34 million, or 2.9%, to EUR 1,140 million in 2022, reflecting savings following the discontinuation of the Austrian retail banking activities as well as lower regulatory costs due to an adjustment of the deposit guarantee contributions in 2022. These decreases were partly offset by higher staff costs and an increase in marketing expenses to support customer growth, as well as EUR 10 million of incidental items for staff allowances and restructuring costs.

Net additions to loan loss provisions increased to EUR 131 million (13 basis points of average customer lending) compared with only EUR 49 million (5 basis points) in 2021. Risk costs in 2022 were primarily related to consumer lending.

Year ended 31 December 2021 compared to year ended 31 December 2020

The net result of Retail Germany (including ING in Austria) decreased by EUR 86 million, or 14.0%, to EUR 529 million in 2021 from EUR 615 million in 2020.

The result before tax declined 17.3% to EUR 786 million, compared with EUR 950 million in 2020, mainly due to lower income and increased expenses.

Total income fell 5.1% to EUR 2,009 million from EUR 2,117 million in 2020. Net interest income declined 8.8% as higher revenues from lending products and the recognition of a EUR 16 million conditional TLTRO III benefit was more than offset by the impact of the continued margin pressure on savings and current accounts. In 2021, net core lending growth (which excludes Treasury products, and the Austrian run-off portfolio as from the second quarter of 2021) was EUR 7.8 billion, of which EUR 6.8 billion was in residential mortgages and EUR 0.9 billion in consumer lending. Net core deposits declined by EUR 3.8 billion due to net outflows in the second half of the year, primarily reflecting the impact of the introduction of negative interest rate charging to clients with liability balances above EUR 50,000 as of November 2021. Net fee income rose by EUR 60 million, or 13.7%, predominantly on investment products, reflecting higher assets under management, new account openings and higher number of brokerage trades. Investment and other income declined by EUR 28 million due to a EUR 26 million one-off loss related to the transfer of the Austrian retail banking activities to bank99 in December 2021.

Operating expenses increased by EUR 64 million, or 5.8%, to EUR 1,174 million in 2021, of which EUR 36 million was due to higher regulatory costs, which included a catch-up following the Greensill insolvency. The remaining cost increase was mainly due to higher staff expenses and costs related to the discontinuation of the Austrian retail banking activities.

The addition to the provision for loan losses was EUR 49 million, or 5 basis points of average customer lending, compared with EUR 57 million, or 6 basis points, in 2020.

Retail Other

Retail Other			
Amounts in millions of euros	2022	2021	2020
Income:			
Net interest income	2,726	2,712	2,760
Net fee and commission income	535	530	412
Investment income and other income	402	361	89
Total income	3,663	3,602	3,261
Expenditure:			
Operating expenses	2,516	2,452	2,469
Additions to the provision for loan losses	302	202	593
Total expenditure	2,818	2,654	3,063
Result before tax	845	949	199
Taxation	257	212	105
Non-controlling interests	47	98	55
Net result IFRS-IASB	541	639	39

Year ended 31 December 2022 compared to year ended 31 December 2021

Retail Other consists of the Other Challengers & Growth Markets, including our bank stakes in Asia. The net result of Retail Other decreased to EUR 541 million in 2022, from EUR 639 million in 2021.

Retail Other's result before tax declined to EUR 845 million, from EUR 949 million in 2021, mainly due to higher regulatory costs in Poland and higher risk costs.

Total income rose by EUR 61 million to EUR 3,663 million. Net interest income was up 0.5% to EUR 2,726 million, despite a EUR -343 million impact from new mortgage moratorium regulation imposed by the Polish government. Excluding this impact, net interest income increased 13.2%. This increase mainly reflected higher margins on liabilities, notably in Poland, Australia and Spain, following increases in central bank interest rates. Interest income on lending products declined in most of the countries due to tighter lending margins. Net customer lending (adjusted for currency effects, Treasury and the run-off portfolio in France as from the second quarter of 2022) grew by EUR 3.2 billion in 2022, with growth in all countries. Net core deposits growth (also adjusted for currency impacts and Treasury as well as the France run-off portfolio) was EUR 5.2 billion, primarily driven by net inflows in Spain, Australia and Poland. Net fee and commission income rose by EUR 5 million to EUR 535 million, supported by higher daily banking and insurance fees. These increases were largely offset by lower fees from investment products, reflecting low stock markets and subdued trading activity and the impact of ING's exit from the French retail market. Investment and

other income rose to EUR 402 million and included EUR 125 million income from the transfer of our investment business in France and EUR -165 million for impairments on ING's equity stake in TTB. Excluding these three exceptional income items, investment and other income increased by EUR 81 million, mainly due to higher Treasury-related income and the proceeds from the sale of a non-performing loan portfolio in Spain.

Operating expenses rose by EUR 64 million, or 2.6%, to EUR 2,516 million. In 2022, expenses included EUR 51 million of incidental items, mainly consisting of restructuring provisions related to the discontinuation of our retail banking activities in France and the Philippines and the refocusing of our partnership for insurance propositions. 2021 had included EUR 166 million of incidental costs, mainly consisting of restructuring provisions and impairments related to ING's decision to exit the retail banking markets in France and the Czech Republic. Regulatory costs increased by EUR 100 million as 2022 contained a EUR 99 million contribution to the new Institutional Protection Scheme in Poland. Excluding incidental items and regulatory costs, expenses increased by EUR 79 million, primarily attributable to inflationary pressure across all markets, investments in operational process improvements in Australia and EUR 21 million for a litigation provision in Spain.

The net addition to loan loss provisions amounted to EUR 302 million, or 28 basis points of average customer lending, in 2022. In the previous year this had been EUR 202 million, or 20 basis points. Risk costs in 2022 were primarily attributable to net additions in Poland and Spain.

Year ended 31 December 2021 compared to year ended 31 December 2020

Retail Other consists of the Other Challengers & Growth Markets, including the bank stakes in Asia. The net result of Retail Other increased to EUR 639 million in 2021, from EUR 39 million in 2020.

Retail Others' result before tax rose to EUR 949 million, from EUR 199 million in 2020, mainly reflecting higher income, driven by strong fee income growth, whereas 2020 included a EUR 230 million impairment on ING's equity stake in TTB (Thailand) and lower risk costs.

Total income rose by EUR 341 million to EUR 3,602 million from EUR 3,261 million in 2020. Excluding the impairment on TTB, total income increased by EUR 111 million, or 3.2%. Net interest income was down 1.7% to EUR 2,712 million, mainly reflecting lower margins on savings and current accounts, partly offset by higher interest results from lending products and a EUR 7 million TLTRO III benefit. Net customer lending (adjusted for currency effects and Treasury) grew by EUR 8.5 billion in 2021, with growth in all countries, except Italy. Net core deposits growth, also adjusted for currency impacts and Treasury as well as the Czech Republic run-off portfolio, was EUR 4.4 billion, driven by net inflows in the non-eurozone countries with the largest increase in Poland. Net fee and commission income rose by EUR 118 million, or 28.6%, to EUR 530 million in 2021. The increase was mainly due to higher fee income from daily banking, investment and insurance products, and was mainly visible in Spain, Poland and Romania. Excluding the aforementioned

impairment on TTB in 2020, investment and other income increased by EUR 42 million, mainly due to higher revenues from Financial Markets-related products.

Operating expenses declined by EUR 17 million, or 0.7%, to EUR 2,452 million from EUR 2,469 million in 2020. In 2021, expenses included EUR 166 million of incidental items, mainly consisting of restructuring provisions and impairments related to the announcements that ING will exit the retail banking markets in France and the Czech Republic, while 2020 included EUR 167 million of impairments and restructuring provisions mainly related to the Maggie programme. Excluding these incidental items, expenses declined by EUR 16 million as higher staff expenses and legal provisions, were more than offset by among others lower IT and marketing expenses as well as lower regulatory costs.

The addition to loan loss provisions declined by EUR 391 million on 2020 to EUR 202 million, or 20 basis points of average customer lending. The 2021 risk costs mainly reflect net additions in Poland and Spain, partly offset by a net release in Australia.

Wholesale Banking

Wholesale Banking			
Amounts in millions of euros			
	2022	2021	2020
Income:			
Net interest income	4,260	4,151	3,718
Net fee and commission income	1,217	1,197	1,069
Investment income and other income	849	568	609
Total income	6,325	5,916	5,396
Expenditure:			
Operating expenses	3,114	2,926	3,218
Additions to the provision for loan losses	1,220	117	1,351
Total expenditure	4,334	3,042	4,568
Result before tax			
	1,991	2,874	827
Taxation	581	703	295
Non-controlling interests	52	26	20
Net result IFRS-EU	1,358	2,144	512
Adjustment of the EU 'IAS 39 carve-out'	8,451	1,174	-234
Net result IFRS-IASB	9,810	3,318	278

Year ended 31 December 2022 compared to year ended 31 December 2021

Without application of the EU 'IAS 39 carve-out', ING's net result of Wholesale Banking increased to EUR 9,810 million in 2022 compared with EUR 3,318 million in 2021. The adjustment of the EU 'IAS 39 carve-out',

included in the net result, was EUR 8,451 million in 2022, compared with EUR 1,174 million in 2021, 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 Spain. These fair value changes were mainly a result of changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

The IFRS-EU net result (when applying the EU 'IAS 39 carve-out') declined to EUR 1,358 million from EUR 2,144 million in 2021. Wholesale Banking turned in a strong commercial performance. This was fully offset, however, by a sharp increase in risk costs, partly due to the Russian invasion in the Ukraine and compared with an exceptionally low level in 2021. Therefore the net result was 36.7% lower at €1,358 million. The result before tax decreased 30.7% to EUR 1,991 million from EUR 2,874 million in 2021.

Total income rose 6.9% to EUR 6,325 million in 2022 compared with EUR 5,916 million in 2021, primarily reflecting income growth in Daily Banking & Trade Finance and Financial Markets. Net interest income increased by EUR 109 million, or 2.6%, driven by Payments & Cash Management which benefited strongly from higher interest rates. The increase was largely offset by a EUR 168 million lower net TLTRO impact (which was EUR 20 million in 2022 compared with EUR 188 million in the previous year) and lower interest income in Financial Markets. The net core lending book (adjusted for currency impacts and excluding Treasury and the Lease run-off portfolio) grew by EUR 2.4 billion in 2022. Strong growth in Lending was largely offset by a net outflow in Daily Banking & Trade Finance and in Financial Markets. Net core deposits (excluding currency impacts and Treasury) increased by EUR 6.2 billion, primarily in Payments & Cash Management. Net fee and commission income rose by EUR 20 million, or 1.7%, supported by strong fee growth in Lending, which was largely offset by the impact of a lower deal flow in Global Capital Markets due to adverse market conditions. Investment and other income surged by EUR 281 million, mainly driven by higher trading results in Financial Markets, only partly offset by Treasury & Other which included a EUR -41 million hedge accounting impact in Belgium.

Operating expenses increased 6.4% to EUR 3,114 million from EUR 2,926 million in 2021. Expenses in 2022 included EUR 38 million higher regulatory costs and EUR 10 million of incidental items mainly related to restructuring costs, while 2021 had included a EUR 44 million impairment on Payvision. Excluding these incidental items and regulatory costs, expenses increased 7.0%, of which 2.8% was FX impacts, reflecting the weakening of the euro relative to other currencies. The remaining increase was mainly attributable to higher staff costs (due to CLA increases and indexation), partly mitigated by continued cost-efficiency measures.

The addition to loan loss provisions was EUR 1,220 million, or 65 basis points of average customer lending, while in 2021 risk costs had been exceptionally low at EUR 117 million, or 7 basis points of average customer lending. Risk costs in 2022 were significantly impacted by the Russian invasion in Ukraine, which led to a net addition of EUR 533 million on our Russia-related exposure. The remainder was mainly due to an increase in Stage 3 individual risk costs, partly as a result of a more negative macroeconomic outlook.

Lending income increased slightly to EUR 3,157 million. Net interest income declined by EUR 17 million fully due to a EUR 57 million lower net TLTRO impact. Excluding TLTRO, interest result increased 1.6% as higher average volumes more than compensated for lower interest margins. Net fee and commission income increased by EUR 88 million or 19.3%, reflecting significantly higher fee income from several sectors. Investment and other income declined by EUR 42 million, mainly due to negative fair value adjustments and secondary sales discounts.

Income from Daily Banking & Trade Finance increased by EUR 352 million to EUR 1,662 million, predominantly driven by Payments & Cash Management, which benefited strongly from higher interest rates, and furthermore supported by Bank Mendes Gans.

Income for Financial Markets increased by EUR 122 million to EUR 1,226 million, supported by higher trading results, especially in forex and money markets which benefited from volatility on the markets following interest rate hikes, the strengthening of the US dollar and inflationary pressure. Commission income declined due to a lower deal flow in Global Capital Markets, reflecting a slowdown in the market.

Income for Treasury & Other decreased by EUR 94 million due to a net TLTRO impact of EUR -51 million in 2022 (compared to a benefit of EUR 4 million in the previous year), a EUR -41 million hedge accounting impact to unwind a macro fair value hedge in Belgium and a EUR 28 million gain on an investment in an associate recorded in 2021. This was partly offset by mark-to-market gains from credit default positions in 2022.

Year ended 31 December 2021 compared to year ended 31 December 2020

The net result of Wholesale Banking increased to EUR 3,318 million in 2021 compared with EUR 278 million in 2020. The adjustment of the EU 'IAS 39 carve-out', included in the net result, was EUR 1,174 million in 2021, compared with EUR -234 million in 2020, 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 the Czech Republic. These fair value changes were mainly a result of changes in market interest rates. No hedge accounting is applied to these derivatives under IFRS-IASB.

The 2021 result of Wholesale Banking also strongly recovered from the previous year when results were negatively affected by the impact of the Covid-19 pandemic. The IFRS-EU net result (when applying the EU 'IAS 39 carve-out') increased to EUR 2,144 million from EUR 512 million in 2020. The result before tax rose 247.5% to EUR 2,874 million from EUR 827 million in 2020. The increase was predominantly due to lower risk costs and higher income, while operating expenses declined due to lower incidental cost items.

Total income rose 9.6% to EUR 5,916 million in 2021, compared with EUR 5,396 million in 2020, reflecting higher revenues in all product groups, with the largest increases in Lending, and Daily Banking & Trade Finance. Net interest income increased by EUR 433 million, or 11.6%, and was supported by a EUR 188

million conditional TLTRO III benefit. The increase was mainly due to higher margins on lending products and increased interest results from Treasury and Financial Markets, while the margin on customer deposits stabilised due to the increased charging of negative interest rates. The net core lending book (adjusted for currency impacts and excluding Treasury and the Lease run-off portfolio) grew by EUR 13.1 billion in 2021, mainly in Lending, primarily reflecting growth in term loans, and higher short-term facilities in Financial Markets. Net core deposits (excluding currency impacts and Treasury) decreased by EUR 2.6 billion. Net fee and commission income rose by EUR 128 million, or 12.0%, on 2020, mainly due to higher fee income in Trade & Commodity Finance on the back of higher oil prices, various fee and pricing initiatives in Payments & Cash Management and higher deal flows in Global Capital Markets and Corporate Finance. Investment and other income decreased by EUR 41 million, primarily due to lower valuation results in Financial Markets, partly offset by higher income in Corporate Investments.

Operating expenses declined 9.1% to EUR 2,926 million from EUR 3,218 million in 2020. Expenses in 2021 included a EUR 44 million impairment on Payvision, while 2020 included a EUR 260 million goodwill impairment and EUR 124 million of restructuring provisions and impairments. Excluding these incidental items, expenses increased 1.7%, mainly due to higher performance-related staff expenses and increased costs for legal provisions and IT, partly offset by the impact of continued cost-efficiency measures.

The net addition to loan loss provisions fell to EUR 117 million, or 7 basis points of average customer lending, compared with EUR 1,351 million, or 75 basis points, in 2020. Risk costs in 2021 mainly reflect individual Stage 3 provisioning for existing files, including the impact of updated scenarios reflecting uncertainty in recovery scenarios and valuations in certain asset classes. This was partly offset by releases in management adjustments caused by improved macroeconomic indicators.

Lending posted a result before tax of EUR 2,141 million, up from EUR 691 million in 2020, predominantly due to lower risk costs compared with the elevated level in 2020. Lending income rose by EUR 231 million, or 8.0%, and was supported by the recognition of a EUR 100 million conditional TLTRO III benefit. The increase was mainly due to higher lending margins and increased syndicated deal activity. Expenses increased 0.4% to EUR 983 million as higher performance-related staff expenses were offset by the impact of cost-efficiency measures.

The result before tax from Daily Banking & Trade Finance rose to EUR 375 million from EUR 246 million in 2020. This increase was due to higher income, supported by the recognition of a EUR 24 million conditional TLTRO III benefit, partly offset by higher expenses and risk costs. Income increased 13.3%, mainly in Trade & Commodity Finance on the back of higher average oil prices and in Payments & Cash Management following various fee and pricing initiatives. Expenses rose 2.6%, mainly due to higher regulatory costs, partly offset by lower staff and IT expenses.

Financial Markets recorded a result before tax of EUR 278 million, compared with EUR 230 million in 2020. The increase was mainly due to higher income, which was supported by the recognition of a EUR 60 million

conditional TLTRO III benefit and higher net fee income, partly offset by lower valuation results. The increase in income was partly offset by higher expenses, mainly due to higher performance-related staff expenses.

The result before tax of Treasury & Other was EUR 80 million compared with a loss of EUR 339 million in 2020. The improvement was mainly due to lower expenses, as 2020 included a EUR 260 million goodwill impairment and EUR 95 million of restructuring provisions and related impairments following the announced refocusing of activities. Excluding these incidental items, result before tax rose by EUR 64 million, mainly due to higher Treasury income as well as higher income in Corporate Investments, which was supported by a EUR 28 million gain on an investment in an associate, and Corporate Finance.

B. Liquidity and capital resources

ING believes that its working capital is sufficient for its present requirements.

For information regarding our material short and long-term cash requirements from known contractual and other obligations, see “Additional information – ING Group Risk Management section Funding and liquidity risk” and Note 50 ‘Capital management’ in the consolidated financial statements.

For information on legal or economic restrictions on the ability of subsidiaries to transfer funds to the company in the form of cash dividends, loans or advances, see Note 19 ‘Equity’ in the consolidated financial statements.

For information on the maturity profile of borrowings and a further description of the borrowings, please see Note 17 ‘Debt securities in issue’, Note 18 ‘Subordinated loans’ and Note 41 ‘Liabilities and off-balance sheet commitments by maturity’ in the consolidated financial statements.

For information on currency and interest rate structure, see “Additional information – ING Group Risk Management section Market risk” and “Additional information – ING Group Risk Management section Funding and liquidity risk”.

For information on the use of financial instruments for hedging purposes, please see Note 39 ‘Derivatives and hedge accounting’ in the consolidated financial statements.

ING Group Consolidated Cash Flows

cash and cash equivalents			
Amounts in millions of euros	2022	2021	2020
Treasury bills and other eligible bills	1	23	0
Amounts due from/to banks	7,776	1,122	478
Cash and balances with central banks	87,614	106,520	111,087
Cash and cash equivalents at end of year	95,391	107,665	111,566

Year ended 31 December 2022 compared to year ended 31 December 2021

Net cash flow from operating activities amounts to EUR -11,112 million for the year-end 2022, compared to EUR -14,943 million for the year-end 2021. The increase in cash flow from operating activities of EUR 3,830 million in 2022 is explained by higher cash inflows from results before tax (EUR 8,973 million), trading liabilities (EUR 17,571 million), customer deposits (EUR 14,717 million) and lower cash inflows from deposits from banks (EUR -35,414 million).

Net cash flow from investing activities amounts to EUR -5,307 million for the year-end 2022 compared to EUR 6,220 million in 2022. The net cash flow from investing activities decreased by EUR 11,527 million and is explained by a net decrease from Financial assets at fair value through OCI of EUR 8,842 million and from Securities at amortised costs of EUR 2,696 million.

Net cash flow from financing activities amounts to EUR 4,649 million in 2022, compared to EUR 5,387 million in 2021. The decrease of EUR 738 million is explained by a net increase of EUR 900 million of debt securities offset by a net decrease of EUR 821 million of Subordinated loans and higher dividend and repurchases of treasury shares of EUR 821 million in 2022.

The operating, investing and financing activities described above result in a decrease of EUR 11,770 million in cash and cash equivalents to EUR 95,391 million at year end 2022 including exchange rate effect on cash and cash equivalents of EUR -504 million.

Year ended 31 December 2021 compared to year ended 31 December 2020

Net cash flow from operating activities amounts to EUR -14,943 million for the year-end 2021, compared to EUR 101,243 million at 31 December 2020. The decrease in cash flow from operating activities of EUR 116,186 million in 2021 is explained by lower cash inflows from Loans and advances to/from banks (EUR 44,378 million), higher cash outflows to loans and advances to customers (EUR 30,736 million), lower cash inflows from customer deposits (EUR 29,401 million) and higher cash outflows to Trading assets and liabilities (EUR 8,186 million).

Net cash flow from investing activities amounts to EUR 6,220 million for the year-end 2021 compared to EUR -8,487 million in 2020. The net cash flow from investing activities increased by EUR 14,707 million and is explained by a net increase from Securities at amortised costs of EUR 7,592 million and from Financial assets at fair value through OCI of EUR 6,942 million.

Net cash flow from financing activities amounts to EUR 5,387 million in 2021, compared to EUR -34,796 million in 2020. The increase of EUR 40,183 million is explained by a net increase of EUR 42,867 million of debt securities offset by higher dividend payments of EUR 2,379 million and the share buyback programme for an amount of EUR 1,604 million at year-end 2021.

The operating, investing and financing activities described above result in a decrease of EUR 3,335 million in cash and cash equivalents to EUR 107,665 at year end 2021 including exchange rate effect on cash and cash equivalents of EUR -565 million.

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. Critical Accounting Estimates

Reference is made to Note 1 'Basis of preparation and significant accounting policies' to the consolidated financial statements for detailed information on Critical Accounting Estimates.

Item 6. Directors, Senior Management and Employees

A. Directors and senior management

Executive Board

Roles and responsibilities

The Executive Board is entrusted with the management of ING. This includes the day-to-day management of the business and strategy of ING, which responsibility is vested in the members of the Executive Board collectively. The organisation, main roles and responsibilities of the Executive Board are set out in the Management Board Charter, available on [ing.com](https://www.ing.com).

The Executive Board performs its activities under the supervision of the Supervisory Board. The Articles of Association, the Management Board Charter and the Supervisory Board Charter outline which resolutions of the Executive Board are subject to approval by the Supervisory Board.

ING Group indemnifies the members of the Executive Board against direct financial losses in connection with claims from third parties filed, or threatened to be filed, against them by virtue of their service as a member of the Executive Board, 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.

Composition and diversity

ING Group aims to have an adequate and balanced composition of its Executive Board, with a diverse selection of persons with knowledge, skills and 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 balance of experience and affinity with the nature and culture of the business of ING. Factors such as nationality, gender, age and education are also taken into account for the composition of the Executive Board.

The Supervisory Board is responsible for selecting and nominating candidates to the General Meeting for appointment or reappointment to the Executive Board, among others based on the Executive Board profile, which is available on [ing.com](https://www.ing.com). The Supervisory Board regularly assesses the composition of the Executive Board.

As part of this:

1. Bench strength and succession planning for Executive Board positions are continuous attention points. Potential internal candidates for such a role may be complemented with potential talent from outside the bank.
2. A long-term view is taken including steps to improve the development path of women within ING and the appointment of women in senior positions throughout the bank, in line with the adopted diversity and inclusion principle.

The Gender Diversity Act, which entered into force in the Netherlands on 1 January 2022, requires ING to set appropriate and ambitious targets for gender diversity in its Executive Board and senior management. ING's target for gender diversity in the Executive Board is set at 30 percent. Over the year 2022, the Executive Board met this target. See more information on diversity, including on gender diversity in senior management, in 'How we are making the difference'.

Appointment, suspension and dismissal

Members and proposed members of the Executive Board are appointed, suspended and dismissed by the General Meeting. Candidates for appointment to the Executive Board are assessed by the Dutch central bank (DNB) and the European Central Bank (ECB) for suitability and reliability and must continue to meet these criteria while in function.

For the appointment of Executive Board members, the Supervisory Board may draw up a binding list of candidates, 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 quorum requirement cannot be waived in a second general meeting. This ensures that significant shareholder proposals 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.

Remuneration and share ownership

Details of the remuneration of members of the Executive Board, including shares granted to them, are set out in the 'Remuneration report'.

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 need to comply with the ING regulations for insiders, which are available on [ing.com](https://www.ing.com).

Relevant positions pursuant to CRD IV

Members of the Executive Board may hold other positions. No member of the Executive Board had corporate directorships at listed companies outside ING throughout 2022.

Transactions involving actual or potential conflicts of interest

There were no transactions reported in 2022 in which there were conflicts of interest with Executive Board members that are of material significance to ING Group and/or to the relevant board members.

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 business on terms that apply to employees, this is not considered a significant conflict of interest and is not reported. Banking and financial products in which the granting of credit is of a secondary nature, e.g. credit cards and overdrafts in current account, are not considered a loan for this purpose and therefore not reported.

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

Information on the members of the Executive Board (and Management Board Banking) on 31 December 2022



1. Aris Bogdaneris

Head of Retail Banking and Head of Challengers & Growth Markets

Born: 1963
Nationality: Canadian
Gender: Male

Aris was appointed as a member of the MBB in June 2015. He is responsible for Retail Banking and the Challengers & Growth Markets.

Relevant CRD IV positions:

Member of the MBB, member of the management board of ING Bank (Australia) Limited, member of the supervisory board of ING-DiBa AG and member of the supervisory board of ING Bank Śląski S.A.

2. Andrew Bester

Head of Wholesale Banking

Born: 1965
Nationality: British/South African
Gender: Male

Andrew was appointed as a member of the MBB in April 2021. He is responsible for Wholesale Banking.

Relevant CRD IV positions:

Member of the MBB.

3. Ljiljana Čortan

Chief risk officer (EB & MBB)

Born: 1971
Nationality: Croatian
Gender: Female
Term expires: 2025

Ljiljana was appointed as CRO and a member of the MBB in January 2021, and subsequently as a member of the EB in April 2021. She is responsible for ING's risk activities including formulating our risk framework and risk appetite, risk culture and awareness, risk governance and policies and compliance.

Relevant CRD IV positions:

CRO and member of the EB and the MBB.

4. Marnix van Stiphout

Chief operations officer & chief transformation officer

Born: 1970
Nationality: Dutch
Gender: Male

Marnix was appointed as a member of the MBB in September 2021. As chief operations officer and chief transformation officer, he is responsible for translating, overseeing and implementing ING's strategies into a strategy for the operations function.

Relevant CRD IV positions:

Member of the MBB.

5. Steven van Rijswijk

Chief executive officer (EB & MBB)

Born: 1970
Nationality: Dutch
Gender: Male
Term expires: 2025

Steven was appointed as CEO and chairman of the EB and the MBB in July 2020. Prior to this appointment, he was CRO (since May 2017). He is responsible for ING's strategy including ESG, decision-making, results, governance, culture, branding, reputation and people.

Relevant CRD IV positions:

CEO and chairman of the EB and the MBB.

Ancillary positions: Member of the management board of the Dutch Banking Association (NVB) and member of the Dutch Cyber Security Council.

6. Ron van Kemenade

Chief technology officer

Born: 1965
Nationality: Dutch
Gender: Male

Ron was appointed as a member of the MBB in May 2021. He is responsible for translating, overseeing and implementing ING's strategies into an IT, Data and information security strategy.

Relevant CRD IV positions:

Member of the MBB and member of the supervisory board of ING Groenbank N.V.

7. Pinar Abay

Head of Market Leaders

Born: 1977
Nationality: Turkish
Gender: Female

Pinar was appointed as a member of the MBB in January 2020. She is responsible for Market Leaders.

Relevant CRD IV positions:

Member of the MBB and chairwoman and non-executive member of the board of ING Belgium N.V./S.A.

8. Tanate Phutrakul

Chief financial officer (EB & MBB)

Born: 1965
Nationality: Thai
Gender: Male
Term expires: 2023

Tanate was appointed as CFO and a member of the MBB in February 2019, and subsequently as a member of the EB in April 2019. Tanate is responsible for ING's financial strategy, budgeting, cost control and the financing of the company.

Relevant CRD IV positions:

CFO and member of the EB and the MBB.

Supervisory Board

Roles and responsibilities

The Supervisory Board supervises (i.e. assesses, oversees, monitors, constructively challenges, scrutinises and discusses) the policy of the Executive Board and the general course of affairs of ING and the business connected with it. The Supervisory Board provides the Executive Board with advice. The responsibility for supervising and advising the Executive Board is vested in the members of the Supervisory Board collectively. The organisation, powers and modus operandi of the Supervisory Board are set out in the Charter of the Supervisory Board, available on [ing.com](https://www.ing.com).

In performing their duties, members of the Supervisory Board are required to:

- Be guided by the interests of ING and the business connected with it, thereby carefully balancing the interests of all stakeholders of ING and in this consideration give paramount importance to the customer's interest, as set out in the Dutch Banker's Oath.
- Foster a culture focused on long-term value creation, financial and non-financial risk awareness, compliance with ING's risk appetite, responsible and ethical behaviour and stimulate openness and accountability within ING and its subsidiaries.
- Act without mandate and independent of any interest in the business of ING.
- Ensure that the Supervisory Board functions effectively.

The Articles of Association, the Management Board Charter and the Supervisory Board Charter outline which resolutions of the Executive Board are subject to approval by the Supervisory Board.

In accordance with 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 filed or threatened to be filed against them by virtue of their service as a member of the Supervisory Board.

Composition and diversity

ING Group aims to have an adequate and balanced composition of its Supervisory Board, with a mix of persons with knowledge, skills and 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 strives for a balance in nationality, gender, age, and educational and work background. In addition, there should be a balance of experience and affinity with the nature and culture of the business of ING.

The Supervisory Board is responsible for selecting and nominating candidates for appointment or reappointment to the Supervisory Board, among others based on the Supervisory Board profile, which is available on [ing.com](https://www.ing.com). The Supervisory Board regularly assesses the composition of the Supervisory Board.

ING believes that former members of the Executive Board can make a valuable contribution to the Supervisory Board. Therefore, also taking into account the size of the Supervisory Board and ING's wide range of activities, they may become members of the Supervisory Board of ING Group, but not in the position of chairman or vice-chairman. Former Executive Board members must wait at least one year before becoming eligible for appointment to 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. 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.

In 2022, three out of nine members of the Supervisory Board were female. We believe the Supervisory Board is also 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 2022 was 56 - 44%.

According to the Gender Diversity Act, which came into force in the Netherlands on 1 January 2022, ING is required to comply with a gender diversity quota of one third male and one third female for its Supervisory Board. Over the year 2022, the Supervisory Board was compliant.

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 of candidates, 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 quorum requirement cannot be waived 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 assessed by DNB and the ECB for suitability and reliability and must continue to meet these criteria while in function.

Term of appointment of the Supervisory Board members

As a general rule, Supervisory Board members step down from the Supervisory Board after the fourth anniversary of their last appointment or reappointment. They are eligible for re-appointment in the fourth year after their initial appointment and, with explanation, also in the eighth and tenth years.

The Supervisory Board may deviate from this general rule under special circumstances and with explanation, 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 [ing.com](https://www.ing.com).

Relevant positions pursuant to CRD IV / conflicting interests

Members of the Supervisory Board may hold other positions, including directorships, either paid or unpaid. The Capital Requirements Directive 4 (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 ECB 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 report any conflict of interest (including potential conflicts of interest) to the chair of the Supervisory Board (or, in the case of the chair, to the vice-chair) and to provide all relevant information. The Supervisory Board – excluding the member concerned – 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

There were no transactions reported in 2022 in which there were conflicts of interest with Supervisory Board members that are of material significance to ING Group and/or to the relevant board members.

If a member of the Supervisory Board obtains financial products and services, other than loans, which are provided by ING Group subsidiaries in the ordinary course of business on terms that apply to employees, this

is not considered to be a material conflicting interest. Banking and financial products in which the granting of credit is of a secondary nature, e.g. credit cards and overdrafts in current account are not considered a loan for this purpose and are therefore not disclosed.

For an overview of loans granted to members of the Supervisory Board, see the ‘Remuneration report’.

Independence

All Supervisory Board members, with the exception of no more than one person, shall qualify as independent as defined in the best practice provision 2.1.8 of the Dutch Corporate Governance Code. The members of the Supervisory Board are therefore requested to assess annually whether or not they are independent as set out in the Dutch Corporate Governance Code and to confirm this in writing. On this basis, the Supervisory Board confirms that all members of the Supervisory Board are to be regarded as independent on 31 December 2022. On this date all members of the Supervisory Board were also to be regarded as independent within the meaning of the NYSE listing standards.

Committees of the Supervisory Board

On 31 December 2022, the Supervisory Board had four permanent committees: the Risk Committee, the Audit Committee, the Nomination and Corporate Governance Committee and the Remuneration Committee and one ad hoc committee: the ESG Committee.

Separate charters have been drawn up for the Risk Committee, the Audit Committee, the Nomination and Corporate Governance Committee and the Remuneration Committee. Terms of reference have been drawn up for the ESG Committee. These charters and terms of reference are available on [ing.com](https://www.ing.com).

Read more about the composition and the duties of the committees on [ing.com](https://www.ing.com).

Remuneration and share ownership

Remuneration of the members of the Supervisory Board is determined by the General Meeting and does not depend on the results of ING Group. Members of the Supervisory Board are permitted to hold shares in the share capital of ING Group for long-term investment purposes. Details are given in the ‘Remuneration report’. Transactions by members of the Supervisory Board in these shares need to comply with the ING insider regulations, which are available on [ing.com](https://www.ing.com).

Information on the members of the Supervisory Board on 31 December 2022



1. Lodewijk Hijmans van den Bergh

Born: 1963
Nationality: Dutch
Gender: Male
Term expires: 2025

Lodewijk was appointed as a member of the SB in April 2021. Former position: partner/member of the management committee of De Brauw Blackstone Westbroek N.V.

Relevant CRD IV positions: Member of the SB, deputy chairman of the supervisory board of HAL Holding N.V. and chairman of the supervisory board of BE Semiconductor Industries N.V.

Ancillary positions: Chairman of the board of Utrecht University Fund and chairman of the executive committee of Vereniging Aegon.

2. Herman Hulst

Born: 1955
Nationality: Dutch
Gender: Male
Term expires: 2024

Herman was appointed as a member of the SB in April 2020. Former position: global vice chair EY Japan

Relevant CRD IV positions: Member of the SB.

3. Mike Rees (vice-chairman)

Born: 1956
Nationality: British
Gender: Male
Term expires: 2023

Mike was appointed as a member of the SB in April 2019. Former position: deputy CEO of Standard Chartered Bank PLC.

Relevant CRD IV positions: Vice-chairman of the SB, non-executive chairman of Athla Capital Management Ltd., non-executive chairman of Travelx Topco Limited and non-executive chairman of the board of Satsanga Fintech Holdings.

Ancillary positions: Non-executive chairman of Mauritius Africa FinTech Hub.

4. Mariana Gheorghe

Born: 1956
Nationality: Romanian and British
Gender: Female
Term expires: 2023

Marianne was appointed as a member of the SB in May 2015. Former position: CEO of OMV Petrom SA.

Relevant CRD IV positions: Member of the SB and non-executive director of ContourGlobal Plc.

Ancillary positions: Member of the advisory council of the Bucharest Academy of Economic Studies, Romania, member of the board of Envisia – Boards of Elite and member of the board of Teach for Romania.

5. Hans Wijers (chairman)

Born: 1951
Nationality: Dutch
Gender: Male
Term expires: 2025

Hans was appointed as a member of the SB in May 2017 with effect from 1 September 2017. He has been chairman since April 2018. Former position: CEO and member of the executive board of AkzoNobel N.V.

Relevant CRD IV positions: Chairman of the SB and supervisory board member of HAL Holding N.V.

Ancillary positions: Member of the Temasek European Advisory Panel of Temasek Holdings Private Limited and chairman of the supervisory council of SEO Amsterdam Economics.

6. Margarete Haase

Born: 1953
Nationality: Austrian
Gender: Female
Term expires: 2025

Margarete was appointed as a member of the SB in May 2017. Former position: CFO of Deutz AG.

Relevant CRD IV positions: Member of the SB, member of the supervisory board and chairwoman of the audit committee of Fraport AG, chairwoman of the supervisory board of AMS-OSRAM AG and member of the supervisory board of Marquard & Bahls AG.

Ancillary positions: Chairwoman of the employers association of Kölnmetall and member of the German Corporate Governance Commission.

7. Harold Naus

Born: 1969
Nationality: Dutch
Gender: Male
Term expires: 2024

Harold was appointed as a member of the SB in April 2020. Former position: global head of Trading Risk Management and general manager Market Risk Management of ING Bank N.V.

Relevant CRD IV positions: Member of the SB, CEO of Cardano Risk Management B.V., member of the executive board of Cardano Holding Limited and CEO of ACTIAM N.V.

Ancillary positions: Chairman of the Curatorium VU Amsterdam 'Risk Management for Financial Institutions'.

8. Herna Verhagen

Born: 1966
Nationality: Dutch
Gender: Female
Term expires: 2023

Herna was appointed as a member of the SB in April 2019 with effect from 1 October 2019. Former position: member of the supervisory board of SNS Reaal N.V. (now: SRH N.V.)

Relevant CRD IV positions: Member of the SB, CEO of Post NL N.V. and member of the supervisory board of Koninklijke Philips N.V.

Ancillary positions: Member of the supervisory board and member of the audit 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.)

9. Juan Colombás

Born: 1962
Nationality: Spanish
Gender: Male
Term expires: 2024

Juan was appointed as a member of the SB in April 2020 with effect from 1 October 2020.

Former position: chief operations officer and executive board member of the board of directors of Lloyds Banking Group.

Relevant CRD IV positions: Member of the SB, non-executive member of the board of directors and chairman of the audit and control committee of Azora Capital, S.L. and non-executive chairman of the board of Bluserena Spa.

Ancillary positions: Member of the global alumni advisory board of the IE Business School.

B. Compensation

Remuneration report

FOR INFORMATION ONLY

2022 was a tumultuous year for ING, our customers and our employees. Early in the year we saw much of the effects of the Covid-19 pandemic abating. But just as that was sinking in, the terrible war in Ukraine broke out, which became the dominant societal and economic factor of the year, affecting many of us.

For employees directly impacted by the war, it was a particularly tough time. Many were forced to flee their homes, leaving loved ones behind. I was proud of ING's response which included humanitarian assistance payments for colleagues in Ukraine and protecting their income against the devaluation of the Hryvnia by depositing variable remuneration awards in euros. The efforts of our orange family around the world, particularly employees in neighbouring countries such as Poland, Romania and Slovakia, in providing not only assistance to colleagues but also to other Ukrainians fleeing their homeland, was inspiring.

The war also had an effect on other, economic circumstances, which were felt throughout most of our company. Energy prices rose at an almost unprecedented pace. This in turn sparked inflation figures not seen in decades in most Western countries. Some emerging economies, including Turkey, had already been confronted with high inflation. In several countries we responded by extending an energy cost allowance to employees. In other countries, such as Belgium, the high inflation was compensated by automatic indexation of wages, as is customary locally. In the Netherlands, the high inflation put pressure on negotiations on a new collective labour agreement.

Our view on remuneration

ING's remuneration approach is aimed at enabling us to attract, motivate and retain leaders with the ability, experience, skills, values and behaviours to fulfil our role as a global bank, sustainably executing our

strategy while considering our values and stakeholder interests. Following the Dutch Banking Code, total direct compensation of the Executive Board is below the market median of a peer group of comparable companies.

In line with the remuneration principles that apply to all ING staff, the remuneration policies for the Executive Board and Supervisory Board are designed to ensure that ING offers well-balanced remuneration within ING's risk appetite. In this context, the Remuneration Committee in the course of 2022 discussed the system of applying risk adjustment measures to the variable remuneration awards, including the thresholds above which the pool for variable remuneration may be unlocked. Another discussion item was the approach for the setting of targets including for risk and control functions, also focusing on alignment and steering this from top to bottom in our company.

To ensure our approach to remuneration is aligned with the views of our stakeholders, we have an ongoing dialogue with customers, investors, regulators, works councils and other stakeholder groups about our remuneration approach, strengthening the link between performance and remuneration outcomes. We also consider the feedback received as part of our regular contacts with our stakeholders, for example around increased transparency on how performance impacts variable remuneration.

The current remuneration policies for the Executive Board and Supervisory Board were adopted by our shareholders at the 2020 General Meeting, effective until the end of the 2024 AGM. In order to be able to introduce new versions of the policies for adoption at the 2024 AGM, the Remuneration Committee will in 2023 review the current policies. An important part of this will again be the consultation of various stakeholder groups, which will commence in the latter part of the year.

This report

This Remuneration Report reflects the remuneration for the Executive Board and Supervisory Board members. In preparing this report, we took notice of the draft (non-binding) 'Guidelines on the standardised presentation of the remuneration report' from the European Commission as published in September 2022.

When it comes to reporting on remuneration, our ambition is to continue to be a frontrunner, providing more information than is mandatorily required. We have further enhanced our reporting on performance

measurement, partly through a new visual 'EB Remuneration at a glance', more transparency on performance substantiation of EB members and forward-looking targets and weightings for 2023.

Another good example of other voluntary enhancements can be found in the 'How we are making a difference' chapter of the Annual Report. Presenting our 'gender pay gap analysis' there is something that we have chosen to do rather than were asked to do, making us part of a small minority of companies doing this globally. I believe transparency on this important subject is a good step in helping ING advancing diversity, inclusion and belonging. We realise there is more to be done, especially on the under-representation of women in leadership positions. Some of the actions taken are that we have increased our target to at least 35% women in senior management by 2028 and we are introducing new targets to increase gender diversity in our leadership pipeline.

Performance year 2022

Despite the various challenges, ING performed well in 2022. The strategy was sharpened and execution of it delivered strong results. Significant progress was made in the various target areas. The number of primary customers increased, with rising NPS scores. Financial and non-financial risks were well managed. In the area of sustainability, the volume mobilized increased by almost 15%, intermediate 2030 targets were set for all nine Terra sectors and in several countries, products were launched to stimulate climate-supportive action by customers.

Financially, interest income recovered and fee income was resilient. Expenses saw the impact of higher salary costs and higher marketing expenses. Overall, ING's full-year 2022 result before tax came out at €5.5 bln, 18.9% below 2021, as additions to loan loss provisions were higher on the back of the war in Ukraine. This also led to a corresponding decline in Return on Equity to 7.2%.

The Supervisory Board agreed that the Executive Board performed satisfactory in 2022. Based on a thorough and balanced assessment of the performance of each Executive Board member against their objectives, ING's results, their behaviour and risk and compliance matters, the Supervisory Board decided to award variable remuneration at 15.6% of the maximum 20% to the chief executive officer, 15.7% of the maximum 20% for the chief financial officer and 16.4% of the maximum 20% for the chief risk officer. No increase is proposed to their base salary for 2023, this topic will be considered within the broader context of the Executive Board remuneration policy review which will take place in 2023.

For all other eligible staff, variable remuneration can be discretionary or collective and is awarded based on criteria for overall group performance, business line and individual performance. At least half of these targets must be non-financial. A considerable part of the variable remuneration is awarded based on collective agreements. In 2022, the total amount awarded was €426.6 million, reflecting a 1.4% decrease against the total target variable remuneration pool.

I'd like to thank all our customers around the ING world for their trust and faith in us, our employees for their dedication to ING, and all other stakeholders who have helped make ING what it is in 2022. It hasn't necessarily been an easy year, but one we can be proud of in terms of prioritising both people and the planet.

Herna Verhagen

Chair of the Supervisory Board Remuneration Committee

Remuneration report Executive Board and Supervisory Board

FOR ADVISORY VOTE AT 2023 ING GROEP N.V. ANNUAL GENERAL MEETING (AGM)

About this report

This Remuneration Report is based on the remuneration policies for the Executive Board and Supervisory Board. This section of the report is the Remuneration Report as referred to in the Dutch act implementing the Shareholder Rights Directive II (SRD II). It will be presented to shareholders at the 2023 AGM for an advisory vote. An explanation of how the results of this vote are taken into account will be included in the 2023 Remuneration Report.

This Remuneration Report includes an "at a glance" overview of the performance and remuneration outcomes for each Executive Board Member for 2022. Furthermore, this Remuneration Report provides greater transparency and more detail compared to previous years on the assessment against performance targets, including Environmental, Social and Governance (ESG) related targets. In this Remuneration Report, we also disclose our forward-looking performance target area weightings for Executive Board members for 2023.

2022 AGM

The 2021 Remuneration Report was presented for an advisory vote at the AGM held on 25 April 2022 (hereafter called the 2022 AGM). The outcome was an advisory vote of 98.26% in favour. A number of shareholders made comments with regards to the transparency of performance. We have reflected the

AGM's feedback in this year's report by providing more detailed substantiations of the Executive Board members' performance.

We recognise that remuneration is an important topic for many stakeholder groups and that viewpoints on the topic may vary. The Supervisory Board is fully committed to ensuring that our approach to remuneration achieves a balance of interests across different stakeholders. Stakeholder engagement is a key element in the formulation of our remuneration policies and in 2023 we will start a new round of dialogues as preparation for the 2024 AGM renewal of policies. We have regular dialogues with our stakeholders. The Supervisory Board will continue to foster a transparent dialogue on remuneration and future policy amendments.

Board changes and business events in 2022

There were no changes to either the Executive Board or the Supervisory Board in 2022.

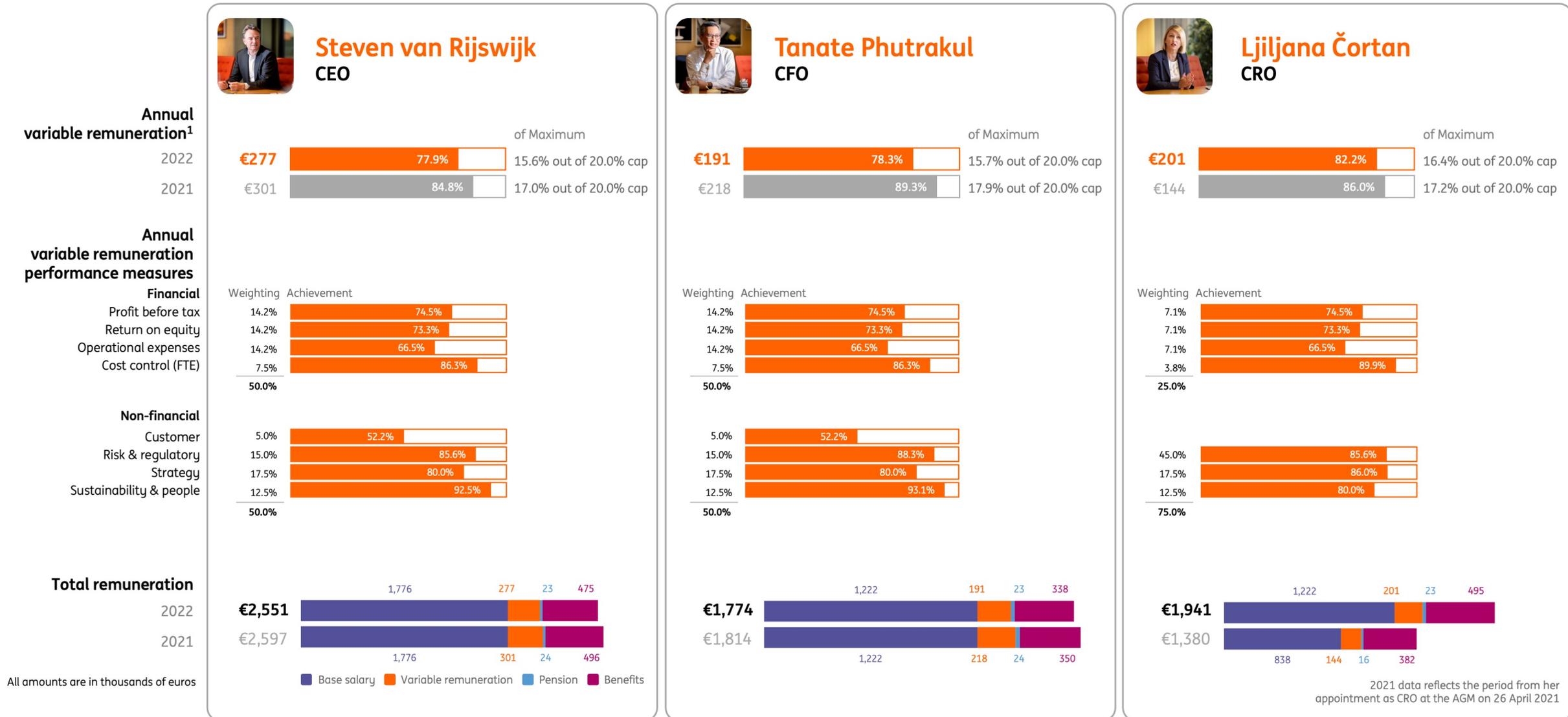
Main decisions on the remuneration of the Executive Board and Supervisory Board for 2023

The following decisions were taken in relation to remuneration for 2023:

- no changes to the Executive Board and Supervisory Board remuneration policies will be proposed;
- no changes to the base salaries for 2023 for the Executive Board. This topic will be considered within the broader context of the Executive Board remuneration policy review which will be for adoption at the 2024 AGM; and
- no changes to the applicable fees for the Supervisory Board members will be made for 2023.

2022 Executive Board remuneration at a glance

Please see '2022 Executive Board performance evaluation' for more details on the Executive Board members performance and variable remuneration outcomes



(1) For consistency purposes the 2021 outcomes are also presented with one decimal.

Remuneration Executive Board

Executive Board remuneration policy

The Executive Board remuneration policy complies with applicable laws and regulations and is in line with the remuneration principles that apply to all ING employees.

The Executive Board remuneration policy, which was adopted by shareholders during the 2020 AGM, is disclosed in full on [ing.com](https://www.ing.com) under the section 'Remuneration'. In line with this policy, the remuneration of the Executive Board members is designed to attract, motivate and retain leaders. Retention is an important goal since this contributes to long-term performance.

Should policy changes be proposed, we will first consult with our stakeholders about the proposed changes, after which a revised version of the Executive Board remuneration policy will be submitted to the General Meeting for adoption by the shareholders at the General Meeting before it becomes effective. For 2023, no changes are proposed. Please note that the following paragraphs present a brief summary of the current applicable Executive Board remuneration policy.

In 2024, ING's Executive Board remuneration policy and Supervisory Board remuneration policy will be presented for shareholder approval at the 2024 AGM. This is in line with SRD II, which requires listed companies to submit their remuneration policies to the AGM at least once every four years. During the course of 2023, ING will engage with its various stakeholders in an open dialogue on this topic.

Total direct compensation

Total direct compensation is the total of fixed and variable remuneration, excluding benefits such as pension and allowances.

Total direct compensation for the Executive Board members is determined and reviewed annually by the Supervisory Board. In line with the Executive Board remuneration policy, the Executive Board's total direct compensation for 2022 was compared to a peer group as formulated in the Executive Board remuneration policy. The peer group is based on five guiding principles, reflecting ING's current profile, and is explained in the Executive Board remuneration policy. In short, these principles are described in the next table.

Guiding principle	Short description
Geography	ING is headquartered in the Netherlands and has an international profile
Talent market	ING is increasingly experiencing a cross-pollination of talent across sectors/industries, not limited to traditional banking competitors
Size	ING acknowledges the importance of including companies that are broadly comparable in terms of size and complexity
Governance framework	ING is subject to the Dutch (financial services) regulatory framework and operates within a Dutch stakeholder environment
Balancing	ING acknowledges the importance of retaining sight of relevant peer companies that do not match on the other criteria

In line with the Dutch Banking Code, the peer group consists of both financial and non-financial companies, taking into account the relevant international context. In addition, the Supervisory Board decided to exclude the UK and Switzerland from our peer group, due to different pay structures in their financial sectors. Substantially smaller banks and companies were also excluded because these are less complex compared to large financial institutions like ING. Following an external and independent review in line with the Executive Board remuneration policy in 2022, the current peer group composition remains unchanged and comprises:

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

In line with the requirements laid down in the Dutch Banking Code the actual earned total direct compensation of members of the Executive Board under the Executive Board remuneration policy should be below the market median of the peer group. The calculation of pay positioning of the Executive Board members against the peer group is performed on that basis (i.e. actual fixed salary plus actual variable remuneration). The Executive Board members are all paid well below the median in 2022.

Fixed remuneration

The individual base salaries are set according to the role, responsibilities and experience of each Executive Board member with reference to market practice. The Remuneration Committee reviews the individual base salaries of the Executive Board members annually and advises the Supervisory Board on this. The Supervisory Board has the discretion to increase the individual base salaries. The below factors are given consideration in determining their base salaries:

- the individual's level of skill and performance;
- internal pay ratios and salary increases for other employees within ING;
- remuneration level at the external peer group;
- public indexation reference points (e.g. consumer price index); and
- stakeholder views.

Variable remuneration

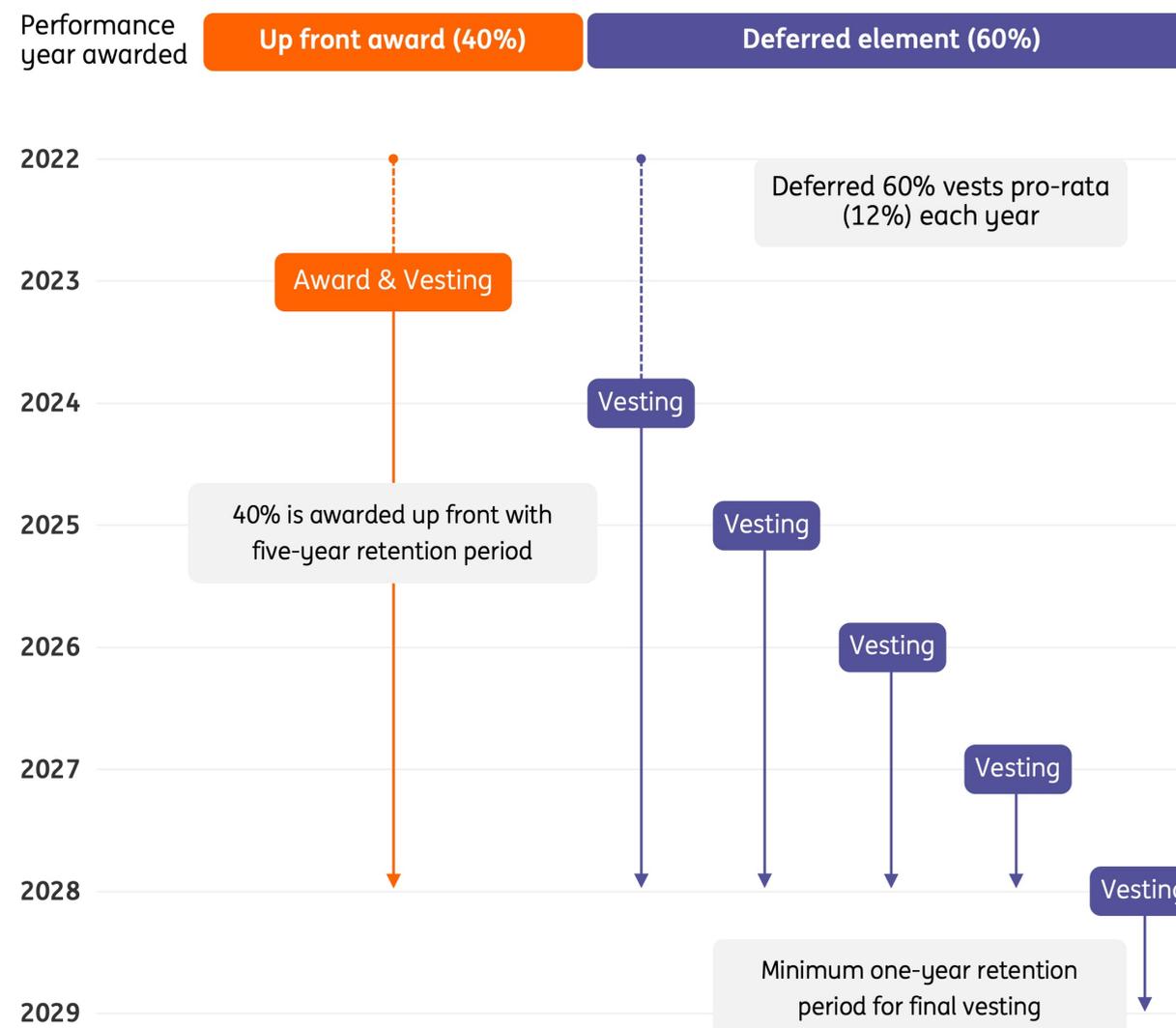
Variable remuneration for Executive Board members is limited to a maximum of 20% of base salary in line with legislative requirements. The Executive Board remuneration policy provides for an at target variable remuneration of 16% of base salary. At least 50% of this is based on non-financial performance criteria. For the CRO the non-financial performance criteria is 75%. If performance criteria are exceeded, the Supervisory Board can increase the variable component to the maximum of 20% of base salary. If performance is below target, the variable component will be decreased, potentially down to zero.

The applicable performance criteria are based on ING's strategy and priorities for the financial year, aiming to drive sustainable outcomes for ING, including financial returns that correspond to shareholder returns in the short and longer term. The performance criteria contribute therefore to the long-term objectives of ING.

All variable remuneration is awarded fully in shares. There is a minimum holding period of five years from the award date plus an additional holding year as of the vesting date. This combination (i.e. all shares plus a long holding period) fosters alignment with shareholders and a focus on the long term.

The Supervisory Board pre-determines the performance criteria for the Executive Board each year to ensure alignment between ING's strategy, performance objectives and long-term interest. For further details on the pay-out of variable remuneration please see the Executive Board remuneration policy which is disclosed in full on ing.com under the section 'Remuneration'. On the right side the pay-out scheme of variable remuneration for Executive Board members is illustrated.

Total variable remuneration relating to performance year 2022 comprises *



* Fully delivered in shares.

Pension

All members of the Executive Board participate in the Collective Defined Contribution pension plan, which is accrued on an annual salary of up to €114,866 for 2022. This is the same as for all employees working in the Netherlands without a supplementary pension scheme. Executive Board members are compensated for the lack of pension accrual above this amount by means of an individual savings allowance (see 'Benefits'), to be determined annually, on the same terms that apply to other participants in the Collective Defined Contribution pension plan. The set-up of this compensation for the lack of pension accrual is in line with best practices in the Netherlands.

Benefits

Executive Board members are eligible for additional benefits, such as:

- contributions individual savings plans;
- individual savings allowance (as explained under 'Pension' above);
- travel and accident insurance; and
- other benefits:
 - expatriate allowances (such as housing, school/tuition fees and international health insurances, 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;
 - the use of a company car or driver service.

Tenure

Members of the Executive Board are appointed by shareholders at the General Meeting for a maximum period of four years. They may be reappointed by shareholders at the General Meeting in line with ING's Articles of Association and applicable rules and regulation. Executive Board members have a commission contract for an indefinite period. ING has the option to terminate the contract if a member is not reappointed by shareholders at the General Meeting, or if their membership of the Executive Board is terminated. There is a three-month notice period for individual board members and a six-month notice period for ING. During this time the board member would continue to work and in principle 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 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 and under the condition that there should be no reward for failure). Should an

Executive Board member depart voluntarily or in circumstances involving fraud, gross negligence, wilful misconduct or any activity detrimental to ING, no severance payment or award of variable remuneration over the performance year will be made and outstanding deferrals will lapse.

Annual review of the Executive Board remuneration

In accordance with the Executive Board remuneration policy, the Supervisory Board annually determines the actual remuneration for members of the Executive Board, based on advice from the Remuneration Committee of the Supervisory Board.

The Remuneration Committee's responsibilities include preparing the Supervisory Board for decisions regarding the individual remuneration of members of the Executive Board. In performing its tasks the Remuneration Committee takes note of the views of individual Executive Board members with regard to the amount and structure of their own remuneration. Remuneration proposals for individual Executive Board members are drawn up in accordance with the Executive Board remuneration policy and cover the following aspects: remuneration structure, external benchmark results based on peer group review, the amount of the fixed and variable remuneration components, the performance criteria used, scenario analyses that were carried out and, if and when considered appropriate, stakeholder engagement and the pay ratios within the company and its affiliated enterprises. In the performance of its tasks the Remuneration Committee works together with the Risk Committee.

Special employment conditions

In line with the Executive Board remuneration policy, the Supervisory Board may decide to temporarily apply special employment conditions, for example to secure the recruitment of new Executive Board members in exceptional circumstances when this is necessary to serve the long-term interests and sustainability of ING as a whole, or to assure its viability. In 2022, there were no such special employment conditions granted.

2022 Remuneration Executive Board

This section includes details of remuneration for Executive Board members relating to the period served on the Executive Board in 2022.

In line with the Dutch Corporate Governance Code, ING calculates the internal ratio of the remuneration for the chief executive officer (CEO) compared to the average remuneration of all ING staff. Using the CEO's total remuneration (i.e. the total of fixed and variable remuneration, including benefits such as pension and allowances) compared to the average remuneration for all ING staff, the ratio in 2022 was 1:25. Furthermore, we also calculated the average ratio of total remuneration for the chief financial officer (CFO) and chief risk officer (CRO) compared to all ING staff. On that basis the average ratio in 2022 for the CFO and CRO was 1:18. The lower ratios for 2022 compared to 2021, are mainly caused by the fact that the average remuneration for all ING staff has increased.

Remuneration versus company performance and average employee remuneration

Table 1 shows the development of directors' remuneration (Executive Board and Supervisory Board members), company performance and the average remuneration of an ING employee. This is carried out by showing the development of the remuneration for Executive Board and Supervisory Board members over the last five years presented in percentages.

With respect to the remuneration of the Supervisory Board, it should be noted that there is no link to company performance in order to safeguard its independent role.

The relative performance of the company is presented on three different metrics over the last five years. The metrics consist of:

- Retail primary relationships.
- Profit before tax for ING Group.
- Return on equity based on IFRS-EU equity.

Finally, we present the development of the remuneration on average (per employee). For this number we use the same data as for the internal ratio.

1. Development of directors' remuneration, company performance and employee remuneration ¹

Amount in thousands of euros unless otherwise stated	FY 2022	FY 2022 vs FY 2021	FY 2021 vs FY 2020	FY 2020 vs FY 2019	FY 2019 vs FY 2018	FY 2018 vs FY 2017
Directors remuneration (Executive Board) ^{2, 3, 4, 5, 6}						
Steven van Rijswijk (CEO)	2,053	-1.2%	38.6%	7.2%	16.2%	-
Tanate Phutrakul (CFO)	1,413	-1.9%	17.9%	25.6%	-	-
Ljiljana Čortan (CRO)	1,423	-	-	-	-	-
Company's performance						
Retail primary relationships (in mln)	14.6	2%	3%	5%	7%	10%
Profit before Tax ING Group (in mln)	5,502	-19%	78%	-44%	0%	-6%
Return on equity based on IFRS-EU equity	7.2%	-22%	92%	-49%	-4%	-3%
Average employee remuneration ⁷						
Average fixed and annual variable remuneration	72	3.5%	4%	-	-	-
Directors remuneration (Supervisory Board) ⁸						
Hans Wijers (chair)	185	0.2%	-11.9%	3.5%	9.2%	-
Mike Rees (vice-chair)	139	7.8%	0%	-	-	-
Juan Colombás	102	8.5%	-	-	-	-
Mariana Gheorghe	120	17.2%	-5.6%	-8.5%	12.4%	11.7%
Margarete Haase	112	7.7%	-1%	7.1%	55.6%	-
Lodewijk Hijmans van den Bergh	97	61.7%	-	-	-	-
Herman Hulst	100	5%	-	-	-	-
Harold Naus	92	-2.9%	-	-	-	-
Herna Verhagen	102	2%	-17.4%	-	-	-

1 For consistency reasons this table only makes a comparison between two full financial years in which the respective Executive Board or Supervisory Board member served in their role as board member.

2 The remuneration of the Executive Board consists of base salary and variable remuneration (total direct compensation).

3 Variable remuneration for the Executive Board is included in the year in which the performance was delivered i.e. prior to the year in which it is paid out.

4 Fixed remuneration for the Executive Board did not change in 2019. The relative total compensation increase from 2018 to 2019 is fully attributable to the fact that no variable remuneration was awarded for performance year 2018.

5 Fixed remuneration for Executive Board members is not linked to company performance but is predominantly based on a benchmark exercise. Total direct compensation of Executive Board members should stay below the median of the benchmark, in line with the Dutch Banking Code. This has a mitigating effect on the correlation with company performance.

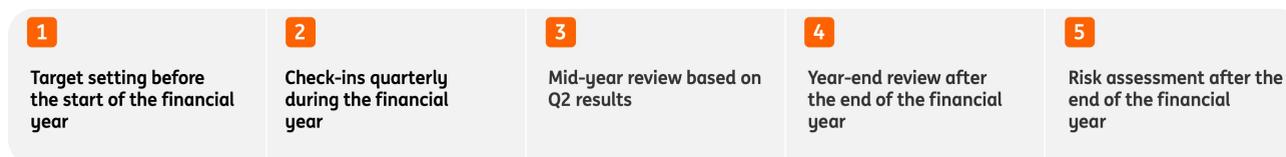
6 The relative total compensation increase from 2020 to 2021 is mainly caused by the fact that no variable remuneration was awarded for the performance year 2020.

7 In 2021, the methodology to calculate the average employee remuneration has been updated. Comparative for 2020 has been updated accordingly.

8 There is no correlation between Supervisory Board remuneration and company performance. Supervisory Board members do not receive any variable remuneration. Their remuneration is based on fixed fees related to their role and number of meetings. The high fluctuations are caused by role changes during the year and differences in the number of meetings.

2022 Executive Board performance assessment and reward process

The Executive Board performance assessment and reward process includes a number of key steps. This process serves as the foundation to determine the variable remuneration for Executive Board members.



At the start of the performance year, the Supervisory Board approves the financial, non-financial and risk performance targets applicable to the Executive Board members for that year:

- **Financial performance target areas** include profit-based and return-based targets.
- **Non-financial performance target areas** include customer (except the CRO), risk and regulatory, strategy, sustainability and people.

Each performance target area is weighted and combined all weightings total 100 percent. The Dutch Remuneration Policy for Financial Enterprises Act (Wet Beloningsbeleid Financiële Ondernemingen, Wbfo) specifies that at least 50 percent of variable remuneration metrics must be based on non-financial targets. The CEO is aligned fully to Group performance while for the CFO it is a mix of both Group and functional performance targets. The non-financial targets for the CRO are predominantly based on performance targets that are linked to the function and role.

The target areas, targets and weightings are included in the performance target cards for each Executive Board member. The performance target card consists of both quantitative and qualitative-based targets to achieve a balanced and holistic assessment. Quantitative-based targets are measured primarily on a formulaic basis where the expected target performance level must be achieved before the on-target payout can be earned. Qualitative targets are clearly defined with descriptors of levels of what is expected of the performance, for example, speed of delivery, quality of delivery and ways of working. These are assessed using a standard three-point rating scale which aligns with ING's Step Up Performance rating approach. The overall outcome of the performance target card assessment described above is the 'starting point' for determining the variable remuneration of the Executive Board members.

Throughout the year, regular conversations take place between the Supervisory Board and the Executive Board to review their performance. Progress against performance measures is formally tracked and discussed at least twice a year in the mid-year and year-end reviews. The Nomination and Corporate Governance Committee takes an active role in assessing the performance of individual Management Board members, and informs both the Risk Committee and the Remuneration Committee.

At the end of the year, the Risk Committee and Remuneration Committee provide input and assess the performance of Executive Board members to determine the variable remuneration to be awarded. They jointly advise the Supervisory Board on the recommendations to get final approval of the awards. This follows a multi-step and integrated process that closely aligns with the way that variable remuneration is determined for the wider ING workforce. The process covers an assessment of their performance, based on individual performance target cards. It includes targets and ranges agreed to at the beginning of the performance year, along with risk assessments measured on an ex-ante and ex-post risk adjustment basis (see also 'The comprehensive process around variable remuneration', under point 5.).

The integrated performance assessment process for determining variable remuneration also takes into account financial and operational performance, risk and compliance, as well as behaviour and conduct of each Executive Board member. This is supported by a robust framework for considering risk and conduct, which is in line with regulations. It includes the following elements:

- **Performance hurdles** - Executive Board members are only eligible for consideration of their variable remuneration if both of the performance hurdles are met. This is in line with all employees who are eligible for discretionary variable remuneration. See 'Performance hurdles' for further details.
- **Risk and regulatory adjustments** - Performance against risk and regulatory targets within the core performance target cards are made including an assessment of financial risks and non-financial risks targets measured on an ex-ante basis. The targets and ranges are set at the beginning of the financial year, taking into account ING's risk appetite statement framework. Performance against these risk and regulatory targets may lead to a downward or upward modification in variable remuneration.
- **Additional risk adjustments** - Further downward risk adjustments may also be made to variable remuneration based on broader risk management performance not within risk appetite, including additional ex-ante risk performance that needs to be considered and/or ex-post risk events that may lead to a financial or reputational impact on ING. Risk and Human Resources also assess potential risk adjustments, holdbacks or clawbacks impacting variable remuneration.

The CRO is responsible for recommending any risk-adjustments to variable remuneration awards for the CEO and CFO. The Risk Committee is responsible for recommending this for the CRO. The final decision is made by the Supervisory Board. The Supervisory Board, based on the advice of the Remuneration Committee and Risk Committee, decides on any risk adjustments (potentially to zero) to variable remuneration for Executive Board members. As a final step in the process, in exceptional circumstances the Supervisory Board may apply its discretion to adjust upwards or downwards the variable remuneration of Executive Board members.

2022 Executive Board base salary

The base salary for all roles of the Executive Board remained unchanged for 2022 as disclosed in our 2021 Remuneration Report.

2022 Executive Board performance evaluation

This section includes more details on the financial and non-financial performance of the Executive Board members. Key financial and non-financial achievements against the 2022 predefined target areas are summarised in one table for each of the Executive Board members. This has been discussed and approved by the Supervisory Board. The non-financial, individual performance of each Executive Board member is further summarised in a separate overview per board member in the following pages.

2. 2022 variable remuneration outcomes

		Target - Minimum	Target	Target - Maximum	Performance	Steven van Rijswijk (CEO)			Tanate Phutrakul (CFO)			Ljiljana Čortan (CRO)		
						Weighting	Assessment	Outcome	Weighting	Assessment	Outcome	Weighting	Assessment	Outcome
Financial	Profit before tax	4,660	5,825	6,991	5,502	14.2%	74.5%	10.5%	14.2%	74.5%	10.5%	7.1%	74.5%	5.3%
	Return on equity	6.2%	7.7%	9.2%	7.2%	14.2%	73.3%	10.4%	14.2%	73.3%	10.4%	7.1%	73.3%	5.2%
	Operational expenses	11,374	10,832	10,290	11,199	14.2%	66.5%	9.4%	14.2%	66.5%	9.4%	7.1%	66.5%	4.7%
	Cost control (FTE)	69,331	66,030	62,728	64,992	7.5%	86.3%	6.5%	7.5%	86.3%	6.5%	3.8%	89.9%	3.4%
Non-financial	Customer					5.0%	52.2%	2.6%	5.0%	52.2%	2.6%	n/a	n/a	n/a
	Risk & regulatory	Performance against non-financial measures are organised around these target areas. Please see the following pages for more details on the non-financial performance of each Executive Board member.				15.0%	85.6%	12.8%	15.0%	88.3%	13.3%	45.0%	85.6%	38.5%
	Strategy					17.5%	80.0%	14.0%	17.5%	80.0%	14.0%	17.5%	86.0%	15.2%
	Sustainability & people					12.5%	92.5%	11.6%	12.5%	93.1%	11.7%	12.5%	80.0%	10.0%
Total									100.0%		77.9%		100.0%	
Final 2022 variable remuneration outcomes								77.9%				78.3%		82.2%
Payout out of 20% variable remuneration cap (16% is at target variable remuneration)								15.6%				15.7%		16.4%

* Due to rounding, percentages presented in the table may not add up precisely to the total percentages provided.

* FTE numbers include externals. CRO target relates to risk organisation.



Steven van Rijswijk
CEO

Target

Customers

- Increase number of primary customers
- Increase customers satisfaction by increasing NPS

The strategic focus on creating a superior customers experience has led in 2022 to an increase of primary customers of 585,000, which was slightly below target. The total number of customers that choose ING as their primary bank is 14.6 million, which is 4% higher than year-end 2021.

The positive developments in the net promotor score show that customers value ING's services. ING is rated number one in 6 out of the 10 retail countries. The net promotor score for Wholesale Banking customers improved to 67 at year-end 2022, up from 59 at year-end 2021 and well above the industry benchmark.

The broadening of the value proposition to Wholesale Banking customers requires further attention.

Risk & regulatory

- Manage credit, market and non-financial risk within risk appetite
- Deliver on regulatory programs including KYC

Despite the challenges brought by the outbreak of war in Ukraine and its economic effects, credit, market and non financial risk remained within ING's risk appetite profile.

Supervisory commitments on the implementation of new regulations have been delivered on time and at the required levels.

The Anti Money Laundering processes have been strengthened by:

- Enhancing the processes, controls and oversight around customer due diligence files, leading to a much-improved quality and timeliness of CDD files.
- Implementation of the vast majority of structural solutions as per plan.
- Delivery of structural improvements in frameworks, processes and systems completing a sound foundation.
- Increasing staff in key areas and upscaling skills via a broad range of training.

Continuous improvement of identity and access management with specific attention for tooling, standardisation and harmonisation of processes, workflows and automation of IAM controls.

Strategy

- Deliver on digitalisation initiatives
- Deliver on data initiatives

Developed a longer-term view on the position of ING in the future, resulting in an update of the strategy. The strategy is built around ING's purpose to empower people to stay ahead in life and in business and to make the difference for people and the planet by having two main focus areas: deliver a superior customer experience and have sustainability at the heart of what we do.

Delivery on the digitalisation initiatives:

- The digi-index score, measuring the percentage of a customer journey that is handled without manual intervention went up from 60% year-end 2021 to 64% YE 2022
- The level of workload on (private) cloud went up from 34% YE 2021 to 52% at YE 2022

Delivery on the data initiatives:

- Reduced the number of inbound calls to contact centers with 11% in 2022 by digitalising client contacts, accelerating remote advice and increasing the use of chatbots, call bots and virtual assistance capabilities.
- Reduction of fraud damage using machine learning models.

Sustainability

- Increase level of sustainable loans
- Development and introduction of sustainable products for retail customers
- Reach net-zero emissions for ING's own footprint

Increased the annual sustainable finance volume mobilized from 88bn in 2021 to €101 bln in 2022, with 491 sustainable deals supported in 2022.

Defined and set intermediate 2030 targets for all nine Terra sectors (power generation, upstream oil and gas, commercial real estate, automotive, shipping, cement, residential real estate, steel, aviation).

Introduction of eco-mortgages to stimulate more energy-efficient homes in the Netherlands, Germany, Italy and Romania.

Introduction of eco consumer loans, with discounts related to the purpose of the loan, in Belgium, Germany, Romania, Poland, Turkey and Luxembourg.

Reduced emissions of ING's own footprint in 2022 with -72% to 29 kilotonnes against the midterm goal for 2025 of -75% (compared to the 2014 baseline).

People

- Strengthen organisational health with a focus on four priority areas: strategic clarity, shared vision, employee involvement & role clarity
- Increase gender balance in ING's leadership cadre

A full OHI survey was held in October 2022 with a record number of participants: over 41,000 people, or 69% of ING's total workforce. On a global level, more colleagues indicated that they had clarity on the strategy, shared ING's vision and felt included in decision-making. Based on the pulse survey in May and the full survey in October, the priority areas with the greatest improvements were 'shared vision', 'strategic clarity' and 'employee involvement'. The priority area 'role clarity' did not show improvement.

Female representation in senior management moved up from 26% at YE 2021 to 29% at YE 2022 with a positive progress in nearly all domains.



Tanate Phutrakul
CFO

Target

Customers

- Increase number of primary customers
- Increase customers satisfaction by increasing NPS

The strategic focus on creating a superior customers experience has led in 2022 to an increase of primary customers of 585.000. The total number of customers that choose ING as their primary bank is 14.6 million, which is 4% higher than year-end 2021.

The positive developments in the net promoter score show that customers value ING's services. ING is rated number one in 6 out of the 10 retail countries. The net promoter score for Wholesale Banking customers improved to 67 at year-end 2022, up from 59 at year-end 2021 and well above the industry benchmark.

The broadening of the value proposition to Wholesale Banking customers requires further attention.

Risk & regulatory

- Manage credit, market and non-financial risk within risk appetite
- Deliver on regulatory programs

Despite the challenges brought by the outbreak of war in Ukraine and its economic effects, credit, market and non financial risk remained within ING's risk appetite profile.

Supervisory commitments on the implementation of new regulations have been delivered on time and at the required levels.

Continuous improvement of identity and access management with specific attention for tooling, standardisation and harmonisation of processes, workflows and automation of IAM controls.

Strategy

- Deliver on digitalisation initiatives
- Deliver on data initiatives

Developed a longer-term view on the position of ING in the future, resulting in an update of the strategy. The strategy is built around ING's purpose to empower people to stay ahead in life and in business and to make the difference for people and the planet by having two main focus areas: deliver a superior customer experience and have sustainability at the heart of what we do.

Increased the efficiency of controls around financial reporting processes including replacing manual with automated controls while maintaining the effectiveness.

Sustainability

- Green issuance
- Prepare for ESG disclosures

In 2022, ING continued to issue in green format across the capital structure leading to:

- An issuance of €1,000 mln Tier 2 bonds by ING Group
- An issuance of €1,500 mln Senior HoldCo by ING Group
- An issuance of €1,000 mln Pfandbrief by ING DiBa

EU taxonomy disclosure prepared and published in accordance with progressive regulation.

Prepared and published ESG pillar III templates as required by EBA.

Implemented the extended disclosures on Climate Risk.

People

- Strengthen organisational health with a focus on four priority areas: strategic clarity, shared vision, employee involvement & role clarity
- Increase gender balance in ING's leadership cadre

A full OHI survey was held in October 2022 with a record number of participants: over 41,000 people, or 69% of ING's total workforce. On a global level, more colleagues indicated that they had clarity on the strategy, shared ING's vision and felt included in decision-making. Based on the pulse survey in May and the full survey in October, the priority areas with the greatest improvements were 'shared vision', 'strategic clarity' and 'employee involvement'. The priority area 'role clarity' did not show improvement.

Female representation in senior management moved up from 26% at YE 2021 to 29% at YE 2022 with a positive progress in nearly all domains.



Ljiljana Čortan
CRO

Target

Risk & regulatory

- Manage credit, market and non-financial risk within risk appetite
- Deliver on regulatory programs including KYC

Despite the challenges brought by the outbreak of war in Ukraine and its economic effects, credit, market and non financial risk remained within ING's risk appetite profile.

Supervisory commitments on the implementation of new regulations have been delivered on time and at the required levels.

The Anti Money Laundering processes have been strengthened by:

- Enhancing the processes, controls and oversight around customer due diligence files, leading to a much-improved quality and timeliness of CDD files.
- Implementation of the vast majority of structural solutions as per plan.
- Delivery of structural improvements in frameworks, processes and systems completing a sound foundation.
- Increasing staff in key areas and upscaling skills via a broad range of training.

Continuous improvement of identity and access management with specific attention for tooling, standardisation and harmonisation of processes, workflows and automation of IAM controls.

Strategy

- Deliver on digitalisation initiatives
- Deliver on data initiatives

Developed a longer-term view on the position of ING in the future, resulting in an update of the strategy. The strategy is built around ING's purpose to empower people to stay ahead in life and in business and to make the difference for people and the planet by having two main focus areas: deliver a superior customer experience and have sustainability at the heart of what we do.

Increased the efficiency of controls around non-financial risk processes while maintaining the effectiveness.

Sustainability

- Integrate ESG in ING's governance

Integrating and aligning ESG governance with existing business-as-usual governance of the ING by:

- the establishment of the ESG Committee to assist the Supervisory Board with matters relating to the various areas of ESG
- the establishment of the ESG Sounding Board, which comprises of senior leaders to guide the development and implementation of ESG topics as well as reporting on progress
- the establishment of an ESG risk function as part of the second line of defence
- the establishment of the Climate Risk Initiative, programme aiming to address Climate-related and Environmental (C&E) risks across our organization in accordance with the ECB's Guide on C&E risks.

People

- Strengthen organizational health with a focus on four priority areas: strategic clarity, shared vision, employee involvement & role clarity
- Increase gender balance in ING's leadership cadre

A full OHI survey was held in October 2022 with a record number of participants: over 41,000 people, or 69% of ING's total workforce. On a global level, more colleagues indicated that they had clarity on the strategy, shared ING's vision and felt included in decision-making. Based on the pulse survey in May and the full survey in October, the priority areas with the greatest improvements were 'shared vision', 'strategic clarity' and 'employee involvement'. The priority area 'role clarity' did not show improvement.

Female representation in senior management moved up from 26% at YE 2021 to 29% at YE 2022 with a positive progress in nearly all domains.

2022 variable remuneration and total direct compensation outcomes

In 2022, ING performed well, despite the challenges brought by the outbreak of war in Ukraine and its economic effects, including rising energy prices, elevated inflation and interest rate increases and the lingering effects of the Covid-19 pandemic, including supply chain challenges. The strategy was sharpened and execution of it delivered strong results. Significant progress was made in the various target areas.

The number of primary customers increased by 585,000 over the course of the year to 14.6 million. Financial and non-financial risks were well managed. In the area of sustainability, the volume mobilized increased to €101 bln compared to €88 bln in 2021. Intermediate 2030 targets were set for all nine Terra sectors. In several countries products were launched to stimulate climate-supportive action by customers.

Financially, strongly recovered interest income and resilient fee income drove total income to a record of €18.6 bln. Expense growth was limited despite the impact of higher salary costs and higher marketing expenses to invest in the growth of our customer base. Profit before tax came out at €5.5 bln, 18.9% below 2021, as additions to loan loss provisions were higher on the back of the war in Ukraine while 2021 included significant releases from Covid-19 related overlays. This also led to a corresponding decline in Return on Equity to 7.2%, on a strong capital base.

The financial and capital results were well above the performance hurdles. Following this achievement, the Supervisory Board conducted a thorough and balanced performance assessment. Based on the outcomes of this and their overall achievements, the Supervisory Board concluded that the Executive Board members delivered satisfactory results in 2022.

Furthermore, the Supervisory Board considered whether any discretionary adjustment was required and determined that both the financial and non-financial results speak for themselves in the current environment. The Supervisory Board also considered the behaviour of the Executive Board members and saw no reason to apply any discretionary adjustments.

In the final step, the Supervisory Board took into consideration the feedback of the CRO and Risk Committee on risk and compliance matters. Here, there was no reason to apply any individual additional risk adjustments in accordance with ING's Remuneration Regulations Framework (IRRF).¹

Following this performance assessment process the resulting variable remuneration award for Steven van Rijswijk is €276,796; for Tanate Phutrakul €191,398; and for Ljiljana Čortan €200,957. For the CEO, this

¹ The IRRF consists of the most important regulatory requirements with respect to remuneration to which all remuneration policies of majority owned entities have to adhere to. Furthermore, it consists of our general remuneration principles that apply to all staff globally working under the responsibility of ING.

² In addition, ING Group offers a Directors & Officers indemnity (see also Article 26 of our Articles of Association), under which genuine expenses are provided.

equates to a variable remuneration award at 15.6% out of the maximum 20% cap. For the CFO it represents 15.7% out of the maximum 20% cap and for the CRO it represents 16.4% out of the maximum 20% cap (see table 2. '2022 variable remuneration outcomes').

As recognised in the profit or loss statement of 2022, the expenses for each Executive Board member (active on 31 December 2022), relating to their role on the Executive Board, amount to €2.4 million for the CEO, €1.7 million for the CFO and €1.8 million for the CRO. These amounts include deferred elements from previous years, paid out in 2022.

The following paragraphs (i.e. total direct compensation, pension costs and benefits) show the remuneration awarded to individual Executive Board members with respect to the performance years 2022 and 2021.² All Executive Board remuneration is paid directly by ING.

3. Total direct compensation for (active) Executive Board members

Amounts in euros (rounded figures)	2022		2021	
	Amount	Number of shares	Amount	Number of shares
Steven van Rijswijk (CEO)				
Base salary	1,776,300		1,776,300	
Variable remuneration (fully in shares) ¹	276,796	21,795	301,199	22,975
Tanate Phutrakul (CFO)				
Base salary	1,221,700		1,221,700	
Variable remuneration (fully in shares) ¹	191,398	15,071	218,151	16,641
Ljiljana Čortan (CRO)				
Base salary ²	1,221,700		837,600	
Variable remuneration (fully in shares) ¹	200,957	15,824	144,121	10,994
Total aggregated base salary	4,219,700		3,835,600	
Total aggregated variable remuneration ³	669,151		663,471	
Total aggregated number of shares ¹		52,690		50,610

¹ The number of shares is based on the average ING share price (€12,70) on the day the year-end results were published.

² In 2021, the period as of her appointment as CRO at the AGM on 26 April 2021 is reflected in the base salary.

³ The variable remuneration percentage over 2022 for the Executive Board members are as follows: CEO 15.6%, CFO 15.7% and CRO 16.4%. Thus the percentage of base salary out of total direct compensation is as follows: CEO 86.5%, CFO 86.5% and CRO 85.9%.

Pension costs

Members of the Executive Board participate in the Collective Defined Contribution (CDC) pension plan. In 2022, pension accrual applied to salary up to an amount of €114,866. In addition, the individual members of the Executive Board received a savings allowance to compensate for the loss of pension above €114,866. The table below shows the pension costs of the individual members of the Executive Board in 2022 and 2021.

4. Pension costs for individual Executive Board members ¹		
Amounts in euros (rounded figures)	2022	2021
Steven van Rijswijk (CEO)	23,300	23,700
Tanate Phutrakul (CFO)	23,300	23,700
Ljiljana Čortan (CRO) ²	23,300	16,200

1 Pension accrual only applies to salary up to an annually €114,866 for 2022 (2021: €112,189).

2 In 2021, the period as of her appointment as CRO at the AGM dated 26 April 2021 is reflected in the pension accrual.

Benefits

The individual members of the Executive Board receive benefits. The benefits in 2022 and 2021 amounted to the following costs.

5. Benefits		
Amounts in euros (rounded figures)	2022	2021
Steven van Rijswijk (CEO)	474,600	495,500
Tanate Phutrakul (CFO)	337,700	349,800
Ljiljana Čortan (CRO) ¹	494,800	382,200

1 In 2021, the period as of her appointment as CRO at the AGM on 26 April 2021 is reflected in the amount of benefits.

6. Breakdown of benefits paid in 2022			
Amounts in euros (rounded figures)	Steven van Rijswijk (CEO)	Tanate Phutrakul (CFO)	Ljiljana Čortan (CRO)
Contribution individual savings plans	62,200	42,800	42,800
Individual savings allowance	370,200	246,600	246,600
Travel and accident insurance	15,000	15,000	15,000
Other benefits ¹	27,200	33,300	190,400

1 This includes expatriate allowances (such as housing, school/tuition fees and international health insurances, 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; the use of a company car or driver service.

Shares

Deferred shares are shares conditionally granted subject to a tiered vesting over a period of five years (for awards in 2022 and before), with the ultimate value of each deferred share based on ING's share price on the vesting date. This is conditional on there being no holdback. The main condition for vesting is that these shares require continued employment through vesting date.

7. Shares vested for Executive Board members during 2022

Number of shares	Shares ¹	Grant date	Vesting date	End date of retention period	No. of shares granted ²	No. of shares vested	Vesting price in euros	No. of
								unvested shares remaining
Steven van Rijswijk (CEO)	LSPP	27 March 2018	27 March 2022	27 March 2023	3,460	346	9.44	346
	LSPP	10 May 2018	11 May 2022	11 May 2023	6,584	790	8.76	790
	LSPP	11 May 2020	11 May 2022	11 May 2025	18,858	2,263	8.76	6,789
	LSPP	09 May 2022	09 May 2022	09 May 2027	22,975	9,190	8.84	13,785
Tanate Phutrakul (CFO)	LSPP Units	27 March 2017	27 March 2022	N/A	2,996	482	9.44	485
	LSPP Units	27 March 2018	27 March 2022	N/A	1,989	397	9.44	798
	LSPP	27 March 2019	27 March 2022	27 March 2023	2,837	227	9.44	454
Ljiljana Čortan (CRO)	LSPP	11 May 2020	11 May 2022	11 May 2025	17,694	2,123	8.76	6,370
	LSPP	09 May 2022	09 May 2022	09 May 2027	16,641	6,656	8.84	9,985
	LSPP	09 May 2022	09 May 2022	09 May 2027	16,035	6,414	8.84	9,621

1 All current Executive Board members participate in the ING Group Long-term Sustainable Performance Plan (LSPP) and receive their shares under its plan rules.

2 Number of shares granted includes both the deferred and upfront part awarded at the granting date.

8. Total value of vested and unvested shares of Executive Board members - 2022

Amounts in euros (rounded figures)	Vested shares	Unvested shares	Share price in euros ¹	Total value in euros
Steven van Rijswijk (CEO)	12,589	21,710	11.48	393,753
Tanate Phutrakul (CFO)	9,885	18,092	11.48	321,176
Ljiljana Čortan (CRO)	6,414	9,621	11.48	184,082

¹ The opening share price on 30 December 2022.

Loans and advances to Executive Board members

Executive 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 Executive Board members do not receive privileged financial services. On 31 December 2022, there were no loans and advances outstanding to the Executive Board members.

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 2022 and 2021.

9. ING shares held by Executive Board members

Numbers of shares	2022	2021
Steven van Rijswijk (CEO)	84,245	77,324
Tanate Phutrakul (CFO)	19,494	14,529
Ljiljana Čortan (CRO)	4,478	-

2023 Executive Board remuneration

The Supervisory Board decided not to increase the base salary of the Executive Board members from 1 January 2023. For 2023 the following target areas and percentage weightings will be taken into account for the Executive Board members:

10. 2023 Target Areas		CEO	CFO	CRO
		Weighting	Weighting	Weighting
Financial	Profit before tax	16.7%	16.7%	8.3%
	Return on Equity	16.7%	16.7%	8.3%
	Operational Expenses	16.7%	16.7%	8.3%
		50%	50%	25%
Non-financial	Customer <ul style="list-style-type: none"> Increase number of primary customers, as it leads to deeper relationships, greater customer satisfaction and, ultimately, customers choosing ING for more of their financial needs. Increase customer satisfaction by increasing NPS. Broaden value proposition to Wholesale customers. 	7.5%	5%	n/a
	Risk & regulatory <ul style="list-style-type: none"> Manage financial risk within risk appetite with a specific focus on the revision of the use of internal models. Manage non financial risk within risk appetite with a specific focus on identity and access management. Deliver on regulatory programs including KYC. 	15%	17.5%	45%
	Strategy <ul style="list-style-type: none"> Execution of the digitalisation strategy by: <ul style="list-style-type: none"> Increase digitisation and STP rate of customer processes Increase efficiency of risk and finance processes while maintaining the effectiveness of controls. 	12.5%	12.5%	15%
	Environment & social <ul style="list-style-type: none"> Environment: <ul style="list-style-type: none"> Increase sustainable volume mobilized Reduce emissions to move towards net-zero for ING's own footprint Prepare for CSRD disclosure requirements Further enhance the climate and environmental risk framework Social: <ul style="list-style-type: none"> Strengthen organisational health with a focus on four priority areas: strategic clarity, role clarity, customer focus, operationally disciplined. Increase gender balance in ING's leadership cadre. 	15%	15%	15%
		50%	50%	75%
Total		100%	100%	100%

Remuneration Supervisory Board

Supervisory Board remuneration policy

The Supervisory Board remuneration policy is disclosed in full on [ing.com](https://www.ing.com) in the section 'Remuneration'.

The Supervisory Board fees for 2022 remained the same as in 2021, as shown in the table below:

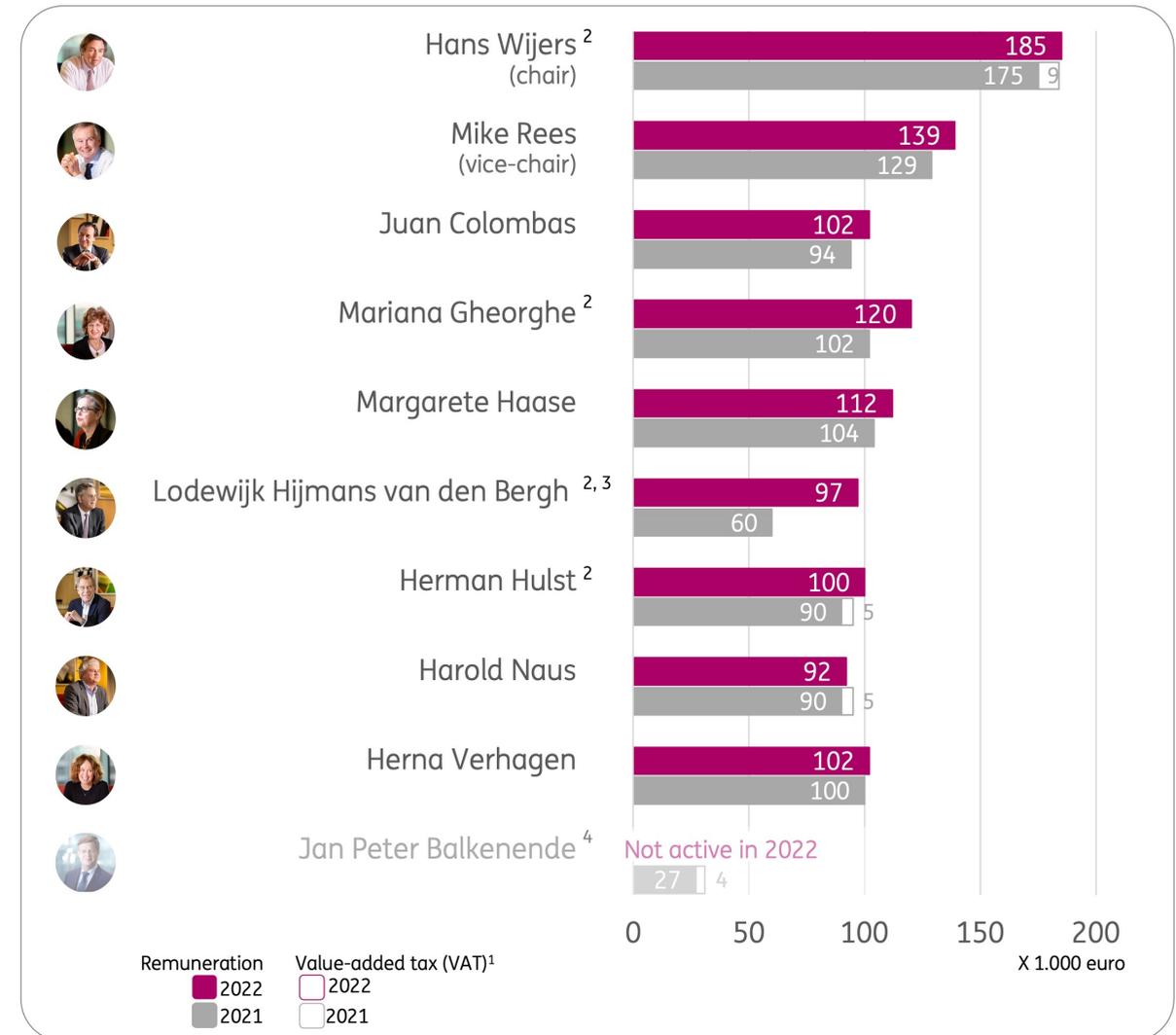
11. Supervisory Board remuneration structure

Annual fees in euros	2022
Chair	125,000
Vice-chair	95,000
Member	70,000
Committee fees (annual amounts)	
Committee chair	20,000
Committee member	10,000
Attendance fees (per event)	
Attendance fee outside country of residence	2,000
Attendance fee outside continent of residence	7,500

All fees are paid fully in cash. No variable remuneration is provided to ensure that the Supervisory Board members remain independent and can provide objective stewardship of ING thereby contributing to the long-term performance of the company. The Supervisory Board members are not eligible for retirement benefits nor any other benefits in relation to their position on the Supervisory Board. Members of the Supervisory Board are reimbursed for their travel and ING-related business expenses.

2022 Remuneration Supervisory Board

The image on the right side shows the remuneration, including attendance fees for each Supervisory Board member. All fees for the Supervisory Board are paid directly by ING.



¹ The VAT regime changed after the first quarter of 2021. VAT is no longer due for remuneration of Dutch based Supervisory Board members.

² In the second quarter of 2022, the Supervisory Board appointed an ESG Committee from among its members. This is the reason that for these members the remuneration is higher in 2022 than over the year 2021.

³ Lodewijk Hijmans van den Bergh was appointed to the Supervisory Board by the AGM on 26 April 2021 with effect from that date.

⁴ Jan Peter Balkenende retired after the AGM on 26 April 2021. The remuneration figures for 2021 reflect a partial year as a member of the Supervisory Board.

Compensation of former members of the Supervisory Board not included in the image on the previous page amounted to nil in 2022 and nil in 2021.

Loans and advances to Supervisory Board members

Supervisory Board members may obtain banking and insurance services from ING 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 2022, 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 2022 and 2021.

12. ING shares held by Supervisory Board members		
Numbers of shares	2022	2021
Herman Hulst	3,650	3,650
Harold Naus	1,645	1,645

2023 Remuneration Supervisory Board

The fee levels of the Supervisory Board will remain unchanged for 2023.

General information for all staff

FOR INFORMATION ONLY AT 2023 ING GROEP N.V. ANNUAL GENERAL MEETING (AGM)

The primary objective of ING's remuneration principles is to attract, motivate and retain qualified and expert leaders as well as senior staff (including Executive Board members) and other highly qualified staff who have the desired Orange Code values and behaviours, skills and knowledge to deliver on ING's purpose in a sustainable way.

The remuneration principles are an integral part of ING's 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 its employees, customers, shareholders and other stakeholders. Our approach to the remuneration principles did not change in 2022.

Our remuneration principles apply to all staff and are embedded in ING's Remuneration Regulations Framework (IRRF) and our people offer (OPO). The OPO sets out ING's differentiating offer as an employer in the job market and states what we ask from our people in return. It gives guidance to our global people practices, while supporting our strategy. The IRRF and OPO comply with relevant international and local legislation and regulations.

In the chapter 'How we are making the difference' under 'Unlocking our people's full potential' ING provides gender pay gap information.

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

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 fair, objective and transparent 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.

Gender-neutral

All staff members will be equally remunerated for equal work or work of equal value, irrespective of their gender.

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 robust and transparent performance management process. Outcomes of performance evaluations (including collective and individual risk assessments) provide input for remuneration. As not all employees are eligible for variable remuneration there is not necessarily a link to financial performance. In the Netherlands, for example the vast majority of the employees do not receive any individual variable remuneration.

Step Up Performance Management is our global performance management approach applicable to almost all employees. It aims to improve people's individual performance and thereby 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 to deliver on ING's purpose in a sustainable way.
- Stretch ambitions: at ING, we believe high performance requires stretch and investment (to achieve the stretch). Therefore we ask people to set ambitions, describing how to contribute beyond the day-to-day role, focusing on the main priorities and 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 organisation. ING uses three ratings 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 (Risk, Compliance and Audit), no individual (commercial) 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

ING aims to provide total direct compensation for expected business and individual performance which is, on average, at the median of the markets in which we operate. ING's main reference market against which we compare and benchmark our compensation levels consists of other European headquartered banks and Financial Services organisations that are comparable in terms of size, business mix and scope. This reference market is reviewed periodically so as to ensure our peer firms remain appropriate and our pay levels market competitive.

The approach taken in determining the reference market is to i.) ensure that the pay strategy of the firms in the peer group is comparable to ING's pay strategy, ii.) sound and defensible when explained to stakeholders, iii.) reflective of similar company attributes and core competencies for talent, iv.) consistent with business and financial scope characteristics, and v.) comprehensive enough to stand up over time to changes in the market (e.g. M&A, divestiture, etc.). In addition to the core peer group consisting of European headquartered banks and financial services organisations which applies to all countries in which ING operates, ING has not only identified additional local banks and financial services organisations in order to capture the local dynamics (including local talent pool), but also technology firms that serve as a secondary reference point for benchmarking certain tech roles.

Fixed remuneration represents a sufficiently high proportion, in line with the level of expertise and skills, and allows a fully flexible variable remuneration award. Furthermore, the level of fixed remuneration allows variable remuneration to be reduced to zero. Variable remuneration is performance driven, subject to regulatory caps and prevents excessive risk taking.

The comprehensive process around variable remuneration

The awarding of variable remuneration, where applicable, is based on group, business line and individual performance criteria unless local legislation prescribes otherwise. The criteria used to measure performance is aligned with the business strategy, objectives, corporate culture, values and long-term interests of ING. In all ING countries, we adhere to the applicable variable remuneration caps.

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 four or five years (depending on the level of seniority) with a tiered vesting schedule. Furthermore, at least 50% of variable remuneration is awarded in equity (or equity-linked instruments unless local legislation prescribes otherwise). The deferral scheme and

instruments used to deliver variable remuneration awards aligns with ING's long-term performance and risk management framework.

The award of discretionary variable remuneration is based on a clear, transparent and robust mechanism for measuring performance and applying adjustments for ex-ante and ex-post risks (the Variable Remuneration Accrual Model or VRAM). The VRAM construct follows a five-step process, as outlined below, leading to risk-adjusted variable remuneration pools determined at a Group and business line level. The 2022 VRAM set-up was approved by the Management Board and Supervisory Board.

1. Target VR Pool baseline ("starting point") which is the aggregate of individual target variable remuneration amounts for all eligible employees across ING.
2. Performance hurdles, which must be met in order to unlock the discretionary variable remuneration pools. These are:
 - The Common Equity Tier 1 (CET1) ratio must be at or above the threshold established by applicable regulations;
 - The return on equity (reported RoE) 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.

In addition, where capital (CET1) is below risk appetite a downward adjustment may be applied to reduce the variable remuneration down to zero.

3. Financial and non-financial and risk performance which is an assessment against a balanced mix of performance targets. Financial measures (e.g. profit, return on equity) are used to drive long-term growth, financial strength and affordability. In addition, different types of non-financial performance measures (e.g. customer, strategy, risk and regulatory, sustainability and people) are also taken into consideration. Here, ING has a responsibility to society to take into account relevant Environmental, Social & Governance (ESG) matters when determining our remuneration policies. ESG is a key area of focus in the VRAM scorecards where people, sustainability and regulatory commitments are used to provide a clear line of sight into ING's ESG strategy, ambitions and targets and encourage broader responsibility to support real change from the wider workforce.
4. CEO discretion can be exercised to adjust the proposed variable remuneration pools. The CEO considers several performance factors when making this decision. This discretion is checked by the Supervisory Board and requires its approval.
5. Risk adjustments are the final and independent step in the process where there is an assessment made by the CRO to risk adjust the variable remuneration pools. Here, the CRO may recommend risk adjustments to variable remuneration pools (and potentially down to zero) at a group, business line,

entity and country level across additional ex-ante and ex-post risk adjustment measures. All relevant financial and non-financial risks will be considered within this step, both on a current and future risk basis (i.e. ex-ante risk adjustments), to ensure the VRAM outcome is appropriate in the context of overall risk performance. In addition, ex-post risk adjustments including collective or one-off risk events are a key element in the process of determining variable remuneration pools. The ex-ante and/or ex-post risk adjustments require Supervisory Board approval, taking into account the input of the Risk function and the advice of the Risk Committee and Remuneration Committee.

The final risk adjustment measure lies in the individual performance assessment itself. An employee's performance is extensively assessed before variable remuneration is awarded. Every manager carefully assesses the performance delivered by their individual team members on the basis of pre-agreed performance objectives and in line with the Step Up Performance Management framework. In addition, managers have discretion 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 on an individual basis during the performance year.

Additional risk requirements apply to Identified Staff who are considered risk takers in accordance with Capital Rights Directive (CRD). 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 CRO is ultimately responsible.

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 also of previous years by applying a holdback (i.e., in-year variable remuneration award reduction, 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 Dutch WBFO (which sets various requirements on remuneration), financial institutions are permitted to set a variable remuneration cap higher than 100% (but not higher than 200%) 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 2021 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 until end-2026. For 2022, it was applied to eight employees worldwide. This mandate is used on an exceptional basis by ING and in 2019, 2020 and 2021 applied to a limited number of employees worldwide.

2022 specifics

ING awards variable remuneration across the global organisation in line with our remuneration principles, global and local legislation, regulations and market practices. The awarding of variable remuneration, where applicable, is based on group, business line and individual performance criteria, both financial, non-financial and risk-based, and comes in the form of both discretionary and collective variable remuneration.

Collective variable remuneration is based on collective labour agreements and/or profit sharing schemes that are driven by regulation, law and/or workers council agreements in various countries. Over the past years the total amount of collective variable remuneration has been relatively stable and typically accounts for around 25% of the total spend on variable remuneration.

In 2022, our capital base and liquidity remained strong. From a performance perspective, the “underlying” financial results were strong with rising interest rates supporting the revenue growth while the inflationary pressure was not yet fully reflected in cost growth. However, the 2022 results were impacted by a number of material events, such as the elevated risk costs stemming from the war in Ukraine and deteriorating economic outlook. Non-financial performance was good with effective risk management leading to positive adjustments for financial and non-financial risk across most business lines. Overall, this resulted in a risk-adjusted discretionary Group VR pool at €324.7 million, equating to a 1.8% decrease against the target discretionary VR baseline (“starting point”) and 3.8% increase versus the previous performance year.

The total actual amount of both discretionary and collective variable remuneration awarded to all eligible employees globally for 2022 was €426.6 million (€101.9 million in collective variable remuneration), compared to total staff expenses of €6,152 million. For 2021, the total amount was €417.8 million (€105.0 million in collective variable remuneration) on €5,941 million staff expenses.

In 2022, 14 employees – excluding members of the Management Board Banking – were awarded total annual remuneration (including employer pension contributions and excluding severance payments made) of €1 million or more. Please see our CRR disclosure for further details on [ing.com](https://www.ing.com) under the section ‘Annual reports’.

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 internal employees at a full time equivalent basis was 57,569 at the end of 2022, of which 14,488 or 25%, 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 2022, 2021 and 2020 were as follows:

	Number of employees								
	Netherlands			Rest of the world			Total		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Total average number of internal employees at full time equivalent basis	14,488	15,138	15,201	43,081	42,523	40,701	57,569	57,660	55,901

The Group employs a number of temporary employees. The average number of temporary employees, not included in the table above, at a full time equivalent basis was 3,924 at the end of 2022.

E. Share ownership

For information regarding share ownership, see Item 6.B of this Form 20-F and Note 26 'Staff Expenses' to the consolidated financial statements.

F. Disclosure of a registrant's action to recover erroneously awarded compensation

Not applicable.

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.

Major shareholders as filed with SEC

According to the U.S. Securities and Exchange Commission, shareholders in a company which have registered a class of their equity securities under the Exchange Act, are required to file beneficial owner reports if the ownership exceeds more than 5% of the outstanding shares of that class. The shareholder is obliged to file Schedule 13D or 13G until their holdings drop below 5%.

To the best of our knowledge, as of 31 December 2022, no holder of ordinary shares or ADSs, other than BlackRock Inc. held 5% or more 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 29 January 2021, BlackRock, Inc. disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 289,185,500 ordinary shares of ING Group as of 31 December 2020, representing 7.4% of ING Group's issued share capital. On 1 February 2022, BlackRock, Inc. disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 292,129,468 ordinary shares of ING Group as of 31 December 2021, representing 7.5% of ING Group's issued share capital. On 11 February 2022, Capital Research Global Investors disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 224,540,855 ordinary shares of ING Group as of 31 December 2021, representing 5.8% of ING Group's issued share capital. On 13 February 2023, Capital Research Global Investors disclosed by way of a Schedule 13G filed with the SEC, beneficial ownership of 57,557,399 ordinary shares of ING Group as of 30 December 2022, representing 1.5% of ING Group's issued share capital.

Major shareholders as filed with AFM

Pursuant to section 5.3 of the Dutch Financial Supervision Act (“Major Holdings Rules”), any person who, directly or indirectly, acquires or disposes of an interest in the voting rights and/or the capital of (in short) a public limited company incorporated under the laws of the Netherlands with an official listing on a stock exchange within the European Economic Area, as a result of which acquisition or disposal the percentage of his voting rights or capital interest - whether through ownership of shares, American depository receipts (ADRs) or any other financial instrument, whether stock-settled or cash-settled, such as call or put options, warrants, swaps or any other similar contract - reaches, exceeds or falls below the threshold levels of 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95% is required to provide updated information on its holdings and are recorded in the Dutch AFM (Authority for the Financial Markets) register (<http://www.afm.nl/nl-en/professionals/registers/meldingenregisters/substantiele-deelnemingen>).

Based on the AFM register, shareholders with (potential) holdings of 3% or more are BlackRock Inc. (5.57% interest and 6.75% voting rights reported on 2 December 2022), the Goldman Sachs Group Inc. (4.56% interest and voting rights reported on 16 December 2022), Norges Bank (3.00% interest and voting rights reported on 17 August 2022) and Artisan Investments GP LLC (3.00% interest and voting rights reported on 2 March 2022).

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 2022, ING Groep N.V. and its subsidiaries held 107,394,604 ordinary shares or ADSs, representing 2.88% 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.

On 31 December 2022, 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 2022, members of the Supervisory Board and their related third parties held 5,295 Ordinary Shares. Members of the Supervisory Board do not hold ING options.

As at 31 December 2022, members of the Executive Board and their related third parties held 108,217 ordinary shares.

As at 31 December 2022 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 2022 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.

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.

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.

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 45 'Legal proceedings' in the consolidated financial statements.

Policy on dividend distribution

ING's distribution policy is a pay-out ratio of 50% of resilient net profit and additional distributions in case of structural excess capital. For detailed information on ING's 2022 dividend, reference is made to Note 50 'Capital Management'.

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".

ING's distribution policy may be changed at any time and there is no guarantee that any dividends or other distributions will be made in accordance with the distribution policy in effect from time to time or at all.

B. Significant changes

For information on subsequent events reference is made to Note 52 'Subsequent events' of the consolidated financial statements.

Since 31 December 2022, 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.

Reference is made to Exhibit 1.1 to this Form 20-F for the articles of association.

C. Material contracts

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 applicable 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 including foreign, state or local tax consequences, estate and gift tax consequences, and tax consequences arising under the Medicare contribution tax on net investment income or the alternative minimum tax. 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 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 or investors that acquired or dispose of Ordinary Shares or ADSs as part of a wash sale, some of which may be subject to special rules. If an entity or arrangement that is treated as a partnership for United States federal income tax purposes holds the Ordinary Shares or ADSs, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the Ordinary Shares or ADSs should consult its tax advisor with regard to the United States federal income tax treatment of an investment in the Ordinary Shares or ADSs.

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 if such income received or capital gains derived is 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:

1. dividends paid in cash and in kind;
2. deemed and constructive dividends;

3. 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;
4. any (partial) repayment of paid-in capital not qualifying as capital for Dutch dividend withholding tax purposes;
5. liquidation proceeds in excess of the qualifying average paid-in capital for Dutch dividend withholding tax purposes; and
6. 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:

1. 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.
2. 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.
3. 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.
4. 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, contrary to 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:

1. such income and gains are attributable to a (deemed) permanent establishment or (deemed) permanent representative in the Netherlands of the U.S. Shareholder; or
2. 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
3. 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;
4. in case of a non-Dutch resident corporate shareholder, such shareholder is a resident of Aruba, Curaçao 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

5. 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 Ordinary Shares or ADSs is 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 or ADSs 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 ING Groep N.V. is 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 gross 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 in the case of Ordinary shares, or by the Depositary, in the case of ADSs. For this purpose, a “dividend” will include any distribution paid by ING Groep N.V. with respect to the Ordinary Shares or ADSs, 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 or ADSs 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 limitation 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. However, if (a) we are 50% or more owned, by vote or value, by United States persons and (b) at least 10% of our earnings and profits are attributable to sources within the United States, then for foreign tax credit purposes, a portion of our dividends would be treated as derived from sources within the United States. With respect to any dividend paid for any taxable year, the United States source ratio of our dividends for foreign tax credit purposes would be equal to the portion of our earnings and profits from sources within the United States for such taxable year, divided by the total amount of our earnings and profits for such taxable year.

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 or ADSs 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 or ADSs generally will be qualified dividend income, provided that, in the year that you receive the dividend, we are eligible for the benefits of the Treaty. We believe that we are currently eligible for the benefits of the Treaty and we therefore expect that dividends on the Ordinary Shares or ADSs will be qualified dividend income, but there can be no assurance that we will continue to be eligible for the benefits of the Treaty.

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. However, under recently finalized Treasury Regulations, it is possible that the Netherlands withholding tax may not be creditable unless a U.S. Shareholder is eligible for and elect to apply the benefits of the Treaty. Even in such case, the Netherlands withholding tax will likely not be creditable against the U.S. Shareholder’s United States tax liability 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 a U.S. Shareholder 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 the U.S. Shareholder's 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 the U.S. Shareholder's 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 or ADSs 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 U.S. dollars at the "spot rate" on the date the dividend is distributed, regardless of whether the payment in fact converted into U.S. dollars. Generally, any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend is distributed 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 or ADSs by a U.S. Shareholder will generally be a capital gain or loss for United States federal income tax purposes equal to the difference between the U.S. dollar value of the amount that such U.S. Shareholder realizes and such U.S. Shareholder's tax basis, determined in U.S. dollars, in the Ordinary Shares or ADSs. If such U.S. Shareholder has held the Ordinary Shares or ADSs 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 or ADSs 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 or ADSs, any gain from the sale or disposition of Ordinary Shares or ADSs 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 three preceding taxable years or the portion of the holder's holding period that preceded the current taxable year. 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 or ADSs 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:

<u>Type of Service</u>	<u>ADR Depositary Actions</u>	<u>Fee Payable</u>	<u>Type of Service</u>	<u>ADR Depositary Actions</u>	<u>Fee Payable</u>
Depositing or substituting the underlying Ordinary Shares	Issuance of ADSs against the deposit of Ordinary Shares, including deposits and issuances in respect of: <ul style="list-style-type: none"> — 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.	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.
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.	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.
Selling or exercising rights	<ul style="list-style-type: none"> — 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.	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.
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.			

<u>Type of Service</u>	<u>ADR Depository Actions</u>	<u>Fee Payable</u>
Other charges and expenses of the ADR depository	<p>The ADR depository may incur charges and expenses on behalf of holders in connection with:</p> <ul style="list-style-type: none"> — 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. 	<p>Payable by holders or persons depositing Ordinary Shares.</p> <p>Payable by persons depositing, or holders of ADRs delivering underlying Ordinary Shares, Ads or deposited securities.</p> <p>Payable by persons depositing or withdrawing deposited securities.</p>

Fees and Payments made by the ADR depository to ING

In consideration for acting as depository, the ADR depository has agreed to provide ING with certain amounts on an annual basis. In the year ended 31 December 2022, the ADR depository paid aggregate fees and made other direct and indirect payments to ING in an amount of USD 4,779,478.

Under certain circumstances, including removal of the ADR depository or termination of the ADR program by ING, ING is required to repay the ADR depository 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 control over financial reporting. Moreover, the external auditors are required to provide an opinion on the effectiveness of ING Group’s internal control over financial reporting.

SOX 404 activities are organised 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 2022. 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 CEO and CFO concluded that the Company’s disclosure controls and procedures were effective as of December 31, 2022, the end of the period covered by the 2022 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 2022. In making this assessment, the Executive Board performed tests based on the criteria of the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) in Internal Control – 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 financial reporting was effective as of 31 December 2022.

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 control 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, 2022, 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, 2022, 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, 2022 and 2021, 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, 2022, the related notes and the specific disclosures described in Note 1 as being part of the consolidated financial statements (collectively, the consolidated financial statements), and our report dated March 6, 2023 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 6, 2023

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 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. Margarete Haase is chairperson of the Audit Committee.

Item 16B. Code of Ethics

Orange code and the global Code of Conduct

The Orange Code and the global Code of Conduct are the foundation of ING's risk culture. The global Code of Conduct defines the most essential conduct principles expected from ING employees in their daily activities, to create additional risk awareness and better meet expectations stated in external rules and guidelines. In 2021, the global Code of Conduct has been embedded into our employees' performance management cycle to ensure continuous attention to the Global Code of Conduct, and dialogue on how to apply it in our daily work practice.

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 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 measure each other's performance.

The ING Code of ethics are the ING Orange Code and the ING Global Code of Conduct and no waivers have been granted for either of them.

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 2022, 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 2022.

Orange Code Decision Making

To enhance risk awareness, support moral learning, and enable people to perform proper risk judgement, the Orange Code Decision Making model (introduced in 2017) targets to support our employees in dealing

with dilemmas via workshops and dialogue sessions. This four-step approach supports balanced decision-making by weighing the rights and interest of all stakeholders involved. Compliance organizes ongoing training for local Compliance experts so that they can properly apply the model in their respective countries. Moreover, the model has been embedded into other decision making processes, such as the data ethics governance process and the global Product Approval and Review Process.

Conflicts of Interest

ING is committed to identify conflicts of interest and act on them. The Conflicts of Interest policy sets the obligation to identify, assess and manage conflicts of interest when personal or organisational interests are in conflict over the interest of our client(s), employees or other stakeholders. In 2022 the Conflicts of Interest policy was revised and implemented to further align with the standards as defined by enterprise risk management. The policy incorporates key requirements for both personal and organisational conflicts of interest in line with the European Bank Authority Guidelines on Internal Governance. Next to the updated policy, mandatory instructions on conflict of interest registers are implemented which provides instructions to identify, assess, mitigate or prevent and record all structural and incidental conflicts of interest.

ING maintains a policy on Conflicts of Interests which applies to all employees worldwide, including the principal executive, financial and accounting officers. A description of the policy on Conflicts of Interest is available to view on the ING website at <https://www.ing.com/About-us/Compliance/Conflicts-of-interest-and-confidential-information.htm>.

ING did not grant any waivers (including implicit waivers) under the Conflicts of Interest Policy to the principal executive, financial or accounting officers in 2022.

Whistleblower

The programme launched in 2021 to enhance the global whistleblower process has been concluded. In 2022 whistleblowing enhancement activities have continued with an emphasis on increasing employee awareness on misconduct reporting. Sanitized whistleblowing data has been shared within the organisation to provide more transparency on the types of concerns employees do report and our rapidity of response.

The Whistleblower Policy is available on the ING website at www.ing.com/About-us/Compliance/ING-Group-Whistleblower-Policy.htm.

ING granted ING Turkey a waiver, because its local regulation was stricter than the ING Whistleblower Policy. No further waivers were granted (including implicit waivers) under the Whistleblower Policy to the principal executive, financial or accounting officers in 2022.

Banker's Oath

In the Netherlands, all employees of ING take the Bankers' Oath (including ING's principal executive, financial and accounting officers) and pledge this promise in a meaningful ceremony. The Oath came into force in the Netherlands on 1 April 2015, as part of a joint approach from all banks, aimed at introducing social regulations, a revised Dutch Banking Code implementing an oath with associated rules of conduct and disciplinary law. This way the Dutch banks show society what they stand for and are accountable for, both as individual banks and as a sector. In 2021, due to the Covid-19 pandemic, ING NL changed to virtual Bankers' Oath ceremonies via Teams, instead of the former physical ones, to ensure that all new employees (around 400 a month) can still take the Bankers' Oath in time and in a meaningful ceremony. Before taking the Oath, an e-learning is followed and the importance of the Oath is discussed. Also, dilemmas that the employees may come across in their daily work are shown, to ensure careful balancing of the interests of all our stakeholders, in the decisions we make. In 2020 and 2021 the whole Bankers' Oath programme for new joiners was revised and updated, to ensure that all elements still align with the current developments, both internally and externally.

In 2022, there were no amendments to the Banker's Oath. ING did grant waivers under the Banker's Oath, but not to principal executives, financial and accounting officers in 2022 (unless they were not in scope of the Banker's Oath obligation according to ING's Banker's Oath Guidelines). 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 23 April 2019, KPMG (KPMG Accountants N.V. in Amstelveen, the Netherlands – PCAOB ID: 1012) was re-appointed as the external audit firm for ING Group for the financial years 2020 through 2023. This appointment includes the responsibility to provide an audit opinion on the financial statements and internal control over financial reporting on 31 December 2022 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 address this meeting. The external auditor attended the meetings of the Risk Committee and of the Audit Committee and attended

and addressed the 2021 Annual General Meeting, at which the external auditor provided an explanation on the audit activities and the 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 Auditors' Independence. All services were approved by the Audit Committee.

More information on the ING Group Policy on External Auditors' Independence is available on the website of ING Group www.ing.com.

Audit fees

Audit fees were paid for audit and assurance services provided by the auditors. The services provided include the audit of ING Group's consolidated financial statements and Form 20-F. Moreover, these services include the audits of the statutory financial statements of its subsidiaries. And, it includes assurance services provided by the auditor regarding other filings for regulatory and supervisory purposes as well as the review on interim financial statements. Furthermore, it includes the assurance services 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 not reported under the audit fee item above. These services consisted primarily of specific agreed-upon procedure engagements and assurance engagements for third parties.

Tax fees

Over 2022 no tax fees were paid. Under the current ING Group Policy on External Auditors' Independence most tax services are prohibited. Some tax services are only allowed after specific approval under an 'exception procedure'.

Reference is made to Note 28 'Audit fees' in the consolidated financial statements for audit, audit-related, tax and all other fees paid to the external auditors in 2022, 2021 and 2020.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

On 1 October 2021, ING announced a share buyback programme under which it repurchases ordinary shares of ING Groep, with a maximum total value of EUR 1,744 million and for a number of shares not exceeding the authority granted by the general meeting of shareholders (10% of the issued shares). The share buyback programme commenced on 5 October 2021 and was completed on 28 February 2022. The total number of shares repurchased under the programme is 139,711,040 ordinary shares at an average price of EUR 12.47 for a total consideration of EUR 1,742 million. The purpose of the share buyback programme was to reduce the share capital of ING.

On 6 May 2022, ING announced a share buyback programme for EUR 380 million. The programme commenced on 12 May 2022 and was completed on 14 July 2022. The total number of shares repurchased under the programme is 40,749,792 ordinary shares at an average price of EUR 9.41 for a total consideration of EUR 383 million. The purpose of the share buyback programme was to reduce the share capital of ING.

On 3 November 2022, ING announced a share buyback programme for a maximum total amount of EUR 1,500 million. The programme was completed on 28 December 2022 for a total consideration of EUR 1,204 million. The remainder of the total amount of EUR 1,500 million, amounting to EUR 297 million or EUR 0.082 per share, has been paid to shareholders in cash on 16 January 2023. The purpose of the share buyback programme is to reduce the share capital of ING. It is a next step in converging our CET1 ratio towards the target of around 12.5% by 2025.

All share buyback programmes have been approved by the ECB and were executed within the limitations of the existing authority of a maximum of 10% of the issued shares as granted by the general meeting of shareholders on 25 April 2022 (and 26 April 2021 for the programme announced on 1 October 2021) and in compliance with the Market Abuse Regulation. For each buyback, ING entered into a non-discretionary arrangement with a financial intermediary to conduct the buyback.

ING Groep N.V. has no other publicly announced plans or programmes to repurchase shares. In 2022, ING Groep N.V. did not determine to terminate any publicly announced plans or programmes prior to expiration, or determine that it intends not to make any further purchases under any publicly announced plans or programmes.

There were no other purchases by us or any of our affiliated purchasers of any of our equity securities registered pursuant to Section 12 of the Securities Exchange Act of 1934 during the fiscal years ended December 31, 2022, 2021 and 2020.

Purchases of Equity Securities by the Issuer and affiliated Purchasers

Month of purchase	Total number of shares purchased ¹	Average price paid per share in EUR	Total number of shares purchased as part of publicly announced plans or programmes ^{2, 3, 4}	Maximum Value of shares that may yet be purchased under the plans or programmes in EUR million
January 2022	3,241	13.09	3,241	137
February 2022	12,079,999	11.37	12,079,999	0
March 2022				
April 2022				
May 2022	6,852,784	9.36	6,852,784	319
June 2022	16,530,230	9.73	16,530,230	158
July 2022	17,366,778	9.12	17,366,778	-
August 2022				
September 2022				
October 2022				
November 2022	73,757,391	11.20	73,757,391	378
December 2022	33,275,354	11.35	33,275,354	-
Total	159,865,777	10.79	159,865,777	-
Of which:				
Purchased in the open market	159,865,777	10.79	159,865,777	1,724
Acquired through exercise of call options / settlement of forward contracts	n.a.	n.a.	n.a.	n.a.

1 The table excludes purchases for market-making in ING Groep N.V. shares.

2 On 1 October 2021, ING Groep N.V. announced a share buyback programme for EUR 1,744 million. The programme was initiated on 5 October 2021 and is expected to end no later than 5 May 2022. The share buyback programme was completed on 28 February 2022. The programme is executed by an intermediary to allow for purchases in the open market during both open and closed periods. As the programme was initiated for capital reduction purposes, ING Groep N.V. cancelled all of the shares acquired under the programme in 2022.

3 On 6 May 2022, ING announced a share buyback programme for EUR 380 million. The programme commenced on 12 May 2022 and was completed on 14 July 2022. The total number of shares repurchased under the programme is 40,749,792 ordinary shares at an average price of EUR 9.41 for a total consideration of EUR 383 million. The programme is executed by an intermediary to allow for purchases in the open market during both open and closed periods. The purpose of the share buyback programme was to reduce the share capital of ING and ING cancelled all of the shares acquired under in programme in 2022.

4 On 3 November 2022, ING announced a share buyback programme for a maximum total amount of EUR 1,500 million. The programme was completed on 28 December 2022 for a total consideration of EUR 1,204 million. The programme is executed by an intermediary to allow for purchases in the open market during both open and closed periods. The remainder of the total amount of EUR 1,500 million, amounting to EUR 297 million or EUR 0.082 per share, has been paid to shareholders in cash on 16 January 2023.

Item 16F. Changes in Registrant's Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

Dutch Corporate Governance Code, Banking Code and Dutch Tax Governance Code

As ING Group is established and listed in the Netherlands, it must comply with Dutch laws and regulations and is subject to the Dutch Corporate Governance Code (the DCGC).

The DCGC provides guidance for ING's corporate governance structure and practices. ING strongly supports the DCGC and its principles to ensure sound corporate governance. ING's application of the DCGC is described in the booklet 'Application of the Dutch Corporate Governance Code by ING Groep N.V. (FY2022)', 9 March 2023, available on ing.com. The DCGC can be downloaded from the website mccg.nl.

The Dutch Banking Code (the Banking Code) is only applicable to ING Bank, but ING Group voluntarily applies the principles of the Banking Code on remuneration for its Executive Board members and senior management. The Banking Code can be downloaded from the website nvb.nl.

ING Group also voluntarily applies the principles of the Dutch Tax Governance Code. ING's application of the Dutch Tax Governance Code is described in the booklet 'Application of the Dutch Tax Governance Code by ING Groep N.V.', 9 March 2023, available on ing.com. The Dutch Tax Governance Code can be downloaded from the website vno-ncw.nl.

Differences between Dutch and US corporate governance practices

ING Group qualifies as a foreign private issuer under the US Securities and Exchange Commission (SEC) rules and is permitted to follow home-country practice in some circumstances, in lieu of certain corporate governance standards required by the New York Stock Exchange (NYSE) applicable to US domestic companies. Accordingly, 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 these differences are the following:

- 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.
- Under the DCGC, all members of the supervisory board, with the exception of not more than one person, should be 'independent' as determined under the DCGC. However, the definition of 'independent' under the DCGC differs in its details from the definition of 'independent' under the NYSE listing standards. All members of ING's Supervisory Board, are independent as determined under the DCGC.
- NYSE listing standards require a US company to have a compensation committee and a nominating/corporate governance committee, each composed entirely of independent directors (as determined under the NYSE listing standards). ING's Nomination and Corporate Governance Committee and Remuneration Committee are composed entirely of members of the Supervisory Board who are independent as determined under the DCGC.
- 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 (on its website, in its annual proxy statement or in its annual report filed with the SEC) that the board of directors has determined 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 DCGC contains an 'comply-or-explain' principle, offering the possibility of deviating from the DCGC. For any deviations by ING Group, please refer to the paragraph 'Dutch Corporate Governance Code and Banking Code'.

- NYSE listing standards require external auditors to be appointed by the audit committee. By contrast, Dutch law requires ING Group's external auditors to 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 ING Group's external auditor, and annually evaluates the independence and functioning of, and developments in the relationship with, ING Group's external auditor and informs the Supervisory Board of its findings and proposed measures.
- Under NYSE listing standards, shareholders of US companies must be given the opportunity to vote (of which the result is advisory in nature) on all equity compensation plans applicable to any employee, director or other service provider of a company (or on material revisions thereto), with limited exceptions set forth in the NYSE rules. Under Dutch law and the DCGC, 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.
- The NYSE listing standards require certain transactions with related parties to be reviewed by a company's audit committee or another independent body of the board of directors for potential conflicts of interest, and for the audit committee or other independent body to prohibit such a transaction if it determines it to be inconsistent with the interests of the company and its shareholders. However, foreign private issuers can rely on home country practice with respect to review and approval of related party transactions. ING has adopted internal policies and procedures for the purposes of identifying, assessing, and recording conflicts of interest, including with respect to whether related party transactions are on customary or arm's length terms. These policies and procedures are intended, if and to the extent required under applicable law, prudential rules and other applicable guidelines, to enable the Executive Board and Supervisory Board to assess the terms of these intended transactions.

Item 16H. Mine Safety Disclosure

Not applicable.

Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

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 on page F-222.

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 12 May 2022 (incorporated by reference to Exhibit 99.1 of ING Groep N.V.'s Report on Form 6-K filed on 17 May 2022)
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	Indenture, dated as of April 16, 2015, between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 16 April 2015)

Exhibit 2.7	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 2.8	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 2.9	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 2.10	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 2.11	Second Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated 2 October 2018, in respect of 4.100% Fixed Rate Senior Notes due 2023, 4.550% Fixed Rate Senior Notes due 2028 and Floating Rate Senior Notes due 2023 (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 2 October 2018)
Exhibit 2.12	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 2.13	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)

Contents	Part I	Part II	<u>Part III</u>	Additional information	Financial statements
Exhibit 2.14	Fourth Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated April 1, 2021, in respect of 1.726% Callable Fixed-to-Floating Rate Senior Notes due 2027, 2.727% Callable Fixed-to-Floating Rate Senior Notes due 2032 and Callable Floating Rate Senior Notes due 2027 (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 1 April 2021)			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 2.15	Fourth Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated September 14, 2021, in respect of 3.875% Perpetual Additional Tier 1 Contingent Convertible Capital Securities and 4.250% 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 14 September 2021)			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	Inline eXtensible Business Reporting Language (Inline XBRL)
Exhibit 2.16	Fifth Supplemental Indenture between ING Groep N.V. and The Bank of New York Mellon, London Branch, as trustee, dated March 28, 2022, in respect of 3.869% Callable Fixed-to-Floating Rate Senior Notes due 2026, 4.017% Callable Fixed-to-Floating Rate Senior Notes due 2028, 4.252% Callable Fixed-to-Floating Rate Senior Notes due 2033 and Callable Floating Rate Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 of ING Groep N.V.'s Report on Form 6-K filed on 28 March 2022)			Exhibit 104	Cover Page Interactive Datafile (embedded in Exhibit 101)
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				

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 6, 2023

Risk management

The war in Ukraine had, besides an immense impact on the lives of millions of people, a negative impact on the global economy. While businesses and households were still recovering from the economic consequences of Covid-19, developments in Ukraine further distorted supply chains, caused higher energy costs and aggravated an already high inflation rate environment. This, in combination with central bank rate hikes, worsened the macroeconomic outlook. This section explains ING's approach towards 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 strategic planning and daily business activities. This aims to safeguard ING's financial strength and reputation by promoting the identification, measurement and management of risks at all levels of the organisation. Taking measured risks aligned with its risk appetite is core to ING's business.

The risk management function supports the EB in formulating the risk appetite, strategies, policies and limits. It provides adequate steering, oversight, challenge and controls throughout ING on risk-related items.

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' model. 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 on solvency, credit, market, funding and liquidity, ESG, operational, IT, compliance, business and model risks.

Risk categories

ING's main risks are described in the categories below. Chapters in the risk management section are based on how risks are managed internally. Operational and IT risks are part of the Non-financial risk (NFR) chapter.

Overview of risk categories

Risk categories	Sub-categories	Defined as:
Financial risk	Solvency risk	The risk of lacking sufficient capital to fulfil business objectives, regulatory requirements or market expectations. A bank that is completely insolvent is unable to pay its debts and will be forced into bankruptcy.
	Credit risk	The risk of potential loss due to default by ING's debtors (including bond issuers) or trading counterparties.
	Market risk	The risk of potential loss due to adverse movements in market variables.
	Funding and liquidity risk	The risk that ING cannot meet financial liabilities when they become due at reasonable costs and in a timely manner.
Non-financial risks	Operational risk	The risk of direct or indirect loss arising from inadequate or failed internal processes, people and systems or from external events.
	Information (Technology) risk	The risk of financial loss, regulatory sanction and/or reputational damage due to ineffectively utilising information, or inappropriately protecting information.
	Compliance risk	A threat posed to ING's standing resulting from failure to act in line with applicable laws and regulations, internal rules (including ING's Orange Code and global Code of Conduct) and/or societal expectations.
Overarching risks	ESG risk	The risk of losses arising from any negative financial impact on the institution stemming from the current or prospective impacts of environmental, social or governance factors on the institution's counterparties or invested assets
	Business risk	The value or earnings loss due to business and strategic decisions that do not materialise as planned. This risk can be expressed in terms of volumes, margins, expenses and fees and commissions.
	Model risk	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, non-compliant or misinterpreted model outputs.

Basis of disclosures (*)

The risk management section contains information relating to the nature and 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 (*). This is applicable for the chapters, paragraphs, graphs or tables within the risk management section that are indicated with this symbol in the respective headings or table header.

This risk management section also includes additional disclosures beyond those required by IFRS 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 CRR2 and CRD V, 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.

Top and emerging risks

The risks listed below are defined as existing and emerging risks which could cause actual results to differ, in some instances materially, from those anticipated. They may have a material impact on the reputation of the company, introduce volatility in future operating 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 where the impact on the organisation is currently more difficult to assess than other risk factors. These risks are on top of other existing risks.

The topics have mainly emerged as part of the annual risk assessment that feeds into, among others, the annual review 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.

The 2022 risk assessment confirmed our top and emerging risks. The top risks in 2022 are related to geopolitical risk, financial crime, cybercrime and inflation risk. Climate change risk remains an emerging risk, and reflects the impact that climate change may have on the financial position and/or reputation of ING.

Geopolitical risk

This risk has obviously increased since the early start of 2022, mainly following the war in Ukraine and subsequent threats by Russia to limit or cut gas exports. Besides Russia's war in Ukraine, tensions between the US and China relating to Taiwan and trade issues have persisted this year.

The war in Ukraine

The war in Ukraine and rapidly escalating events in 2022 were, and still are, a significant tragedy to the people, causing disruption to business and economic activity in the region and worldwide. Subsequently, the US, the UK and the EU initiated sanctions against Russia in 2022. In response, the Russian central bank enforced liquidity and currency controls. The uncertainty about the outcome of the war will remain in the longer term.

Sanctions

The international community leveraged their sanction tools in response to the war in Ukraine. Accordingly, as part of ING's KYC and compliance risk governance and procedures, ING is continuously monitoring the situation to stay abreast on all relevant updates to implement effective and appropriate additional control measures and to manage the increased risk and financial impacts of these developments. For sanctions-related developments, more information is in 'Compliance risk'.

Our exposures

ING has Wholesale Banking activities in both Russia and Ukraine, as well as investments in Russia, some of which are denominated in local currency. Investments in Russia are in government securities as required by a subsidiary under Russian law. As a result of the war in Ukraine and related international response measures, including sanctions and capital controls, we face an increased risk of default of counterparties located in Russia and Ukraine. These include counterparties the ultimate parent of which is located in Russia, which may be considered effectively controlled or influenced through Russian involvement, and other counterparties in sectors affected by the international response measures. Furthermore, we have counterparty exposure to Russian entities in connection with foreign exchange derivatives for future receipt of foreign currencies against the Russian rouble.

Remaining at risk for ING at year-end 2022 is €0.3 billion local equity and €2.5 billion credit exposures booked outside of Russia. In Ukraine, our exposure was approximately €500 million, mainly with liquidity facilities and other lending. Early in March 2022, we intensified monitoring of counterparties, continued managing our exposure and announced a decision to not do new Russia-related business.

The Russian and Ukrainian exposures are under continuous monitoring. Uncertainties on the evolution of the conflict will remain for some time to come. Since the start of the war, business and risk departments

have worked on several sensitivity analyses and stress tests to assess the potential downside impact of the war, and the potential second order and stagflation impact in 2022. Furthermore, we are working together with counterparties, both onshore and offshore, to limit risks associated with derivatives exposures.

Financial crime risk

We're committed to fulfilling our role as a gatekeeper to the financial system, to protect customers, society and our bank from the corrosive effects of financial crimes such as money laundering, terrorist financing, bribery and corruption, sanctions evasion and tax offences. It's our intention to not just comply with applicable laws and regulations in relation to financial crime, but also to continue to strengthen our financial crime control framework in a robust and sustainable way to prevent, detect and respond to illicit activity.

We continue to seek to harness new and innovative technological capabilities to create a safer environment for customers, our bank and society. In 2022, we further adjusted our financial crime risk appetite and framework of policies and procedures to reflect changes in the risk environment and responded to external developments.

We also sought to further empower our people with the skills and knowledge to fight financial crime, sharing insights with them about emerging and evolving threats (including in relation to financial crime risks linked to or heightened by the Covid-19 pandemic) and enhancing our training framework.

Fighting financial crime and protecting the integrity of the financial system is a challenge for all banks, given the constantly changing environment and pace at which criminals evolve their methods. We believe we can be more effective in our efforts if we collectively join forces and share intelligence with other banks and with national, European and international authorities and law enforcement to combat financial crime. We therefore continue to proactively participate in public-private partnerships, such as Transaction Monitoring Netherlands and Germany's Anti-Financial Crime Alliance, and to collaborate with other banks. Read more in 'Compliance risk'.

Cybercrime

Cybercrime remains a continuous threat to companies in general and to financial institutions in particular. Both the frequency and the intensity of attacks are increasing on a global scale. The sophistication and implications of ransomware attacks are a growing concern.

Continuous enhancement of the control environment to protect from, and detect and respond to, e-banking fraud, DDoS, targeted attacks and more specific ransomware attacks remains one of the highest priorities. Additional controls 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. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration across the globe with

financial industry peers, law enforcement authorities, government (e.g. National Cybersecurity Centre) and Internet Service Providers (ISPs). See also 'Non-financial risk'.

Inflation risk

Inflation rates accelerated across the globe at the beginning of 2022, fuelled by the Russian invasion of Ukraine. Inflationary pressures prompted an adjustment of monetary policy stances by major central banks, leading to rising interest rates and tighter global financial conditions.

The mix of high inflation and rising interest rates further deteriorated macro-financial conditions, aggravating pre-existing vulnerabilities for both businesses and households, which were recovering from the economic consequences of the Covid-19 pandemic, and ultimately increasing banks' credit risk. Against this background, ING has taken additional provisions already in the course of 2022.

EU member states' governments have introduced several supporting measures to cushion the rise in energy prices and inflation. These measures, in conjunction with the reduced fiscal space resulting from the pandemic-related support measures and the normalisation of the monetary policy stance, increased sovereign vulnerabilities in financially weaker countries.

Climate change risk

ING is aware of the risks associated with climate change and how these can impact customers and their financial health. This includes physical risk and transition risk. Physical risk can be acute, such as flood and wildfires, or chronic, such as increased temperature and rising sea levels. Transition risk can be driven by policy, technological or market changes as we shift towards a low-carbon global economy and potentially lead to stranded assets.

An internal programme was launched in 2020 to address impacts resulting from climate change. In March 2022, ING updated its governance approach to embrace ESG holistically in business strategy. An ESG Committee was created at Supervisory Board level, responsible for supervising the bank's overall ESG transformation and advising the MBB on relevant ESG developments. ING also established an ESG Sounding Board comprised of senior leaders to guide the development and implementation of our strategy for ESG topics, as well as monitoring and reporting on progress. All ESG-related key performance indicators are assigned to MBB members and cascaded down through business lines. Further, after a strategic review of ING's CRO function, an ESG Risk Centre of Expertise, part of the Integrated Risk department, has been established.

Risk governance (*)

Effective risk management requires company-wide risk governance. ING's risk and control structure is based on the 'three lines of defence' governance model. Each line has a specific role and defined responsibilities, with the execution of tasks being distinct from the control of these same tasks. The three lines work closely together to identify, assess, mitigate and monitor risks.

This governance framework is designed in such a way that risk is managed in line with the risk appetite approved by the MBB, the EB and the SB, and this approach is cascaded throughout ING.

The heads of ING's banking business and support functions and the heads of the country units, or their delegates, are the first line of defence. They have primary ownership, and accountability and responsibility for assessing, controlling and mitigating all financial and non-financial risks affecting their businesses, as well as for the completeness and accuracy of the financial statements and risk reports with respect to their areas of responsibility. The CTO is responsible and accountable for proper security and controls of global applications and IT platforms servicing the bank and implementing proper processes. The COO domain builds bridges within ING linking to almost every part of the bank. Its purpose is to drive secure and efficient processes for customers and colleagues.

The second line of defence consists of oversight and specialised functions in risk management and compliance. They (1) 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, (2) objectively challenge risk management execution and control processes and coordinate the reporting of risks and controls by the first line of defence, (3) advise 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 (4) 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 independent assurance to the Audit Committee, the EB and the MBB on the quality and effectiveness of ING's internal control, risk management, governance and implemented systems and processes in both the first and second lines of defence. To protect its independent nature, decisions regarding the appointment, reappointment or dismissal from office as well as the remuneration package of the head of the internal audit function require SB approval.

Board-level risk oversight (*)

Both the EB (for ING Group) and the MBB (for ING Bank) play an important role in managing and monitoring our risk management framework.

- The SB is, for risk management purposes, 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 primarily responsible for: (i) supporting the board in its engagement with and oversight of the development of the risk appetite and risk appetite statements and for translating the risk appetite into a risk limits structure, actively engaged in monitoring performance relative to risk-taking and risk limit adherence; (ii) setting up the risk management framework and overseeing the development and implementation of risk and compliance policies, processes, models, compatible methodologies including both forward-looking and backward-looking tools, ongoing strengthening of risk management/people capabilities and reports, as necessary to ensure the effectiveness of robust internal control and risk systems to fully support its strategic objectives and all of its risk-taking activities; (iii) regularly providing comprehensive information on risks to the Management Board, the Risk Committee and other relevant functions; and (iv) advising about the current risk profile, current state of the risk culture, utilisation against the established risk appetite, and limits, limit breaches and mitigation plans.

Executive level (*)

The risk committees described below act within the overall risk policy and delegated authorities granted by the MBB:

- Global Credit and 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 monthly. After the MBB and the GCTP, the Credit and Trading Risk Committee (CTRC) is the highest-level body authorised to discuss and approve policies, methodologies, and procedures related to credit and trading risk.
- Global Credit Committee – Transaction Approval (GCC(TA)) discusses and approves transactions that entail taking credit risk (including investment risk), country, legal, and environmental and social risk. The GCC(TA) meets twice a week.

- 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 held at least quarterly.
- The Model Risk Management Committee (MoRMC) discusses and steers, on a monthly basis, the overall model strategy. MoRMC discusses and approves policies and methodologies related to model risk management.
- Global Data Committee (GDC) oversees (identifies, measures, responds to change and monitors) the Global Data function and its contribution to wider society. The GDC meets every two months.

Further, in the Asset and Liability Committee Bank (ALCO Bank) risk related topics are discussed as well.

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, compliance and model) that arise in their daily operations. They are accountable for the implementation and execution of appropriate risk frameworks affecting their businesses in compliance with procedures and processes at the corporate level. Where necessary, the implementation is adapted to local requirements.

The regional and/or business unit (BU) head of risk are involved in these activities. The local (regional and BU) head of risk is responsible for the analysis, monitoring 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 crime, Foreign Account Tax Compliance Act (FATCA), Common Reporting Standard (CRS) and ESR.

Organisational structure (*)

The Risk CRO function is organised along the lines of a matrix structure integrating (1) the Global Risk functions, (2) the Regional/Country Risk functions at entity level, and (3) the Risk Segments, with a uniform methodology and terminology, so that a holistic view of all risks is ensured. Global Risk functions, organised by risk types into risk domains (departments), are ultimately responsible and accountable for the functional steering of the respective risk type globally, ensuring a uniform taxonomy and methodology is used for the setting of the relevant risk appetite levels, further cascading risk appetite into detailed risk strategies and for the effective monitoring and reporting of risks, on an individual and consolidated basis.

The following organisation chart illustrates the reporting lines in 2022 for the risk management organisation. The fixed lines reflect hierarchical reporting lines, whereas the dotted lines are for the functional reporting lines:



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 for 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 of 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

In its Enterprise Risk Management (ERM) Framework, ING explains its approach to mitigating risk outside ING's risk appetite. The internal control framework (ICF) translates regulations and internal requirements into policies articulating specific risks and control objectives. These policies form the basis for translation into process control standards, which are used by the business to support and promote an effective risk and control environment. The ICF includes binding principles, definitions, process steps, and roles and responsibilities to create consistent bank-wide policies and control standards.

Global policies and control standards are developed and maintained or updated within the ICF. These global documents are designed by head-office functions and are to be adhered to by all ING entities and support functions. In line with the ERM approach, ownership for policies will be with the second line of defence (2nd LoD), while control standards are to be owned by the first line of defence (1st LoD). Global policy and control standard documents are approved by relevant approval bodies (e.g. SB, EB, MBB and NFRC Bank).

The policies are based on the risk taxonomy, which is designed to prevent overlaps in policy control objectives. The control standard owners are responsible for defining the key controls that mitigate the critical and high inherent risks in the business processes.

The process of developing policy and process control standard documents includes the following steps: identify the document owner, determine the relevant stakeholders, define a risk-based approach, perform an impact assessment, involve relevant stakeholders and (local) entities for sounding on key and expected controls, and determine an approval body.

The principal role of the gatekeepers is to provide quality assurance and to advise on the relevant approval bodies. The ICF gatekeepers challenge document owners on the alignment of internal control documents with the agreed methodology and risk taxonomy, and verify that the development and communication of those documents are in line with the agreed process. All policies, control standards, and procedures are published on ING's intranet. New and updated documents are periodically communicated by means of a dedicated policy update bulletin to the country managers and senior heads of business departments.

Risk culture

At ING, we attach great importance to a sound risk culture, which is essential for performing our role in society responsibly and to keep the bank safe, secure and compliant. Our risk culture determines the way in which employees identify, understand, discuss, and act on the risks we are confronted with and the risks we take. In 2022, we continued to drive several enhancement projects based on our 2020 assessment of our risk culture. Most notably, enhancing our risk culture monitoring activities and bringing non-financial risk to life. Furthermore, in 2022 we also handed over the responsibility of developing and maintaining the risk culture maturity model and risk culture monitoring dashboard to the Risk Culture & Behavioural Risk department.

Orange Code and the global Code of Conduct

The Orange Code and the global Code of Conduct are the foundation of ING's risk culture. The global Code of Conduct defines the most essential conduct principles expected from ING employees in their daily activities, to create additional risk awareness and better meet expectations stated in external rules and guidelines. ING employees are required to take an annual e-learning and attest to their adherence to the global Code of Conduct. In 2021, the global Code of Conduct was embedded into our employees' performance management cycle with the aim ensuring continuous attention to the Global Code of Conduct, and dialogue on how to apply it in our daily work practice.

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 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 measure each other's performance.

Orange Code decision-making

To enhance risk awareness, we continued to support monitoring risk culture and compliance risk in the business. This included training by the experts of the newly created Risk Culture & Behavioural Risk (RC&BR) department, as well as by local compliance experts and data ethics experts with the goal of enhancing balanced decision-making in line with the Orange Code decision-making model. This four-step model supports moral learning and well-balanced decision-making.

Following the initial incorporation of the model in the global Product Approval and Review Process (PARP) policy in 2020, it was further improved in the updated global PARP of 2022. ING's PARP takes an objective, helicopter-view to safeguard the long-term customer's interest (societal developments, changing customer

behaviour, life-events and so on) when manufacturing and/or distributing a product. The RC&BR department is continuing to train experts in this area within the local Compliance teams to support the organisation in properly applying the model in practice in their respective countries.

Learning

In 2022, we continued to expand and strengthen our required learning curriculum. This is foundational learning that is centrally created and rolled out to all staff across the bank. The focus in 2022 was on cybersecurity, fraud and KYC. Formats for our learning continue to be updated to increase engagement and to drive practical application of the knowledge gained by staff. The curriculum is tracked centrally to monitor timely completion.

We have expanded our learning for risk professionals, with the Risk Academy providing a range of learning for Risk staff to support their professional development. These take the form of a comprehensive offering of learning modules and learning channels that support employees in developing their knowledge, skills and behaviours.

Dutch Banker's Oath

In the Netherlands, all employees are required to take the Bankers' Oath and pledge this promise in a meaningful ceremony. The Oath came into force in the Netherlands on 1 April 2015, as part of a joint approach from all banks, aimed at introducing social regulations, a revised Dutch Banking Code implementing an oath with associated rules of conduct and disciplinary law. This way, Dutch banks show society what they stand for and are accountable for, both as individual banks and as a sector. In 2021, due to the Covid-19 pandemic, ING in the Netherlands held virtual Bankers' Oath ceremonies, instead of physical ones, to allow new employees (around 400 a month) to still take the Oath on time and in a meaningful ceremony. This was continued throughout 2022. Before taking the Oath, an e-learning is provided and the importance of the Oath is discussed. Also, dilemmas that the employees may come across in their daily work are shown, aimed at ensuring careful balancing of the interests of all our stakeholders, in the decisions we make. In 2020 and 2021 the whole Bankers' Oath programme for new joiners was revised and updated, to ensure that all elements still align with current developments, both internally and externally.

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, go to the Capital Requirements Regulation (CRR) Remuneration Disclosure published on [ing.com](https://www.ing.com).

Risk Culture & Behavioural Risk department (RC&BR)

In March 2022, the Behavioural Risk department, the Risk Academy and Culture & Ethics department were combined to form a new Centre of Expertise for Risk Culture & Behavioural Risk, reporting directly to the CRO. The aim of the department is to provide a clear vision, aligned strategy and sound methodological approach to identify, assess and bring change to the way employees act on risks.

Behavioural risk

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 that it is less tangible compared to other risk areas because it focuses on behavioural patterns and their drivers. There are patterns in how decisions are made, how people communicate and whether they can take ownership. Behaviour is driven by formal and informal mechanisms. 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.

Behavioural risk assessments

Behavioural risk assessments identify and analyse undesired 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 Behavioural Risk Management Framework is used as the standard across ING to signal behavioural risks going forward. In 2022, behavioural risk assessments were carried out and focused on the topic of escalation behaviour.

Behavioural risk interventions

Based on the results of the executed behavioural risk assessments, the behavioural risk intervention team mitigates behavioural risk in a focused manner. Effective mitigation requires a deep understanding of what drives undesired behaviours. Behavioural and organisational science theories and evidence-based techniques and tools play an important role in designing and facilitating interventions.

In 2022, the intervention team worked on several intervention plans. Together with Global KYC, the intervention team followed up on the previously held 'KYC World Cafe' – a large group change activity that drives common understanding, engagement and ownership and enhances learning and behavioural change, specifically designed for the KYC community. Another example that the team worked on in 2022 is the development and execution of new interventions that have been designed to improve speak-up and escalation behaviour in certain parts of the organisation.

The behavioural risk assessment and intervention team works closely with the business units and departments such as HR, Compliance and Internal Audit to align on and embed desired leadership and risk behaviours (i.e. speak up, psychological safety, communication, guiding leadership).

Risk Culture programme

Throughout 2021 and 2022, ING executed the risk culture programme that was developed based on the 2020 self-assessment. The emphasis in 2022 was on further evolving the risk culture dashboard as well as facilitating meaningful conversations on risk culture throughout the organisation. Risk culture is actively discussed by the MBB and the SB on a quarterly basis.

Risk cycle process

ING uses a step-by-step risk management approach to identify, manage and mitigate 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. The cycle is designed to determine what the risks are, assess which of these can really do harm, take mitigating measures to control these risks, monitor the development of the risk to see if the measures taken are effective, and report the findings to management at all relevant levels to enable them to take action when needed.

The cycle recurs in two ways. First, the identification, assessment, review, and update of mitigating measures are repeated periodically. Second, this 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 then 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 qualitatively or quantitatively 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 reassessed to detect any change in the risk level.

The importance of a risk is based on both 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 both bank-wide and at the local level.

Monitoring and reporting

ING monitors 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 the information they need to manage risks.

Risk Appetite Framework

The Risk Appetite Framework (RAF) is one of the key elements of the ERM Framework. Its objective is to set an appropriate risk appetite at a consolidated level across different risk categories and to allocate the risk appetite throughout the organisation.

Policy

The RAF policy explains the setup of the overarching global risk appetite. Within the RAF, ING monitors a range of financial and non-financial risk metrics with an aim to keep our risk profile in line with our risk appetite while executing our strategy. ING's RAF, which is approved by the SB, defines the desired risk profile that is to be 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 (RAS) 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 EB, the 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 are reviewed on an annual basis, or more frequently if necessary, based on their quarterly review in the MBB, the EB 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, the regulatory environment and the economic context. Limits that need SB approval are called boundaries and the underlying metrics supporting the boundaries which need EB and MBB approval are called instruments.

Step 1. Identify and assess ING's key risks

The outcome of the risk identification and risk assessment process is used as the starting point for the review of the RAF. Within this step, the risks ING faces when executing its strategy are identified in the context of the current economic, political, social, regulatory and technological environment. The assessment identifies whether the potential impact is material and if it is sufficiently controlled within ING's risk management function. It benchmarks the current risk framework against regulatory developments. Known risks are re-assessed either to confirm risk levels or to take account of potential changes. The assessment is executed following the current set of risk appetite statements.

Step 2. Set Risk Appetite Framework

Based on ING's risk assessment and risk purpose, boundaries for the overarching risk frameworks are set. Once the overarching risk appetite thresholds have been set and approved by EB/MBB and subsequently by SB, the statements are translated into risk-type-specific statements and lower-level thresholds which are set and approved by senior risk committees, like ALCO Bank, GCTP and Bank NFRC. Cascading is done via several detailed risk appetite statements which have been defined per risk type, the combination of which is aimed to ensure compliance with the overarching solvency, concentration and funding and liquidity RASs.

Examples of underlying risk metrics include:

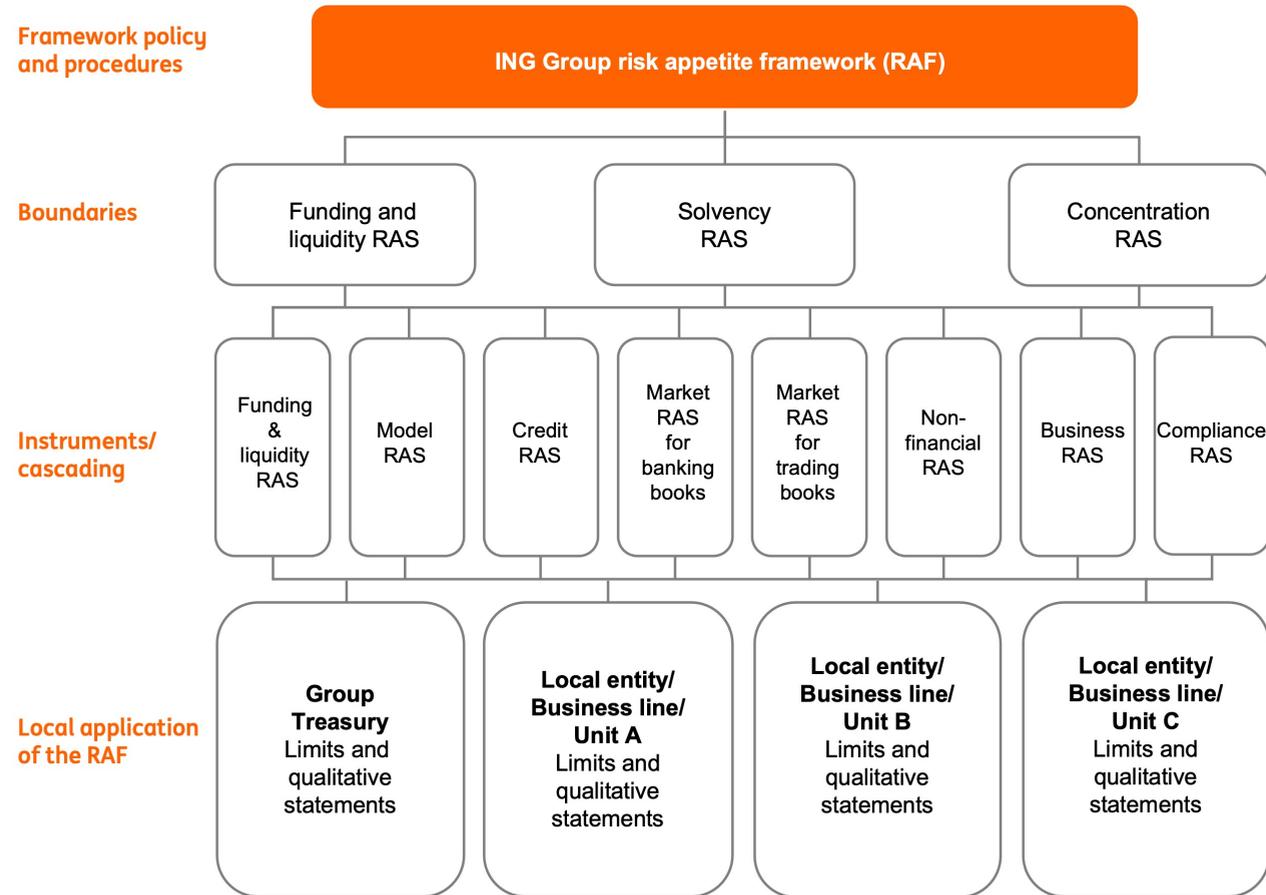
- Solvency and profitability (e.g. CET1 ratio, MREL ratio and earnings at risk).
- Funding and liquidity (e.g. liquidity coverage ratio (LCR) and net stable funding ratio (NSFR)).
- Credit risk (e.g. exposure at default (EAD) and risk weighted assets (RWA)).
- Market risk trading book (e.g. event risk, historical value at risk (HVaR)).
- Market risk banking book (e.g. net interest income (NII) at risk and revaluation reserve at risk).
- Non-financial risk (e.g. capital-at-risk and management of audit issues).
- Compliance risk (e.g. key risk indicators on fraud management and sourcing).

- Business risk (e.g. economic capital).
- Model risk (e.g. number of inadequate pillar 1 models).

ING has started including climate risk in its RAF by, among other things, introducing climate risk as one of the dimensions to determine sector concentration as part of the credit risk appetite statements. In the coming years, ING will extend the inclusion of climate risk impact on other risk types with the aim of ensuring that the potential risks stemming from e.g. transition risk and physical risk are properly captured in the RAF.

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. 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 risk appetite statements serve as input for the quarterly planning process as well as for the establishment of key performance indicators and targets for senior management.



Step 4. Monitor and manage underlying risk limits

To verify that it remains within the RAF, 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 is submitted quarterly to the MBB, the EB and the SB and its Risk Committee. Moreover, every quarter the financial plan is checked for potential limit excess within a one-year horizon, where in the strategic dialogue the MBB can take mitigating measures or make adjustments to the dynamic plan.

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 complementary and forward-looking insights into the vulnerabilities of certain portfolios, with regards to adverse macroeconomic circumstances, stressed financial markets, and changes in the (geo)political climate. Since the outbreak of the Russia/Ukraine war, ING assessed the potential impact on its financial position via different types of stress tests. In addition to assessing P&L, capital and liquidity positions of ING for a range of different scenarios, idiosyncratic risks were also included. The outcome of these stress tests helped management get insight into the potential impact and define actions to mitigate this potential impact.

In the first half of 2022, ING executed the regulatory climate risks stress-test scenario, which is a part of the biannual ECB Single Supervisory Mechanism (SSM) stress test. This regulatory stress test, combined with internal analyses done on climate risk, is used for enhancing ING's internal climate risk stress testing. In the last quarter of 2022, ING has introduced a 'Climate Risk with Geopolitical Angle scenario', which will be reported quarterly together with the other standard scenarios.

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

ING's stress-testing process consists of several stages:

- Risk identification and risk assessment: It identifies and 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 and risk drivers related to the nature of ING's business, activities and vulnerabilities.
- Scenario definition and parameterisation: Based on the outcome of the previous step, a set of scenarios is determined with the relevant scope and set of risk drivers for each scenario, as well as its 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 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 and gives a recap of the scenario with its main assumptions and parameters. The stress-test report is sent to the relevant risk committees and/or senior management. It is complemented, if needed, with advice for management action based on the stress-testing results.
- Scenario control and 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 financial and regulatory reporting frameworks. The stress-testing models are subject to review by Model Risk Management.

Solvency risk

Introduction

Solvency risk is the risk of lacking sufficient capital to fulfil the business objectives, regulatory requirements or market expectations. A bank that is insolvent is unable to pay its debts and will be forced into bankruptcy.

The level and quality of capital is crucial for the resilience of individual banks. Banks are expected to assess the risks they face, and in a forward-looking manner ensure that all material risks are identified, managed and covered sufficiently by loss-absorbing capital to ensure continuity in case of materialisation of unexpected risks in times of stress. Given the interdependencies to other financial and non-financial risks, this balancing act of capital adequacy needs to be done within a sound and integrated management approach coherently linking all moving parts of the bank in line with the long-term business strategy.

Governance

Group Treasury (“GT”) 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 Balance Sheet & 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.

ICAAP framework

ING’s Internal Capital Adequacy Assessment Processes (ICAAP) aims to ensure that capital levels remain adequate both looking-forward and under adverse conditions in terms of covering material risks-to-capital from both a normative and economic (internal) perspective. The assessment of ING’s capital adequacy takes into account its business strategy and risk profile, market environment, and operating macro environment. This implies that views of various stakeholders such as regulators, shareholders, investors, rating agencies, clients and customers do play an important role.

The continued strength of ING’s capital position, the adequacy of the financial position and risk management effectiveness are essential for achieving the strategy. ING’s capital and funding strategy determines the underlying ICAAP elements and thereby contributes to the business continuity of ING from different perspectives.

Managing ING’s capital entails finding the right balance between supply and demand while taking into account market and macro circumstances. The process of balancing these strategic goals is captured in the ICAAP framework and enabled by six building blocks and underlying elements facilitating the ICAAP. The following building blocks have been defined in the ICAAP Framework, which are applied for both the ‘normative’ and ‘economic’ perspective as defined in the ECB Guide to ICAAP, published in November 2018:

- Risk identification and assessment.
- Risk appetite.
- Solvency stress testing.
- Planning and forecasting.
- Capital management
- Continuity.

Risk identification and assessment

ING’s capital management and solvency risk management starts with the risk identification and risk assessment process. Its main purpose is to detect potential new risks and to identify changes in the potential impact of known risks. On an annual basis, ING performs a thorough review of its solvency risks or risks to capital. Within this assessment, bottom-up assessments are combined with top-down assessments, including a questionnaire and interviews with senior management. The results of the risk assessment are discussed in ALCO Bank, which comprises almost the full MBB. Once approved, the conclusions of the risk assessment feed into the annual review of the Risk Appetite Framework, the Stress Testing Framework and the Economic Capital Framework. In addition to this annual process, ING also reassesses its risks as part of its Capital Adequacy Statement, a quarterly process to assess ING’s capital adequacy.

Risk appetite

As explained in the RAF section in the previous chapter, ING has established overarching solvency risk boundaries. Boundaries are risk appetite statements that are essential for risk management activity, making it of paramount importance to keep these boundaries within the defined level. The SB is responsible for approving and monitoring the boundaries. These boundaries are complemented by a sequence of risk-type-specific instruments (risk appetite statements). These underlying risk appetite statements are cascaded down into the organisation and dedicated risk thresholds are set that are used for day-to-day monitoring and management of ING’s risks. ING has solvency risk appetite statements in place for the following metrics: CET1 ratio, total capital ratio, leverage ratio, total loss-absorbing capacity (TLAC) and minimum requirement for own funds and eligible liabilities (MREL) based on RWA/leverage ratio and economic capital adequacy.

Solvency stress testing

Solvency stress testing allows ING to examine the effect of plausible but severe stress scenarios on the solvency position and provides insight into which entities or portfolios are vulnerable to which type of risks or in which type of scenarios. Solvency stress testing is an important tool in identifying, assessing, measuring and controlling risks to capital, providing a complementary and forward-looking perspective to other solvency risk management tools. For solvency stress testing, ING follows the same steps that are described in the overall section on stress testing.

ING distinguishes the following three types of stress test analysis:

- **Sensitivity analysis:** Assess the impact of a pre-defined shock in one or more risk drivers. The main purpose of sensitivity analyses is to monitor the impact of this pre-defined (or standardised) shock over time to get an understanding of how the risk profile of the bank has developed. In contrast with scenario analyses, sensitivity analyses are built on a predefined set of shocks that don't necessarily relate to a qualitative story line.
- **Scenario analysis:** Used to assess the impact of historical, statistical and/or hypothetical circumstances on the financial position of ING. These stress tests often build on a qualitative scenario narrative and reflect risk topics that are deemed relevant for ING given, for example, its business model or geographical presence. To execute such a stress test, scenarios need to be determined that are dynamic and forward looking and incorporate the occurrence of a string of events through time.
- **Reverse stress testing:** The purpose is to identify scenarios that could lead to a pre-defined outcome. This could, for example, be a CET1 ratio or LCR to define the point at which the bank is considered not viable anymore. The added value of reverse stress testing is to explore risk drivers and stress scenarios outside the existing range.

The outcomes of solvency stress test analyses are taken into account in capital planning, but also for setting risk appetite statements and the capital management buffer.

Planning and forecasting

The capital and funding plan is an integral part of the Dynamic Plan, ING's financial and business planning process. Its objective is to inform and advise the management on the capital development and need of ING Group and ING Bank, under base case and adverse scenarios. It describes how ING shall finance the expected capital constraints taking into consideration growth projections, capital and risk evolution, macro and market conditions, both under the normative and economic perspective. The capital and funding plan is discussed and approved by ALCO Bank and updated at least twice a year. Within these updates, ING takes account of recent market and risk developments and aims to ensure that capital planning adheres to the solvency risk appetite set by the SB.

Capital management

Formulation of the CET1 target is a key element in solvency risk management. The target ratio, based on the management buffer concept, enables ING's senior management to steer, benchmark and assess the bank's current and future capital levels much more efficiently while the target level clearly supports trust building among ING's key stakeholders (e.g. regulators, investors and customers).

The capital management buffer aims to protect the interests of key stakeholders and plays an important role in the overall capital adequacy governance. The rationale behind the buffer is that it provides an additional cushion on top of the (local) regulatory minimum requirements (e.g. Supervisory Review and Evaluation Process (SREP) requirements) to withstand a certain level of stress and to facilitate awareness and preparedness to take management actions. ING reviews its capital management buffer on a regular basis to determine its effectiveness and robustness, updating it as appropriate. See also Note 50 'Capital management'.

Continuity

Risk events with high severity or significant deteriorations of economic and market conditions beyond ING's control could cause deviations from the business and capital plans, which may result in a potential capital shortfall.

ING has therefore set up a continuity (safety) net of contingency and recovery planning. As part of this, ING set up ongoing monitoring of relevant indicators with the aim of awareness and preparedness to act proactively to ensure continuity. The intervention measures which can be activated when deemed necessary, consist of predefined RWA reduction measures, as well as direct capital increasing measures. The escalation mechanisms are defined, governed and detailed in the contingency and recovery plans.

Both plans aim to restore ING's capital adequacy. Depending on the severity of the situation, the contingency plan can be activated at this warning phase as well as triggering further management action and formation of the contingency crisis teams. Further drops in capital levels trigger the alert phase for recovery monitoring and/or the activation of the recovery plan and corresponding crisis teams.

Assessing capital adequacy: Capital Adequacy Statement (CAS)

The CAS is ING Group's quarterly assessment of its capital adequacy and takes into account different elements with respect to its capital position. The degree to which ING's capital position is considered adequate depends on a variety of internal and external drivers:

- Current supervisory requirements and (expected) requirements going forward.
- Current internal requirements and (expected) requirements going forward (economic capital/view).

- Coherence of the available capital with the (realisation of) strategic plans.
- The ability to meet internal and external requirements in the case of stressed events or should a risk materialise.

The CAS assesses the adequacy of ING's capital position in relation to the above-mentioned drivers and states the extent to which the capital position consequently is considered as adequate. On a quarterly basis the CAS document is prepared. Additionally each year, the EB/MBB signs and provides a comprehensive assessment of ING's capital adequacy, supported by the ICAAP outcomes, in the form of a Capital Adequacy Statement.

Capital developments

ING's profit generating capacity was strong in 2022 despite a challenging economic and geopolitical environment. After dividend reserving in line with the distribution policy, we included €1.7 billion of profit to our capital base.

ING's capital ratios decreased compared to 2021, primarily due to additional distributions and higher risk-weighted assets. ING distributed an additional €1.25 billion and €1.5 billion as next steps to converge the CET1 ratio towards ING's target of around 12.5% by 2025. In line with regulations these additional distributions were fully reflected in ING's capital ratios at year-end although part of the second additional distribution (€297 million) was paid on 16 January 2023. Risk-weighted assets were mainly impacted by rating downgrades on Russia-related exposure, currency movements, the implementation of EBA guidelines on the treatment of structural FX positions and model impacts. Model impacts reflect the introduction of a risk-weight floor on Dutch residential mortgages by the Dutch central bank as well as ongoing redevelopment of internal models and EBA guidelines. ING continues to maintain a strong and high-quality capital level.

At the end of 2022, ING Group had a CET1 ratio of 14.5%. The Group's Tier 1 ratio decreased to 16.4%. The total capital ratio decreased from 21.0% to 19.4% compared to last year.

The leverage ratio was at 5.1%, down from 5.9% at the end of 2021, primarily because the ECB's Covid-19 relief measure to exclude certain central bank exposure expired on 1 April 2022.

MREL and TLAC requirements

Minimum Requirement for own fund and Eligible Liabilities (MREL) and Total Loss Absorbing Capacity (TLAC) apply to ING Group at the consolidate level of the resolution group. TLAC and MREL provide additional capacity to absorb losses and facilitate recapitalisation in the case of resolution. ING Group has a single point of entry resolution strategy.

As per year-end 2022, TLAC requirements are 23.10% of RWA and 6.75% of leverage exposure. The available TLAC capacity consists of own funds and senior debt instruments issued by ING Group. With a TLAC ratio of 30.4% on RWA and 9.5% on leverage exposure, ING comfortably meets the TLAC requirements.

Intermediary MREL requirements were 27.39% on RWA and 5.97% on leverage exposure as per year-end 2022. ING meets these MREL requirements with an MREL ratio of 30.4% on RWA and 9.5% on leverage exposure at the end of 2022.

Issuance

In 2022, ING issued and redeemed various capital instruments, including grandfathered instruments that lost eligibility as of 1 January 2022. As such, ING has a more efficient capital stack which is in line with capital requirements and a single point of entry resolution strategy. ING redeemed \$1 billion AT1 instrument in April 2022 and issued a Green Tier 2 instrument (€1.0 billion) in August 2022. To further build our MREL capacity, ING Group issued multiple senior debt (HoldCo) instruments in 2022 in various currencies for a total amount of €10.9 billion.

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, while avoiding large risk concentrations. The emphasis is on managing business developments within the business lines by means of a top-down risk appetite framework (RAF), 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.

A new Credit Risk department was established in 2022. This department is responsible for setting the credit risk strategy for ING and aims to ensure credit risk and credit restructuring are managed from an overarching point of view rather than per business line. The head of Credit Risk is supported by the following teams within this new department:

- Portfolio, Strategy & Governance team: responsible for setting up credit risk strategies and risk appetite statements, performing analysis and monitoring of the credit risk position of ING, as well as setting and maintaining the credit risk framework and policies.
- Credit Risk Control Unit: responsible for the design or selection, implementation, oversight and performance of the rating systems.
- Global Credit Risk Restructuring: responsible for a safe, compliant and data driven credit loss process by managing loan loss provisioning and finding solutions for business customers in financial difficulty. The team focuses on management of the global loan loss provisioning, not only of individual WB provisions, but also collective WB and Retail Banking provisions.

While the Credit Risk department has oversight of the Group credit risk strategy and risk appetite across Retail Banking risk and Wholesale Banking risk, the head of Retail/Rest of World (RoW) Risk and head of Wholesale Banking Risk aim to ensure the management of the risk within these business lines. Also refer to the Risk governance and organisational structure in the introductory section of the Risk management chapter.

The credit risk function encompasses the following activities:

- Measuring, monitoring and managing credit risks in the bank's portfolio, including the measures taken in response to the war in Ukraine.
- Challenging and approving new and modified transactions and borrower reviews.
- Managing the levels of provisioning and risk costs, and advising on impairments.
- Providing consistent credit risk policies, systems and tools to manage the credit lifecycle of all activities.

Credit risk categories (*)

In the following table the different types of credit risk categories are described and a reconciliation with the notes in the financial statements is also included:

Reconciliation between credit risk categories and financial position (*)

Credit risk categories	Notes in the financial statements
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.	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 44 Contingent liabilities and commitments
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 from holding a position in underlying securities whose issuer's credit quality deteriorates or defaults.	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 risk: arises when ING places short-term deposits with a counterparty in to manage excess liquidity. In the event of a counterparty default, ING may lose the deposit placed.	Note 2 Cash and balances with central banks
	Note 3 Loans and advances to banks
	Note 7 Loans and advances to customers
Pre-settlement 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).	Note 4 Financial assets at fair value through profit or loss
	Note 14 Financial liabilities at fair value through profit or loss
	Note 43 Offsetting financial assets and liabilities
Settlement risk: arises when there is an exchange of value (funds or instruments) and receipt from its counterparty 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.	Note 4 Financial assets at fair value through profit or loss
	Note 11 Other assets
	Note 14 Financial liabilities at fair value through profit or loss
	Note 16 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 ING Risk Appetite Framework (RAF).

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 RAF. The credit risk appetite is expressed in quantitative and qualitative measures. Having a credit risk appetite provides:

- 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.
- Alignment of business strategies and key performance indicators of business units with ING's credit risk appetite through dynamic planning.

The credit risk appetite is set at different levels and dimensions within ING. The credit risk appetite framework specifies the scope and focus of the credit risk which ING takes, and the composition of the credit portfolio, including its concentration and diversification objectives in relation to business lines, sectors and products. The credit risk appetite framework has also been extended to embed climate risk elements. The first steps towards introducing climate risk elements in the credit risk appetite framework were taken in 2022 and these are expected to further evolve and mature. The climate risk elements within the credit risk appetite framework allow for more efficient steering of sector concentrations from a climate risk perspective.

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). To manage the maximum country event loss ING is willing to accept, boundaries are approved by the SB. 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 an established credit concentration risk framework to identify, measure and monitor single name concentration and industry sector concentration (systemic risk). The same concept of boundaries and instruments is applicable.
- 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 going concern even after a severe event occurs. In addition to the bank-wide stress testing framework described above, ING performs sensitivity analyses regularly to assess portfolio risks and concentrations.
- Product approvals: The product approval and review process (PARP) assesses and manages risks associated with the introduction of new or modified products. Its goal is that sound due diligence is performed by relevant stakeholders and the relevant risks (credit, operational, compliance, etc.) are addressed appropriately.
- Strategy and risk appetite papers: These are detailed analyses of defined products and/or industries. The papers include the identification of 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 support that business. A strategy and risk appetite paper is always prepared by the front office responsible for the internal business mandate and requires an approval from the designated approval authority. Strategy and risk appetite papers may also have geographical and/or business limitations (e.g. local vs. global).
- 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, including the use of automated decision-making in certain cases. 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. Where necessary, underwriting standards are reviewed and refined to limit the credit risk to portfolios particularly sensitive to certain market circumstances, such as Covid-19 at the time, or currently in the context of the deteriorating economic outlook.

Credit risk models (*)

Within ING, internal CRR-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 approximately 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 sufficient data points to 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 only used for 'low default portfolios', where limited historical defaults exist.

Credit risk rating process (*)

The majority of risk ratings are based on a risk rating (PD) Model that complies with the minimum requirements detailed in CRR/CRDIV, ECB Supervisory Rules and European Banking Authority (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).
- Non-performing (risk rating 20-22).

The first three categories (1-19) are risk ratings for performing loans. Ratings are calculated in IT systems with internally developed models, based on manually or automatically fed data, or for part of the non-performing loans set by the global or regional credit restructuring department. Under certain conditions, the outcome of a manually fed model can be challenged through a rating appeal process. For securitisation portfolios, the external ratings of the tranche in which ING has invested are leading indicators.

Risk ratings assigned to clients are reviewed at least annually, with the performance of the underlying models monitored regularly. Some of these models are global in nature, such as those 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 and medium enterprise (SME) in the Netherlands, Belgium, Poland 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 at least annually. More frequent reviews (e.g. quarterly) are performed where considered necessary, for example portfolios and clients most at risk of being impacted by the Russian invasion of Ukraine and expected spillover effects.

After the introduction of IFRS 9 in 2018 and especially with the introduction of new regulations, including the new definition of default (DoD) in 2020, ING has also embarked on multi-year redevelopments of its credit risk models.

Credit risk systems

Credit risk tools 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 with the philosophy of using a single source of data in an integrated way. This includes applying a combination of the 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 Credit Risk Control Unit (CRCU), which is part of the Credit Risk department, manages the CRCU control framework offering quality assurance on the regulatory areas of responsibility: the design or selection, implementation, oversight, and performance of the rating systems. This framework leans on control execution in other teams such as Model Development in Integrated Risk where the combination of these different teams is considered for the CRCU self-assessment.

Credit risk portfolio (*)

ING's credit exposure is mainly related to lending to individuals and businesses followed by investments in bonds and securitised assets, and money market. 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. For money market, exposure is mainly deposits to central banks. The last major credit risk source involves pre-settlement 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.

Portfolio analysis per business line (*)

Outstandings per line of business (*)^{1, 2, 3}

in € million		Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Investment grade	Rating class										
	1 (AAA)	89,686	81,615	324	331	32,492	27,089	2,529	2,363	125,032	111,398
	2-4 (AA)	49,320	56,982	7,871	5,863	40,498	41,646	12	15	97,701	104,506
	5-7 (A)	79,292	72,052	45,471	28,456	61,422	59,040	320	394	186,504	159,941
Non-Investment grade	8-10 (BBB)	129,709	124,622	117,172	125,469	56,046	57,394	2,833	2,502	305,760	309,986
	11-13 (BB)	56,409	61,996	55,945	60,296	46,657	42,554	4	353	159,016	165,199
	14-16 (B)	13,693	16,699	14,224	14,560	11,662	10,800			39,579	42,059
	17 (CCC)	1,858	1,712	2,021	2,158	1,014	731	299	178	5,192	4,779
Substandard grade	18 (CC)	3,564	865	1,304	904	519	477			5,386	2,245
	19 (C)	731	126	962	1,162	490	451			2,183	1,739
Non-performing loans	20-22 (D)	4,354	3,937	4,762	5,035	2,592	3,153			11,708	12,124
Total		428,616	420,606	250,056	244,232	253,391	243,334	5,997	5,805	938,061	913,977
Industry											
Private Individuals		32	30	163,243	161,125	191,556	184,810			354,831	345,965
Central Banks		80,006	83,878			23,541	22,573	1,495	643	105,043	107,094
Natural Resources		44,695	51,937	1,160	1,225	694	692			46,549	53,855
Real Estate		26,426	26,472	22,648	22,691	3,439	3,536			52,513	52,699
Commercial Banks		42,036	39,581	194	230	5,721	6,390	2,911	2,917	50,862	49,119
Non-Bank Financial Institutions		54,274	46,597	1,379	1,473	504	395	438	441	56,594	48,906
Central Governments		41,622	40,530	2,880	1,730	3,838	3,686	1,016	1,696	49,356	47,642
Transportation & Logistics		25,474	24,123	4,038	4,206	1,471	1,269			30,982	29,597
Utilities		22,683	22,452	1,865	1,370	150	113			24,698	23,935
Food, Beverages & Personal Care		13,681	14,003	7,356	6,926	2,585	2,411			23,623	23,340
Services		9,926	9,449	11,606	11,290	981	974	33	30	22,546	21,743
General Industries		11,731	11,487	5,753	5,554	3,381	3,086			20,865	20,127
Lower Public Administration		6,020	6,163	5,921	5,079	9,725	8,029			21,666	19,271
Other		50,009	43,903	22,014	21,333	5,805	5,369	104	77	77,932	70,682
Total		428,616	420,606	250,056	244,232	253,391	243,334	5,997	5,805	938,061	913,977

Outstandings per line of business (*) - continued^{1, 2, 3}

in € million

Region		Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
		2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Europe	Netherlands	61,143	74,175	154,253	152,597	254	173	2,898	2,738	218,548	229,682
	Belgium	27,144	32,205	88,767	84,748	669	948		19	116,580	117,919
	Germany	24,441	22,669	463	508	127,764	118,734	63	46	152,730	141,956
	Poland	16,350	15,454	49	45	26,831	26,560		4	43,229	42,063
	Spain	10,491	10,130	71	83	25,649	27,294	25	35	36,237	37,542
	United Kingdom	27,735	28,193	152	187	185	109	107	78	28,179	28,567
	Luxembourg	26,113	26,632	4,953	4,769	639	468	15	18	31,720	31,887
	France	18,484	18,786	643	606	4,448	7,123	1	3	23,576	26,517
	Rest of Europe	77,814	64,028	400	364	18,750	17,826	24	16	96,989	82,233
America		80,444	71,471	190	186	1,795	1,559	358	351	82,786	73,567
Asia		46,291	45,439	73	91	121	132	2,504	2,498	48,989	48,159
Australia		9,817	8,957	16	18	46,281	42,405	2	1	56,116	51,382
Africa		2,348	2,467	28	31	5	4			2,381	2,501
Total		428,616	420,606	250,056	244,232	253,391	243,334	5,997	5,805	938,061	913,977

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 Geographical areas are based on country of residence, except for private individuals for which the geographical areas are based on the primary country of risk.

Overall portfolio (*)

During 2022, ING's portfolio size increased by €24.1 billion (+2.64%) to €938.1 billion outstandings. The net volume growth was spread across all the business lines. Foreign exchange rate changes had a positive impact on portfolio growth, mainly in WB, and increased total outstanding by €6.3 billion, driven by the appreciation of the US dollar (+6.2%) against the euro, partially compensated by the British pound sterling (-5.3%), the Polish New Zloty (-1.8%) and new Turkish lira (-23.7%).

Rating distribution (*)

Overall, the rating class distribution remained stable in 2022. The share of investment grade rating classes increased from 75.0% to 76.2%, while the share of non-investment grade decreased, from 23.2% to 21.7%. Sub-standard grade outstandings increased from 0.4% to 0.8% of the total portfolio, whereas non-performing loans decreased from 1.3% to 1.2%.

With respect to the rating distribution within the business lines, in WB, investment grade increased to 81.2% (from 79.7%), where non-investment grade exposures decreased to 16.8% (from 19.1%) compared to 2021.

Substandard grade assets increased from 0.2% to 1.0% of total Wholesale Banking assets, primarily as a result of increases in Russia, in the natural resources industry. The share of non-performing loans for WB remained stable at 1.0% (from 0.9%).

The rating distribution for Retail Benelux improved mostly because of Dutch residential mortgages, shifting from rating class BB/BBB to A. The share of A-rated mortgages increased from 9.3% to 24.0% of the portfolio. In Belgium, residential mortgages showed a modest increase of BBB assets, from single A. Substandard grade Belgium mortgage outstandings increased to 1.0% (from 0.8%).

In Retail Challengers & Growth Markets, the distribution across rating classes remained rather stable in 2022. Overall share of investment grade decreased from 76.1% to 75.2%. NPL decreased to 1.0% (from 1.3%).

Industry (*)

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. The industry composition within Retail is concentrated in private individuals with 65.0% for Retail Benelux and 76.0% for Retail Challengers & Growth Markets.

In Market Leaders, the overall volumes increase is mainly explained by Belgium (+4.7%), whereas the Netherlands remained stable in 2022 (+1.1%). In C&G, the increase in volume is in private individuals,

primarily in Germany, and to a lesser extent in Australia and Spain. A decrease in France is explained by the discontinuation of retail activities. Within WB, an increase in exposures is noted mainly in non-bank financial institutions (NBFI) of €7.7 billion (notably in Germany, France and the US). Apart from NBFI, an increase is observed in other industries (+€6.1 billion), compensated by a decrease in natural resources (€7.2 billion).

Outstandings by economic sectors and geographical area (*)¹

in € million

Industry	Region													Total
	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	Luxembourg	France	Rest of Europe	America	Asia	Australia	Africa	2022
Private Individuals	114,625	44,193	101,529	13,767	24,865	138	3,486	2,731	13,654	161	131	35,528	24	354,831
Central Banks	35,202	14,338	21,041	1,060	347	427	6,820	35	18,092		4,962	2,695	24	105,043
Natural Resources	3,084	1,356	809	746	169	4,442	2,764	470	12,154	8,771	10,398	1,028	361	46,549
Real Estate	17,586	10,112	1,388	2,374	1,391	413	3,797	3,155	3,378	3,474	1,180	4,263	2	52,513
Commercial Banks	1,358	265	3,974	551	402	4,933	4,480	4,371	6,368	9,945	12,041	1,765	409	50,862
Non-Bank Financial Institutions	2,710	1,041	5,054	2,299	99	8,229	4,489	3,220	4,495	19,971	4,091	896		56,594
Central Governments	3,342	7,716	1,179	6,578	4,578	46	175	1,797	8,444	13,979	333	636	551	49,356
Transportation & Logistics	3,967	2,183	608	1,300	690	1,787	583	733	7,808	3,378	6,806	531	608	30,982
Utilities	1,551	1,630	2,814	679	1,227	2,953	572	980	4,302	4,347	1,545	1,897	200	24,698
Food, Beverages & Personal Care	7,249	3,002	573	2,334	475	739	1,667	469	2,668	3,245	942	248	13	23,623
Services	4,819	8,816	1,254	1,101	67	685	808	1,066	1,120	1,821	357	632		22,546
General Industries	5,430	2,689	1,007	2,849	311	330	604	245	3,152	2,926	1,311	9		20,865
Lower Public Administration	272	5,638	5,197	644	200		313	3,126	402	1,310		4,564		21,666
Other	17,353	13,602	6,302	6,946	1,416	3,058	1,164	1,179	10,952	9,457	4,891	1,424	188	77,932
Total	218,548	116,580	152,730	43,229	36,237	28,179	31,720	23,576	96,989	82,786	48,989	56,116	2,381	938,061
Rating class														
Investment grade	174,971	76,244	130,285	27,501	28,556	23,160	26,053	17,545	64,884	64,206	39,903	41,476	213	714,997
Non-Investment grade	40,325	36,036	20,967	14,596	7,330	4,634	5,442	5,814	27,617	17,615	7,638	13,914	1,858	203,786
Sub-standard grade	1,508	984	579	422	105	41	80	16	2,903	311	124	257	239	7,569
Non-performing loans	1,743	3,316	899	710	246	344	145	201	1,584	654	1,325	470	72	11,708
Total	218,548	116,580	152,730	43,229	36,237	28,179	31,720	23,576	96,989	82,786	48,989	56,116	2,381	938,061

¹ Geographical areas are based on country of residence, except for private individuals for which the geographical areas are based on the primary country of risk.

Outstandings by economic sectors and geographical area (*)¹

in € million														Total
Industry	Region													2021
	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	Luxembourg	France	Rest of Europe	America	Asia	Australia	Africa	
Private Individuals	113,846	42,961	95,583	14,397	23,895	157	3,388	3,115	13,215	167	155	35,058	27	345,965
Central Banks	46,902	18,253	17,811	112	3,027	2,853	8,569	1,039	4,485		2,856	1,168	18	107,094
Natural Resources	3,734	1,180	1,208	722	291	4,487	2,497	405	15,471	9,473	12,593	1,013	780	53,855
Real Estate	17,426	10,011	1,520	2,357	1,528	436	4,201	3,254	3,461	3,521	935	4,045	4	52,699
Commercial Banks	1,289	318	3,887	707	392	4,156	3,205	5,520	6,353	7,089	13,526	2,265	413	49,119
Non-Bank Financial Institutions	3,043	921	3,146	1,718	72	7,764	4,798	1,790	3,947	18,088	3,209	411		48,906
Central Governments	4,911	7,396	1,179	7,473	4,417	67	203	2,065	7,695	10,927	299	533	477	47,642
Transportation & Logistics	4,572	2,209	506	1,177	723	1,760	582	982	6,837	3,410	5,682	645	514	29,597
Utilities	1,545	1,213	3,024	822	1,270	2,980	397	1,433	4,202	4,106	1,355	1,368	220	23,935
Food, Beverages & Personal Care	6,581	2,869	616	2,146	489	711	1,600	1,232	2,580	3,131	1,140	235	12	23,340
Services	4,615	9,115	1,105	866	119	523	450	1,470	861	1,539	479	565	36	21,743
General Industries	5,389	2,891	1,011	2,612	381	395	532	271	3,363	2,116	1,151	15		20,127
Lower Public Administration	343	5,158	5,787	636			296	2,732	467	1,197	46	2,608		19,271
Other	15,485	13,424	5,573	6,319	940	2,277	1,168	1,210	9,297	8,803	4,732	1,454		70,682
Total	229,682	117,919	141,956	42,063	37,542	28,567	31,887	26,517	82,233	73,567	48,159	51,382	2,501	913,977

Rating class

Investment grade	180,698	78,195	119,311	26,856	29,522	22,820	26,150	20,622	52,875	53,725	36,777	38,200	79	685,831
Non-Investment grade	45,530	35,600	21,250	14,148	7,647	5,234	5,568	5,774	27,993	18,500	10,534	11,998	2,259	212,037
Sub-standard grade	1,230	868	390	290	89	56	81	2	308	203	191	217	58	3,985
Non-performing loans	2,224	3,256	1,006	768	284	458	87	119	1,056	1,139	656	966	105	12,124
Total	229,682	117,919	141,956	42,063	37,542	28,567	31,887	26,517	82,233	73,567	48,159	51,382	2,501	913,977

¹ Geographical areas are based on country of residence, except for private individuals for which the geographical areas are based on the primary country of risk.

Portfolio analysis per geographical area (*)

The portfolio analysis per geographical area re-emphasises the international distribution of ING's credit portfolio. The share of the Netherlands in the overall portfolio reduced to 23.3% (2021: 25.1%).

The most noticeable trend in the Netherlands was the decrease in exposure with central banks (-€11.7 billion). Outstandings to private individuals were stable at 62.5% (2021: 62.3%) of total outstandings (excl. Central Banks). In Belgium, no substantial moves were observed in the portfolio, apart from a decrease in central banks (€3.9 billion).

In terms of rating distribution in individual countries, the total share of investment grade/non-investment grade remains substantial for the Netherlands at 98.5% (2021: 98.5%) and in Belgium 96.3% (2021: 96.5%). Substandard grade assets increased slightly, in the Netherlands from 0.5% to 0.7% and in Belgium from 0.7% to 0.8%. In the Netherlands, the NPL share decreased in 2022, from 1.0% to 0.8%, whereas Belgium remained flat at 2.8%.

In Challengers & Growth Markets, ING has a strong market position in residential mortgages in Germany, Australia, Spain and Poland. Mortgage portfolios increased in Germany, Australia and Spain in 2022.

The top-five countries within Rest of Europe based on outstandings were: Switzerland (€25.0 billion), Italy (€17.7 billion), Romania (€10.3 billion), Turkey (€7.8 billion) and Ireland (€5.6 billion). Outstandings in Rest of Europe were primarily impacted by Switzerland (central bank outstandings +€15.3 billion).

In Europe, outside the Benelux, rating distribution in most countries remained stable. The most noticeable moves in rating distribution were observed in Rest of Europe, where the development of the Russian portfolio caused an increase in substandard from 0.4% to 3.0% and NPL from 1.3% to 1.6%. Note the paragraph on Russian exposures in section 'Risk management at ING Group'. Apart from Russia, noticeable moves occurred in France, where NPL increased from 0.4% to 0.9% impacted by the decommissioning of the Retail business in France. And in the UK, where NPL decreased from 1.6% to 1.2%.

The increase in exposure in the Americas region was mainly driven by FX impact. In terms of rating distribution for America region, an increase in investment grade is observed to 77.6% (from 73.0%), non-investment grade decreased to 21.3% from 25.1%. Sub-standard grade increased to 0.4%, while NPL improved to 0.8% (from 1.5%). Australia's rating distribution improved with a decrease of NPL's from 1.9% to 0.8% of the portfolio.

Credit risk mitigation (*)

ING uses various 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 be 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 licences). 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, export credit insurances or third-party pledged mortgages. Insurance or reinsurance covers, including comprehensive

private risk insurance (CPRI) may be recognised as guarantees and effectively function in an equivalent manner. ING accepts credit risk insurance companies and export credit agencies (ECAs) as cover providers.

Cover valuation methodology (*)

General guidelines for cover valuation are established with the objective 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 (e.g. commercial real estate) and market indices (e.g. 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.

Where collateral values are used in the calculation of stage 3 individual loan loss provisions, haircuts may be applied to the valuation in specific circumstances, to sufficiently include all relevant factors impacting future cash flows. ING increased the haircuts applied to collateral values used in stage 3 individual provisions as at 31 December 2021 and 31 December 2022 to reflect the increased risk of inflated asset prices in certain sectors of the economy. The haircut is applied on real estate, shipping and aviation collateral values used in the calculation of the loss-given-default in recovery scenarios. The haircut reflects the risks of adverse price developments between the moment of valuation of an asset and the actual settlement/cash receipt.

Cover values (*)

This section provides insight into the types of cover 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 'Credit restructuring' (below). For additional insight, a breakdown of ING's portfolio by industry and geography is provided.

The next table gives an overview of the collateralisation of the ING's total portfolio.

Cover values including guarantees received (*)								
in € million								
	Outstandings	Cover type				Collateralisation		
		Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	Partially covered	Fully covered
2022								
Consumer lending	353,323	700,961	5,626	24,231	42,817	6.2%	7.6%	86.2%
Business lending	379,405	167,122	29,501	118,294	438,864	37.5%	22.3%	40.2%
Investment and money market	141,432		5	1,213	2	99.1%	0.6%	0.3%
Total lending, investment and money market	874,160	868,083	35,132	143,738	481,683	34.8%	12.9%	52.3%
Pre-settlement	63,901							
Total	938,061							
Cover values including guarantees received (*)								
in € million								
	Outstandings	Cover type				Collateralisation		
		Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	Partially covered	Fully covered
2021								
Consumer lending	344,188	690,752	6,533	25,688	40,618	6.3%	7.6%	86.1%
Business lending	413,985	160,694	23,454	112,095	332,989	44.2%	20.2%	35.5%
Investment and money market	112,272	43	63	1,100	167	98.9%	0.8%	0.3%
Total lending, investment and money market	870,445	851,490	30,050	138,882	373,774	36.0%	12.8%	51.2%
Pre-settlement	43,531							
Total	913,977							

Excluding the pre-settlement portfolio, 52.3% (2021: 51.2%) of ING's outstandings were fully collateralised in 2022. Since investments traditionally do not require covers, the percentage for 'no covers' in this portfolio is above 95%. 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. Relative to the overall developments in the housing markets and the impact on provisioning, note the paragraphs on 'management adjustments' in the Loan Loss provisioning section, that were made to reflect potential impact of higher inflation, higher rates and market uncertainty.

Consumer lending portfolio (*)

The consumer lending portfolio accounts for 37.7% (2021: 37.7%) of ING's total outstanding, primarily consisting of residential mortgage loans and other consumer lending loans. As a result, most collateral consists of mortgages. Mortgage values are collected in an internal central database and in most cases external data is used to index the market value. A significant part of ING's residential mortgage portfolio is in the Netherlands (34.4%), Germany (28.0%), Belgium and Luxembourg (13.2%) and Australia (10.7%).

Relative to the overall developments in the housing markets and loan loss provisions for the mortgage portfolio's, note that management adjustments are recognised to maintain an appropriate level of provisions. See paragraph on 'management adjustments' in the loan loss provisioning section.

Business lending portfolio (*)

Business lending accounts for 40.4% (2021: 45.3%) of ING's total outstanding. Business lending presented in this section does not include pre-settlement, investment and money market exposures.

Credit quality (*)

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
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 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 (*)

in € million	2022	2021
Performing not past due	799,990	819,410
Business lending performing past due	7,659	8,121
Consumer lending performing past due	780	1,142
Non-performing	11,691	12,021
Total lending and investment	820,120	840,694
Money market	54,039	29,752
Pre-settlement	63,901	43,531
Total	938,061	913,977

Past due obligations (*)

Retail Banking measures its portfolio in terms of payment arrears and determines on a monthly basis if there are any significant changes in the level of arrears. This methodology is applicable to private individuals, as well as business lending. 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 reminding 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 the facility or obligor – depending on the level at which the non-performing status is applied – is more than 90 days past due and to risk rating 21 or 22 in case of an exit scenario.

ING has aligned the regulatory concept of non-performing with that of the definition of default. Hence, in WB, obligors are classified as non-performing when a default trigger occurs:

- 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.
 - Indication of 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.
- The obligor has failed in the payment of principal, interest or fees, the total past due amount is above the materiality threshold and this remains the case for more than 90 consecutive days.

Further, WB has an individual name approach, using early warnings indicators to signal possible future issues in debt service.

Ageing analysis (past due but performing): Consumer lending portfolio by geographic area, outstandings (*)^{1,2}

in € million

Region	2022					2021				
	Past due for 1-30 days	Past due for 31-60 days	Past due for 61-90 days	Past due for >90 days	Total	Past due for 1-30 days	Past due for 31-60 days	Past due for 61-90 days	Past due for >90 days	Total
Belgium	294	27	18		339	599	53	61		714
Germany	68	34	13		116	105	27	11		143
Luxembourg	43	4	2		48	73	3	1	1	78
Netherlands	36	10	5		50	31	9	3		43
Poland	59	8	4		71	35	5	3		43
Spain	13	9	5		27	13	7	5		26
France	2				2	2				2
United Kingdom										1
Rest of Europe	60	15	8		83	52	9	5		66
America	1				1					
Australia	29	11	2		42	17	7	1		25
Total	604	119	57		780	927	123	91	1	1,142

1 Based on consumer lending. The amount of past due but performing financial assets in respect of non-lending activities was not significant.

2 The absolute and relative materiality thresholds used for determining a defaulted status do not apply for the purposes of classification as past due. Below these thresholds, arrears of more than 90 days are reported as past due.

The past due but performing outstanding of consumer lending decreased by €362 million. The largest decrease was observed in Belgium (-€375 million), in term loans (-€188 million) and in residential mortgage (-€113 million). A moderate increase was seen in Poland (+€28 million), Rest of Europe (+€17 million) and Australia (+€16 million), with each mainly visible in the 1-30 days past due bucket.

Ageing analysis (past due but performing): Business lending portfolio by geographic area, outstandings (*) ¹											
in € million											
Region						2022					2021
		Past due for 1-30 days	Past due for 31-60 days	Past due for 61-90 days	Past due for >90 days	Total	Past due for 1-30 days	Past due for 31-60 days	Past due for 61-90 days	Past due for >90 days	Total
Europe	Belgium	579	49	10		639	1,676	178	8		1,863
	United Kingdom	1,147	77	512		1,736	1,036	108	16		1,159
	Luxembourg	302	1			303	586	270		1	856
	Netherlands	730	30	15		775	553	16	4		574
	Poland	279	35	14		329	94	5	2	1	102
	Spain						95		1		96
	France	83	6			90	36	5			41
	Germany	44	16			60	5		2		7
	Rest of Europe	474	239	1	1	715	571	57	1	1	629
America		1,901	67	19		1,986	2,076	71			2,146
Asia		553	48			601	276		25		302
Australia		359	61	4	2	426	327	17		1	345
Total		6,452	629	575	4	7,659	7,331	727	60	3	8,121

1 The absolute and relative materiality thresholds used for determining a defaulted status do not apply for the purposes of classification as past due. Below these thresholds, arrears of more than 90 days are reported as past due.

Total past due but performing outstanding of business lending decreased by €462 million. These were mainly contributed by decreased outstanding in the 1-30 days (€879 million) past due bucket, partly offset by increased outstanding in 61-90 days past due bucket (€515 million). The top three areas of decrease in the 1-30 days bucket were Belgium (€1,097 million), Luxembourg (€284 million) and America (€175 million). The top three areas of increase in the 1-30 days bucket were Asia (€277 million), Poland (€185 million) and the Netherlands (€177 million).

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 handles accounts or portfolios requiring an active approach, which may include renegotiation of terms and 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 increasing 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 termination 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 terminate the (credit) relationship or

even to enter into bankruptcy. ING prefers 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.

Forbearance (*)

Forbearance occurs when a client is unable to meet their financial commitments due to financial difficulties they face or are about to face and ING grants concessions towards them. 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 clients, 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 has been established to determine whether a client is eligible for the 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 European Banking Authority (EBA) standards. An exposure is reported as forborne for a minimum of two years. An additional one-year probation period is applied to forborne exposures that move from non-performing back to performing.

Summary Forborne portfolio (*)

Business line	2022				2021			
	Outstandin gs	Of which: performi ng	Of which: non- performing	% of total portfolio	Outstandin gs	Of which: performi ng	Of which: non- performing	% of total portfolio
Wholesale Banking	8,359	5,880	2,478	2.7%	9,798	7,455	2,343	3.1%
Retail Banking	8,080	4,973	3,107	1.6%	10,018	6,339	3,679	2.1%
Total	16,438	10,853	5,585	2.0%	19,816	13,793	6,022	2.5%

Summary Forborne portfolio by forbearance type (*)

Forbearance type	2022				2021			
	Outstandin gs	Of which: performi ng	Of which: non- performing	% of total portfolio	Outstandin gs	Of which: performi ng	Of which: non- performing	% of total portfolio
Loan modification	15,317	10,428	4,889	1.9%	18,311	13,128	5,183	2.3%
Refinancing	1,121	426	695	0.1%	1,505	666	839	0.2%
Total	16,438	10,853	5,585	2.0%	19,816	13,793	6,022	2.5%

As of 31 December 2022, ING's total forborne assets decreased by €3.4 billion compared to 31 December 2021. WB decreased by €1.4 billion, and Retail Banking decreased by €1.9 billion.

Wholesale Banking (*)

As of December 2022, WB forborne assets amounted to €8.4 billion (2021: €9.8 billion, which represented 2.7% (2021: 3.1%) of the total WB portfolio.

Wholesale Banking: Forborne portfolio by geographical area (*)							
in € million							
		2022			2021		
Region		Of which:	Of which: non-	Of which:	Of which: non-		
	Outstandings	performing	performing	Outstandings	performing	performing	
Europe	Netherlands	720	630	90	1,012	811	201
	Belgium	659	651	8	329	321	8
	Germany	580	466	115	868	658	210
	United Kingdom	1,044	721	323	1,344	913	432
	Italy	205	157	48	286	261	25
	Norway	33	—	33	79	29	50
	Poland	203	189	14	181	160	21
	Rest of Europe	2,176	1,749	427	2,381	2,181	200
America	1,353	1,032	321	1,900	1,326	574	
Asia	1,107	143	964	685	292	393	
Australia	217	132	85	568	416	152	
Africa	61	10	51	164	88	76	
Total	8,359	5,880	2,478	9,798	7,455	2,343	

Wholesale Banking: Forborne portfolio by economic sector (*)							
in € million							
		2022			2021		
Industry	Outstandings	Of which: performing	Of which: non-performing	Outstandings	Of which: performing	Of which: non-performing	
Natural Resources	1,239	603	636	2,047	1,177	870	
Real Estate	2,000	1,917	84	1,665	1,570	95	
Transportation & Logistics	1,073	868	205	1,336	1,061	274	
Food, Beverages & Personal Care	1,082	543	539	1,202	749	452	
Services	697	665	32	793	687	106	
Automotive	172	125	46	581	535	46	
Utilities	469	255	214	407	271	136	
General Industries	255	176	80	366	321	45	
Retail	302	227	76	361	304	57	
Chemicals, Health & Pharmaceuticals	191	168	23	347	324	22	
Builders & Contractors	168	94	74	177	135	41	
Other	710	240	469	516	318	197	
Total	8,359	5,880	2,478	9,798	7,455	2,343	

The main concentration of forborne assets in a single country was in the United Kingdom with 12% (2021: 14%) of the total WB forborne assets and 13% (2021: 18%) of the total non-performing forborne assets.

WB forborne assets decreased by €1.44 billion compared to 2021, of which the performing forborne assets decreased by €1.58 billion. This was visible across all industries (except for Real estate) and locations (except for Belgium and Poland).

WB's forborne assets were mainly concentrated in natural resources, real estate, transportation & logistics and food beverages & personal care. These four economic sectors accounted for 65% of the total WB forborne outstandings. During 2022, an increase in forborne assets was visible in the real estate industry (€0.3 billion), offset by a decrease in natural resources (€-0.8 billion), Automotive (€-0.4 billion), food, beverages & personal care (€-0.1 billion) and Transportation & Logistics (€-0.2 billion).

Retail Banking (*)

As of the end of December 2022, Retail Banking forborne assets totalled €8.1 billion, which represented 1.6% of the total Retail Banking portfolio.

Retail Banking: Forborne portfolio by geographical area (*)							
in € million							
		2022			2021		
Region		Of which:	Of which: non-	Of which:	Of which: non-		
	Outstandings	performing	performing	Outstandings	performing	performing	
Europe	Netherlands	2,832	2,043	789	4,171	3,224	947
	Belgium	2,644	1,331	1,314	3,319	2,035	1,284
	Germany	804	610	194	497	306	191
	Poland	588	309	279	450	152	298
	Turkey	64	31	32	146	97	49
	Italy	131	52	79	129	47	82
	Romania	124	53	71	115	49	66
	Spain	35	15	20	35	11	23
	Rest of Europe	73	48	25	99	68	30
America	13	12		9	7	2	
Asia	3	1	1	3	1	1	
Australia	768	467	302	1,045	340	705	
Africa	1			1			
Total	8,080	4,973	3,107	10,018	6,339	3,679	

The main concentration of forborne assets in a single country was in the Netherlands with 35% (2021: 42%) of total Retail Banking forborne assets and 25% (2021: 26%) of the non-performing forborne assets. Next to that, Belgium had to 33% (2021: 33%) of the total Retail forborne assets.

Non-performing loans (*)

ING's loan portfolio is under constant review. Loans to obligors that are considered more than 90 days past due and above applicable thresholds are reclassified as non-performing. For business lending portfolios, there generally are reasons for declaring a loan non-performing prior to the obligor 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 that have been classified as non-performing.

Non-performing Loans: outstandings by economic sector and business lines (*)¹

Industry	Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Private Individuals			2,174	2,424	1,954	2,445	-	-	4,129	4,869
Natural Resources	1,369	1,325	34	46	17	27	-	-	1,421	1,398
Food, Beverages & Personal Care	672	681	438	428	122	130	-	-	1,233	1,239
Transportation & Logistics	367	575	165	180	51	52	-	-	583	807
Services	119	224	448	499	61	63	-	-	628	786
Real Estate	172	132	486	495	54	59	-	-	712	686
General Industries	114	66	268	272	100	123	-	-	482	461
Builders & Contractors	139	93	244	224	110	112	-	-	493	429
Retail	98	140	107	103	39	47	-	-	244	290
Utilities	387	199	7	10	7	11	-	-	401	221
Chemicals, Health & Pharmaceuticals	175	65	115	70	20	22	-	-	310	158
Telecom	288	28	12	1	3	3	-	-	303	31
Other	440	305	260	282	52	58	-	-	753	646
Total	4,340	3,833	4,759	5,035	2,592	3,153	-	-	11,691	12,021

¹ Based on Lending and Investment outstandings.

Non-performing Loans: outstandings by economic sectors and geographical area (*)

in € million	Region													Total
Industry	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	France	Luxembourg	Rest of Europe	America	Asia	Australia	Africa	2022
Private Individuals	574	1,538	739	185	194	4	11	36	470	3	4	370	1	4,129
Natural Resources	57	33		14				53	432	77	649	85	21	1,421
Food, Beverages & Personal Care	310	179	24	109		173	7		228	77	126			1,233
Transportation & Logistics	232	58	1	36	47	20		2	154	24	7	1		583
Services	136	375	2	43	5		3	2	21	40				628
Real Estate	89	376		54		84	25	19	7	47		11		712
General Industries	127	142	17	78			31	2	26	58				482
Builders & Contractors	65	187	2	86				20	101	32				493
Retail	31	85	38	26			18	1	13	22	7	2		244
Utilities	6	6	26	23					17	194	129			401
Chemicals, Health & Pharmaceuticals	51	100	2	15		14	100		28					310
Telecom	24	1		3						5	270			303
Other	40	232	48	38		50		10	79	75	130		51	753
Total	1,742	3,312	899	710	246	344	196	145	1,578	654	1,324	470	72	11,691

Non-performing Loans: outstandings by economic sectors and geographical area (*)

in € million	Region													Total
Industry	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	France	Luxembourg	Rest of Europe	America	Asia	Australia	Africa	2021
Private Individuals	776	1,578	721	206	232	8	16	35	497	3	4	791	1	4,869
Natural Resources	67	44		20		27			116	577	421	90	37	1,398
Food, Beverages & Personal Care	299	176	25	111		226	7	2	37	228	128	1		1,239
Transportation & Logistics	385	55	1	35	47	20		3	165	29	49	17		807
Services	199	385		45	5	66		4	22	52	6	1		786
Real Estate	167	303		61		88	21	21	9			16		686
General Industries	110	173	18	91			4	3	34	27				461
Builders & Contractors	43	188	4	83				2	58	50				429
Retail	40	70	34	30			56	1	21	21	14	2		290
Utilities	8	9	71	26					28	30		48		221
Chemicals, Health & Pharmaceuticals	63	48	2	16					29					158
Telecom	13	1		2		10			1	5				31
Other	42	226	129	41		2	14	15	38	37	34	1	67	646
Total	2,212	3,255	1,005	768	284	447	119	87	1,056	1,060	656	966	105	12,021

In December 2022, the NPL portfolio decreased to €11.7 billion, (Dec 21: €12.0 billion). The decrease was driven by Challengers and Growth (-€561 million) and Market Leaders(-€276 million), while Wholesale Banking (+€494 million) increased. The decrease in Challengers & Growth Markets and Market Leaders was mainly witnessed in Private individuals, and was offset by an increase in Wholesale Banking mainly witnessed in Telecom and Utilities industries. The top three countries by NPL outstanding remained Belgium, the Netherlands and Germany. Together they accounted for 50.9% (€5.9 billion) of NPL outstanding (Dec 21: 53.8% (€6.5 billion)).

Loan loss provisioning (*)

ING recognises loss allowances based on the expected credit loss (ECL) model 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, and certain financial guarantees issued.

ING distinguishes between two types of calculation methods for credit loss allowances:

- Collective 12-month ECL (Stage 1) and collective Lifetime ECL (Stage 2) for portfolios of financial instruments, as well as Lifetime ECL for credit impaired exposures (Stage 3) below €1 million.
- Individual Lifetime ECL for credit-impaired (Stage 3) financial instruments with exposures above €1 million.

IFRS 9 models (*)

ING's IFRS 9 models leverage on the internal rating-based (IRB) models (PD, LGD, EAD), which include certain required conservatism. To include IFRS 9 requirements, such regulatory conservatism is removed from the ECL parameters (PD, LGD and EAD). The IFRS 9 models apply two other types of adjustments to the IRB ECL parameters: (1) to the economic outlook and (2) for Stage 2 and Stage 3 assets only, to the lifetime horizon. The IFRS 9 model parameters are estimated based on statistical techniques and supported by expert judgement.

ING has aligned the definition of default for regulatory purposes with the definition of 'credit-impaired' financial assets under IFRS 9 (Stage 3). ING has also aligned its definition of default between IFRS9 and the regulatory technical standards (RTS) and EBA guidelines. More information can be found in section 1.7.8 of the Consolidated financial statements.

Climate and environmental risks in IFRS 9 models (*)

ING is evolving in its credit risk management framework to further develop a better understanding of emerging climate and environmental risks. Banks, including ING, are in the process of collecting and analysing empirical historical data and moving towards embedding these emerging risks into their credit risk management processes and eventually into their IFRS 9 ECL models.

In 2022, ING continued to enhance the tools used to identify and assess climate and environmental (C&E) risks in our portfolio. We created C&E risk sector heatmaps for both WB and Retail Banking that facilitated the identification of exposure to C&E risks by means of scores assigned to transition and physical risk drivers. They also enabled us to understand the magnitude of the C&E risk impact on a sectoral level and pinpointed sectors with highest C&E risk exposure. In the past two years, we have improved our understanding of the physical risk impact of climate events on our mortgage portfolio.

The integration of quantified inputs from the heatmaps into risk modelling has not yet been implemented for a number of reasons including a lack of data to assess C&E risks at a client level. Refer to the section 'Environmental, social and governance risk' for further details on the heatmaps and the related challenges.

At this point in time it is not possible to incorporate climate risk separately into IFRS 9 ECL models given the lack of sufficient empirical historical data and the above-mentioned limitations in the risk assessments on client level. Where climate and environmental factors have impacted the economy in the recent past or present, these impacts are however currently implicitly embedded in ING's IFRS9 ECL models through the projected macroeconomic indicators (e.g. GDP growth and unemployment rates). We note that our ECL models are primarily sensitive to the short-term economic outlook as we use a three-year time horizon for macroeconomic outlook, after which a mean reversion approach is applied.

With regard to our evaluation of climate-related matters, where such events have already occurred (e.g. floods), the impact of such events are individually assessed in the calculation of Stage 3 Individual provisions or management adjustments to ECL models. For example, we consider whether affected assets have suffered from a significant increase in credit risk (or are credit impaired) and whether the ECL is appropriate. As of 31 December 2022, reported ECL includes a management adjustment of €10 million to address the increased credit risk in ING's livestock farming portfolio resulting from nitrogen reduction targets introduced by the Dutch Government. Refer to the section 'Management overlays' for further details.

Reconciliation gross carrying amount (IFRS 9 eligible) and statement of financial position

in € million

2022

2021

	Gross Carrying Amount	Allowances for credit losses	Cash and on-demand bank positions	Reverse Repurchase transactions	Cash collateral	Other	Statement of financial position	Gross Carrying Amount	Allowances for credit losses	Cash and on-demand bank positions	Reverse Repurchase transactions	Cash collateral	Other	Statement of financial position	
Amounts held at Central Banks	88,349	-12	-1,170			448	87,614	104,875	-6	1,650				1	106,520
Loans and Advances to Banks	8,796	-37	2,851	19,395	3,679	420	35,104	15,213	-22	1,675	3,403	3,287		36	23,592
Financial Instruments FVOCI Loans	640	-1				4	643	837	-1					3	838
Financial Instruments FVOCI Debt securities	28,752	-21				364	29,095	27,201	-12					150	27,340
Securities at Amortised Cost	48,372	-17				-195	48,160	47,358	-19					980	48,319
Loans and Advances to customers	642,678	-5,984		1,306	4,176	2,717	644,893	622,327	-5,274		1,487	3,178	3,404	625,122	
Total on-balance (IFRS 9 eligible)	817,587	-6,072	1,681	20,701	7,855	3,758	845,509	817,812	-5,334	3,325	4,890	6,466	4,574	831,731	
Guarantees and irrevocable facilities (IFRS 9 eligible)	150,068	-29						134,122	-34						
Total Gross Carrying Amount (IFRS 9 eligible)	967,655	-6,101						951,934	-5,368						

Portfolio quality (*)

This table presents the reconciliation between the statement of financial position and the gross carrying amounts used for calculating the expected credit losses. No expected credit loss is calculated for cash, on-demand bank positions, reverse repurchase transactions, cash collateral received in respect of derivatives and other. Therefore these amounts are not included in the total gross carrying amount (IFRS 9 eligible). Other includes value adjustments on hedged items, deferred acquisition costs on residential mortgages and a receivable which is offset against a liquidity facility.

The table below describes the portfolio composition over the different IFRS 9 stages and rating classes. The Stage 1 portfolio represents 91.5% (2021: 93.5%) of the total gross carrying amounts, mainly composed of investment grade, while Stage 2 makes up 7.3% (2021: 5.2%) and Stage 3 makes up 1.2% (2021: 1.3%) of the total gross carrying amounts, respectively.

Gross carrying amount per IFRS 9 stage and rating class (*)1,2,3

in € million

2022

Rating class		12-month ECL (Stage 1)		Lifetime ECL not credit impaired (Stage 2)		Lifetime ECL credit impaired (Stage 3)		Total	
		Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions
Investment grade	1 (AAA)	100,885	2	284				101,169	2
	2-4 (AA)	98,181	5	2,493	1			100,675	6
	5-7 (A)	177,617	23	4,596	4			182,214	27
	8-10 (BBB)	321,308	98	14,714	29			336,023	127
Non-Investment grade	11-13 (BB)	155,910	277	17,365	91			173,275	368
	14-16 (B)	23,649	168	19,386	471			43,035	639
	17 (CCC)	7,671	8	4,572	194			12,244	202
Substandard grade	18 (CC)			5,198	595			5,198	595
	19 (C)			2,116	293			2,116	293
Non-performing loans	20-22 (D)					11,708	3,841	11,708	3,841
Total		885,222	581	70,725	1,679	11,708	3,841	967,655	6,101

1 Compared to the credit risk portfolio, the differences are mainly undrawn committed amounts (€150.1 billion) and other positions (€4.4 billion) not included in Credit outstandings and non-IFRS 9 eligible assets (€116.1 billion, mainly guarantees, letters of credit and pre-settlement exposures) included in Credit outstandings.

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'.

3 IAS 37 provisions are established for non-credit replacement guarantees not in the scope of IFRS 9. Total IAS 37 provisions (€109 million) are excluded.

Gross carrying amount per IFRS 9 stage and rating class (*)^{1,2,3}

in € million

2021

Rating class		12-month ECL (Stage 1)		Lifetime ECL not credit impaired (Stage 2)		Lifetime ECL credit impaired (Stage 3)		Total	
		Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions	Gross Carrying Amount	Provisions
Investment grade	1 (AAA)	107,788	3					107,788	3
	2-4 (AA)	106,673	5	197				106,870	5
	5-7 (A)	152,167	17	1,000	1			153,167	17
Non-Investment grade	8-10 (BBB)	328,301	73	7,232	14			335,533	87
	11-13 (BB)	163,228	208	14,679	86			177,908	294
	14-16 (B)	26,852	185	17,931	404			44,783	589
Substandard grade	17 (CCC)	5,377	10	4,354	198			9,730	207
	18 (CC)			2,314	173			2,314	173
Non-performing loans	19 (C)			1,769	142			1,769	142
	20-22 (D)					12,072	3,851	12,072	3,851
Total		890,386	501	49,476	1,016	12,072	3,851	951,934	5,368

1 Compared to the credit risk portfolio, the differences are mainly undrawn committed amounts (€133.3 billion) not included in Credit outstandings and non-IFRS 9 eligible assets (€95.1 billion, mainly guarantees, letters of credit and pre-settlement exposures) included in Credit outstandings.

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'.

3 IAS 37 provisions are established for non-credit replacement guarantees not in the scope of IFRS 9. Total IAS 37 provisions (€114.4 million) are excluded.

Changes in gross carrying amounts and loan loss provisions (*)

The table below provides a reconciliation by stage of the gross carrying amount and allowances for loans and advances to banks and customers, including loan commitments and financial guarantees. The transfers of financial instruments represent 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.

Please note the following comments with respect to the movements observed in the table below:

- Stage 3 gross carrying amount decreased by €0.4 billion from €12.1 billion as of 31 December 2021 to €11.7 billion as of 31 December 2022, mainly as a result of write-offs and generally low inflow into NPL

(credit impaired) in 2022. Stage 3 provisions remained however flat at €3.8 billion, reflecting worsened macroeconomic outlook.

- Stage 2 gross carrying amount increased by €21.2 billion from €49.5 billion as of 31 December 2021 to €70.7 billion. This is mainly caused by the significant lifetime PD trigger (€14.8 billion) driven by downgrades of the Russian portfolio and economic turmoil. Furthermore, the implementation of a stricter PD backstop methodology has driven the increase in Stage 2 gross carrying amounts, (€11.4 billion, mainly investment grade exposures). Other Stage 2 triggers such as the 30 Days past due and watchlist triggers (€1.2 billion and €1.1 billion respectively), were more than offset by the forbearance trigger (€-6.4 billion). For the latter, a two-year probation period is required before a client can move back to Stage 1 and the decrease relates to the fact that the start of the Covid-19 pandemic is now more than two years ago.
- Stage 2 provisions increased by €0.7 billion to €1.7 billion as of 31 December 2022, largely driven by the migration of the Russian portfolio to Stage 2 and worsened macro-economic outlook. The implementation of the threefold increase in lifetime PD backstop trigger had limited impact on provisions as it mainly impacts investment grade exposures.

- In 2022, the largest increases in Stage 2 by sector were in Non-bank financial institutions, Real estate, Chemicals health & pharmaceuticals and Lower public administration of €3.5 billion, €2.8 billion, €2.5 billion and €2.1 billion respectively. The increase in Stage 2 for non-bank financial institutions mainly resulted from the implementation of the threefold increase in lifetime PD backstop trigger, that mainly impacts investment grade exposures. Other drivers were downgrades in the Russian portfolio and economic turmoil. The largest decreases were in Automotive and Transportation & logistics with €0.9 billion and €0.6 billion releases respectively. The largest Stage 2 outstandings per economic sector as of 31 December 2022 are Real estate, Services, Natural resources and Non-bank financial institutions representing 10%, 7%, 7% and 7% of the total Stage 2 gross carrying amounts respectively.

Additional information on macroeconomic scenarios is included in the section 'Macroeconomic scenarios and sensitivity analysis of key sources of estimation uncertainty'.

Changes in gross carrying amounts and loan loss provisions (*)^{1,2}

in € million

	12-month ECL (Stage 1)		Lifetime ECL not credit impaired (Stage 2)		Lifetime ECL credit impaired (Stage 3)		Total	
	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions
2022								
Opening balance	890,386	501	49,476	1,016	12,072	3,851	951,934	5,368
Transfer into 12-month ECL (Stage 1)	8,513	21	-8,105	-142	-408	-47		-168
Transfer into lifetime ECL not credit impaired (Stage 2)	-42,439	-76	43,222	730	-784	-90		564
Transfer into lifetime ECL credit impaired (Stage 3)	-3,524	-8	-1,216	-82	4,740	1,234		1,144
Net remeasurement of loan loss provisions		8		223		199		430
New financial assets originated or purchased	248,443	228					248,443	228
Financial assets that have been derecognised	-138,250	-70	-11,312	-94	-2,805	-215	-152,366	-379
Net drawdowns and repayments	-77,907		-1,340		21		-79,226	
Changes in models/risk parameters		-8		13		25		30
Increase in loan loss provisions		95		648		1,106		1,849
Write-offs				-1	-1,129	-1,129	-1,129	-1,130
Recoveries of amounts previously written off						71		71
Foreign exchange and other movements		-15		16		-58		-57
Closing balance	885,222	581	70,725	1,679	11,708	3,841	967,655	6,101

1 Stage 3 Lifetime credit impaired provision includes €7 million on Purchased or Originated Credit Impaired.

2 The addition to the loan provision (in the consolidated statement of profit or loss) amounts to € 1,861 million of which € 1,850 million related to IFRS-9 eligible financial assets, € -3 million related to non-credit replacement guarantees and € 14 million to modification gains and losses on restructured financial assets.

Changes in gross carrying amounts and loan loss provisions (*)^{1,2}

in € million

	12-month ECL (Stage 1)		Lifetime ECL not credit impaired (Stage 2)		Lifetime ECL credit impaired (Stage 3) ¹		Total	
	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions
2021								
Opening balance	844,231	581	59,313	1,476	13,398	3,797	916,942	5,854
Transfer into 12-month ECL (Stage 1)	15,157	20	-14,322	-279	-835	-54		-313
Transfer into lifetime ECL not credit impaired (Stage 2)	-19,737	-32	20,537	206	-800	-75		100
Transfer into lifetime ECL credit impaired (Stage 3)	-2,166	-13	-1,589	-96	3,755	820		712
Net remeasurement of loan loss provisions		-130		-228		404		46
New financial assets originated or purchased	208,501	149					208,501	149
Financial assets that have been derecognised	-125,819	-73	-11,935	-104	-1,898	-237	-139,652	-414
Net drawdowns and repayments	-29,781		-2,527		-694		-33,002	
Changes in models/risk parameters		12		41		130		184
Increase in loan loss provisions		-67		-460		989		462
Write-offs					-854	-854	-854	-854
Recoveries of amounts previously written off						45		45
Foreign exchange and other movements		-13		1		-125		-138
Closing balance	890,386	501	49,476	1,016	12,072	3,851	951,934	5,368

1 Stage 3 Lifetime credit impaired provision includes €4 million on Purchased or Originated Credit Impaired.

2 The addition to the loan provision (in the consolidated statement of profit or loss) amounts to € 516 million of which € 462 million related to IFRS-9 eligible financial assets, € 43 million related to non-credit replacement guarantees and € 11 million to modification gains and losses on restructured financial assets.

Exposure per stage, coverage ratio and stage ratio's²

in € million

Balance sheet	2022				2021			
	Gross Carrying Amount	Allowances for credit losses	Coverage ratio	Stage Ratio	Gross Carrying Amount	Allowances for credit losses	Coverage ratio	Stage Ratio
Loans and advances to banks (including central banks)	97,146	49	0.1%		120,089	28		
Stage 1	95,788	9	%	99%	119,896	24		100%
Stage 2	1,339	20	1.5%	1%	193	4	2.0%	
Stage 3	20	20	100.0%					
Loans and advances to customers	643,317	5,984	0.9%		622,327	5,274	0.8%	
of which: Residential mortgages	326,928	677	0.2%		310,068	513	0.2%	
Stage 1	312,165	75		96%	297,915	37		96%
Stage 2	11,877	176	1.5%	4%	8,777	128	1.5%	3%
Stage 3	2,886	426	14.8%	1%	3,376	348	10.3%	1%
Of which: Consumer Lending (excl. Residential mortgages)	26,348	990	3.8%		32,423	1,409	4.3%	
Stage 1	23,101	184	0.8%	88%	28,554	217	0.8%	88%
Stage 2	2,145	223	10.4%	8%	2,654	367	13.8%	8%
Stage 3	1,102	583	52.9%	4%	1,215	825	67.9%	4%
Of which: Loans to public authorities	17,272	17	0.1%		14,333	12	0.1%	
Stage 1	15,977	4		93%	13,906	2		97%
Stage 2	1,120	7	0.6%	7%	344	5	1.5%	2%
Stage 3	175	6	3.4%	1%	84	4	5.1%	1%
Of which: Corporate lending	272,769	4,300	1.6%	%	265,503	3,340	1.3%	
Stage 1	227,167	279	0.1%	83%	230,133	185	0.1%	87%
Stage 2	38,497	1,225	3.2%	14%	28,568	505	1.8%	11%
Stage 3	7,105	2,795	39.3%	3%	6,801	2,649	39.0%	3%
Other IFRS 9 Eligible financial instruments¹	227,192	67			209,518	66		
Stage 1	211,025	29		93%	199,982	35		95%
Stage 2	15,746	27	0.2%	7%	8,941	6	0.1%	4%
Stage 3	421	11	2.7%	%	596	24	4.1%	
Total Gross Carrying Amount (IFRS 9 eligible)	967,655	6,101	0.6%		951,934	5,368	0.6%	

1 Includes Off balance sheet IFRS 9 eligible guarantees and irrevocable facilities

2 The exposure classification to residential mortgages, consumer lending and corporate lending is aligned to the regulatory definition

Modification of financial assets (*)

The table below provides the following information:

- 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.
- Financial assets that were reclassified to stage 1 during the period.

Financial assets modified (*)		
in € million	2022	2021
Financial assets modified during the period		
Amortised cost before modification	1,304	2,595
Net modification results	-124	-47
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	2,382	448

Macroeconomic scenarios and sensitivity analysis of key sources of estimation uncertainty (*)

Methodology (*)

Our methodology in relation to the adoption and generation of macroeconomic scenarios is described in this section. We continue to follow this methodology in generating our probability-weighted ECL, with consideration of alternative scenarios and management adjustments supplementing this ECL where, in management's opinion, the consensus forecast does not fully capture the extent of recent credit or economic events. The macroeconomic scenarios are applicable to the whole ING portfolio in the scope of IFRS 9 ECLs.

The IFRS 9 standard, 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, ING's reportable ECL numbers are 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.

Baseline scenario (*)

As a baseline for IFRS 9, ING has adopted a market-neutral view combining consensus forecasts for economic variables (GDP, unemployment) with market forwards (for interest rates, exchange rates and oil prices). The Oxford Economics' Global Economic Model (OEGEM) is used to complement the consensus with consistent projections for variables for which there are no consensus estimates available (most notably house prices and – for some countries - unemployment), to generate alternative scenarios, to convert annual consensus information to a quarterly frequency and to ensure general consistency of the scenarios. As the baseline scenario is consistent with the consensus view it can be considered as free from any bias.

The relevance and selection of macroeconomic variables is defined by the ECL models under credit risk model governance. The scenarios are reviewed and challenged by two panels of ING experts. 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.

Alternative scenarios and probability weights (*)

Two alternative scenarios are taken into account: an upside and a downside scenario. The alternative scenarios have statistical characteristics as they are based on the forecast deviations of the OEGEM.

To understand the baseline level of uncertainty around any forecast, Oxford Economics keeps track of all its deviations (so called 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 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 the way risk management earnings-at-risk is defined within the Group. The upside scenario is represented by the 10th percentile of the distribution. The applicable percentiles of the distribution imply a 20% probability for each alternative scenario. Consequently, the baseline scenario has a 60% probability weighting. Please note that, given their technical nature, the downside and upside scenarios are not based on an explicit specific narrative.

Macroeconomic scenarios applied (*)

The loan loss provisions are based on the December 2022 consensus forecasts.

Baseline assumptions (*)

The general picture that the consensus conveys is that global economic growth is being challenged by persistent inflationary pressures which are being met by central banks lifting interest rates. The consensus expects recession to occur in many European countries in 2022-2023, while the US economy is anticipated to stagnate. Economic growth is expected to resume in the years thereafter as inflation normalises and monetary conditions become less tight. In economies that have experienced a notable surge in house prices during the pandemic and its aftermath, affordability pressures amid the higher interest rate environment are expected to lead to a moderation of growth or price declines in the near to medium-term.

The December 2022 consensus expects global output (as measured by the weighted average GDP growth rate of ING's 25 main markets) to slow further from 6.0% in 2021, to 2.5% in 2022 and 1.3% in 2023. For 2024-2025, economic growth is expected to pick up again to 2.4%.

The US economy is expected to stagnate in 2023 as high inflation, rising interest rates, supply chain difficulties, softer labour market dynamics, and global headwinds weaken demand. Consumer spending growth is under downward pressure as slower employment gains curb income growth and pandemic-related savings have diminished. With the headwinds seen fading slowly, the US economy is expected to gather strength again in 2024. The consensus expects the growth rate of the US economy to fall from 1.9% in 2022 to 0.2% in 2023 and to recover to on average 1.7% in 2024-2025.

Eurozone economies are dealing with the consequences of the ongoing war in Ukraine, broadening inflationary pressures and a general deterioration of sentiment across industries and consumers.

The ECB has shifted to a hawkish tilt but government fiscal support targeting higher energy prices is softening the economic pain in many countries. Overall, the eurozone economy is forecasted to stagnate in 2023, but Germany – as well as some other countries – faces recession reflecting its large exposure to gas supply cuts, relatively large manufacturing sector and exposure to a slower growing Chinese economy.

Elsewhere in Europe, the outlook is equally bleak. In Poland, economic fallout from the war in Ukraine and the related energy price shock point to a significant economic slowdown from 5.0% in 2022 to 1.0% in 2023. However, the scope for a rise in unemployment is seen to be limited as the Polish labour market remains tight, partially due to population ageing. As in the eurozone, the central bank is tightening monetary policy, but fiscal policy remains expansive. The consensus expectation for Turkey is also for economic growth to ease as the economic slowdown in Europe weighs on external demand and high inflation persists. The consensus sees economic growth in Turkey slowing from 5.2% in 2022, to on average 2.4% in 2023-2024 and increasing again to 3.0% in 2025.

After a weak growth rate of 3.1% in 2022, economic growth in China is expected to pick-up to on average 4.7% in 2023-2025. The drag exerted by the authorities' Covid-19 policies is assumed to moderate, while

state investment will support demand. However, the real estate downturn continues to weigh on the outlook.

The global economic slowdown, together with tighter monetary policy and high inflation is weighing on economic growth in Australia. After growing by 3.8% in 2022, the outlook sees a growth rate of 1.8% for 2023-2024 and some pick-up to 2.6% for 2025. However, despite the economic slowdown, conditions in the labour market are expected to remain tight.

When compared to the December 2021 consensus forecast, used for the 2021 Annual Report, the December 2022 forecast assumes much weaker economic circumstances. Global GDP was expected to increase by 2.5% in 2022 (compared to 4.1% assumed before) and 1.3% in 2023 (3.1% assumed before). The downgrade reflects the economic impacts of the war in Ukraine and tighter monetary conditions.

Alternative scenarios and risks (*)

Because of the possible consequences of the war in Ukraine, uncertainty surrounding the forecasts is higher than usual. This relates in particular to uncertainty about European energy supplies and worries about more persistent high inflation. To take the general increase of uncertainty surrounding the forecasts into account, the dispersion of the alternative scenarios has been set again at the widened level used for year-end 2021 provisioning (the half-widened dispersion). As a result, the near-term dispersion of the forward-looking distributions (from which the alternative scenarios are derived) is larger than in normal times. Meanwhile, at the end of the scenario horizon the dispersion has remained unchanged and hence is comparable to scenarios generated prior to the war in Ukraine.

The baseline scenario assumes a significant easing of inflation in 2023 and relatively resilient labour markets. However, a longer period of weakness, due to stickier inflation and more aggressive monetary policy tightening that triggers a more notable softening of the labour market and greater falls in financial asset and property prices, could lead to a more protracted and deeper economic slowdown. As such, the balance of risks to the baseline outlook is negative and the alternative scenarios have a downward skew in line with the outcomes of Oxford Economics' Global Risk Survey. The downward skew is less negative compared to what has been applied for year-end 2021 at which time – set against a higher baseline – apart from higher inflation, worries about supply chain disruptions and further corona virus waves were being seen as top near-term downside risks.

The downside scenario – though technical in nature – sees for most countries a fast deceleration of economic growth followed by a recession. Unemployment increases strongly in this scenario and house prices in most countries show outright falls. The downside scenario captures a possible escalation of the war in Ukraine and a more pronounced and prolonged surge in inflation.

The upside scenario – while equally technical in nature – reflects the possibility of a better economic outturn if the war in Ukraine ended quickly, fuelling a rebound in consumer spending. The recovery is further supported by looser monetary policy as weaker inflation prompts central banks to hold back tightening.

Management adjustments applied this year (*)

In times of volatility and uncertainty where portfolio quality and the economic environment are changing rapidly, models alone may not be able to accurately predict losses. In these cases, management adjustments can be applied to appropriately reflect ECL. Management adjustments can also be applied where the impact of the updated macroeconomic scenarios is over- or under-estimated by the IFRS 9 models.

ING has internal governance frameworks and controls in place to assess the appropriateness of all management adjustments.

Management adjustments to ECL models (*)		
in € million	2022	2021
Economic sector based adjustments	71	341
Second order impact adjustments	334	
Payment holiday adjustments		32
Mortgage portfolio adjustments	105	124
Other post model adjustments ¹	-57	121
Total management adjustments	453	618

¹ Prior period figure has been updated to conform to current year presentation.

December 2021 management adjustments included an economic sector-based management adjustment of €341 million because of delays in defaults occurring in the Covid-19-related crisis, mainly as a result of government support programmes. In determining the sector-based management adjustment, a heatmap approach was used to adjust the probability of default for sectors where businesses are significantly impacted by the pandemic. In 2022, as it became clearer the Covid-19 pandemic had less impact than expected on the number of defaults, the economic sector-based management adjustment has been largely released and while at the same time management adjustments for the second order impact of the war in Ukraine were introduced (see below). Of the remaining economic sector based adjustments of €71 million as of 31 December 2022, €61 million relates to Business Banking clients that have benefited from Covid-19 related government support programmes in the Netherlands such as deferral of tax payments that ended in the second half of 2022, and €10 million relates to an overlay for livestock farming sector in the Netherlands. In the Netherlands, nitrogen reduction targets affect the livestock farming sector mainly because of endorsed closing activities nearby Natura 2000 areas and because of expected transition to

other business models in the sector. As these specific risks are not incorporated in the model ECL, an overlay was recognised.

ING has performed an assessment for both WB and Retail Banking on the impact of the war in Ukraine, the increase in energy prices and other second order macroeconomic developments such as an increase in inflation and rising interest rates. This resulted in a second order impact overlay of €334 million in total as of 31 December 2022, of which €164 million relates to Retail Banking segments and €170 million to the Wholesale Banking segment.

As the credit risk models assume that these second order effects materialise via other risk drivers such as GDP and unemployment rates with a delay, an overlay approach was determined to timely estimate the Expected Credit Losses related to reduced repayment capacity and affordability for private individuals and business clients in the Retail Banking segment. The €164 million includes an overlay of €22 million for clients participating in the payment holiday scheme in Belgium that was introduced in 2022 to support customers impacted by the inflation and high energy prices.

In WB, it was assessed that the economic effects of Covid-19 was not the highest risk anymore and that other risks have emerged – mainly high energy prices, high interest rates and inflation, supply chain issues and staffing shortages. A heatmap approach was used to adjust the probability of default for clients that are expected to be significantly impacted by these emerged risks.

Given Covid-19-related payment holiday programmes have generally expired, this management adjustment has been fully released in 2022.

Model based ECL of mortgage portfolios has decreased over the past years and until the third quarter of 2022, driven by significant increase of house prices in various countries. Management adjustments of €105 million in total, mainly in Stage 2 and 3, have been recognised by ING in the Netherlands, Belgium, Germany and Australia to maintain an appropriate level of ECL and reflecting a potential impact of market uncertainty on the recovery value of residential real estate (impacted by higher inflation and interest rates). The management adjustment for the Netherlands and part of the Belgian mortgage portfolio was determined by developing three alternative macroeconomic forecast scenarios, in addition to the consensus base, up- and down-scenarios, that reflect a correction in the house prices in the next three years bringing it back in line with the historical growth rate. For other countries, management adjustments were determined by calculating the impact of lower house prices on LTVs and LGDs.

Other post model adjustments mainly relate to the impact of model redevelopment or recalibration and periodic model assessment procedures that have not been incorporated in the ECL models yet. These result from both regular model maintenance and ING's multiyear programme to update ECL models for the new definition of default. These adjustments will be removed once updates to the specific models have been implemented.

Analysis on sensitivity (*)

The table below presents the 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. The countries included in the analysis are the most significant geographic regions, in terms of both gross contribution to reportable ECL, and sensitivity of ECL to forward-looking macroeconomics. Accordingly, ING 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. ING also observes that, in general, the WB business is more sensitive to the impact of forward-looking macroeconomic scenarios.

The purpose of the sensitivity analysis is to enable the reader to understand the extent of the impact from the upside and downside scenario on model-based reportable ECL.

In the table below the real GDP is presented in percentage year-on-year change, the unemployment in percentage of total labour force and the house price index (HPI) in percentage year-on-year change.

Sensitivity analysis as at December 2022 (*)							
		2023	2024	2025	Un-weighted ECL (€ mln)	Probability -weighting	Reportable ECL (€ mln) ¹
Netherlands	Real GDP	2.2	2.3	2.9			
	Unemployment	4.0	3.9	3.8	274	20 %	
	HPI	13.0	11.8	2.5			
Upside scenario	Real GDP	0.2	1.4	1.8			
	Unemployment	4.5	4.8	4.9	349	60 %	381
	HPI	3.7	3.7	2.4			
Baseline Scenario	Real GDP	-4.2	0.7	0.9			
	Unemployment	6.4	7.8	8.7	583	20 %	
	HPI	-8.0	-6.5	2.2			
Downside scenario	Real GDP	1.7	2.3	1.8			
	Unemployment	2.6	2.2	1.8	606	20 %	
	HPI	0.6	3.9	6.2			
Germany	Real GDP	-0.7	1.4	1.5			
	Unemployment	3.2	3.1	3.1	726	60 %	745
	HPI	-1.8	0.9	2.7			
Upside scenario	Real GDP	-4.8	0.1	1.0			
	Unemployment	4.8	5.3	5.6	942	20 %	
	HPI	-6.2	-3.3	-1.4			
Baseline Scenario	Real GDP	1.7	2.1	2.1			
	Unemployment	5.5	5.5	5.3	535	20 %	
	HPI	2.3	2.6	3.1			
Upside scenario	Real GDP	—	1.6	1.8			
	Unemployment	6.1	6.3	6.1	584	60 %	596
	HPI	1.4	2.2	2.5			
Baseline Scenario	Real GDP	-3.2	1.0	1.5			
	Unemployment	7.5	8.5	8.4	692	20 %	
	HPI	-1.2	0.9	1.2			
Downside scenario	Real GDP	3.0	1.5	3.4			
	Unemployment	3.4	2.8	2.5	100	20 %	
	HPI	3.7	7.4	8.1			
United States	Real GDP	0.2	1.1	2.3			
	Unemployment	4.3	4.4	3.9	188	60 %	221
	HPI	2.5	2.2	2.8			
Upside scenario	Real GDP	-4.1	0.2	0.6			
	Unemployment	6.4	7.7	8.2	442	20 %	
	HPI	-1.2	-3.8	-3.5			

¹ Excluding management adjustments.

Sensitivity analysis as at December 2021 (*)							
		2022	2023	2024	Un-weighted ECL (€ mln)	Probability -weighting	Reportable ECL (€ mln) ¹
Netherlands	Real GDP	5.1	2.9	2.7			
	Unemployment	3.2	2.9	2.9	259	20 %	
	HPI	23.3	10.9	0.9			
Upside scenario	Real GDP	3.4	2.0	1.7			
	Unemployment	3.7	4.1	4.3	289	60 %	307
	HPI	13.1	2.8	0.8			
Baseline Scenario	Real GDP	-1.5	1.2	0.7			
	Unemployment	5.6	6.8	7.8	411	20 %	
	HPI	0.3	-7.7	0.6			
Downside scenario	Real GDP	6.2	3.1	1.6			
	Unemployment	2.9	2.2	1.9	457	20 %	
	HPI	12.9	7.9	5.3			
Germany	Real GDP	4.0	2.3	1.4			
	Unemployment	3.4	3.1	3.1	475	60 %	483
	HPI	10.4	4.6	1.9			
Upside scenario	Real GDP	-0.6	0.9	0.8			
	Unemployment	5.0	5.4	5.7	535	20 %	
	HPI	5.3	0.4	-2.1			
Baseline Scenario	Real GDP	4.6	2.5	2.0			
	Unemployment	5.6	5.6	5.9	364	20 %	
	HPI	3.9	2.7	2.9			
Upside scenario	Real GDP	3.1	2.0	1.8			
	Unemployment	6.1	6.3	6.3	383	60 %	393
	HPI	3.0	2.3	2.3			
Baseline Scenario	Real GDP	-0.4	1.4	1.4			
	Unemployment	7.6	8.6	9.0	451	20 %	
	HPI	0.4	1.0	1.0			
Downside scenario	Real GDP	6.7	2.4	3.1			
	Unemployment	3.5	2.5	2.4	28	20 %	
	HPI	10.4	8.1	8.7			
United States	Real GDP	4.0	2.5	2.1			
	Unemployment	4.0	3.7	3.7	55	60 %	75
	HPI	9.1	3.0	3.3			
Upside scenario	Real GDP	-0.7	1.1	0.3			
	Unemployment	6.5	7.4	8.0	183	20 %	
	HPI	5.3	-3.2	-3.0			

¹ Excluding management adjustments.

When compared to the sensitivity analysis of 2021, the macroeconomic inputs for 2022 and 2023 are less favourable, driven by a worsened macroeconomic outlook as a result of the war in Ukraine as well as its indirect effects such as inflation and increasing interest rates. Both 2021 and 2022 contain half-widened dispersion around upside and downside scenarios, for 2021. This reflects continuing but decreased short-term uncertainty relating to the impact of Covid-19 and for 2022 reflecting short-term uncertainty around the war in Ukraine and its indirect effects. The increase in reportable ECL compared to 2021 is mainly caused by higher model ECL amounts as per December 2022 as a result of increased provisions for Russia-related exposures in Stage 2.

While the table above does give a high-level indication of the sensitivity of the outputs to the different scenarios, it does not provide insight into the interdependencies and correlations between different macroeconomic variable inputs. On a total ING level, the unweighted ECL for all collective provisioned clients in the upside scenario was €2,680 million, in the baseline scenario €3,177 million and in the downside scenario €4,456 million compared to €3,209 million reportable collective provisions as at 31 December 2022 (excluding all management adjustments). This reconciles as follows to the reported ECL's:

Reconciliation of model (reportable) ECL to total ECL (*)		
in € million	2022	2021
Total model ECL¹	3,209	2,408
ECL from individually assessed impairments	2,439	2,342
ECL from management adjustments	453	618
Total ECL	6,101	5,368

¹ Prior period figure has been updated to conform to current year presentation.

Criteria for identifying a significant increase in credit risk (SICR) (*)

All assets and off-balance sheet items that 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 or 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. ING considers the credit risk of an asset to have significantly increased when either a threshold for absolute change in lifetime probability of default (PD) or a relative change in lifetime PD is reached.

It should be noted that the lifetime PD thresholds are not the only drivers of stage allocation. An asset can also change stages as a result of other triggers, such as having over 30 days arrears, being on a watch list or being forborne. Refer to section 1.7.8 of Note 1 'Basis of preparation and significant accounting policies' for an exhaustive list. Furthermore, this analysis is rudimentary in the sense that other parameters would change when an asset changes stages.

Absolute lifetime PD threshold

The absolute threshold is a fixed value calibrated per portfolio/segment and provides a fixed threshold that, if exceeded by the difference between lifetime PD at reporting date and lifetime PD at origination, triggers Stage 2 classification. The thresholds for the absolute change in lifetime PD vary between 75bps for Retail portfolios, 100bps for WB and 250bps for SMEs, based on the characteristics of the specific portfolio. ING is in the process of refining the thresholds on a portfolio level. These have already been implemented for more than 20 percent of the portfolio, resulting in deviating absolute lifetime PD thresholds.

Relative lifetime PD threshold

The relative threshold defines a relative increase of the lifetime PD beyond which a given facility is classified in Stage 2 because of significant increase in credit risk. The relative threshold is dependent on the individual PD assigned to each facility at the moment of origination and a scaling factor calibrated in the model development phase that is optimised depending on the observed default rates and overall average riskiness of the portfolio. While the scaling factor is associated with a whole portfolio/segment, the PD at origination is facility-specific and, in this sense, the relative threshold may differ facility by facility.

Ultimately the relative threshold provides a criterion to assess whether the ratio (i.e. increase) between lifetime PD at reporting date and lifetime PD at origination date is deemed a significant increase in credit risk. If the threshold is breached, SICR is identified and Stage 2 is assigned to the given facility.

The threshold for the relative change in lifetime PD is inversely correlated with the PD at origination; the higher the PD at origination, the lower the threshold. The logic behind this is to allow facilities originated in very favourable ratings to downgrade for longer without the need of a Stage 2 classification. In fact, it is likely that said facilities will still be in favourable ratings even after a downgrade of a few notches. On the contrary, facilities originated in already unfavourable ratings grades are riskier and even a single-notch downgrade might represent a significant increase in credit risk and thus a tighter threshold will be in place. Still, the relative threshold is relatively sensitive for investment grade assets while the absolute threshold primarily affects non-investment grade assets.

Average threshold ratio

In the table below the average increase in PD at origination needed to be classified in Stage 2 is reported, taking into account the PD at origination of the facilities included in each combination of asset class and rating quality. In terms of rating quality, assets are divided into 'Investment grade' and 'non-investment grade' facilities. Rating 18 and 19 are not included in the table since facilities are not originated in these ratings and they constitute a staging trigger of their own (i.e. if a facility is ever to reach rating 18 or 19 at reporting date, it is classified in Stage 2). In the table, values are weighted by IFRS 9 exposure and shown for both year-end 2021 and year-end 2022.

To represent the thresholds as a ratio (i.e. how much should the PD at origination increase in relative terms to trigger Stage 2 classification) the absolute threshold is recalculated as a relative threshold for disclosure purposes. Since breaching only relative or absolute threshold triggers Stage 2 classification, the minimum between the relative and recalculated absolute threshold is taken as value of reference for each facility.

Quantitative SICR thresholds (*)

	2022		2021	
	Investment grade (rating grade 1-10)	Non-investment grade (rating grade 11-17)	Investment grade (rating grade 1-10)	Non-investment grade (rating grade 11-17)
Average threshold ratio				
Asset class category				
Mortgages	2.7	2.3	2.7	2.2
Consumer Lending	2.8	1.8	2.8	1.7
Business Lending	2.8	2.1	4.0	2.2
Governments and Fin. Institutions	3.0	1.9	7.9	2.2
Other Wholesale Banking	2.8	1.9	4.5	2.0

As it is apparent from the disclosures above, as per ING's methodology, the threshold is tighter the higher the riskiness at origination of the assets, illustrated by the difference between the average threshold applied to investment grade facilities and non-investment grade facilities. In 3Q 2022, following up an ECB request, a new backstop trigger was implemented. The new trigger forces Stage 2 classification in case the lifetime PD at reporting date has increased more than three times with respect to the origination, regardless of the actual staging thresholds in force for a given portfolio. The new requirement entails that the threshold ratio in the table above is effectively capped at a threefold increase for December 2022. The effect of this trigger is especially apparent in the average thresholds ratio for investment grade facilities when confronting 2021 and 2022 figures. Since for investment grade assets thresholds tend to be looser given the good quality of underlying counterparties ratings, the backstop trigger is more impactful.

In terms of impact on ING portfolio, the application of the new backstop trigger resulted in an increase of Stage 2 exposure. However, since the trigger impacts mainly good quality assets for which regular staging thresholds are typically above a threefold increase in PD, the corresponding impact in provisions was limited.

Sensitivity of ECL to PD lifetime PD thresholds

The setting of PD threshold bands requires management judgement and is a key source of estimation uncertainty. On Group level, the total model ECL, which is the ECL collective-assessment without taking management adjustments into account, is €3,209 million (2021: €2,408 million) of which performing assets

constitute €1,884 million (2021: €1,003 million). To demonstrate the sensitivity of the ECL to these PD thresholds bands, an analysis was run on all collectively-assessed assets, which assumed all assets were below the threshold (Stage 1) and apportioned a 12-month ECL. On the same asset base, analysis was run which assumed all performing assets were above the threshold (Stage 2) and apportioned a lifetime ECL. This gave rise to hypothetical collective-assessment ECLs of €1,348 million (2021: €634 million) and €3,391 million (2021: €2,232 million) respectively. Please note that in this analysis, all other ECL risk parameters (except for the stage) were kept equal.

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 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 need to identify, assess, control and manage market risks. The approach consists of five recurring activities: risk identification, risk assessment, risk control, risk monitoring and risk reporting.

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 EB/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.

FR maintains a limit framework in line with ING's Risk Appetite Framework. The businesses are responsible for adhering to the limits which are reviewed on an annual basis and are ultimately approved by the ALCO Bank. Limit excesses are reported to senior management in line with the ALM Limit excess reporting procedure upon which the business needs to act accordingly. 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.

The organisational structure facilitates top-down risk management by recognising that risk taking and risk management occur to a large extent at the regional/local level. Bottom-up reporting from regional/local

units to head office units allows each management level to assess the market risks relevant at the respective levels.

Several committees govern communication between the parties involved in market risk management:

- The Market Risk Model Committee (MRMC, reporting to ALCO Bank), is the dedicated authority within ING for the approval of all funding and liquidity risk, banking and trading risk and counterparty credit risk models, methodologies and related parameters. This is comparable with the CTTC, which reports into the GCTP.
- The Valuation Model Committee approves pricing models for trading and banking books.

Financial Risk provides risk reporting to the EB and MBB, the ALCO Bank and the senior executive management of related business functions.

The following sections elaborate on the various elements of the risk management framework for:

- Market risk economic capital (trading and banking books).
- Market risks in banking books.
- 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 in both banking portfolios and trading portfolios and includes interest rate risk, credit spread risk, equity price risk, foreign exchange rate risk, customer behaviour 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, the linear interest rate risk and other risk types as well as equity investments in the banking books, the Value at Risk (VaR) are taken as a starting point for the economic capital calculations for market risk. The VaR is measured at a 99% confidence level with 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. 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.

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.

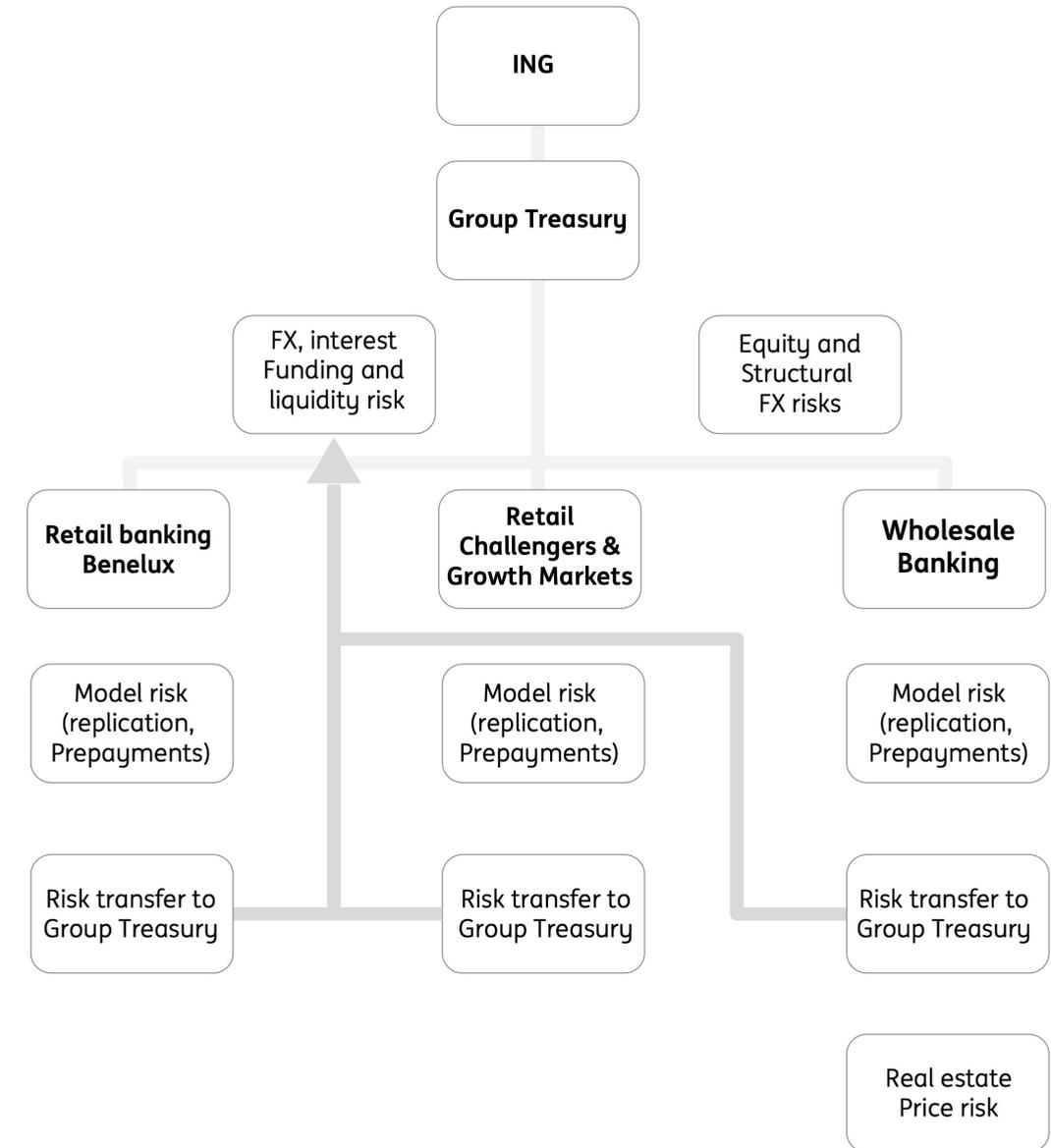
Market risk in banking books (*)

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-related market risk exposures are intended to be held until maturity, or at least for the long term.

Risk transfer (*)

Market risks in the banking book are managed via the risk transfer process. In this process the interest rate, FX, funding and liquidity risks are transferred from the commercial books through matched funding or replication 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, and the policies and procedures related to interest rate risk management. Furthermore, ALCO Bank reviews and sets the risk appetite for interest rate risk, on an annual basis. The risk appetite is translated into limits for the interest rate risk metrics.

As a result of this framework, ING centralises interest rate risk management 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 based 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.
- Commercial business.
- Group Treasury exposures including strategic interest rate positions.

Group Treasury is responsible for managing the investment of own funds (core capital). Capital is invested for longer periods to contribute to stable earnings within the risk appetite boundaries set by ALCO Bank. The main objective is to maximise the economic value of the capital investment book while having stable earnings.

Commercial activities can result in linear interest rate risk, for example, tenors and duration of new production and re-pricing of assets differ from those of liabilities. Also, interest rate risk can arise from customer behaviour and/or convexity risk, 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, among other things, include the state of the economy,

competition, changes in regulation, legislation and tax regime, developments in the housing market and interest rate developments.

From an interest rate risk perspective, commercial activities can typically be divided into three main product types: funds entrusted as savings and demand deposits, mortgages and loans.

Savings and demand deposits are generally invested in such a way that both the value is hedged and the sensitivity of the margin to market interest rates is minimised. Interest rate risk can arise when there is a misalignment between the change in market rates and adjustment of savings rates, which can either have a positive or negative impact on the income as a consequence of the potential misalignment to the related (assumption based) investment strategy of ING's savings. Interest rate risk is modelled based on the stability of the deposit and the pass-through rate. This takes account of different elements, such as pricing strategies, volume developments and the level and shape of the yield curve. Savings volumes are typically assumed to be relatively stable and less sensitive to rate changes.

Interest rate risk for mortgages arises due to prepayment possibilities in these mortgages. In modelling this risk, both interest rate dependent pre-payments and constant prepayments are considered. Next to a dependence on interest rates, modelled prepayments 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 may be considered.

Wholesale Banking loans typically do not experience interest rate dependent prepayment behaviour, these portfolios are match-funded taking the constant prepayment model into account and typically do not contain significant convexity risk. Wholesale Banking loans can have an all-in rate floor or a floor on a reference rate.

Customer behaviour in relation to mortgages, loans, savings and demand deposits is modelled, based on extensive research. However, the substantial change in the interest rate environment makes extensive research more challenging than before and may increase model risk. Models are backtested and updated when deemed necessary in an annual procedure. Model parameters and the resulting risk measures are approved by (local) ALCO.

Linear risk transfers take place from commercial business books to the treasury book (Group Treasury), if necessary, by 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 at least monthly. However, if deemed necessary, additional risk transfers can take place.

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.

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 figures provide the value perspective. Please note that the expected interest rate risk coming forward from the business is assumed to be linearly hedged but no additional corrective management actions are taken into account in the NPV-at-Risk measure. In the NII-at-Risk measure, a more dynamic hedging process is taken into account.

During 2022, the following activities related to the risk measurement for IRRBB were performed:

- Annual review of the risk appetite for Market Risks in the Banking Book including further enhancement.
- Further assessment and development of sub-risk types, such as tenor basis risk, vega optionality risk and client behaviour risk.
- Set up of standardised risk measurement related to climate risk.
- Annual review of the interest rates scenarios used for calculating NII-at-Risk and NPV-at-Risk.
- Annual savings/current account model updates.
- Annual update of parameters of prepayment models for market developments.
- A specific, internal firm-wide stress test relating to climate risk.
- Further enhancement of the IRRBB framework in relation to upcoming regulatory requirements (e.g. anticipation on implementation and measurement of the upcoming regulatory metric NII SOT, development of additional requirements coming forward from latest EBA guidelines).
- Improvement of the FX framework.

Net interest income (NII) at Risk (*)

The NII-at-Risk measures the impact of changing interest rates on the forecasted net interest income (before tax) of the banking book, excluding the impacts of credit spread sensitivity, fees and fair value impact. Future projected balance sheet developments are included in this risk metric. NII-at-Risk is a metric that helps provide insight to what extent ING's NII under our Dynamic Plan deviates from the interest rates development assumed.

In its risk management, ING monitors the NII-at-Risk under a three-year timeframe. Interest rates are stressed during the first year versus the prevailing curve, taking gradual changes over the first year. The rate changes considered comprise both upward and downward scenarios, as well as parallel (equal movements across the yield curve) and non-parallel scenarios.

The impact of changing interest rates on ING's NII is predominantly caused by the following factors:

- Change in returns of (re-)investments of client deposits.

- Change in deposits client rates (mainly savings), (partially) tracking changes in market interest rates.
- Change in funding profile of mortgages, due to an expected increase or decrease in expected prepayments.
- Higher/lower returns of (re-)investments of capital investment.
- Open interest rate positions, leading to changes in return because of different market rates.
- Assumed volume development of the balance sheet in line with ING's dynamic plan.

For projecting the change in client deposit rates, ING uses a client rate model that describes the relation to market interest rates and client deposit rates. The model is calibrated under a range of interest rate scenarios. Per scenario the actual change in client deposit rates may deviate from this calibrated model. The actual NII development of customer deposits may, indeed, differ from the provided scenarios, depending on, amongst others, actual interest rate and savings client rate evolution, as well as changes to ING's balance sheet composition such as net deposit growth and relative share of savings deposits and non-remunerated current accounts.

The NII-at-Risk figures in the tables below reflect a parallel, linear interest rate movement during a year ('ramped') under the assumption of balance sheet developments in line with the ING's Dynamic Plan with a time horizon of one year.

NII-at-Risk banking books per business - year one (*)

in € million	2022		2021	
	Ramped, unfloored parallel ▼	Ramped, unfloored parallel ▲	Ramped, unfloored parallel ▼	Ramped, unfloored parallel ▲
By business				
Wholesale Banking	4	-47	46	-33
Retail Banking Benelux	-88	59	-122	132
Retail Challengers & Growth Markets	-41	113	-93	75
Corporate Line Banking	-18	18	-58	58
Total	-142	142	-226	232

EUR ramped (unfloored) is at +/- 100bps in 1 year

USD ramped (unfloored) is at +/- 120bps in 1 year

The NII-at-Risk is primarily driven by the difference in sensitivity of client liabilities, mainly savings, versus the sensitivity of client assets and investments to rate changes. The investment of own funds only impacts the earnings sensitivity marginally, as only a relatively small part has to be (re)invested within the one-year horizon.

NII-at-Risk banking book per currency - year one (*)				
in € million				
	2022		2021	
	Ramped, unfloored parallel ▼	Ramped, unfloored parallel ▲	Ramped, unfloored parallel ▼	Ramped, unfloored parallel ▲
By currency				
Euro	-119	114	-181	179
US dollar	-1	2	-23	23
Other	-23	27	-23	30
Total	-142	142	-226	232

EUR ramped (unfloored) is at +/- 100bps in 1 year

USD ramped (unfloored) is at +/- 120bps in 1 year

At the end of 2022, the NII is projected to be slightly higher when interest rates rise. In this scenario, one-year (re-) investment returns are higher than the modelled increase in client deposit rates and modelled extra funding costs due to higher funding costs for mortgages.

The projected change in NII numbers in the tables above include projected changes in client deposit rates for the ramped parallel up scenario. Without increasing client deposit rates, the NII-at-Risk for the parallel ramped up scenario would be significantly higher, meaning that the actual client deposit rate tracking of market interest rates in such scenario is a key driver in the NII development of the bank.

The change in NII under a declining or upward interest rate scenario may not be equal. This is then caused by different expected reactions in prepayment behaviour of mortgages and different pricing developments of commercial loans and deposits products (mainly savings). This is caused by embedded options, explicit or implicit pricing floors and other (assumed) pricing factors.

Year-on-year variance analysis (*)

In 2021, interest rates remained at very low levels and short-term interest rates were even negative. In 2022, interest rates in both short and longer tenors increased significantly. Central banks tightened monetary conditions to counter high inflation specifically as a follow up to high energy prices. In 2022, the rate environment was characterised by increasing interest rates. ING applied a dynamic hedging process, by which interest rate risk was transferred from the business to Group Treasury and subsequently hedged in the markets. This process mitigates interest rate risk resulting in a lower sensitivity for rate changes of ING's NII. However, the main drivers in a potential change of NII sensitivity are balance sheet developments, specifically relating to mortgages, loans and savings. In the eurozone, mortgage production was impacted by an increase in interest rates. Next to the impact on new production, the prepayment incentive decreased due to the increase in interest rates. The funds entrusted volume did not change significantly, The impact of explicit and implicit floors on both rates of client assets and savings phased out in the course of the year on

the back of the interest rate increases. Pre-existing hedges, as executed by Group Treasury, were also adjusted continuously throughout the year to hedge any interest rate risk coming from higher interest rates. Given that Group Treasury is included in the Wholesale Banking risk numbers, these adjustments changed the Wholesale Banking NII-at-Risk. Furthermore, ING's investment of own funds took place against a lower duration reducing sensitivity. Excluding Model Risk, the total NII-at-Risk remains relatively limited in comparison to ING's total interest income.

Net Present Value (NPV) at Risk (*)

NPV-at-Risk measures the impact of changing interest rates on the value of the positions in the Banking Book. This does not include positive earnings in our commercial books. The NPV-at-Risk is defined as the outcome of an instantaneous increase or decrease in interest rates from applying currency-specific scenarios. The NPV-at-Risk asymmetry between the downward and upward shock is mainly caused by convexity risk in the mortgage and savings portfolio.

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 changes in value 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 (*)				
in € million				
	2022		2021	
	unfloored parallel ▼	unfloored parallel ▲	unfloored parallel ▼	unfloored parallel ▲
By business				
Wholesale Banking	-1,474	1,299	-1,477	1,444
Retail Banking Benelux	-307	-76	-953	-202
Retail Challengers & Growth Markets	1,327	-1,373	832	-1,111
Corporate Line Banking	1,049	-1,003	1,820	-1,712
Total	594	-1,153	223	-1,580

EUR (unfloored) +/- 100bp shock scenario

USD (unfloored) +/- 120bp shock scenario

Year-on-year variance analysis (*)

The overall NPV sensitivity for the rates-up scenario decreased in 2022. This is mainly due to the shorter duration at which ING strategically invests its own funds. These investments are done in the Corporate Line Banking.

The changes in NPV-at-Risk in the segments Retail Benelux and Retail Challengers & Growth Markets were partly offsetting, whereby the higher interest rates reduced the overall convexity. The resulting impact on retail sensitivity of the increase in interest rates was hedged by Group Treasury in line with the internal ALM practices. The Group Treasury exposure is reported under business line Wholesale Banking.

IBOR transition (*)

In line with the recommendations from the Financial Stability Board, a fundamental review of benchmarks for important interest rates has been undertaken. Some interest benchmarks have been reformed, while others have or will be replaced by risk-free rates (RFR) and discontinued. Following the cessation of GBP, CHF, JPY, and EUR LIBOR rates on 31 December 2021, USD LIBOR will cease on 30 June 2023.

In 2022, the focus shifted to USD LIBOR, with new USD lending now using the recommended alternative rates based on SOFR. This is consistent with guidance issued to limit the use of USD LIBOR from 1 January 2022 onward. Risk reduction trades to help manage the run-off of existing USD LIBOR contracts and positions are a permitted exception.

To enable these changes, the financial sector has issued several guidance papers and other initiatives to help phase this transition. For example, ISDA has issued an IBOR fallback supplement to help ensure clear fallback rates apply upon the discontinuation of key IBORs. For loans, various recommendations have been made to help ensure the inclusion of consistent robust fallback provisions. Public authorities have also recognised that many contracts do not contain provisions for any alternatives, contain inappropriate alternatives, or cannot be renegotiated prior to the expected cessation date ('tough legacy' contracts). For example, the Financial Conduct Authority (FCA) is expected to ask the USD LIBOR administrator to continue publishing a 'synthetic' LIBOR rate for 15 months beyond the cessation date to provide extra time for any remaining contracts. A similar action was taken for GBP and JPY LIBOR. The US has also implemented the Adjustable Interest Rate (LIBOR) Act, that will revise the contractual terms of in scope contracts to reference a rate based on SOFR upon cessation of USD LIBOR.

Due to the discontinuation of this important rate, ING, its customers, and the financial services industry face a number of risks. These risks include legal, financial, operational, and conduct risk. Legal risks are related to any required changes to existing transactions. Financial risks may arise due to declining liquidity and may impact a contract directly or the ability to hedge the risks in that contract. Operational risks arise due to the requirement to adapt IT systems, trade reporting infrastructure and operational processes. Conduct risk also plays a role, as renegotiation of loan contracts requires active engagement from all parties to a contract,

and may lead to negotiations concentrated in a period close to actual cessation. ING continues to reach out to impacted clients to manage the relevant timelines.

During 2022, ING sought to ensure that a large portion of the derivative portfolio is covered by ISDA fallbacks. Regarding the loans, many facilities have already been transitioned to alternative rates. Additionally, for the remaining portfolio the parameters for the required changes have been communicated to counterparties, with many now in active discussions on the remaining steps.

The ING IBOR programme has governance in place with progress being tracked by business line steering committees reporting to a central IBOR steering committee. The programme assesses and coordinates the actions necessary to manage the required changes to internal processes and systems, including pricing, risk management, legal documentation, hedge arrangements, as well as the impact on customers. ING continues to monitor market developments and reform plans for other rates, to anticipate the impact on the programme, our customers and any related risks.

One such development concerns key Polish Zloty benchmarks. The roadmap published by the Polish National Working Group in 2022 indicates that the plan is for the market to be ready for a cessation of WIBOR and WIBID Reference Rates in 2025. It is expected that the reform will be completed by the end of 2024, with the offering of financial products using the new benchmark (WIRON) to progress gradually in 2023 and 2024. The WIBOR rates are used in several of our lending and derivative products, and hence a project team has been established to manage the transition.

As at 31 December 2022, ING has exposures that have yet to transition related to USD LIBOR and WIBOR. The tables below summarise these approximate exposures. They exclude exposures that will expire before the transition date 30 June 2023 and 1 January 2025, respectively. The GBP LIBOR, CHF LIBOR and EONIA contracts included as at 31 December 2021 have all transitioned or matured.

Non derivative Financial instruments to transition to alternative benchmarks (*)

in € million at 31 December 2022	Financial Assets non-derivative	Financial Liabilities non-derivative	Off balance sheet commitments
	Carrying value	Carrying value	Nominal value
By benchmark rate			
GBP LIBOR			
USD LIBOR	30,040	1,637	7,644
CHF LIBOR			
EONIA			
WIBOR	22,154		1,411
Total	52,194	1,637	9,055

Non derivative Financial instruments to transition to alternative benchmarks (*)

in € million at 31 December 2021	Financial Assets non-derivative	Financial Liabilities non-derivative	Off balance sheet commitments
	Carrying value	Carrying value	Nominal value
By benchmark rate¹			
GBP LIBOR	764		350
USD LIBOR	41,805	1,542	16,435
CHF LIBOR	1		
EONIA		23	184
Total	42,570	1,565	16,969

1 WIBOR transition plans became concrete in 2022 and therefore no comparatives for 2021 are included.

For derivatives linked to USD LIBOR, the conduct risk is limited as the majority are transacted with clearing houses, which will transition through a standardised exercise in the second quarter of 2023. For USD LIBOR derivatives that are not centrally cleared, the main transition will occur via the ISDA IBOR fallback protocol at 30 June 2023.

Derivative Financial instruments to transition to alternative benchmarks (*)

in € million	31 December 2022	31 December 2021
	Nominal value	Nominal value
By benchmark rate¹		
GBP LIBOR		822
USD LIBOR ²	495,318	488,499
WIBOR ³	136,318	
Total	631,636	489,321

1 For cross-currency swaps all legs of the swap are included that are linked to a main IBOR that is significant to ING Group.

2 The prior period has been updated to improve consistency and comparability.

3 WIBOR transition plans became concrete in 2022 and therefore no comparatives for 2021 are included.

In addition to the amounts in the table above, ING has interest rate swaptions that refer to the USD LIBOR ICE swap rate with a notional of €10,810 million (2021: €10,343 million) that are yet to transition. The transition of these contracts is in general governed by a specific ISDA protocol.

Given that IBOR Reform may have various accounting implications, the International Accounting Standards Board (IASB) has undertaken a two-phase project:

- Phase 1 addresses those issues that affect financial reporting before the replacement of an existing benchmark. Phase 1 amendments to IFRS were issued by the IASB in 2019 and were early adopted by ING Group in the same year. This allows ING to apply a set of temporary exceptions to continue hedge accounting even when there is uncertainty about contractual cash flows arising from the reform. Under these temporary exceptions, interbank offered rates are assumed to continue unaltered for the purposes of hedge accounting until such time as the uncertainty is resolved.
- Phase 2 focuses on issues that may affect financial reporting when the existing benchmark rate is reformed or replaced. Phase 2 amendments to IFRS were issued by the IASB in 2020 and became effective in 2021. Phase 2 amendments to IFRS relate mainly to accounting for changes in the basis for determining the contractual cash flows of financial assets and liabilities due to the IBOR reform and impact on hedge accounting when an existing benchmark rate is reformed or replaced with an alternative risk-free rate.

Specifically, Phase 2 amendments require that the effective interest rate on debt financial instruments is adjusted, and hedge accounting continues on transition to risk free rates, but only to the extent that the modifications made to financial instruments are those necessary to implement the IBOR Reform and that the new basis for calculating cash flows is 'economically equivalent' to the previous basis. By applying these mandatory amendments, ING avoids recognising modification gains and losses on debt instruments that would otherwise be required in the absence of Phase 2 amendments (changes to debt instruments resulting from IBOR Reform are treated as a reset to the instrument's variable interest rate). In addition, ING Group avoids hedge accounting discontinuations when modifying both hedged items and hedging instruments (and related hedge documentation) as a consequence of IBOR reform that would otherwise be required in the absence of Phase 2 amendments.

As explained above, Phase 1 and Phase 2 IBOR amendments to IFRS, amongst other changes, provide specific hedge accounting reliefs that allow hedge accounting relationships to continue when IBOR Reform is ongoing. Phase 1 reliefs cease to apply when uncertainty arising from IBOR Reform is no longer present with respect to the timing and amount of the IBOR-based cash flows of the relevant instruments. It is ING Group's policy to cease to apply Phase 1 reliefs when the applicable contract (either hedging instrument or hedged item) is actually modified. As a result, for these hedge accounting relationships the applicable Phase 1 reliefs ceased to apply and Phase 2 became applicable. For USD LIBOR exposures, and although the administrator of LIBOR confirmed on 5 March 2021 its plans for the cessation of USD LIBOR rates at the end of June 2023, there is still uncertainty with respect to the timing of the transition as well as the transition strategy for individual hedged items and/or hedging instruments linked to USD LIBOR. Therefore, for USD LIBOR financial instruments designated in hedge accounting the applicable Phase 1 reliefs will continue to apply until the relevant contract is modified. At that point in time, Phase 2 reliefs will become applicable.

In addition, in 2022 ING started to apply Phase 1 reliefs to the hedge accounting relationships linked to WIBOR as there is uncertainty arising from the WIBOR reform with respect to the timing and the amount of the underlying cash flows to which ING is exposed.

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 protect the CET1 ratio against adverse impact from FX rate fluctuations, while limiting the volatility in the profit and loss account due to this CET1 hedging and limiting the RWA impact under the regulatory framework. 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 CET1 capital and risk-weighted assets are equally sensitive in relative terms to changing FX rates.

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 an open structural FX exposure exists.

To measure the volatility of the CET1 ratio from FX rate fluctuations, different metrics are used including the CET1 Ratio-at-Risk. The impact is controlled via the Solvency and Market Risk Banking Book RAS.

EBA Structural FX Guidelines

EBA guidelines on structural FX positions became effective in 2022. Upon permission from the competent authorities, certain currency positions are being excluded from the calculation of net open currency positions under CRR article 352(2). The resulting impact is presented in the Pillar 3 disclosure.

Foreign currency exposures banking books (*)

in € million	Foreign Investments		Hedges		Net exposures	
	2022	2021	2022	2021	2022	2021
US dollar ¹	10,470	8,218	-2,376	-99	8,093	8,119
Pound Sterling	1,364	1,593	-58		1,306	1,592
Polish Zloty	2,714	2,761	-321	-142	2,393	2,620
Australian Dollar	3,781	3,774	-2,673	-2,511	1,108	1,263
Turkish Lira	750	729	—		750	729
Chinese Yuan	1,871	1,976	—	-107	1,871	1,869
Russian Rouble	391	256	—	-174	392	82
Other currency	5,740	5,860	-3,761	-3,453	1,979	2,407
Total	27,081	25,167	-9,189	-6,486	17,892	18,681

Hyperinflation accounting and goodwill impairment had limited impact on the Turkish lira FX exposure to the CET1 Ratio. The structural Turkish lira exposure arising from ING Bank Turkey's assets and liabilities remains within risk limits.

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/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 values 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 €1,500 million (2021: €1,587 million) and equity securities held at fair value through other comprehensive income (FVOCI) of €1,887 million (2021: €2,457 million). The value of equity securities held at FVOCI is directly linked to equity security prices with increases/decreases being recognised 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 (*)

In 2022, the revaluation reserve equity securities decreased by €95 million from €1,282 million to €1,187 million. In 2022, the equity securities at fair value through OCI decreased by €570 million mainly due to divestment of HQLA eligible equity instruments.

Revaluation reserve equity securities at fair value through other comprehensive income (*)		
in € million	2022	2021
Positive re-measurement	1,190	1,291
Negative re-measurement	-4	-9
Total	1,187	1,282

Market risk in trading books (*)

Within the trading portfolios, the 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 2022, 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 the ALCO Bank, sets the market risk limits both on an aggregated level and on a desk level. Financial Risk/ Trading Risk Management (FR/ TRM) advises both FMRC and ALCO Bank on the market risk appetite of the trading activities.

With respect to the trading portfolios, TRM 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. TRM 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. TRM also reviews trading mandates and global limits, and performs the gatekeeper role in the product review process. Trading activity is systematically reviewed and positioned 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.

As of June 2022, ING has received an official permission from the ECB to perform offsetting of positions with the exception of Ukraine, Russia and Turkey. Hence the regulatory capital numbers reported from Q2 2022 onwards, are calculated with offsetting for all base entities excluding Ukraine, Turkey and Russia.

Value at Risk (*)

TRM 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 or securities. A single model which diversifies general and specific risk is used. In general, a full revaluation approach is applied, while 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 10-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 percent 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 results (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.

On an overall level in 2022, there were five outliers for hypothetical P&L and three outliers for actual P&L. The actual and hypothetical outliers occurred during the past one year concentrated in 1Q2022 mainly due to large moves in Russian credit default swaps and Rouble volatility.

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 the 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 Incremental risk charge (IRC) for ING is an estimate of the default and migration risks for credit products (excluding securitisations) in the trading book, over a one-year capital horizon, with a 99.9% confidence level. Trading positions (excluding securitisations) 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 multi-factor t-copula. In the multi-factor IRC model the supervisory asset correlations are no longer applicable and the calibration of the correlations are based on historical market data. 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 internal transition matrix along with internal LGDs is used, to comply with the consistency requirement. 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 on a yearly basis, based on a structured assessment of the time it takes to liquidate the positions in the trading portfolio.

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 additional assessments, specific to

the trading book, with various frequencies: sensitivity analyses (single-risk factor and multi-risk factor), ad-hoc stress tests (e.g. Covid-19 scenarios) and structured stressed scenario tests under the event risk framework - to monitor market risks under extreme market conditions. 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 worldwide impact for ING.

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 equity products, for example, 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.

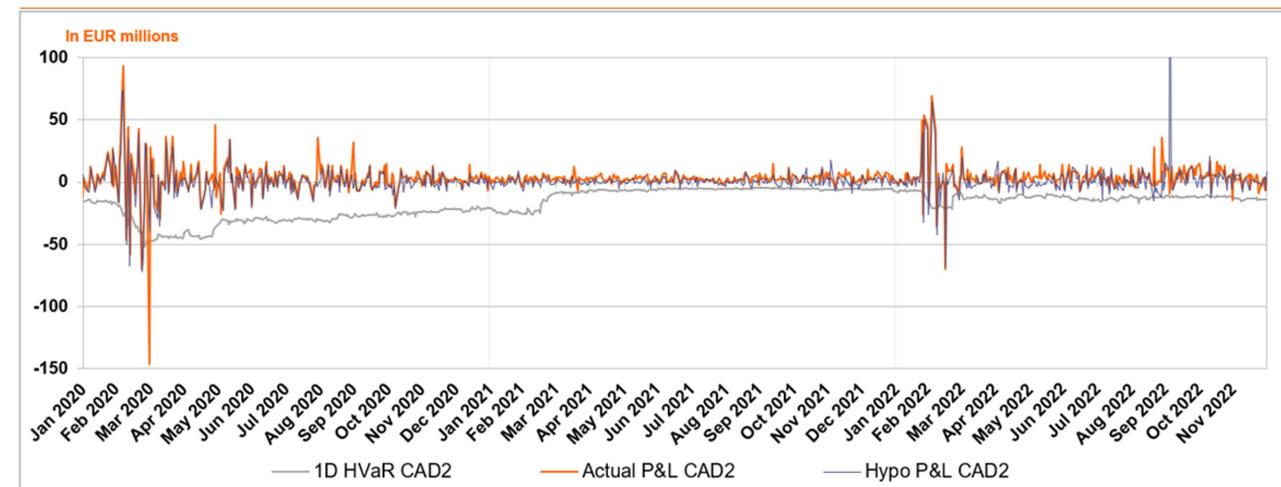
Other trading controls

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 percent 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 2020 to 2022.

EU MR4: Consolidated trading HVaR¹



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

in € million	Minimum		Maximum		Average		Year end	
	2022	2021	2022	2021	2022	2021	2022	2021
Interest rate ¹	1	4	17	20	9	8	13	5
Equity and commodity	2	1	7	4	3	2	2	2
Foreign exchange	1		22	3	4	1	3	1
Credit spread	1	2	15	11	4	4	1	2
Diversification ²					-9	-5	-5	-4
Total VaR ²	5	4	22	26	12	10	14	6

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, IRC over 2022 has increased compared to 2021, the capital increase is driven by an increase in market volatility following the war in Ukraine as well as the FX and CDS hedges put in place as macro hedges and to hedge exposure to Russian counterparties. The average for all risk classes increased in 2022, especially for FX which increased due to the Russian crisis. The 1D HVaR at the period end of 2021 increased from €6 million to €14 million at period end of 2022, due to the market recovery from the Covid-19 crisis.

ING doesn't calculate comprehensive risk capital charge and therefore it appears as N/A in the table below.

EU MR3: Internal Model Approach values for trading portfolios		
in € million	2022	2021
VaR (10 day 99%)		
1 Maximum value	79	78
2 Average value	37	27
3 Minimum value	15	12
4 Period end	42	18
Stressed VaR (10 day 99%)		
5 Maximum value	147	105
6 Average value	77	80
7 Minimum value	47	64
8 Period end	65	74
Incremental Risk Charge (99.9%)		
9 Maximum value	270	195
10 Average value	113	71
11 Minimum value	34	37
12 Period end	76	65
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 the 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		
in € million	2022	2021
	RWA	RWA
Outright products		
1 Interest rate risk (general and specific)	10	6
2 Equity risk (general and specific)		
3 Foreign exchange risk	5,332	
4 Commodity risk		
Options		
5 Simplified approach		
6 Delta-plus method		
7 Scenario approach		
8 Securitization (specific risk)		
9 Total	5,342	6

The MRWA under standardised approach have sharply increased compared to 2021. In 2022, MRWA is calculated for FX exposures, in line with the new CRR Standardized Approach that was introduced in 2022.

Internal model approach

Market risk regulatory capital decreased slightly during 2022 compared to 2021. The main reduction is coming from SVaR where December 2021 was calculated on a fully deconsolidated basis, while HVaR increased due to the high market volatility in 2022.

EU MR2-A: Market risk under Internal Model Approach

in € million		2022		2021	
		RWA	Capital requirements	RWA	Capital requirements
1	VaR (higher of values a and b)	2,732	219	1,179	94
(a)	Previous day's VaR (VaRt-1)		49		21
(b)	Multiplication factor (mc) x average of previous 60 working days (VaRavg)		219		94
2	SVaR (higher of values a and b)	3,427	274	6,336	507
(a)	Latest available SVaR (SVaRt-1)		70		112
(b)	Multiplication factor (ms) x average of previous 60 working days (sVaRavg)		274		507
3	IRC (higher of values a and b)	1,934	155	1,314	105
(a)	Most recent IRC measure		76		94
(b)	12 weeks average IRC measure		155		105
4	Comprehensive risk measure (higher of values a, b and c)				
(a)	Most recent risk measure of comprehensive risk measure				
(b)	12 weeks average of comprehensive risk measure				
(c)	Comprehensive risk measure - Floor				
5	Other	516	41	200	16
6	Total	8,609	689	9,029	722

Sensitivities (*)

As part of the risk monitoring framework, TRM actively monitors the 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, interest rate risk per currency, and credit spread risk per country, 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 (*)

in € million		2022	2021
Foreign exchange		Foreign exchange	
US Dollar	-187	US Dollar	-160
Romanian Leu	88	Taiwan Dollar	42
Japanese Yen	86	Romanian Leu	32
Chinese Yuan	32	Japanese Yen	27
South Korean Won	28	South Korean Won	-24

Most important interest rate and credit spread sensitivities at year-end (*)

in € thousand		2022	2021
Interest Rate (BPV) 1		Interest Rate (BPV) 1	
Euro	-334	Euro	-501
British Pound	-95	US Dollar	185
US Dollar	-79	British Pound	-75
Taiwan Dollar	67	Taiwan Dollar	73
Japanese Yen	63	Japanese Yen	-57
Credit Spread (CSO1) 2		Credit Spread (CSO1) 2	
Netherlands	162	Netherlands	535
United States	151	Germany	408
Japan	102	United States	171
France	88	France	112
Germany	87	China	110

1 Basis Point Value (BPV) measures the impact on value of a 1 basis point increase in interest rates. The figures include commodity risk in banking books.

2 Credit Spread Sensitivity (CSO1) measures the impact on value of a 1 basis point increase in credit spreads. Exposures to supranational institutions are not assigned to a specific country.

Credit spread sensitivities per risk class and sector at year-end (*)

in € thousand	2022		2021	
	Corporate	Financial Institutions	Corporate	Financial Institutions
Credit Spread (CS01) ¹				
Risk classes				
1 (AAA)	2	-1		-5
2-4 (AA)	-1	-7	-7	18
5-7 (A)	154	-13	141	578
8-10 (BBB)	249	-11	204	12
11-13 (BB)	7	7	40	-1
14-16 (B)	23	-4	52	-6
17-22 (CCC and NPL)	3	-7	-6	-12
Not rated	—	—		
Total	437	-36	424	584

1 Credit Spread Sensitivity (CS01) measures the impact on value of a 1 basis point increase in credit spreads.

Funding and liquidity risk (*)

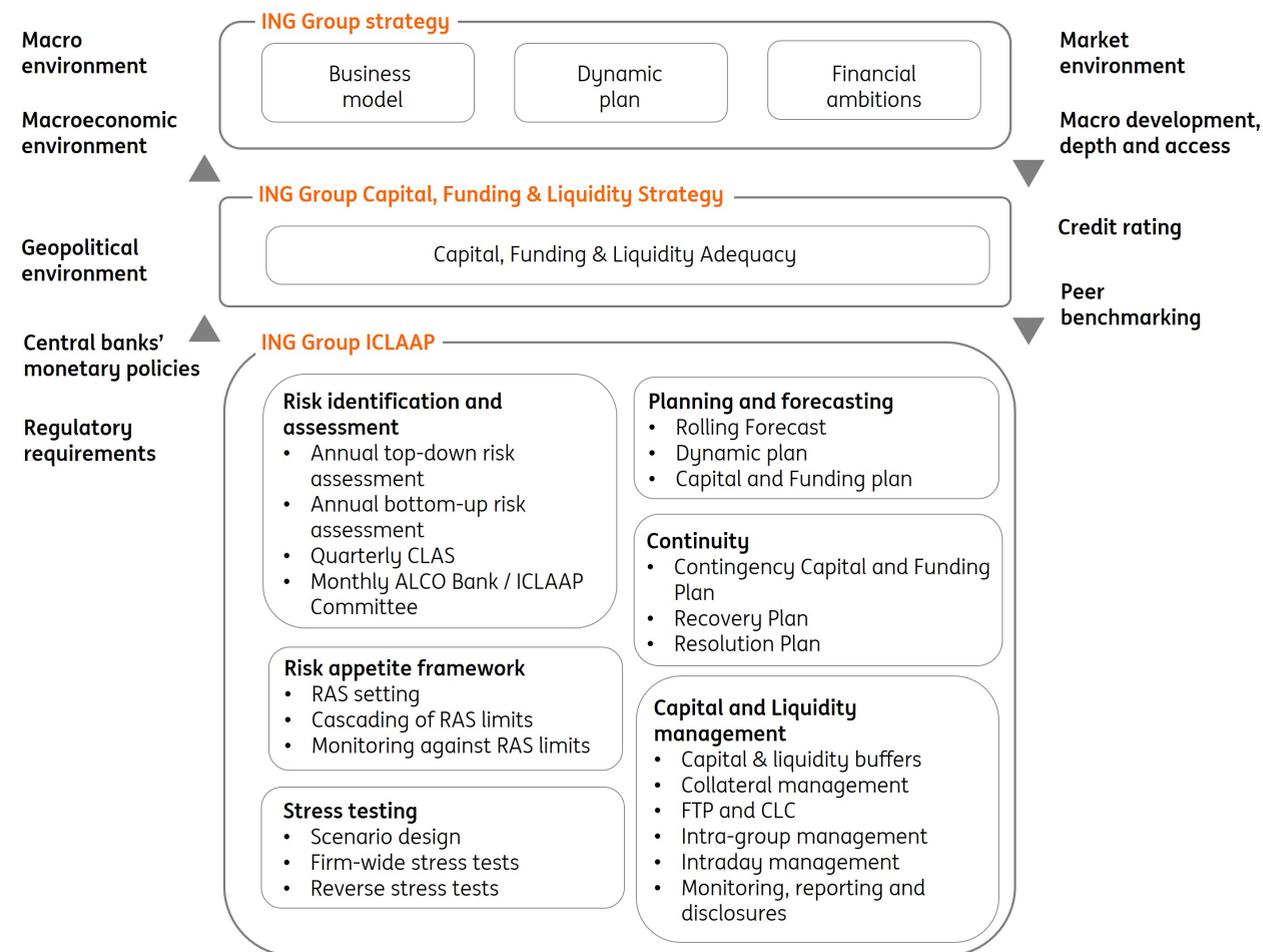
Introduction (*)

Funding and liquidity (F&L) risk is the risk that ING or one of its subsidiaries cannot meet its financial liabilities when they are due at a reasonable cost and in a timely manner. ING incorporates funding and liquidity management in its business strategy and has established a funding and liquidity risk framework to manage risks within pre-defined boundaries.

A high-level overview of the F&L framework is provided in the following chart.

(*)

Funding and liquidity framework



Governance (*)

Funding and liquidity risk management within ING falls under the supervision of the ALCO Bank function that approves the funding and liquidity risk appetite and subsequently cascades it throughout the organisation. ALCO Bank has delegated the responsibilities concerning the Internal Capital and Liquidity Adequacy Assessment Process (ICLAAP) and documents, as per the ICLAAP framework of ING, to the ICLAAP Committee. The ICLAAP Committee therefore focuses on technical liquidity documents and oversees business processes and deliverables concerning the Internal Liquidity Adequacy Assessment Process (ILAAP). The EB, 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 risks.

ING's funding and liquidity risk governance is based on the three lines of defence structure to set a clear division of responsibilities as well as an independent risk control challenge process. Group Treasury and the business lines have the first line of defence functions which include management of ING's (regulatory) liquidity and funding position, maintaining access to the professional funding markets and managing the liquidity buffer. As the second line of defence, Financial Risk 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 through stress testing and other risk measurement activities. The Finance function is responsible for management information and regulatory reporting related to funding and liquidity risk management. For the third line of defence, Corporate Audit Services is responsible for independently assessing the design, effectiveness and implementation of the Funding and Liquidity framework.

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 under normal and stressed market circumstances across various locations, currencies and tenors.

ING's funding consists mainly of retail and corporate deposits contributing around 50 percent and 25 percent of 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 with the aim of ensuring a sufficiently diversified and stable funding base.

Funding mix¹ (*)

	2022	2021
Funding type		
Customer deposits (retail)	51%	51%
Customer deposits (corporate)	23%	21%
Interbank	6%	9%
Lending/repurchase agreements	6%	5%
CD/CP	3%	3%
Long-term senior debt	8%	8%
Subordinated debt	2%	2%
Total	100%	100%

1 Liabilities excluding trading securities and IFRS equity.

ING's long-term professional funding is well-diversified across maturities and currencies. The main part of long-term professional funding is euro and US dollar denominated, which is in line with the currency composition of customer lending.

ING Group long-term debt maturity profile by currency at year-end 2022 (*)

in € billion (nominal amounts)	2023	2024	2025	2026	2027	2028	Beyond 2028	Total
Currency								
EUR	5	1	7	5	6	8	29	61
USD	3	1		4	3	4	4	19
Other	1	1	1	2		1	2	9
Total	9	3	9	11	9	13	35	90

ING Group long-term debt maturity profile by currency at year-end 2021 (*)

in € billion (nominal amounts)	2022	2023	2024	2025	2026	2027	Beyond 2027	Total
Currency								
EUR	7	5	1	5	3	2	29	52
USD	4	3	1		2	3	5	18
Other		1	1		2		3	8
Total	11	9	3	6	7	5	38	78

Funding and liquidity adequacy and risk appetite (*)

ING identifies various key drivers of future liquidity and funding needs on an ongoing basis and through the periodic risk identification process. Taking into consideration the identified drivers, ING regularly assesses its current and future liquidity adequacy and, if deemed necessary, takes steps to further improve ING's liquidity position and to have sufficient counterbalancing capacity. A liquidity adequacy statement is formulated on at least a quarterly basis to substantiate and reflect the management view on the current funding and liquidity position as well as the potential future challenges. The quarterly liquidity adequacy statement is an important part of ING's ILAAP process.

ING assesses its F&L adequacy through three lenses – stress, economic and normative:

- Through the stress lens, ING evaluates its ability to withstand a period of prolonged F&L stress for both normative and economic requirements or limits under idiosyncratic, market-related or a combination of idiosyncratic and market-related scenarios, which lead to customer deposit outflows, deterioration of access to funding markets, and lower liquidity value of counterbalancing capacity.
- Through the economic lens, ING assesses the extent to which its customers, professional counterparties and investors are comfortable in providing deposits and funding in tenors, currencies and instruments necessary to sustainably fund the business (intraday, short-term and long-term) in a going-concern situation.
- Through the normative lens, ING ascertains that the bank is in the position to meet current and forthcoming home and host 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.



Stress

The bank's counter-balancing capacity should be sufficient in adverse and Stressed market circumstances

The time-to-survive in an F&L stress situation must be sufficient



Economic

Funding of longer-term assets and investments must be done by stable and longer-term liabilities

Funding of short-term assets may not lead to significant dependency on short-term professional markets

Diversification of the funding profile must be in place, across fund providers, instrument types, geographic markets, tenors, and currencies

The bank should be able to meet payment and settlement obligations on a timely basis

Geographical dependencies with respect to intra-group funding are to be limited



Normative

We comply with home and host regulatory funding & liquidity requirements

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 aims to have sufficient counterbalancing capacity under various internally defined stress scenarios. Regarding the economic perspective, an internally defined Stable Funding to Loans (SfTL) ratio (supplemented by other metrics) is used to stimulate 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 normative 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 rates, unemployment rates and public deficit/surplus.
- Changing geopolitical trends.
- Monetary policy with a focus on the unconventional monetary measures employed by central banks in recent years including the measures taken since the start of the Covid-19 crisis and the more recent period of increased inflation.
- 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. An emphasis is placed on understanding overall market trends and developments, credit rating changes and peer comparisons.

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 funding and liquidity position and provides insight into which entities, business lines or portfolios are vulnerable to which types of risk drivers or 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 (NLP) is the main stress-testing measure and is measured at different time buckets.

The stress-testing framework considers idiosyncratic, market-wide and combined (idiosyncratic and market-wide) stress scenarios. The design of the framework is based on empirical evidence supplemented by expert judgement. The framework can be extended to additional ad-hoc scenarios. For example, it can be used as input for firm-wide stress-testing and reverse stress-testing.

Outcomes of the stress tests are considered in the key aspects of ING's F&L risk framework and F&L risk management, including:

- Risk Appetite Framework (through risk appetite statements).
- Risk identification and assessment.
- Monitoring of the liquidity and funding position.
- Business actions (if needed).

- Contingency funding plan.
- Early warning indicators.

The funding and liquidity stress- testing framework is also subject to regular internal validation by model validation.

In line with supervisory expectations, ING's liquidity position is stress tested at least monthly using scenarios that form part of the F&L risk appetite statement. The results of all internal stress scenarios are monitored and assessed on a regular basis. In addition, ad-hoc scenarios based on current economic and market developments are run to determine their potential impacts on the funding and liquidity position of ING. In 2022, this included stress-test scenarios dedicated to the war in Ukraine, inflation, and the impact of monetary tightening. The internal stress scenarios also serve as input for decision making on additional contingency measures.

Contingent F&L risks are addressed in the Contingency Capital and Funding Plan with a focus 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.

Environmental, social and governance risk

Introduction

Environmental, social and governance (ESG) risk is defined as the risk of losses arising from any negative financial impact on the institution stemming from the current or prospective impacts of environmental, social or governance factors on the institution's counterparties or invested assets.

Governance

The ESG governance is cascaded in the organisation through the ad-hoc ESG committee that is responsible for supervising ING's ESG direction, endorsing and monitoring progress, and advising the MBB on dilemmas. The ESG Sounding Board comprised of senior leaders guides the development and implementation of ESG topics as well as reporting on progress. Further details on ESG risk governance are provided in the section below. The overall ESG governance structure is described in the 'Sustainability at the heart' section.

Environmental and social risk

ESR is a risk function that is part of the second line of defence of ING. The ESR team is responsible for developing policies and procedures. The department takes the lead in communicating them internally and in training internal stakeholders. The ESR team also performs an advisory role to support the deal principals, senior credit officers and approval authorities on individual transactions. The degree of the ESR team engagement in transactions is dependent upon (1) the risk profile of the client, project or business engagement, and (2) ING's exposure. In some locations an ESR delegated adviser may be appointed if mutually agreed by the head of ESR and regional head. Such a role would support the senior credit officer (SCO), who would be responsible for ESR in the region.

Committees involved in managing environmental and social risks include the Global Credit & Trading Risk Committee (GCTP) and the Global Credit Committee GCC(TA). The GCTP approves the policies, methodologies, and procedures related to ESR. The GCC(TA) approves transactions that entail taking higher environmental and social risk.

The ESR function encompasses the following activities:

- Create and maintain policies for sensitive industry sectors.
- Assess transactions for environmental and social risk.
- Monitor high-risk clients to assess compliance with sustainability criteria.
- Spread ESR awareness throughout ING.
- Participate in European and global advisory groups (e.g. OECD advisory group, steering committee to the Equator Principles, Thun Group of Banks) to help bring all banks to the same high standard.

Climate risk initiative

The Climate Risk Initiative (CRI) is a programme aiming to address climate-related and environmental (C&E) risks across our organisation in accordance with the ECB's Guide on C&E risks. It is sponsored by the CRO and overseen by a Steering Committee. The programme addresses regulatory expectations on the topics of governance, business strategy, risk identification and assessment, risk appetite, stress testing and disclosures.

The governance of the programme was strengthened in early 2022 by extending the Steering Committee with representatives from the Wholesale Banking and Retail Banking business lines, the Risk domain and the Internal Audit function. In addition, a permanent Climate Risk Centre of Expertise (CoE) was established within the Global Sustainability department. This team supports workstreams in the establishment of their roadmaps and reports progress to the Steering Committee, internal and external stakeholders. Furthermore, the CoE collaborates with the ESG risk department on continuously embedding C&E risk management practices across the organisation.

ESG Risk Centre of Expertise

After a strategic review of our risk organisational structure, an ESG Risk Centre of Expertise, reporting to ING's CRO, was formed within the Integrated Risk department. This team aims to ensure that relevant ESG regulations are monitored, assessed and implemented in accordance with the expectations of both supervisors and society. Furthermore, it is responsible for developing the overarching ESG risk framework and policies, setting risk appetite as well as coordinating internal and regulatory ESG risk stress-testing.

Developments in 2022

External developments

Following the introduction of the EU Taxonomy Regulation in 2020 and the EBA consultation on ESG risks in 2021, global ESG regulation continues to evolve bringing new requirements for companies and also financial institutions to report on and prevent adverse impacts on climate, the environment, and human rights. Three of the key regulatory developments that were initiated in 2022 are:

- The European Commission adopted its proposal for the Corporate Sustainability Due Diligence Directive (CSDDD) in February 2022. However, the proposal is still under debate and needs to be approved in the dialogue between the EU Parliament, the EU Commission and the Council. The CSDDD is an important component of the European Green Deal, as well as a long-promised initiative in the EU's human rights strategy, and will necessitate strategic and operational changes by businesses globally as it aims to foster sustainable and responsible corporate behaviour and to anchor human rights and environmental

considerations in companies' operations and corporate governance. The CSDDD also applies to financial institutions.

- Earlier elements of the European Green Deal focused on disclosure: in particular, under the Sustainable Finance Disclosure Regulation, the Taxonomy Regulation and, most recently, the Corporate Sustainability Reporting Directive (CSRD), which was published in the Official Journal of the European Union on 16 December 2022, having been formally adopted by the European Parliament and Council of the European Union in November 2022. The CSRD will update and reinforce the EU's Non-Financial Reporting Directive and operate in tandem with the CSDDD. Member states are required to implement the CSRD, and its obligations will start to apply in January 2024.
- In March 2022, the US Securities Exchange Commission (SEC) proposed rules to require climate change disclosure in the annual reports and registration statements of public companies registered with the SEC, including any company (domestic or foreign) whose stock is listed on a US stock exchange. Hence, it is yet to be seen whether the proposed rules will eventually be implemented in this respect.

Environmental and Social Risk

The ESR framework

ING's ESR policy framework helps us make informed choices about how, where and with who we do business. In 2022, the ESR Framework was updated to reflect several minor amendments following the last comprehensive review cycle that took place in June 2021. The new release includes among others amendments to the restrictions applied in the tobacco value chain, additional clarity on some of the requirements for the ESR client assessment process concerning a specific group of companies and the required ESR due diligence for public authority entities. For more information please refer to the ESR Framework on our corporate website [ing.com](https://www.ing.com)

ESR in practice

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 and/or the environment (for example companies involved in clearance of primary forest), which we do not want to finance.

The way the ESR framework is applied in practice differs per product type. The largest potential environmental and social impacts come from large corporates within our Wholesale Banking (WB) segment. However, we also have screening processes covering the Business Banking segment.

Wholesale Banking is therefore the primary focus of our assessments and where we promote active ESR dialogue and knowledge sharing. 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 approach,

following the same rationale and principles of the ESR policy framework, applies to ING's business banking clients. The ESR framework minimum requirements are also included in ING's procurement policy and apply to the screening of suppliers of ING's global procurement activities.

The ESR policy framework is incorporated in ING's KYC policy framework, meaning the ESR client assessment is part of regular client on-boarding and review. The ESR policy framework also triggers a dedicated ESR transaction assessment to corporate clients, which will indicate if transactions are categorised as 'ESR high risk', and thus require a separate in-depth advice from the ESR team.

While we have a robust ESR policy framework and made progress in enhancing the automation of the checks and controls in the ESR assessment processes, we acknowledge that we need to improve our processes to further ensure adequacy of data necessary to steer and manage these risks at the level of granularity needed.

Of all WB engagements in scope of the ESR policy framework in 2022, 84 percent were considered ESR low-risk, seven percent ESR medium-risk and nine percent ESR high-risk. ESR high-risk cases require specialised advice from the global ESR team. The ESR advice assesses the specific product offered and environmental and social impacts associated with it, the sector, operating context and geography of the engagement and other relevant factors. Based on this in-depth research, an advice is given that can only be overruled at Global Credit Committee level. Of the 309 ESR advices given in 2022, which are related to new requests, 48 percent were positive, 35 percent positive subject to conditions and 17 percent negative.

Conditions can play an important role in helping clients improve their environmental and social performance and transitioning and ensuring their continued compliance with our ESR policy.

The ESR team mainly focuses on policy development and transaction advice. 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 other teams, so that ESR knowledge is built on and spread.

Apart from above, ESR in cooperation with the KYC Academy has developed a new e-learning course on Environmental and Social Risk that was launched at the end of 2021. The purpose of this course is to further increase the awareness and understanding on ESR, outline the risks and the responsibilities of the various internal stakeholders and their roles in the process throughout the whole organisation. Since the roll out of the e-learning tool, more than 8,000 employees worldwide completed the course.

Other ESG-related initiatives within the bank

Our ESR approach helps our clients and ING gradually enhance the implementation of key standards like the UN Guiding Principles on Business and Human Rights and the 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, social and human rights challenges we face:

- **ING and the Equator Principles (EPs):** The EPs are an environmental and social risk management framework adopted by 134 financial institutions worldwide. ING is active in several EP working groups covering social risks, climate change and scope. ING also co-leads the capacity building and training workgroup, and was elected as a member of the EP Steering Committee in 4Q 2022.
- **Shift Business Learning Programme:** is a practitioners group organised and supported by Shift, the leading centre of expertise on the UN Guiding Principles on Business and Human Rights. The programme focuses on the corporate responsibility to respect human rights as set out in the UN Guiding Principles. Under the leadership of Shift, a group of companies active in various business sectors including financial institutions share challenges and practices through cross-industry workshops and benefit from tailored strategic support. ING participates in the programme. We are also a member of the Financial Institution Practitioners' Circle, a group for selected practitioners in the financial sector to discuss and share approaches to meeting their responsibility to respect human rights, led by Shift experts.
- **Responsible Business Conduct Agreement:** following the Dutch Banking Sector Agreement, a new commitment on responsible business was formed among Dutch banks. Global Sustainability is leading the initiative for ING and the ESR team is aligned for any policy implications or client interactions.
- **Thun Group:** was initially established in 2011 to support the integration of the UN Guiding Principles (UNGP) on Business and Human Rights into banking activities. The group consists of bank representatives who informally share best practices among participant members to deepen the understanding and application of the UNGP across the range of different banking activities. ING participated in this year's virtual annual meeting. Amongst other topics, the latest developments on human rights due-diligence obligations and the human rights impacts of climate transition plans were discussed.

By taking part in the above-mentioned initiatives, we aim to contribute our viewpoint and those of our clients, employees and other stakeholders in support of collective ESG responsibilities that will be driving our further development and maintenance of guidelines that can serve as a standard for our industry.

Climate-related and environmental risk management

Climate change is increasingly exposing society to a range of physical risks (both acute and chronic) which are linked to environmental risk. ING's response to combatting climate change and environmental degradation is comprised of the incorporation of the C&E risks incorporated in the bank's risk management and client engagement practices.

Managing C&E risks covers both physical risks (e.g. extreme weather events) and transition risks (e.g. policy changes, shifts in market sentiment and consumer demand). The potential impacts that physical and transition risks could have on households, businesses as well as on the macroeconomy can translate into a

range of financial risks for ING. The C&E risks can materialise through defaults of businesses and households, increased volatility in equity and commodity markets, disruptions to bank's and customers' operations, and litigation procedures. While ING has an inclusive approach for supporting clients in the transition to a net-zero economy, we also manage the financial impact of C&E risks on our clients' activities.

The C&E risk management practices in ING were subject to the ECB's industry-wide Thematic Review in 2022. ECB published the outcome of their review in a public report and shared their observations with individual banks. After the finalisation of the Thematic Review, ING updated its roadmap for the implementation of ECB's expectations to reflect regulatory observations and agreed remediation timelines.

ING endorses the recommendations of the Financial Stability Board's (FSB) Task Force on Climate-Related Financial Disclosures (TCFD). We continue to develop our approach for C&E disclosures as we build our methodology for identifying, measuring and managing these risks.

Risk management

Risk identification and assessment

In 2022, we continued to enhance the tools used to identify and assess C&E risks in our portfolio. We created C&E risk sector heatmaps for both WB and Retail Banking. The heatmaps facilitated the materiality assessment of C&E risks by means of scores assigned to transition and physical risk drivers. They also enabled us to understand the magnitude of the C&E risk impact on a sectoral level and pinpointed the sectors with highest C&E risk exposure.

The C&E risk heatmap is one of the tools used by ING to identify and assess C&E risks. For physical risk, the heatmap lists 26 individual climate-change-related physical risk hazards (both acute and chronic weather patterns) and environmental risk drivers (water stress, resource scarcity, biodiversity loss, pollution and waste). The assessment for transition risk is based on seven risk drivers related to policy and regulatory changes, technological developments, and shifts in market sentiment/ demand. For each of the factors under consideration, a low, medium or high score is based on a qualitative assessment taking into account industry standards following a three to five-year horizon. This assessment is performed at the level of the individual sectors of ING's WB portfolio. The geographic distribution of ING's clients is therefore implicitly taken into account but not assessed on an individual client basis.

Risk appetite

We used the outcomes of the C&E risk heatmap exercise to introduce climate risk elements in the 2022 credit risk appetite. A monitoring mechanism was established for WB at the start of 2022 that limits growth of sub-sectors with a higher exposure to C&E risks while allowing for growth within the overall sector limit. As from July 2022, this mechanism has become binding for WB sectors. For Business Banking (BB) sectors a similar approach was used and the BB credit risk appetite has been in a monitoring period since April 2022.

In addition, climate risk has been incorporated into the 2023 market risk banking book risk appetite with the introduction of sensitivity metrics per climate risk category.

Stress testing

The regulatory climate risk stress test became part of the biannual ECB Single Supervisory Mechanism (SSM) stress test in 2022 and ING participated in it. The test consisted of three modules (questionnaire, peer benchmark, bottom-up stress test) aimed at testing our capabilities for assessing climate risk. The most significant impact of this scenario is observed in the credit risk area. The ECB shared its assessment of the climate risk stress test on an aggregated basis in its 2022 Climate Stress Test Report as well as in a bank-specific report. The key challenges of the stress test were related to data. The required attributes, such as GHG emissions and energy performance certificates (EPC), were not available for all counterparties and proxies were used. Other challenges were the modelling of new drivers such as carbon pricing and the long-term horizon of 30 years.

This regulatory climate stress test, combined with our own climate risk analyses, has been used to enhance ING's internal climate risk stress testing through the creation of an internal combined climate risk stress test. The scenario assumes a prolonged war in Ukraine triggering full stoppage of the Russian gas supply to Europe. Extreme weather events (i.e. fires in Southern Europe and floods in Northern Europe) create additional burdens on European economies and energy consumption patterns change. EU governments step up their efforts to meet the well-below 2° Paris Agreement target by creating a New Green Deal which leads to soaring carbon taxes. A disorderly transition follows. Moreover, ING faces greenwashing claims in this stress scenario.

Challenges

Bringing our current work to a more mature level is challenging. To fully understand the financial impact of any physical risk driver, we need to understand the transmission channels from physical risk to financial impact. Mapping out the transmission channels is a complex process which deserves better understanding by both banks and supervisors before making decisions. Another challenge is to translate our insights into specific actions for both current and future customers. In addition, we need to assess C&E risks on a client level. To that end we need to be aware of the clients' readiness to transition to a more sustainable economy and their capacity to adapt.

Additionally, the key challenge in transitioning from a qualitative to a data-driven approach for the C&E risk heatmaps is two-fold: sourcing data and interpreting data. Since our clients are active in various sectors and geographies, we need to consider multiple data sources that often vary in scope, granularity and quality. Access to real-time, consistent data is a major challenge for risk measurement as definitions and quantification methodologies are constantly evolving. In the absence of comprehensive company data, the use of proxies is necessary to assess C&E risks. Due to these limitations, the integration of quantified inputs into risk modelling has not yet been implemented.

Next steps

In 2023, we will continue our efforts to evaluate both C&E risks and opportunities by further refining our methodologies. We aim to establish quantitative methodologies for C&E risk identification, materiality assessment and risk appetite setting. This is supported by the integration of C&E risk considerations in risk policies and procedures, our C&E risk identification framework as well as the global ESG data management plan we are developing.

Moreover, access to relevant data is essential to managing nature-related risks. We aim to introduce further granularity in our biodiversity hotspot analysis. In relation to that we are testing an approach for measuring biodiversity impact which we expect to give us more detailed insight into the sectors in our portfolio that are both most dependent on and most impacted by biodiversity.

Furthermore, based on the inventory of training needs of critical functions in front office, risk management, leadership and support areas, ING will launch tailored learning journeys in the course of 2023 to educate staff on the C&E risk topic.

Non-financial risk

Introduction

Non-financial risk (NFR) 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.

Governance

The global head of NFR is responsible for developing the framework of NFR policies and standards within ING, and for monitoring the quality of non-financial risk management in the ING entities. In addition to the global steering provided through the framework, the bank's Non Financial Risk Committee (NFRC), chaired by the Group chief risk officer, is the highest level of the non-financial risk committees within ING and is mandated by the MBB to opine on and approve non-financial risk matters, to monitor or verify whether appropriate action is taken by responsible management and endorse the non-financial risk appetite.

Non-financial risk management

Risk categories

ING categorises non-financial risks in the following areas:

- Compliance risk is the risk of ING's integrity being impaired, which can result in reputational damage, legal or regulatory sanctions, or financial loss, due to a failure (or perceived failure) to comply with applicable laws, regulations and standards. See more in 'Compliance risk'.
- Information (technology) risk is the risk of financial loss, regulatory sanctions or reputational damage due to breaches of confidentiality, integrity or availability of information or a lack of information quality within business processes and/or the supporting IT systems.
- 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 risk is 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).
- Processing risk is the risk of financial loss, regulatory sanctions or reputational damage due to failed (transaction) processing (input, execution, output) or failing process management.
- 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.
- 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.
- Fraud is the deliberate abuse of procedures, systems, assets, data, products and/or services of ING by those who intend to deceitfully or unlawfully benefit themselves and/or others. This definition of fraud is specified in the following two categories of fraud.
- Sourcing risk is the risk of financial loss, regulatory sanctions and/or reputational damage resulting from sourced activities (both IT and non-IT, including intra-group sourcing) not staying within ING's risk appetite and not being executed as agreed (with captives or partners), including non-compliance with internal or external regulations.

Internal fraud: acts of fraud which involves at least one internal party performed by or in collusion with an ING employee or agent with the consequence of financial loss, regulatory fines, litigation loss, business disruption and/or reputational damage for ING.

External fraud: acts of fraud or scams by individuals and/or parties excluding ING staff (including contractors), with the consequence of financial loss, regulatory fines, litigation loss, business disruption and/or reputational damage for ING.

Measurement approach

ING uses an internal model in line with the Advanced Measurement Approach (AMA) to determine the regulatory and economic capital amounts that are necessary to cover potential losses resulting from non-financial risks. This model predicts non-financial risk losses by combining a forward-looking and a backward-looking view on non-financial risk events. ING reports the outcome of its AMA model quarterly.

Main developments in 2022

Personal and physical security

The war in Ukraine has had a fundamental impact on the lives of the families of more than a 100 Ukrainian colleagues and the way in which our Ukrainian operations are being conducted. Nevertheless, the impact of the war on ING's non-financial risk profile and on operational event losses continues to be limited thanks to an extensive set of mitigating measures which ING took over the past year.

Additionally, from the start of 2022 ING's focus continued to remain protecting its employees and their families from the Covid-19 virus by continuing to work partly at home and partly at the office and to continue servicing its customers as before.

Cybercrime and fraud

Cybercrime remains a continuous threat to companies in general and to financial institutions in particular. Both the frequency and the intensity of attacks continue to increase on a global scale. The sophistication and implications of ransomware attacks are of particular concern in the threat landscape. The continuous enhancement of the control environment to protect from, and detect and respond to, e-banking fraud, distributed denial-of-service (DDoS), targeted attacks and more specific ransomware attacks is of the highest priority. Based on regular scenario analysis done in ING's first line of defence, additional controls 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. See also 'The world around us' and 'How we make a difference'.

In addition, ING continues to strengthen its global cybercrime and fraud resilience through collaboration with financial industry peers, law enforcement authorities, government (e.g. National Cyber Security Centre) and Internet Service Providers (ISPs). Additionally, through ING's Global Fraud Management team, which brings together fraud management experts from across domains, there is a central responsibility to ensure that ING's business and fraud strategy remains aligned on account fraud threats, market best practices, applicable law and legislation, risk appetite and cost targets.

The further digitalisation of banking services, increasing electronic exchange of information via different consumer channels, use of and dependency on third-party vendors for services, and the implementation of PSD2 are likely to present ongoing cybercrime-resilience, fraud-management and IT-security challenges, both in the short and medium-term. Criminal actors are targeting financial and sensitive (payment) data, such as customer user credentials outside the traditional banking environment. Sensitive (payment) or personal data can be obtained by criminals via social forums such as WhatsApp and by screen scraping user credentials when a fallback procedure within PSD2 is allowed. In 2022, these challenges have further increased with more sophisticated phishing attempts and improved social engineering fraud attempts.

Dealing with current and emerging fraud threats, especially given the ever-increasing use of digital and online banking, effectively requires continuous improvement of fraud management capabilities such as real-time transaction monitoring and response capabilities. Furthermore, better alignment and standardisation is needed for cross-border fraud management across ING and related platforms. With legislation such as EBA PSD2 and the continuing emphasis on duty of care, financial institutions are becoming more and more responsible for losses incurred by clients and are taking on more of the burden of reclaiming those losses.

Data risk management

Data, whether customer, financial, risk or other business, – is core to ING's purpose. Data leads to insights and insights empower people to stay a step ahead in life, and in business. In 2022, the ING Data Strategy was aligned under a new chief data office, next to a newly organised COO/Data Operations domain to better create a single vision and governance for data, empowering business users with a harmonised foundation. This encompasses further embedding data functions and improving (bank-wide) data operations in ING's way of working, and simplifying, standardising and modernising its technology and data platforms. Recognising that data risk is an important risk for the bank, ING has created a holistic view and continues to build awareness of how ING manages risks around data, including personal data protection, data security, data quality and data ethics.

Identity and access management (IAM)

IAM remains one of the focus areas of ING and an important element in our control framework to prevent and mitigate the risk of unauthorised access to IT systems and the data processed and stored therein. This is done by enforcing IAM global processes and controls, which are periodically reviewed and tested. These processes and controls are supported by technologies, tooling and practices managed by a dedicated IAM team in the Chief Information Security Office (CISO), which aim to ensure improvements are identified to address developments both inside and outside ING. In 2022, ING continued to improve, with attention given to tooling, standardisation and harmonisation of processes, workflows and automation of IAM controls.

Personal data protection

On 25 May 2018, the European General Data Protection Regulation (GDPR) became effective. ING is bound by the GDPR which affords greater protection to individuals and requires more control on data and transparency regarding the use of data by companies. In 2022, ING continued to further enhance the data protection of customers and employees. See also 'The world around us'.

Compliance risk

Introduction

Compliance risk is defined as a threat posed to ING's standing resulting from failure to act in line with applicable laws and regulations, internal rules (including ING's Orange Code and global Code of Conduct) and/or societal expectations applicable to the bank's services and activities. A failure to adequately mitigate compliance risk may lead to damage to ING's reputation and/or legal/regulatory sanctions, and/or financial loss.

The mission of Compliance is to support ING in conducting its business activities in line with applicable laws and regulations, taking into account ING's internal code of conduct and societal expectations. Compliance wants to drive compliance risk management by desire and design throughout the organisation, unleashing the power of our data, risk expertise, and ING's workforce to keep the bank safe and sound, and help drive new and sustainable ways of doing business.

Within ING, compliance risks are defined as those risks that are within the scope of the ING Compliance Risk Catalogue. The following risk categories apply:

- Financial crime risk refers to the risks of the bank's products and services being abused for illicit purpose generating or disguising financial and/or economic crimes (FEC).
- Conduct risk refers to the compliance risks arising from potential or perceived misconduct by ING or its employees towards its customers, market integrity, business partners, employees and other stakeholders.
- Organisational risk refers to the compliance risks arising from actual, potential or perceived flaws in the way that ING is organised and structured including its regulatory and reporting framework.
- Data protection (personal data protection, data retention) risk refers to the personal data protection risk of financial loss, (regulatory fines, reputational damage) due to not protecting the personal data rights of individuals as required, so as to data retention risk, on having the records being destroyed too soon or retained too long.

Climate and ESG-related compliance risks are in the process of being added to the Compliance Risk Catalogue where appropriate in close collaboration with internal stakeholders with the aim of ensuring that roles and responsibilities with regard to identifying, assessing, managing and overseeing these risks are fully aligned with ING's organisation globally.

Governance

The Compliance organisation (comprised of three roles: Group Compliance, geographical compliance and country compliance) is part of ING's second line of defence. Group Compliance sets the methodologies and

minimum standards for the bank. Geographical compliance (Wholesale Banking/Market Leaders/Challengers & Growth Markets) together with the functional lines in the countries are responsible for the execution of these standards, within the risk appetite set. Compliance is tasked with instructing, advising, challenging and having oversight of the first line of defence in their management of compliance risks and has an active role in raising awareness (via training and communication), influencing and stimulating a sound compliance risk culture. The scope of the compliance risks is outlined in the ING Compliance Charter.

Compliance is headed by the chief compliance officer (CCO), who reports directly to the CRO. The CCO has direct access to the Risk Committee of the Supervisory Board. The CCO and the chairman of the Risk Committee had regular bilateral consultations in 2022.

OneCompliance strategy

As a global bank in a fast-changing world we want to do the right thing to be safe, secure and compliant for our customers and for society. We achieve this by living up to the OneCompliance strategy that was launched in 2019.

The OneCompliance strategy is a multi-year, global compliance strategy and transformation programme that is based on a framework that aims to help ING manage compliance risks consistently across the organisation. In 2022, work continued on the following programme goals: a global identity and risk view allowing people to assess risks in a uniform way; a single, risk-based monitoring methodology to accelerate improvements in addressing risks; simplified work processes through a uniform framework, to allow people to focus on what matters; the necessary skills and resources to deliver at the desired quality; intuitive, actionable and insightful management information and a global dashboard to take smart decisions and keep oversight on steering within risk appetite and steering our global direction to support everyone in Compliance. As we operate in a dynamic and challenging environment we are continuously learning and improving while getting to a more sustainable and mature level within the Compliance department.

Financial crime risk

Financial crime risk results from illicit activity in the form of money laundering, terrorist financing, bribery and corruption, sanctions evasion, fraud and customer tax offences and other predicate offences to money laundering such as environmental crimes and human trafficking. It arises in the course of ING's day-to-day banking operations if our customers, employees or third parties undertake or facilitate financial crime, or if our products and services are misused for illicit purposes to generate or disguise financial crime.

We have zero tolerance for deliberately or knowingly facilitating financial crime - keeping ING safe, secure and compliant remains a top priority to protect our business and society at large from financial crime and its corrosive effects upon individuals and communities.

Financial crime risk management

The bank's NFRC, chaired by ING's CRO, is the principal risk management forum where, among other things, financial crime risk is discussed. This committee reviews, where appropriate, escalates key financial crime topics, threats and risks across ING to the EB and MBB. On KYC (know your customer), the Global KYC Committee, chaired by ING's COO, is mandated by the MBB to steer, prioritise and approve KYC-related topics undertaken across ING, and to oversee compliance with the relevant laws and regulations and internal rules related to KYC. The day-to-day responsibility for the oversight of ING's compliance with our legal and regulatory obligations in relation to financial crime risk resides with the global head Financial Crime Compliance, who reports to ING's chief compliance officer, with oversight by the CRO.

We believe all of our people have a role to play in the fight against financial crime. Having a robust and sound risk culture embedded in our day-to-day way of working is a foundational element of our financial crime risk control environment. We define the accountabilities and responsibilities of our workforce in accordance with the three lines of defence model, considering our business, geographical and functional structure.

As an organisation, we're committed to meeting our legal and regulatory requirements and the standards we also expect from ourselves. ING remains subject to (regulatory) investigations and scrutiny in certain jurisdictions, and we're committed to executing and implementing the identified enhancements required to our financial crime risk framework in a sustainable way for the longer-term.

Key risk management processes

ING strives to play its part in contributing to the safeguarding of the financial system against illicit financial activity, in the context of heightened and changing regulatory expectations and as financial crime risks continue to evolve. To fulfil our responsibility as a global financial institution in combatting financial crime, we believe it is essential to comply with anti-money laundering and to counter the financing of terrorism (AML/CFT), establish a reasonable and risk-based control framework to mitigate financial crime risk, and to seek to provide useful information to relevant government agencies. We also believe it is important to respond swiftly and proactively to new financial crime threats and techniques (which can be increasingly sophisticated as financial criminals harness and misuse new technological capabilities) as well as to relevant media reporting.

To mitigate financial crime risks, we apply a framework of preventative and detective systems and controls, underpinned by policy, procedures and related control standards across our global business in all locations where we operate. In 2022, we remained focused on our Financial Economic Crime Controls Maturity Programme (FCMP) (see also 'Know your customer (KYC)') by continuing to strengthen our financial crime risk management framework and supporting sustainable remediation of known issues. At the same time, we acknowledge that the continuous maturing of the financial crime risk management framework, as well

as other developments such as regulatory and legislative changes, will continue to require our attention and commitment in future years.

In 2022, we continued to enhance the annual Systematic Integrity Risk Analysis (SIRA) across our global footprint, which assesses inherent and residual integrity risks related to financial crime and the effectiveness of the associated processes and controls ING has in place. This provides insights into the financial crime integrity risks that ING may be exposed to, so we can appropriately manage these risks in accordance with our risk appetite. Our risk-based surveillance (screening and monitoring) controls are also designed to identify activity that may require additional investigation or other risk management actions, and where appropriate, reporting to the relevant authorities.

We monitor our compliance in relation to financial crime risk and our tolerance levels on a regular basis against a set of quantitative and qualitative financial crime risk appetite metrics that are approved by the Non-Financial Risk Committee.

Bribery and corruption

Corruption fuels instability and conflict and curbs economic growth. It undermines business confidence and corporate integrity, hinders fair business competition and harms international trade. Bribery and corruption risks are part of our non-financial risk framework and are included in the client and third-party due diligence and monitoring measures in our financial crime risk management framework. We have continued to structurally strengthen our response to bribery and corruption risks in key areas as part of our multi-year enhancement programme and FCMP, and in support of our zero-tolerance approach for bribery and corruption.

Customer tax compliance

ING remains committed to its reporting obligations under the Foreign Account Tax Compliance Act (FATCA) and Common Reporting Standards (CRS). Throughout 2022, we have worked to improve the quality of reports provided to tax authorities and reacted to the implementation of mandatory disclosure rules for EU jurisdictions (implemented via the amendment to Directive 2011/16 (DAC6)). We also continue to focus on customer tax integrity, as we do not want to facilitate or be involved in tax-related financial crime through servicing customers.

Key developments in 2022

War in Ukraine

2022 saw the Russian invasion of Ukraine. As well as the devastating political, social and economic consequences of the war, it has also had an impact on the nature and scale of FEC-related threats. Since the outbreak of the war, millions of refugees have fled the country making them vulnerable to exploitation by

criminals involved in human trafficking and migrant smuggling. There has also been an increase in the scale of illegal trafficking of weapons.

During 2022, financial institutions have had to respond to new and complex targeted sanctions, but also remain vigilant to elevated and increased levels of various other financial crimes threats and risks. We have produced regular and actionable guidance on evolving financial crime developments resulting from the war that has been shared across ING, including potential scenarios to identify where these risks may manifest and datapoints that may detect unusual transactions.

Sanctions related developments

Russia's invasion of Ukraine has fundamentally changed the global and political landscape, resulting in a world-wide response, whereby new and significant sanctions packages were imposed against Russia and Belarus since the end of February 2022. More than 3000 new sanctions have been implemented. The unprecedented velocity and scope of sanctions imposed by the international community has resulted in a highly complex and changing compliance environment for global financial institutions.

The international community is leveraging their sanction tools in response to the escalation of Russia's invasion of Ukraine, however sanction measures of the US, UK and EU can differ in their scope and these differences present complex operational and legal challenges for business that operate globally or facilitate global trade and payment activities. These complexities and challenging require careful navigation.

Accordingly, as part of ING's know your customer and compliance risk governance and procedures, ING is continuously monitoring the situation to stay abreast on all relevant updates to implement effective and appropriate additional control measures and to manage the increased risk and financial impacts of these developments.

Operationally, the impact of these enhancements has resulted in the need for additional staff members to review and apply greater scrutiny of transactions alerted for heightened risk of noncompliance with applicable sanctions.

Covid-19 and cost of living

Opportunistic criminals were quick to exploit the disruption caused by the Covid-19 pandemic and continue to do so as economic uncertainty and cost of living increases. During 2022, we continued to focus on protecting customers from fraud and cyber-related crimes, as well as identifying evolving criminal money laundering methods.

Evolving external landscape

Financial institutions continue to face considerable regulatory scrutiny in relation to detecting and preventing financial crime, and increasing costs of compliance. In addition, the complexity of the regulatory landscape continues to give rise to potential tension between data privacy (GDPR), anti-money laundering/counter terrorism financing and anti-corruption laws and regulations. This includes requirements for sharing information within ING in relation to financial crime risks to manage our risk exposure, while also complying with relevant data legislation (which can differ significantly depending on jurisdiction). Society's expectations with regard to financial institutions' accountability for safeguarding the integrity of the financial system also create an increasingly demanding environment.

We take our gatekeeper responsibility seriously. We believe that by proactively participating in public-private partnerships and collaborating with other banks, as well as investing in new and innovative technological capabilities, we can be more effective in the collective fight against financial crime.

Payment service providers

The position of payment service providers (PSPs) in the financial service industry has become prominent and permanent over the years. PSPs face continuous challenges to demonstrate compliance with industry standards and recommendations, such as the guidance provided by the Wolfsberg Group and Financial Action Task Force (FATF) on payment transparency. Having limited transparency on transactions initiated through the different payment platforms increases the challenge of monitoring whether PSPs and banks are potentially misused to facilitate tax evasion, money laundering and terrorist financing.

ING will continue to contribute to dialogue with PSPs, regulators and industry bodies on these challenges and aim to obtain the required transparency on payment information. This supports compliance with the applicable laws and regulations and internal policies and instructions as well as monitoring to ensure that ING stays within its financial crime risk appetite.

EU AML/CFT legislative package

In mid-2021 the European Commission adopted a package of legislative proposals aimed at strengthening anti-money laundering (AML) and countering the financing of terrorism (CFT) rules. This included amendments to existing legislation to tackle emerging challenges linked to technological innovations, such as virtual assets, as well as the increasingly global nature of terrorist organisations. It also included centralisation of EU AML/CFT supervision (the European Anti-Money Laundering Authority) and establishing a single EU AML/CFT rulebook, which provides financial institutions with harmonised and directly applicable AML/CFT rules. Though not yet finalised, ING welcomes this harmonisation, which removes a degree of regulatory complexity. ING has participated in workstreams and analysis prepared by global banking associations such as the Dutch Banking Association and the European Banking Federations to assist us in assessing the potential impact of the AML legislative package on the bank.

DNB, the Dutch central bank, published its report 'From Recovery to Balance' on the use of risk-based approaches. ING actively participates in related DNB workshops to enhance the effectiveness of fighting financial crime by focusing on higher risks (prioritising these in terms of capacity allocation; i.e. do more where necessary and less where possible).

Virtual assets

Blockchain technology, which underlies most virtual assets, continued to evolve and be accepted by the public. Crypto assets can be used for legal and illegal purposes. In 2022, global regulators, private industry and policy makers continued to focus on where they may be used for illegal activity, including money laundering, evasion of capital and sanctions, controls and payments in ransomware attacks. While there has been maturity in understanding how virtual assets ecosystems may be potentially abused for financial crime purposes, they continue to pose challenges for financial institutions.

We continued to contribute to ongoing dialogue with regulators on this topic throughout 2022. We have created and shared guidance on the evolving risks to enhance the knowledge and understanding of the virtual-assets landscape and its convergence with financial crime risk and we strive to ensure that ING remains a safe and compliant bank.

Environmental crime

Environmental crime is among the most profitable criminal enterprises and covers a wide range of unlawful activities including the illegal wildlife trade, the illegal extraction and trade of forestry and natural resources as well as illegal waste and illegal fisheries crime. There is also an increasing interface between environmental crimes and other crimes, most notably corruption, human trafficking and modern slavery and trade-based fraud. Throughout 2022, the topic has gained significant attention from regulators, law enforcement and non-governmental organisations across the globe due to the scale, nature and cost of the crime as well as the damaging effects they have on society.

In 2022, we examined the risks arising from the illegal trade in wildlife and in waste and how to identify suspicious financial flows and actors linked to them. We continued our membership of the United for Wildlife Financial Taskforce, which also covers illegal forestry trade. We work with private, public and third-sector partners to detect, disrupt and prevent illegal crimes in the wildlife and forestry trade.

Know Your Customer (KYC)

Know your customer and financial crime compliance play a major role in ensuring we only engage and do business with people and entities that meet regulatory requirements. Knowing who we do business with is vital to keeping ING safe, secure and compliant. As part of our ongoing anti-money laundering efforts, we continuously assess relationships with customers and monitor and screen transactions. Potentially unusual or suspicious transactions are reviewed and, where applicable, reported to the relevant authorities.

We are continuously working to further strengthen the KYC processes across the bank as and where required. This includes enhancing customer due diligence files and making structural improvements in frameworks, processes and systems.

Global approach

ING takes a global approach in its KYC improvement activities. In 2022, ING updated its KYC policies in line with external regulatory developments in anti-money laundering and financial sanctions and continued substituting local technology with centralised global technology enabling us to further improve the way we onboard, monitor and screen customers using a standardised approach across the world. In 2022, among other things, we progressed with the implementation of Global Transaction Monitoring tooling (with the last migration planned to take place in 2023), designed and implemented a global standard Quality Management Frameworks and further centralised operations, bundling expertise in dedicated operational hubs.

KYC policy framework

The KYC policy and related control standards (the KYC policy framework) set 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, guidance documents and guidelines from national, European and international authorities, (supra)national risk assessments and industry standards.

Public-private partnerships

To continue to be more effective in our efforts to counter financial economic crime, we work closely with our peers, regulators and law enforcement.

Throughout 2022, ING continued to work in a consortium of Dutch banks on Transaction Monitoring Netherlands (TMNL). The initiative, which monitors transactions within a combined database, is operational and intersecting with thematic areas of focus for law enforcement, enabling us to better understand potential criminal money flows, and improve our detection controls in response to these insights. In the Netherlands, ING also works with the government's Financial Intelligence Unit and three other banks in the Fintell Alliance.

In Germany, ING joined the public-private partnership Anti-Financial Crime Alliance (AFCA) in 2020 to foster mutual exchange of information within the financial system. The alliance consists of approximately 30 members, among them BaFin as regulator, the FIU, other public authorities, the largest financial institutions as well as representatives from the non-financial sector. ING in Germany continues to contribute in various forums to the further development of industry-wide standards (e.g. related to digitalisation and information sharing as well as to SAR filing (suspicious activity report) obligations).

Knowledge and behaviour

We believe all our people play a role in keeping ING safe, secure and compliant and that a sound risk culture requires us to act with integrity above all. We want to empower our workforce with the skills and knowledge they need to fight financial crime and encourage them to speak up if they have concerns relating to financial crime risk management.

In 2022, our (mandatory) training programme for KYC staff continued, including our partnership with the Association of Certified Anti-Money Laundering Specialists (ACAMS) to develop and provide tailored, certified training. The ACAMS training portfolio focuses on learning paths that provide professional foundational skills or advance expertise in a range of topics including customer due diligence, screening, transaction monitoring and sanctions. Over 27,000 ACAMS trainings were enrolled in 2022. Our internal training programme for 2022 included additional focus on further strengthening our risk management mindset.

Following work in 2021, bottom-up initiatives have been further developed into scalable solutions that address behavioural challenges related to decision-making, ownership and group dynamics. Examples are the 'feedback loop' and 'discover and connect', which is a way to connect employees across the different functions through department visits. Furthermore, as part of a top-down approach, senior leadership came together to discuss drivers and behavioural changes needed to improve decision making and collaboration throughout the entire KYC chain.

Read more on behavioural risk in 'Risk culture'.

Conduct compliance and ethics

Conduct risk is defined by anything we do that can result either in customer detriment or an impact to market integrity. Conduct compliance and ethics includes client protection and transparency (treating customers fairly), market conduct (including market manipulation), anti-competitive conduct, conflicts of interest and ethics. Ethics risk includes the Orange Code, global Code of Conduct, as well as our Whistleblower framework.

Treating customers fairly

Improvements to our framework around Markets in Financial Services Directive (MiFID) have continued as planned allowing a more effective client protection and product approval committee (CPAC) framework focussing on investment and financial markets products to both WB and Retail clients. The Capital Markets Recovery Package (CMRP) with regards to MiFID, new ESMA Guidelines on appropriateness and execution-only requirements as well as ESMA's statement on payment for order flow (PFOF) have been implemented. Client protection and product approval governance was simplified to support a global and consistent application of risk appetite when offering investment products and services to our customers whether WB or

Retail, while removing overlap from the MiFID implementation. A particular focus this year for CPAC has been to strengthen central guidance on cryptocurrencies and crypto-linked financial products.

Alongside direct consumer protection requirements as laid down in specific regulations (e.g. MiFID II) ING is bound by local consumer protection laws and has adopted its own minimum standards, such as the Customer Golden Rules. These rules were updated and rolled out globally providing further standardisation across all products, services and jurisdictions. This is further enforced by recent market developments such as increased inflation and interest rates, which require also requiring specific focus on customers in vulnerable positions. The range of products and services in scope will include mortgages and consumer lending.

Transaction reporting activities continued to improve both in terms of reporting quality and scope through a group-wide governance framework and controls. The upload of the main transaction reporting backlog is now completed. Preparations for future transaction reporting changes are being made, including the European Market Infrastructure Regulation (EMIR) Refit.

In relation to insurance products, global policy and controls are in place to align with the EU's Insurance Distribution Directive (IDD).

In response to the increasing importance of sustainable products for our clients and the need for ESG considerations to form an integral part of our products and services to clients, alongside the development and roll-out of policy on SFDR and ESG-related MiFID II and IDD amendments, measures on developing, selling and promoting sustainable products are being strengthened. Compliance is not an exception and ESG continues to be embedded within the ING organisation across all three lines of defence, strengthening compliance with both regulatory requirements and internal standards.

Market conduct

Market conduct risk stems from behaviour that can impact market integrity. Public confidence in smooth functioning markets is crucial for economic growth and wealth. As part of our work in 2022 to strengthen our market conduct framework, global procedures on maintaining information barriers, insider lists and communicating inside information were further improved across ING. Steps have been made towards automating, standardising and centralising our approach to personal account dealing rules across the group. Furthermore, two new e-learning courses have been designed on inside information and detecting suspicious orders and transactions, with one already rolled out to targeted employees.

Conflicts of interest

The Conflicts of Interest policy sets the obligation to identify, assess and manage conflicts of interest when personal or organisational interests are in conflict over the interest of our customers, employees or other stakeholders. In 2022, the Conflicts of Interest policy was revised and implemented to further align with the standards as defined by enterprise risk management. The policy incorporates key requirements for both personal and organisational conflicts of interest in line with European Bank Authority Guidelines on Internal Governance. Next to the updated policy, mandatory instructions on conflict-of-interest registers are implemented which provides instructions to identify, assess, mitigate or prevent and record all structural and incidental conflicts of interest.

Whistleblower

The programme launched in 2021 to enhance the global whistleblower process has been concluded. In 2022, whistleblowing enhancement activities continued with an emphasis on increasing employee awareness on misconduct reporting. Sanitised whistleblowing data has been shared within the organisation to provide more transparency on the types of concerns employees report and the rapidity of our response.

Innovation, analytics and digitalisation

In 2022, we took the strategic decision to adapt our innovation approach and unwind ING Neo. This will bring initiatives closer to our core business and functions, in line with our strategic focus of providing a superior customer experience and putting sustainability at the heart of what we do.

We continue to harness new and innovative technological capabilities to keep customers safer and to enhance their digital journey with ING. To this end, the Blacksmith solution for KYC has become our default tool for financial institutions and the CorpID platform, which digitalises the KYC process for corporate clients, is now used in nine countries. Further, our Ventures team has also closed an investment in Sardine which provides AI-enabled KYC, compliance and fraud detection platforms to financial services firms. The initiatives and investments help us to respond swiftly and effectively to the changing regulatory landscape and underlying policies in relation to financial crime.

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, non-compliant 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 or whose inputs are partially or wholly qualitative or based on expert judgement.

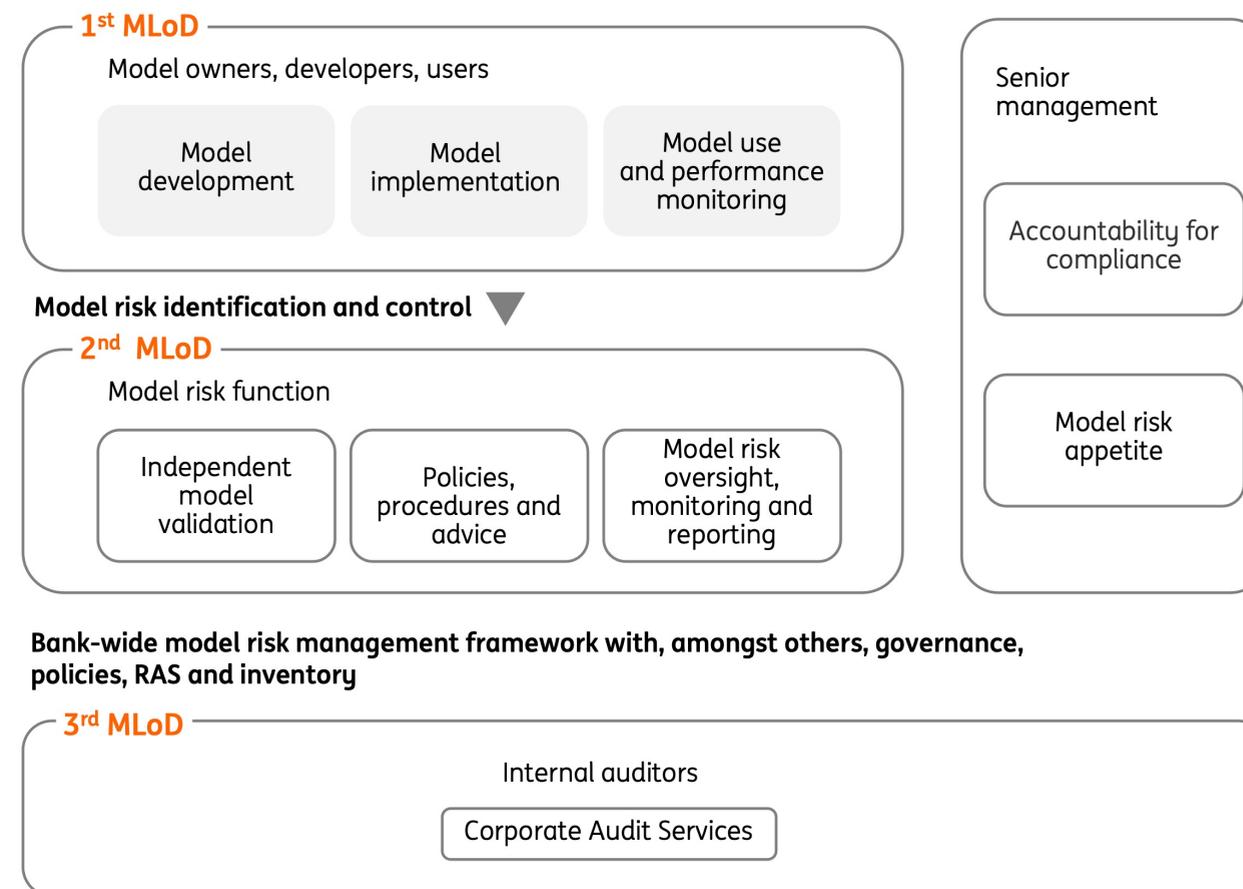
Governance (*)

The head of Model Risk Management (MoRM) reports to the ING Group chief risk officer. The Model Risk Management Committee (MoRMC) is the dedicated authority within ING for model risk management. It is a committee designated by the MBB. It is chaired by the ING Group chief risk officer and co-chaired by the head of MoRM.

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 (*)



The composition and main activities within the three model lines of defence (MLoD):

- The first MLoD is composed of the model owners, model users, data management and model development, and is accountable for the implementation of model risk controls which encompass model development, implementation and use of the models as well as monitoring of models' performance.
- The second MLoD is composed of model validation and model risk oversight, which owns the model risk management framework, proposes the model risk appetite, provides challenge to model risk identification and assessment and provides an independent validation of models used within ING.
- The third MLoD is the internal audit, reviewing the quality of model risk management execution in all lines of defence and providing assurance over the first and second line model risk management activities.

Model risk appetite (model RAS) (*)

The model risk appetite is designed to determine the level of model risk ING is willing to accept in pursuit of its strategic objectives. Current model RAS metrics are focused on the most important models for ING: credit risk and other models with elevated supervisory attention. These metrics are reported to the MBB on a quarterly basis.

Model risk management (MoRM) (*)

The MoRM policy framework comprises the total set of measures and tools put in place to manage model risk. To enable setting model risk management standards that are proportionate to a model's importance, ING classifies models based on their materiality and reputational risk. The classification determines the depth and extent of the applied model risk management activities, including model validation. During 2022, the MoRM policy framework was updated and enhanced, incorporating ING model data-ethics principles and integrating a risk-based approach to model validation. Next to the generic MoRM policy framework, dedicated model validation frameworks are in place. These set the validation standards for the key model types such as credit, market, liquidity, operational risk, IRRBB, KYC, and other model categories. These frameworks are continuously being enhanced to keep up-to-date with regulatory and technical developments.

On an aggregated level model risk is monitored via analysis of data from the global model inventory. The insights, from aggregated data analysis, are reported to the MoRMC and to the MBB so that senior management can take well-informed decisions on acceptance or further mitigation of model risk.

Model lifecycle (*)

The next figure provides a schematic overview of the model lifecycle, where orange represents the activities of the first MLoD, grey represents the second MLoD and light grey is the third MLoD. The objectives of the different processes are outlined below.



Initiation or change: The initiation of the development of a new model or change in an existing model can be triggered by internal or external factors, such as business needs, regulation changes and/or model validation findings.

Data collection is the process of defining and collecting data that meets the requirements for model development. The process includes the definition of the data needed and assessment of data availability and data quality.

Model development is a structured process that leads to a model that is consistent with the model owner requirements, bank policy and relevant regulation where applicable.

Pre-approval validation is an independent assessment to determine whether a newly developed or materially changed model is valid for its intended use. The approach to model validation is proportional to the model risk as reflected in the ING model risk classification.

The objective of the **model approval** stage is to ensure models are formally approved by the designated approval authority prior to deployment.

During the **implementation** stage, the model is deployed in a production environment, after completion of required model testing and corresponding approval.

In the **model use** stage the model is applied by the users for the specific purpose for which it was designed. The model may only be used after formal approval.

The objective of model **monitoring** is to determine if the model is performing as expected by regularly assessing model accuracy and/or predictive ability, considering internal or external developments that may influence model performance. Model performance monitoring begins when a model is deployed for use and continues until the model has officially been decommissioned.

Periodic validation assesses, on a regular basis, whether a model is still valid for its intended use and if the model is used as intended, taking into consideration any internal or external changes since the last validation. The 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**.

Business risk

Introduction

Business risk for ING has been defined as the exposure to value loss due to fluctuations in volumes/margins, net fee and commission income as well as expenses. It is the risk inherent to strategy decisions, internal efficiency and the business environment. Business risk economic capital is calculated via the variance-covariance methodology for these risks, covering the risk that volume/margins, net fee and commission income, and operating expenses will deviate from the expected expenses and incomes over the horizon of the relevant activities.

Governance and risk management

ING applies an explicit risk appetite statement regarding business risk, focusing on earnings stability and diversification of the business mix. Diversification 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, volume-margin risk, and net fee and commission income 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 quarterly 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 'Basis of preparation and significant 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 2022, 2021 and 2020 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.

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								
	2022			2021			2020		
	Average balance (EUR millions)	Interest income	Average yield %	Average balance (EUR millions)	Interest income	Average yield %	Average balance (EUR millions)	Interest income	Average yield %
Time deposits with banks									
domestic	3,574	52	1.4	2,818	33	1.2	3,495	39	1.1
foreign	2,603	197	7.6	3,718	41	1.1	4,788	57	1.2
Loans and advances									
domestic	186,808	4,617	2.5	186,022	4,313	2.3	187,189	4,831	2.6
foreign	467,736	12,666	2.7	438,174	9,437	2.2	431,665	10,606	2.5
Securities purchased with agreements to resell									
domestic	10,305	43	0.4	3,768	0	0.0	5,242	3	0.1
foreign	64,598	1,297	2.0	61,137	322	0.5	55,682	573	1.0
Interest-earning securities ¹									
domestic	31,609	314	1.0	31,662	242	0.8	33,400	313	0.9
foreign	51,732	894	1.7	53,276	622	1.2	54,542	708	1.3
Other interest-earning assets									
domestic	65,895	444	0.7	50,713	13	0.0	43,417	27	0.1
foreign	66,298	407	0.6	71,055	56	0.1	48,453	44	0.1
Total	951,158	20,931	2.2	902,341	15,080	1.7	867,875	17,201	2.0
Non-interest earning assets	51,367			51,012			48,761		
Derivatives assets	32,480			23,505			29,423		
Total assets	1,035,005			976,857			946,059		
Percentage of assets applicable to foreign operations		67.7 %			68.9 %			69.7 %	
Interest income on derivatives		6,123			4,386			4,546	
Other ²		1,319			1,585			812	
Total interest income		28,373			21,051			22,559	

1 Substantially all interest-earning securities held by the banking operations of the Company are taxable securities.

2 Other includes negative interest expense.

LIABILITIES									
Interest-bearing liabilities									
	2022			2021			2020		
	Average balance (EUR millions)	Interest expense	Average yield %	Average balance (EUR millions)	Interest expense	Average yield %	Average balance (EUR millions)	Interest expense	Average yield %
Time deposits from banks									
domestic	53,949	-281	-0.5	51,928	3	0.0	35,079	10	0.0
foreign	24,068	-6	0.0	24,497	76	0.3	18,888	123	0.7
Demand deposits									
domestic	107,971	361	0.3	98,236	110	0.1	82,639	121	0.1
foreign	155,087	98	0.1	144,706	19	0.0	124,337	12	0.0
Time deposits ¹									
domestic	31,224	567	1.8	12,508	35	0.3	11,798	129	1.1
foreign	9,239	349	3.8	5,926	90	1.5	9,538	132	1.4
Savings deposits									
domestic	101,489	-311	-0.3	97,862	-324	-0.3	95,455	77	0.1
foreign	233,412	895	0.4	257,796	482	0.2	267,713	627	0.2
Securities sold under agreements to repurchase									
domestic	972	38	3.9	3,205	0	0.0	0	0	0.0
foreign	60,127	1,205	2.0	55,300	133	0.2	46,225	317	0.7
Commercial paper									
domestic	7,425	42	0.6	2,712	3	0.1	10,127	12	0.1
foreign	14,050	245	1.7	12,873	23	0.2	13,360	163	1.2
Short term debt									
domestic	3,946	53	1.3	3,484	7	0.2	8,995	97	1.1
foreign	2,858	39	1.4	4,190	11	0.3	3,389	28	0.8
Long term debt									
domestic	55,501	1,268	2.3	55,511	1,167	2.1	64,418	1,387	2.2
foreign	16,310	257	1.6	14,490	168	1.2	14,994	234	1.6
Subordinated liabilities									
domestic	16,317	650	4.0	15,364	573	3.7	16,676	616	3.7
foreign						0.0	0	0	0.0
Other interest-bearing liabilities									
domestic	3,721	235	6.3	3,470	12	0.4	2,960	31	1.1
foreign	6,732	116	1.7	6,557	28	0.4	8,173	44	0.5
Total	904,399	5,820	0.6	870,615	2,616	0.3	834,764	4,159	0.5

LIABILITIES									
Interest-bearing liabilities									
	2022			2021			2020		
	Average balance	Interest expense	Average yield	Average balance	Interest expense	Average yield	Average balance	Interest expense	Average yield
Non-interest bearing liabilities	38,995			30,839			31,711		
Derivatives liabilities	32,364			21,173			27,232		
Total Liabilities	975,757			922,627			893,707		
Group Capital	59,248			54,230			52,353		
Total liabilities and capital	1,035,005			976,857			946,059		
Percentage of liabilities applicable to foreign operations		57.3 %			60.4 %			62.3 %	
Other interest expense:									
Interest expenses on derivatives		6,522			3,305			4,227	
other ²		1,438			1,130			622	
Total interest expense		13,780			7,051			9,007	
Total net interest result		14,593			14,000			13,552	

1 These captions do not include deposits from banks.

2 Other includes negative interest income.

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.

	2022 over 2021			2021 over 2020		
	Increase (decrease) due to changes in			Increase (decrease) due to changes in		
	Average volume	Average rate	Net change	Average volume	Average rate	Net change
	(EUR millions)			(EUR millions)		
Interest-earning assets						
Time deposits to banks						
domestic	9	10	18	-8	1	-6
foreign	-12	168	156	-13	-3	-16
Loans and advances						
domestic	-72	376	304	-55	-463	-518
foreign	468	2,762	3,229	140	-1,309	-1,169
Securities purchased with agreements to resell						
Domestic	1	42	43	-1	-2	-3
foreign	18	957	975	56	-307	-251
Interest-earning securities						
Domestic		72	72	-16	-55	-71
foreign	-18	290	272	-16	-69	-85
Other interest-earning assets						
domestic	4	426	430	5	-18	-14
foreign	-4	355	352	20	-8	12
Interest income						
domestic	-58	926	867	-75	-537	-612
foreign	452	4,531	4,983	187	-1,696	-1,509
Total	394	5,457	5,851	112	-2,233	-2,121
Other interest income			1,471			613
Total interest income			7,322			-1,508

	2022 over 2021			2021 over 2020		
	Increase (decrease) due to changes in			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		-284	-284	5	-12	-7
foreign	-1	-80	-82	36	-83	-47
Demand deposits						
domestic	11	241	251	23	-34	-12
foreign	1	78	79	2	5	7
Time deposits						
domestic	53	479	531	8	-101	-93
foreign	50	209	259	-50	8	-42
Savings deposits						
domestic	3	10	13	2	-403	-401
foreign	-50	464	414	-26	-119	-146
Short term debt						
domestic	1	45	46	-59	-31	-90
foreign	-4	31	28	7	-23	-17
Securities sold under agreements to repurchase						
domestic		38	38	-145	144	0
foreign	12	1,060	1,072	62	-245	-183
Commercial paper						
domestic	4	35	40	-8	-1	-9
foreign	2	220	222	-6	-134	-140
Long term debt						
domestic		101	101	-192	-28	-219
foreign	21	69	90	-8	-58	-66
Subordinated liabilities						
domestic	36	41	76	-49	6	-43
foreign				0	0	0
Other interest-bearing liabilities						
domestic	1	221	222	5	-24	-19
foreign	1	87	88	-9	-7	-16
Interest expense						
domestic	108	927	1,035	-409	-483	-892
foreign	32	2,137	2,169	8	-658	-650
Total	140	3,064	3,204	-401	-1,141	-1,542
Other interest expense			3,525			-414
Total interest expense			6,729			-1,956

	2022 over 2021			2021 over 2020		
	Increase (decrease) due to changes in			Increase (decrease) due to changes in		
	Average volume	Average rate	Net change	Average volume	Average rate	Net change
	(EUR millions)			(EUR millions)		
Net interest						
domestic	-166	-1	-167	334	-53	281
foreign	420	2,394	2,814	179	-1,039	-859
Net interest	254	2,393	2,647	513	-1,092	-579
Other net interest result			-2,054			1,027
Net interest result			593			448

The following table shows the interest spread and net interest margin for the past two years.

	2022	2021
	Average rate %	Average rate %
Interest spread		
Domestic	1.0	1.1
Foreign	1.8	1.5
Total	1.5	1.3
Net interest margin		
Domestic	0.7	1.0
Foreign	1.9	1.5
Total	1.5	1.3

Investments in debt securities

The following tables show the weighted average yield of ING's investments on debt securities measured at amortised cost and fair value through other comprehensive income. The weighted average yield is calculated as follows:

Nominal value * coupon rate * remaining maturity

Nominal value * remaining maturity

	Weighted average yield			
	1 year or less	Between 1 and 5 years	Between 5 and 10 years	Over 10 years
2022				
Fair value through other comprehensive income				
Government bonds	1.80 %	3.25 %	2.67 %	3.48 %
Sub-sovereign, Supranationals and Agencies	2.90 %	2.30 %	1.51 %	2.67 %
Covered bonds	0.24 %	0.91 %	1.42 %	
Corporate bonds	0.63 %	0.44 %		
Financial institutions bonds	3.02 %	1.79 %		
ABS portfolio		2.48 %	2.39 %	2.36 %

1 Since substantially all investment securities held by the banking operations of the Company are taxable securities, the yields are on tax-equivalent basis.

	Weighted average yield			
	1 year or less	Between 1 and 5 years	Between 5 and 10 years	Over 10 years
2022				
Securities at amortised cost				
Government bonds	2.47 %	2.52 %	1.33 %	4.43 %
Sub-sovereign, Supranationals and Agencies	1.98 %	1.85 %	1.16 %	3.00 %
Covered bonds	0.71 %	0.68 %	0.83 %	
Corporate bonds	8.83 %	9.69 %	8.83 %	
Financial institutions bonds	4.83 %	4.74 %	0.25 %	
ABS portfolio		2.49 %	3.94 %	4.62 %

1 Since substantially all investment securities held by the banking operations of the Company are taxable securities, the yields are on tax-equivalent basis.

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.

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 2022.

	1 year or less	1 year to 5 years	5 years through 15 years	After 15 years	Total
2022					
By domestic offices:					
Loans to banks	22,928	516	19	0	23,463
Loans to public authorities	170	257	393	16	837
Residential mortgages	1,860	10,465	43,537	54,155	110,017
Other personal lending	1,271	2,431	1,798	336	5,835
Corporate Lending	28,340	27,778	11,297	661	68,077
Total domestic offices	54,569	41,448	57,044	55,168	208,228
By foreign offices:					
Loans to banks	9,807	1,674	178	20	11,679
Loans to public authorities	4,080	2,360	4,303	1,097	11,840
Residential mortgages	12,453	51,404	79,231	69,745	212,833
Other personal lending	7,645	12,224	6,758	3,718	30,345
Corporate Lending	78,754	101,944	28,853	1,541	211,092
Total foreign offices	112,739	169,607	119,322	76,121	477,789
Total gross loans and advances to banks and customers	167,308	211,055	176,366	131,289	686,018

The following table analyzes loans and advances to banks and customers by interest rate sensitivity by maturity as of 31 December 2022 for loans and advances due after one year.

	Predetermined interest rates	Floating or adjustable interest rates ¹
Loans to banks	97	2,309
Loans to public authorities	5,825	2,601
Residential mortgages	225,713	82,824
Other personal lending	22,767	4,498
Corporate Lending	51,176	120,899
Total	305,579	213,131

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".

Allowance for credit losses

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 2022, 2021 and 2020 under IFRS-IASB.

	2022	2021	2020
Balance on 1 January	5,368	5,854	4,645
Change in the composition of the Group			
Write-offs	-1,130	-854	-1,200
Recoveries	71	45	39
Net write-offs	-1,059	-809	-1,160
Additions and other adjustments (included in value Adjustments to receivables of the Banking operations)	1,792	324	2,369
Balance on 31 December	6,101	5,368	5,854
Average loans and advances to banks and customers	670,013	644,853	645,134
Ratio of net charge-offs to average loans and advances to banks and customers	0.16 %	0.13 %	0.18 %
Ratio of allowance for credit losses to total loans and advances to banks and customers outstanding	0.90 %	0.82 %	0.94 %

Additions to loan loss provisions have increased. Risk costs in 2022 were heavily impacted by the Russian invasion in Ukraine as well as management adjustment related to risks from secondary impacts of the deteriorated macroeconomic outlook (such as an increase in energy prices, higher interest rates and inflation). Reference is made to Note 1 'Basis of preparation and significant accounting policies' and 'Additional information – Risk Management' for detailed information on loan loss provisioning.

Deposits

Reference is made to 'Additional information – Average balances and interest rates' for detailed information on average amount of and the average rate paid on deposit categories.

For the years ended 31 December 2022, 2021 and 2020 the aggregate amount of deposits by foreign depositors in domestic offices was EUR 37,042 million, EUR 29,696 million and EUR 27,850 million respectively.

Uninsured deposits

For the years ended 31 December 2022 and 2021 the amount of uninsured deposits, which were not covered by DGS, was EUR 184,032 million and EUR 162,983 million, respectively.

Deposit guarantee schemes (DGS) reimburse a limited amount to compensate depositors whose bank has failed. A fundamental principle underlying DGS is that they are funded entirely by banks, and that no taxpayer funds are used. Under EU rules, the Deposit Guarantee Scheme (DGS) guarantees deposits up to a maximum of EUR 100,000 per depositor in case of a bank failure.

On 31 December 2022, the amount of time deposits in excess of (local) deposit insurance regime and time deposits which are otherwise uninsured is as follows:

	Time deposits in excess on deposit insurance regime (EUR millions)	Other uninsured Time deposits (EUR millions)
3 months or less	6,425	21,708
6 months or less but over 3 months	746	34,459
12 months or less but over 6 months	407	5,281
Over 12 months	596	10,446
Total	8,174	71,894

For further detailed information on deposits reference is made to Note 12 'Deposits from banks' and Note 13 'Customer deposits' of the consolidated financial statements.

Contents

Report of Independent Registered Public Accounting Firm	F-220
---	-------

Consolidated financial statements

Consolidated statement of financial position	F-222
Consolidated statement of profit or loss	F-223
Consolidated statement of comprehensive income	F-224
Consolidated statement of changes in equity	F-225
Consolidated statement of cash flows	F-228

Notes to the consolidated financial statements

1 Basis of preparation and significant accounting policies	F-230
--	-------

Notes to the consolidated statement of financial position

2 Cash and balances with central banks	F-252
3 Loans and advances to banks	F-252
4 Financial assets at fair value through profit or loss	F-252
5 Financial assets at fair value through other comprehensive income	F-254
6 Securities at amortised cost	F-255
7 Loans and advances to customers	F-256
8 Investments in associates and joint ventures	F-257
9 Property and equipment	F-258
10 Intangible assets	F-259
11 Other assets	F-260
12 Deposits from banks	F-260
13 Customer deposits	F-260
14 Financial liabilities at fair value through profit or loss	F-261

15 Provisions	F-261
16 Other liabilities	F-262
17 Debt securities in issue	F-262
18 Subordinated loans	F-263
19 Equity	F-264

Notes to the consolidated statement of profit or loss

20 Net interest income	F-268
21 Net fee and commission income	F-269
22 Valuation results and net trading income	F-269
23 Investment income	F-270
24 Net result on derecognition of financial assets measured at amortised cost	F-270
25 Other net income	F-271
26 Staff expenses	F-271
27 Other operating expenses	F-272
28 Audit fees	F-273
29 Earnings per ordinary share	F-273
30 Dividend per ordinary share	F-273

Notes to the consolidated statement of cashflows

31 Net cash flow from operating activities	F-274
32 Changes in liabilities arising from financing activities	F-274
33 Cash and cash equivalents	F-275

Segment reporting

34 Segments	F-276
35 Information on geographical areas	F-281

Additional notes to the consolidated financial statements

36	Pension and other post-employment benefits	F-283
37	Taxation	F-286
38	Fair value of assets and liabilities	F-289
39	Derivatives and hedge accounting	F-300
40	Assets by contractual maturity	F-308
41	Liabilities and off-balance sheet commitments by maturity	F-310
42	Transfer of financial assets, assets pledged and received as collateral	F-313
43	Offsetting financial assets and liabilities	F-314
44	Contingent liabilities and commitments	F-319
45	Legal proceedings	F-320
46	Consolidated companies and businesses acquired and divested	F-322
47	Principal subsidiaries	F-323
48	Structured entities	F-324
49	Related parties	F-326
50	Capital management	F-328
51	Condensed financial information of the parent company	F-331
52	Subsequent events	F-337



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, 2022 and 2021, 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, 2022 and the related notes and the specific disclosures described in Note 1 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, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, 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, 2022, 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 6, 2023 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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 judgments. 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 loans and advances to banks

As discussed in the Credit Risk section on pages 146-177 and in Note 3 and Note 7 in the consolidated financial statements, the loans and advances to customers amount to EUR 645 billion and loans and advances to banks amount to EUR 35 billion as at December 31, 2022. These loans and advances are measured at amortized cost, less expected credit losses ('ECL') of EUR 6 billion. Management estimated ECL using three components: probability of default ('PD'), loss given default ('LGD') and exposure at default ('EAD'). Management applied forward looking economic scenarios with associated weights. Relevant macroeconomic factors include the gross domestic product ('GDP'), house price index ('HPI') and unemployment rate. The recent economic conditions are outside the bounds of historical experience used to develop ECL model methodologies and result in greater uncertainties to estimate ECLs. These uncertainties are addressed by judgmental overlays by management.

We identified the assessment of ECL on loans and advances to customers and loans and advances to banks as a critical audit matter because of the significant and complex auditor judgment and specialized skills and knowledge required to evaluate the following elements of the overall ECL estimate:

- The judgements used to develop the PD, LGD, EAD, including model or manually determined expected future recovery cash flow assessments of individual loan provisions for impaired loans.
- Use of forward-looking macroeconomic forecasts in ECL, including GDP, HPI and unemployment rate.
- The consistent identification and application of criteria for significant increase in credit risk ('SICR') in an increased uncertain and worsened macroeconomic environment and geopolitical situation.
- Calculation of management overlays to the modelled ECL due to the increased uncertainty in the macroeconomic outlook in the global economy. These management overlays included economic sector-based adjustments in the Netherlands, second order impact adjustments for both wholesale bank and retail bank and overlays to residential mortgages.



The following are the primary procedures we performed to address this critical audit matter.

- We evaluated the design and tested the operating effectiveness of certain internal controls related to the ECL process for loans and advances to customers and loans and advances to banks. This included controls related to the assumptions (including PD, LGD, EAD and macroeconomic forecasts), review of model outputs, the application of the definition of default, the update of data history, governance and monitoring of the ECL, reconciliations, determination of credit risk ratings, the estimated future recovery cash flows of individual loan provisions and management overlays to the modelled ECL.
- We involved credit risk professionals with specialized skills and knowledge who assisted in evaluating the assumptions to determine the PD, LGD, and EAD parameters in models used by the Company to determine the collective provisions including the evaluation of the recalibrated and redeveloped credit risk models. This included reperforming back-testing of certain models to evaluate the current model performance. In addition, we tested management overlays recorded to the ECL, including economic sector-based adjustments in the Netherlands, second order impact adjustments for both wholesale bank and retail bank and overlays to residential mortgages. We considered the impact these overlays have on model calculations and results when reaching our conclusions.
- We involved economic professionals with specialized skills and knowledge, who assisted in assessing the Company's methodology to determine the macroeconomic forecasts used in the ECL. We tested the reasonableness of management's forecasts against other external benchmarks and our own internal forecasts.
- We involved corporate finance professionals with specialized skills and knowledge, who assisted in examining the methodologies, cash flows and collateral values used in expected future recovery cash flow assessments of individual loan provisions for impaired loans. We challenged management's use of recovery scenarios and expected cash flows considering industry trends and comparable benchmarks, recalculated recovery amounts and performed reconciliations.
- We evaluated the identification of SICR in loans by challenging the scope of management's criteria used in staging assessments, consistent application of the thresholds applied within each criterion, and the ability of staging criteria to identify SICR prior to loans being credit impaired.
- We assessed whether the credit risk management disclosures appropriately reflect and address the uncertainties which exist in determining the ECL.

/s/ KPMG Accountants N.V.

We have served as the Company's auditor since 2016.

Amstelveen, The Netherlands
March 6, 2023

Consolidated statement of financial position

As at 31 December

in EUR million	2022	2021
Assets		
Cash and balances with central banks 2	87,614	106,520
Loans and advances to banks 3	35,104	23,592
Financial assets at fair value through profit or loss 4		
– Trading assets	56,870	51,381
– Non-trading derivatives	3,893	1,536
– Designated as at fair value through profit or loss	6,159	6,355
– Mandatorily at fair value through profit or loss	46,844	42,684
Financial assets at fair value through other comprehensive income 5	31,625	30,635
Securities at amortised cost 6	48,160	48,319
Loans and advances to customers 7	644,893	625,122
Investments in associates and joint ventures 8	1,500	1,587
Property and equipment 9	2,446	2,515
Intangible assets 10	1,102	1,156
Current tax assets	349	549
Deferred tax assets 37	1,425	1,303
Other assets 11	8,850	5,996
Total assets	976,834	949,250

	2022	2021
Liabilities		
Deposits from banks 12	56,632	85,092
Customer deposits 13	640,799	617,400
Financial liabilities at fair value through profit or loss 14		
– Trading liabilities	39,088	27,113
– Non-trading derivatives	3,048	2,120
– Designated as at fair value through profit or loss	50,883	41,808
Current tax liabilities	325	271
Deferred tax liabilities 37	2,652	311
Provisions 15	1,052	995
Other liabilities 16	13,646	12,839
Debt securities in issue 17	95,918	91,784
Subordinated loans 18	15,786	16,715
Total liabilities	919,829	896,448
Equity 19		
Share capital and share premium	17,154	17,144
Other reserves	-2,192	-540
Retained earnings	41,538	35,462
Shareholders' equity (parent)	56,500	52,066
Non-controlling interests	504	736
Total equity	57,004	52,802
Total liabilities and equity	976,834	949,250

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	2022	2021	2020
Continuing operations			
Interest income using effective interest rate method	24,439	18,577	20,715
Other interest income	3,934	2,474	1,843
Total interest income	28,373	21,051	22,559
Interest expense using effective interest rate method	-10,019	-5,085	-7,402
Other interest expense	-3,762	-1,966	-1,605
Total interest expense	-13,780	-7,051	-9,007
Net interest income 20	14,593	14,000	13,552
Fee and commission income	5,085	5,004	4,514
Fee and commission expense	-1,499	-1,487	-1,503
Net fee and commission income 21	3,586	3,517	3,011
Valuation results and net trading income 22	12,214	2,065	474
Investment income 23	181	167	152
Share of result from associates and joint ventures 8	92	141	66
Impairment of associates and joint ventures 8	-192	-3	-235
Result on disposal of group companies	6	-29	-3
Net result on derecognition of financial assets measured at amortised cost 24	-5	0	189
Other net income 25	-56	236	20
Total income	30,418	20,093	17,227

	2022	2021	2020
Addition to loan loss provisions	1,861	516	2,675
Staff expenses 26	6,152	5,941	5,812
Other operating expenses 27	5,047	5,251	5,341
Total expenses	13,060	11,708	13,828
Result before tax	17,358	8,385	3,399
Taxation 37	5,130	2,306	1,070
Net result	12,228	6,079	2,329
Net result (before non-controlling interests)	12,228	6,079	2,329
Net result attributable to Non-controlling interests	102	128	78
Net result attributable to shareholders of the parent	12,126	5,951	2,250
in EUR			
Earnings per ordinary share 29			
Basic earnings per ordinary share	3.35	1.53	0.58
Diluted earnings per ordinary share	3.35	1.53	0.58

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	2022	2021	2020
Net result (before non-controlling interests)	12,228	6,079	2,329
Other comprehensive income			
Items that will not be reclassified to the statement of profit or loss:			
Realised and unrealised revaluations property in own use	15	-2	-7
Remeasurement of the net defined benefit asset/liability 36	-19	95	28
Net change in fair value of equity instruments at fair value through other comprehensive income	-126	96	-335
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss	165	37	-19
Items that may subsequently be reclassified to the statement of profit or loss:			
Net change in fair value of debt instruments at fair value through other comprehensive income	-435	-186	25
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss	-26	-42	-34
Changes in cash flow hedge reserve	-3,158	-1,955	355
Exchange rate differences ¹	436	143	-1,620
Share of other comprehensive income of associates and joint ventures and other income	0	-3	6
Total comprehensive income	9,081	4,262	728
Comprehensive income attributable to:			
Non-controlling interests	-190	-247	133
Equity holders of the parent	9,271	4,509	595
	9,081	4,262	728

1 Includes impact of application of hyperinflation accounting under IAS 29.

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

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Shareholders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2021	17,144	-540	35,462	52,066	736	52,802
Impact IAS 29		627	-563	64		64
Balance as at 1 January 2022	17,144	87	34,899	52,130	736	52,866
Net change in fair value of equity instruments at fair value through other comprehensive income		-95	-23	-118	-7	-126
Net change in fair value of debt instruments at fair value through other comprehensive income		-412		-412	-22	-435
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		-25		-25	-1	-26
Changes in cash flow hedge reserve		-2,901		-2,901	-257	-3,158
Realised and unrealised revaluations property in own use		-12	26	15	0	15
Remeasurement of the net defined benefit asset/liability 36		-19		-19	1	-19
Exchange rate differences and other		442		442	-5	436
Share of other comprehensive income of associates and joint ventures and other income		26	-26	0		0
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		150	15	165		165
Total amount recognised directly in other comprehensive income net of tax		-2,847	-8	-2,855	-292	-3,147
Net result		161	11,965	12,126	102	12,228
Total comprehensive income net of tax		-2,686	11,957	9,271	-190	9,081
Dividends and other cash distribution 30			-3,349	-3,349	-41	-3,390
Share buyback programme	-2	403	-1,983	-1,582		-1,582
Changes in treasury shares		4		4		4
Employee stock option and share plans	12		15	27	0	27
Changes in the composition of the group and other changes			-1	-1	0	-1
Balance as at 31 December 2022	17,154	-2,192	41,538	56,500	504	57,004

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 19 'Equity'.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Shareholders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2020	17,128	2,342	32,149	51,619	1,022	52,640
Net change in fair value of equity instruments at fair value through other comprehensive income		101	-6	94	2	96
Net change in fair value of debt instruments at fair value through other comprehensive income		-173		-173	-13	-186
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		-40		-40	-1	-42
Changes in cash flow hedge reserve		-1,603		-1,603	-352	-1,955
Realised and unrealised revaluations property in own use		-13	11	-2		-2
Remeasurement of the net defined benefit asset/liability 36		95		95		95
Exchange rate differences and other		153		153	-10	143
Share of other comprehensive income of associates and joint ventures and other income		-21	18	-3		-3
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		37		37		37
Total amount recognised directly in other comprehensive income net of tax		-1,465	23	-1,442	-375	-1,817
Net result		191	5,760	5,951	128	6,079
Total comprehensive income net of tax		-1,274	5,782	4,509	-247	4,262
Dividends and other cash distribution 30			-2,342	-2,342	-40	-2,382
Share buyback programme		-1,604	-140	-1,744		-1,744
Changes in treasury shares		-4		-4		-4
Employee stock option and share plans	16		12	29		29
Balance as at 31 December 2021	17,144	-540	35,462	52,066	736	52,802

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 19 'Equity'.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Shareholders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2019	17,117	4,013	29,866	50,996	893	51,889
Net change in fair value of equity instruments at fair value through other comprehensive income		-399	62	-337	2	-335
Net change in fair value of debt instruments at fair value through other comprehensive income		20		20	5	25
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		242		242	112	355
Realised and unrealised revaluations property in own use		-33	26	-7	0	-7
Remeasurement of the net defined benefit asset/liability 36		28		28		28
Exchange rate differences and other		-1,557		-1,557	-63	-1,620
Share of other comprehensive income of associates and joint ventures and other income		-37	43	6		6
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		-3	-16	-19		-19
Total amount recognised directly in other comprehensive income net of tax		-1,770	114	-1,656	55	-1,601
Net result		94	2,156	2,250	78	2,329
Total comprehensive income net of tax		-1,676	2,271	595	133	728
Dividends 30					-3	-3
Changes in treasury shares		5		5		5
Employee stock option and share plans	11		11	22	0	22
Changes in the composition of the group and other changes					-1	-1
Balance as at 31 December 2020	17,128	2,342	32,149	51,619	1,022	52,640

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 19 'Equity'.

Consolidated statement of cash flows

for the years ended 31 December

in EUR million		2022	2021	2020
Cash flows from operating activities 31				
Result before tax		17,358	8,385	3,399
Adjusted for:	- Depreciation and amortisation	711	834	829
	- Addition to loan loss provisions	1,861	516	2,675
	- Other non-cash items in Result before tax	-6,332	-1,190	1,671
Taxation paid		-1,474	-1,873	-1,734
Changes in:	- Net change in Loans and advances to/from banks, not available/payable on demand	-32,813	8,700	53,078
	- Net change in Trading assets and Trading liabilities	6,486	-5,620	2,566
	- Loans and advances to customers	-19,297	-27,860	2,876
	- Customer deposits	25,057	10,339	39,740
	- Other	-2,671	-7,175	-3,856
Net cash flow from/(used in) operating activities		-11,112	-14,943	101,243
Cash flows from investing activities				
Investments and advances:	- Associates and joint ventures	-48	-91	-24
	- Financial assets at fair value through other comprehensive income	-18,806	-13,186	-16,949
	- Securities at amortised cost	-24,651	-44,945	-37,522
	- Property and equipment	-231	-184	-287
	- Other investments	-198	-179	-300
Disposals and redemptions:				
	- Associates and joint ventures	58	57	24
	- Disposal of subsidiaries, net of cash disposed	7	27	-3
	- Financial assets at fair value through other comprehensive income	14,526	17,750	14,571
	- Securities at amortised cost	23,943	46,933	31,918
	- Property and equipment	83	39	75
	- Loans sold			
	- Other investments	10		12
Net cash flow from/(used in) investing activities		-5,307	6,220	-8,487
Cash flows from financing activities 32				
Proceeds from debt securities		92,707	85,113	65,308
Repayments of debt securities		-82,844	-76,150	-99,212
Proceeds from issuance of subordinated loans		983	3,163	2,165
Repayments of subordinated loans		-1,090	-2,449	-2,786
Repayments of principal portion of lease liabilities		-296	-301	-273
Purchase/sale of treasury shares		-1,717	-1,608	5
Dividends paid		-3,093	-2,382	-3
Other financing			1	-1
Net cash flow from/(used in) financing activities		4,649	5,387	-34,796
Net cash flow		-11,770	-3,335	57,960
Cash and cash equivalents at beginning of year		107,665	111,566	54,031
Effect of exchange rate changes on cash and cash equivalents		-504	-565	-425
Cash and cash equivalents at end of year 33		95,391	107,665	111,566

Consolidated statement of cash flows - continued

As at 31 December 2022, Cash and cash equivalents includes cash and balances with central banks of EUR 87,614 million (2021: EUR 106,520 million; 2020: EUR 111,087 million). 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.

in EUR million	2022	2021	2020
Interest received	28,105	21,496	23,352
Interest paid	-14,193	-8,705	-9,672
	13,911	12,791	13,680
Dividend received ¹	229	172	144
Dividend paid	-3,093	-2,382	-3

1 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.

Dividends received from associates and joint ventures are included in investing activities, interest received, interest paid and other dividends received are included in operating activities and dividend paid is included in financing activities in the Consolidated statement of cash flows.

Notes to the Consolidated financial statements

1 Basis of preparation and significant accounting policies

1.1 Reporting entity and authorisation of the Consolidated financial statements

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 2022, 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.

The ING Group Consolidated financial statements, as at and for the year ended 31 December 2022, were authorised for issue in accordance with a resolution of the Executive Board on 6 March 2023. The Executive Board has the power 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.

1.2 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 and there are no significant doubts about the ability of ING Group to continue as a going concern.

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.

1.2.1 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 'Financial instruments: Disclosures' are included in the '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.

1.2.2 Reconciliation between IFRS-EU and IFRS-IASB

The published 2022 Consolidated financial statements 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. Particularly, it is applied to portfolio-based hedging strategies for retail lending (mortgages) and core deposits. Under the EU IAS 39 carve-out, hedge accounting may be applied, in respect of fair value macro hedges, to core deposits. In addition, and in general to any hedge accounting relationship under the EU IAS 39 carve-out, the hedge effectiveness requirements are less strict than under IFRS-IASB 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.

In 2022, interest yields increased resulting in a positive EU IAS 39 carve out adjustment of EUR 8,451 million (2021: EUR 1,174 million positive). The impact of the adjustment is mainly reflected in line item 'Valuation results and net trading income' in the statement of profit or loss. 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			
in EUR million	2022	2021	2020
In accordance with IFRS-EU (attributable to the shareholders of the parent)	3,674	4,776	2,485
Adjustment of the EU IAS 39 carve-out	11,856	1,603	-410
Tax effect of the adjustment ¹	-3,405	-429	176
Effect of adjustment after tax	8,451	1,174	-234
In accordance with IFRS-IASB (attributable to the shareholders of the parent)	12,126	5,951	2,250

Reconciliation shareholders' equity under IFRS-EU and IFRS-IASB			
in EUR million	2022	2021	2020
In accordance with IFRS-EU (attributable to the shareholders of the parent)	49,909	53,919	54,637
Adjustment of the EU IAS 39 carve-out	9,357	-2,490	-4,081
Tax effect of the adjustment ³	-2,765	637	1,063
Effect of adjustment after tax	6,592	-1,853	-3,018
In accordance with IFRS-IASB Shareholders' equity	56,500	52,066	51,619

³ Includes the effect of changes in tax rate

1.3 Impact of Russian invasion in Ukraine

The war in Ukraine had, besides an immense impact on the lives of millions of people, a negative impact on the global economy. While businesses and households were still recovering from the economic consequences of Covid-19, developments in Ukraine further distorted supply chains, caused higher energy costs and aggravated an already high inflation rate environment. This, in combination with central bank rate hikes, worsened the macroeconomic outlook.

As a result of the economic effects of Russian invasion and second order effects uncertainty and level of management judgement remains at an elevated level in 2022, particularly in the estimation of loan loss provisions (including the need for management adjustments), the determination of fair values and impairment assessment of an investment in an associate.

Reference is made to the notes of the financial statements as well as Risk Management chapter for further information on the impact of the Russian invasion of Ukraine and second order impacts.

1.4 Changes to accounting policies and presentation

ING Group has consistently applied its accounting policies to all periods presented in these Consolidated financial statements.

In 2022, ING Group updated the presentation in note 7 'Loans and advances to customers' to improve consistency and comparability. Comparative figures for 2021 have been updated accordingly.

1.4.1 Changes in IFRS effective in 2022

The following amended standards became effective in 2022:

- Amendments to IFRS 3 'Business Combinations': Reference to the Conceptual Framework (issued in May 2020).
- Amendments to IAS 16 'Property, Plant and Equipment': Proceeds before Intended Use (issued in May 2020).
- Amendments to IAS 37 'Provisions, Contingent Liabilities and Contingent Assets': Onerous Contracts — Cost of Fulfilling a Contract (issued in May 2020).
- Annual improvements to IFRS Standards 2018-2020 Cycle: Amendments to IFRS 1 'First-time Adoption of International Financial Reporting Standards', amendments to IFRS 9 'Financial Instruments' and amendments to IFRS 16 'Leases' (issued in May 2020).

The above changes did not have significant impact on ING Group's Consolidated financial statements. ING Group has not early adopted any standard, interpretation or amendment in 2022 which has been issued, but is not yet effective.

1.4.2 Upcoming changes in IFRS after 2022

The following published amendments are not mandatory for 2022 and have not been early adopted by ING Group.

Effective in 2023:

- IFRS 17 'Insurance Contracts' (issued in May 2017), including amendments to IFRS 17 (issued in June 2020).

IFRS 17 'Insurance Contracts' is a new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, IFRS 17 will replace IFRS 4 'Insurance Contracts', which allowed diversity in accounting practices for insurance contracts. In June 2020, the IASB published amendments to IFRS 17 including a scope exclusion for credit card contracts and similar contracts that provide insurance coverage, and an optional scope exclusion for loans with death waivers. ING Group does not have an insurance business, but on a limited basis sells insurance products as a broker where it does not run the insurance risk. ING Group performed an impact assessment which revealed that a portfolio of loans with death waivers in the Netherlands with a net carrying amount of approximately of EUR 750 million might be in scope of IFRS 17. Following the above mentioned amendments to IFRS 17 in 2020 which allow an accounting policy choice, ING Group intends to account for assets in this portfolio in their entirety, including death waiver features, using IFRS 9 'Financial Instruments' and not IFRS 17. As a result, this portfolio will no longer meet the 'solely payments of principal and interest' (SPPI) criterion, causing the portfolio to no longer be recognised at amortised cost but rather at fair value through profit or loss. This reclassification is not expected to have a material impact on equity or result of ING Group, as the fair value is expected not to differ materially from the current book value. Hence, the financial impact of IFRS 17 on ING Group is expected to be limited.

The following amendments will also be effective in 2023. However, the implementation of these amendments is expected to have no significant impact on ING Group's Consolidated financial statements.

- Amendments to IAS 1 'Presentation of Financial Statements': Disclosure of Accounting Policies (issued in February 2021).
- Amendments to IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors': Definition of Accounting Estimates (issued in February 2021).

- Amendments to IAS 12 'Income Taxes': Deferred Tax Related to Assets and Liabilities Arising From a Single Transaction (issued in May 2021).

Effective in 2024:

- Amendments to IFRS 16 'Leases': Lease Liability in a Sale and Leaseback (issued in September 2022).
- Amendments to IAS 1 'Presentation of Financial Statements': Classification of Liabilities as Current or Non-current (issued in January 2020).

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 or may not change in future periods. These areas are:

- Loan loss provisions (financial assets);
- The determination of the fair values of financial assets and liabilities;
- Impairment assessment of an investment in associate;
- Provisions; and
- Accounting for Targeted Longer-Term Refinancing Operations (TLTRO).

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 1.7 'Financial instruments' (specifically 1.7.8 'Impairment of financial assets', 1.7.3 for 'Fair values of financial assets and liabilities', 1.11 'Investments in associates and joint ventures', 1.18 'Provisions, contingent liabilities and contingent assets' and 1.7.9 'Accounting for Targeted Longer-Term Refinancing Operations (TLTRO)') of this note and the applicable notes to the Consolidated financial statements.

1.6 Other developments

Application of IAS 29 'Financial Reporting in Hyperinflationary Economies'

During the second quarter of 2022 Turkey became a hyperinflationary economy for accounting purposes.

As ING Group has a subsidiary in Turkey, ING Group applied IAS 29 'Financial Reporting in Hyperinflationary Economies' to its operations as if the economy in Turkey had always been hyperinflationary. Given that ING Group presents its results in EUR, comparatives were not restated and IAS 29 was applied from 1 January 2022 with the impact of the first-time application and the effect for the period both shown in these Consolidated financial statements for the year ended 31 December 2022.

Under IAS 29, the results of the operations in Turkey should be stated in terms of the current purchasing power at the reporting date. For that, the consumer price index (CPI) as determined by the Turkish Statistical Institute was used.

The development of the CPI during the year ended 31 December 2022 was as follows (2003=100):

1 January 2022	686.95
31 December 2022	1,128.45
Change for the period	64.27 %

To state all the items in the financial statements in terms of their current purchasing power at the reporting date, ING Group restated the non-monetary items of ING Turkey (such as properties and equipment, intangibles, right-of use assets and shareholder's equity) for the changes in CPI up to the reporting date. Monetary items (such as cash and balances with banks, loans and advances and deposits) are not restated as they are already expressed in the current purchasing power. Furthermore, all items in the statement of comprehensive income were also restated for the effects of inflation based on the developments in CPI during the 12 month period to reflect the purchasing power as at 31 December 2022.

The effect of such restatement of the statement of comprehensive income and the balance sheet for inflation in the current period has been recognised in the statement of profit or loss within 'Other net income' as a 'Net monetary gain or loss'. The net monetary loss for the period represents the loss of purchasing power by the net monetary position (monetary assets exceeding monetary liabilities) of ING Turkey.

After the application of the above restatement procedures in Turkish Lira under IAS 29, the financial position and the results for the period of ING Turkey are translated and presented in EUR at the exchange rate on 31 December 2022. For the statement of comprehensive income this is in contrast with the usual translation procedures where items of comprehensive income are translated at the exchange rate at the date of transaction. Furthermore, ING Group selected to present both the restatement effect resulting from restating ING Group's interest in the equity of ING Turkey as required by IAS 29; and the translation effect from translating at a closing rate that differs from the previous closing rate, in the Currency translation reserve.

Refer to Note 19 'Equity' for the impact of applying IAS 29 during the year ended 31 December 2022.

1.7 Financial instruments

ING Group applies IFRS 9 'Financial Instruments' to the recognition, classification and measurement, and derecognition of financial assets and financial liabilities and the impairment of financial assets. The Group applies the requirements of IAS 39 'Financial Instruments: Recognition and Measurement' for hedge accounting purposes.

1.7.1 Recognition and derecognition of financial instruments

Recognition of financial assets

Financial assets are recognised in the balance sheet when ING Group 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 the rights to receive the cash flows from the financial asset or assumed an obligation to pass on the cash flows and has transferred substantially all the risks and rewards of the asset. 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 derecognised 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.

1.7.2 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 for other basic lending risks such as 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.

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 Effective Interest Rate (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 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 net 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 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 instruments if, and only if, its business model for managing those financial 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. However, the cumulative gain or loss is transferred within equity to retained earnings on derecognition of such equity instruments. 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 '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 'Financial instruments' (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 'Revenue from contracts with customers'.

1.7.3 Fair values of financial assets and liabilities

All financial assets and liabilities are recognised initially at fair value. The fair value of a financial instrument on initial recognition is generally its transaction price (that is, the fair value of the consideration given or received). However, if there is a material difference between the transaction price and the fair value of financial instruments whose fair value is based on a valuation technique using significant unobservable inputs, the entire day one difference (a 'Day One Profit or Loss') is deferred. ING Group defers the Day One Profit or Loss relating to financial instruments classified as Level 3 and financial instruments with material unobservable inputs into CVA which are not necessarily classified as Level 3. The deferred Day One Profit or Loss is recognised in the statement of profit or loss over the life of the transaction until the transaction matures, or until the significant unobservable inputs become observable, or until the significant unobservable inputs become non-significant. In all other cases, ING Group recognises the difference as a gain or loss at inception.

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 Group 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 Group applies both Credit and Debit Valuation Adjustments (CVA, DVA, also known as Bilateral Valuation Adjustments or BVA). Own issued debt and structured notes that are designated at FVPL are adjusted for ING Group's own credit risk by means of a DVA. Additionally, derivatives valued at fair value are adjusted for credit risk by a BVA. The BVA is of a bilateral nature as both the credit risk on the counterparty (CVA) as well as the credit risk on ING Group (DVA) are included in the adjustment. All input data that is used in the determination of the BVA 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.

To include the funding risk, ING Group applies an additional 'Funding Valuation Adjustment' (FVA) to the uncollateralised derivatives based on the market price of funding liquidity. ING Group also applies to certain positions other valuation adjustments to arrive at the fair value: Bid-Offer adjustments, Model Risk Adjustments and Collateral Valuation Adjustments (CollVA).

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 minimise the potential risks of economic losses due to incorrect or misused models.
- Assessing whether a market is active, and whether an input is observable and significant, requires judgement. ING Group categorises 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 observability and significance of the valuation inputs. The use of different approaches to assess whether a market is active, whether an input is observable, and whether an unobservable input is significant could produce different classification within the fair value hierarchy as well as potentially different deferral of the Day One Profit or Loss.
- Reference is made to Note 38 'Fair value of assets and liabilities' and to the '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.

1.7.4 Derivatives and hedge accounting

IFRS 9 includes an accounting policy choice to defer the adoption of IFRS 9 hedge accounting and to continue with hedge accounting under IAS 39. ING Group decided to exercise this accounting policy choice and did not adopt IFRS 9 hedge accounting as of 1 January 2018.

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 Group'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:

1. the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract;
2. a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
3. 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. ING 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. ING 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.

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.

IBOR Transition - specific policies applicable from 1 January 2019 for hedges directly affected by IBOR reform

As further explained in the 'IBOR Transition' paragraph of the 'Risk management' section, the financial markets are going through a significant reform of interbank offered rates (IBOR) and financial institutions are obligated to implement a replacement of major interest rate reference rates.

Given that IBOR reform may have various accounting implications, the International Accounting Standards Board (IASB) has undertaken a two phase project. Phase 1 addresses those issues that affect financial reporting before the replacement of an existing benchmark. Phase 1 amendments to IFRS were issued by the IASB in 2019. Phase 2 focuses on issues that may affect financial reporting when the existing benchmark rate is reformed or replaced. Phase 2 amendments to IFRS were issued by the IASB in 2020.

Phase 1 amendments to IFRS allow ING Group to apply a set of temporary exceptions to continue hedge accounting even when there is uncertainty about contractual cash flows arising from the reform. Under these temporary exceptions, interbank offered rates are assumed to continue unaltered for the purposes of hedge accounting until such time as the uncertainty is resolved.

More specifically, the following temporary reliefs are part of the Phase 1 amendments:

- 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.

The amendments are relevant given that ING Group hedges and applies hedge accounting to benchmark interest rate exposure part of IBOR reform. ING Group hedges are being progressively amended, where necessary, to incorporate the new benchmark rates. Temporary exceptions under Phase 1 continued to be relevant for ING Group as at 31 December 2022 (for USD and WIBOR).

ING Group will completely cease to apply the amendments when this uncertainty is no longer present or when the hedging relationship is discontinued. Refer to Note 39 'Derivatives and hedge accounting' for the disclosures relating to the application of the amendments as part of Phase 1. Refer to note 'Risk management/ IBOR Transition' for more information regarding the end of Phase 1 reliefs for ING Group's hedging relationships.

Phase 2 amendments require that hedge accounting continues on transition to risk free rates provided that the modifications made to financial instruments are those necessary to implement the IBOR Reform and that the new basis for calculating cash flows is 'economically equivalent' to the previous basis. Particularly, Phase 2 amendments allow the continuation of hedging relationships, subject to amending their documentation to reflect changes in hedged instruments, hedging instruments, hedged risk, and/or the method for measuring effectiveness during the transition to the new benchmark rates. During 2022, Phase 2 continued to be relevant for ING Group when ING actually transitioned its financial instruments (designated in hedge accounting relationships) to the new benchmark rates (mainly, USD LIBOR).

More specifically, the following temporary reliefs are part of the Phase 2 amendments:

Relief from discontinuing hedging relationships

- Amendments in the hedge documentation as a consequence of changes required by the IBOR reform do not result in the discontinuation of the hedge relationship nor the designation of a new hedge relationship. The changes can be in form of designating an alternative benchmark rate as a hedged risk, the description of the hedging instrument, the description of the hedged item, or the method to measure the effectiveness.
- When the hedged item is amended as a consequence of the IBOR reform (or if the hedge has previously been discontinued), amounts accumulated in the cash flow hedge reserve are deemed to be based on the Risk-Free Rate (RFR). This results in the release of the cash flow hedge reserve to profit or loss in the same period or periods in which the hedged cash flows that are now based on the RFR affect profit or loss.
- When the items within a designated group of hedged items are amended as a consequence of the IBOR reform, the hedging strategy remains and is not discontinued. As items within the hedged group transition at different times from IBORs to RFRs, they are transferred to sub-groups of instruments that reference RFRs as the hedged risk. The existing IBORs remain designated as the hedged risk for the other sub-group of hedged items, until they are also updated to reference the new RFR. The usual hedge accounting requirements are applied to the hedge relationship in its entirety.
- For the assessment of retrospective hedge effectiveness, the cumulative fair value changes may be reset to zero when the exception to the retrospective assessment of the Phase 1 reliefs ends. This election is made separately for each hedging relationship (i.e., on a hedge-by-hedge basis).
- Temporary relief from having to meet the separately identifiable requirement: a RFR is considered a separately identifiable risk component if it is reasonably expected to meet the separately identifiable requirement within 24 months from the date it is first designated as a non-contractually specified risk component (i.e. when the entity first designates the RFR as a non-contractually specified risk component). This relief applies to each RFR on a rate-by-rate basis.

Non-trading derivatives that do not qualify for hedge accounting

Derivative instruments that are used by ING 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.

1.7.5 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset, and the net amount is reported in the statement of financial position when ING 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.

1.7.6 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.

1.7.7 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 44 '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.

1.7.8 Impairment of financial assets

An Expected Credit Loss (ECL) model is applied to financial assets accounted for at AC or FVOCI such as loans, debt securities and lease receivables, as well as off-balance sheet items such as undrawn loan commitments, certain financial guarantees issued, and undrawn committed revolving credit facilities. Under the ECL model, ING Group calculates the expected credit losses (ECL) by considering on a discounted basis the cash shortfall it would incur in case of a default and multiplying the shortfall by the probability of a default occurring. The ECL is the sum of the probability-weighted outcomes. The ECL estimates are unbiased

and include reasonable and supportable information about past events, current conditions, and forecasts of future economic conditions. ING Group's approach leverages the Advanced Internal Ratings Based (AIRB) models that are used for regulatory purposes. Adjustments are applied to make these models suitable for determining ECL. ECL is recognised on the balance sheet as loan loss provisions (LLP).

Three stage approach

Financial assets are classified in one of the below three 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
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 ECL is determined by the probability that a default occurs in the next 12 months (12 months ECL);
- Stage 2
Financial assets showing a significant increase in credit risk since initial recognition. For assets in Stage 2 ECL reflects an estimate on the credit losses over the remaining maturity of the asset (lifetime ECL); or
- Stage 3
Financial assets that are credit-impaired. Also for these assets ECL is determined over the remaining maturity of the asset.

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 Stage for each financial asset.

The main determinate of SICR is a quantitative test, whereby the lifetime Probability of Default (PD) of an asset at each reporting date is compared against its lifetime PD determined at the date of initial recognition. If the delta is above pre-defined absolute or relative thresholds the item is considered to have experienced a SICR. Furthermore, any facility which shows an increase of 200% between the PD at the date of initial recognition and the lifetime PD at the reporting date (i.e. threefold increase in PD) must be classified as Stage 2. This is considered a backstop within the quantitative assessment of SICR. Refer to 'Criteria for identifying a significant increase in credit risk' in the 'Risk Management' section of the Annual Report for more details on relative and absolute PD thresholds, including quantitative disclosures on those thresholds.

Consequently, if the above quantitative SICR thresholds are exceeded, the item moves from Stage 1 to Stage 2 (unless the item is credit-impaired). In these instances, items are no longer assigned a 12 month ECL and instead are assigned a lifetime ECL. Items can return to Stage 1 if there is sufficient evidence that there is no longer a significant increase in credit risk.

ING Group also relies on a number of qualitative indicators to identify and assess SICR. These include:

- Forbearance status;
- Watch List status;
- Intensive care management;
- Collective SICR assessment;
- Substandard Internal rating; and
- Arrears status (including 30 days past due used as a backstop).

An asset that is in Stage 2 will move back to Stage 1 when none of the above criteria are in place anymore. However, if the asset was moved to Stage 2 based on the forbearance status, then the asset stays in Stage 2 for at least 24 months. If the asset was classified as Stage 2 due to 30 days past due trigger, then the asset is moved back to Stage 1 only after three months from when the trigger no longer applies.

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. The definition of credit-impaired under IFRS 9 (Stage 3) is aligned with the definition of default used by ING Group for internal risk management purposes, which is also the definition used for regulatory purposes.

An asset (other than a POCI 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 subject to certain probation periods. 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.

Macroeconomic scenarios

ING Group has established a quarterly process whereby forward-looking macroeconomics scenarios and probability weightings are developed for the purpose of ECL. ING Group applies data predominantly from a leading service provider (Oxford Economics (OE)) 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 Stage 1, Stage 2, and certain Stage 3 assets. Other credit-impaired assets subject to ECL measurement apply the individual assessment method.

Collectively assessed assets (Stages 1 to 3)

For collectively assessed assets, ING Group applies a model-based approach. ECL is determined by, expressed simplistically, multiplying the probability of default (PD) with the loss given default (LGD) and exposure at default (EAD), 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 and the loss in case the debtor is not able to pay all amounts due.

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.

For the purpose of ECL, ING Group's expected credit loss models (PD, LGD, EAD) used for regulatory purposes have been adjusted. These adjustments include removing embedded prudential conservatism (such as floors) and converted through-the-cycle estimates to point-in-time estimates. 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 ECL for individually significant credit-impaired financial assets within Stage 3 on an individual basis. ECL for these Individually assessed assets are determined 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 includes 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 taking into account ING Group'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 arise from, among others, repayment of the loan, collateral recovery and the sale of the asset. Cash flows from collateral and other credit enhancements are included in the measurement of ECL 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 asset-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 is no longer recognised based on the accrual 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 ECL 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 Group grants borrowers postponement, reduction of loan principal and/or interest payments on a temporary period of time to maximise collection opportunities, and if possible, avoid default, foreclosure, or repossession. When such postponement, 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, reduction of loan principal and/or interest payments is taken into account in the determination of the appropriate level of ECL. 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 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

Loans and debt securities are written off (either partially or in full) when there is no reasonable expectation of recovery and/or collectability of amounts due. 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;
- Specific fraud cases with no recourse options.

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 'Addition to loan loss provisions' in the Consolidated 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 Group 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 Group ends the relationship with the client and situations where ING Group (partially) continues the financing of the client.

Presentation of ECL

ECL for financial assets measured at AC are deducted from the gross carrying amount of the assets. For debt instruments at FVOCI, the ECL is recognised in OCI, instead of deducted the carrying amount of the asset. 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 ECL 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 ECL for financial assets assessed on both a collective and an individual basis. In particular, this judgement requires ING Group to make various assumptions about the risk of default, the credit loss rates in case of a default and expected future cash flows. These assumptions are based on a combination of ING 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 ECL over time. Given they are subjective and complex in nature, and because the ECL and the underlying exposures subject to ECL 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 use of forward-looking macroeconomic scenarios in both collective and individual impairment assessments

Forward-looking macroeconomic scenarios are uncertain in nature. The process ING Group follows involves two internal groups, the Macroeconomics Scenarios Team and the Macroeconomics Scenarios Expert Panel. The latter team consists of senior management representatives from the Business, Risk and Finance. These groups review inputs obtained from a third party provider and subject these to internal expert challenge to ensure the inputs used in the models reflect ING Group's view on the macro economy. 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

ING Group uses three macroeconomic scenarios when determining IFRS 9 ECL (baseline, upside and downside). Management judgement is applied in the design of the approach used to determine the weights of each scenario and in selecting the parts of the distribution of forecast errors from which the weights are derived. Reference is made to the 'Alternative scenarios and probability weights' and the sensitivity analysis in the 'Risk Management' section of the Annual Report for further details.

- 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 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 a PD rating to each financial asset, 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 in assigning financial asset PDs and the 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 that larger exposures are credit-impaired. Management judgement is required in assessing evidence of credit-impairment.

- **Management adjustments applied as at 31 December 2022**

To reflect the risks that are not properly captured by the ECL models, a number of management adjustments to the model-based ECL were necessary as at 31 December 2022. Reference is made to the 'Management adjustments applied this year' paragraph in the 'Risk management' section of the Annual Report.

1.7.9 Accounting for Targeted Longer-Term Refinancing Operations (TLTRO)

ING Group participates in Targeted Longer-Term Refinancing Operations (TLTRO III), reference is made to Note 12 'Deposits from banks'.

ING Group considers TLTRO funding provided by the ECB to banks to be on market terms on the basis that the ECB has established a separate market with TLTRO programmes. They have specific terms which are different from other sources of funding available to banks, including those provided by the ECB. Consequently, the rate under TLTRO is considered to be a market conforming rate and TLTRO funding is recognized fully as a financial liability.

ING Group interprets the whole rate set by the ECB under TLTRO as a floating rate on the financial liability, being the market rate for each specific period in time. This results in discrete rates for discrete interest periods over the life of TLTRO. The change in the applicable rate between interest periods is seen as a change in the floating rate and is accounted for prospectively. Similarly, if the ECB announces changes in the rate for the amounts already drawn under the existing TLTRO, then such changes also represent a change in a floating rate. Following this, such changes lead to the recognition of an increased/decreased interest in the relevant period of life of the exposure, rather than by the recognition of an immediate modification gain or loss at the moment of the change of terms by the ECB. If the change relates to the periods already passed, the impact for those past periods is recognised in profit or loss immediately.

Furthermore, the change in the TLTRO rate driven by changes in expectations of meeting the targets impacts interest income. As a result, interest income which relates to the period that already passed until the moment when the change in expectations occurs, is recognised as a catch up adjustment in

Consolidated statement of profit or loss. This change occurs only when ING Group has a reasonable expectation that the lending targets will be met.

ING Group views 'reasonable expectation' in case of TLTRO funding as a high hurdle. This is the moment when it becomes highly probable, i.e. the probability of meeting the lending targets is substantially greater than the probability that it will not. As a result, if interest income is recognised during the period based on the expectation of meeting the targets, there should only be a limited possibility that the interest may need to be reversed in future reporting periods.

Reference is made to note 12 'Deposits from banks' and to note 20 'Net interest income' for the presentation of ING Group's participation in TLTRO programmes.

Significant judgements:

Significant management judgement is exercised in determining the accounting treatment of TLTRO transactions. In particular, ING Group applied judgement in:

- assessing and concluding that in ING Group's view the rate under TLTRO is considered to be a market conforming rate and, hence, accounting for TLTRO in accordance with IFRS 9; and
- selecting accounting policies regarding the calculation of the effective interest rate under TLTRO. Treatment of changes in expectations of meeting the lending targets was an area of significant judgment in the comparative periods but no longer relevant in 2022.

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 to or has rights to variable returns and has the ability to affect those returns through the power over the subsidiary. 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 ING 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 47 'Principal subsidiaries' and a description of ING's activities involving structured entities is included in Note 48 'Structured entities'.

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. Certain Group companies are also subject to other restrictions in certain countries, in addition to the restrictions on the amount of funds that may be transferred 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 ING 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 ING Group engaged in providing products or services within a particular economic environment that is subject to risks and returns that differ 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. 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 ING 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 ING 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 the fair value is determined. Exchange rate differences on non-monetary items measured at fair value through other comprehensive income are included in other comprehensive income and get accumulated 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 22 '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 19 '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 are translated at the closing rate at the date of the statement of financial position;
- Income and expenses 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). However, under hyperinflation accounting, income and expenses of ING Turkey are translated at the closing rate; 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 ING 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 ING 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.

ING Group's investment in associates and joint ventures (net of any accumulated impairment loss) includes goodwill identified on acquisition. ING 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 ING 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, ING 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 ING Group and its associates and joint ventures are eliminated to the extent of ING 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 ING Group.

The recoverable amount, being the higher of fair value less cost of disposal and value in use, of the investment in associate and joint venture is determined when there is an indication of potential (reversal of) impairment. An impairment loss is recognised when the carrying amount of the investment exceeds its recoverable amount. Goodwill on acquisitions of interests in associates and joint ventures is not tested separately for impairment, but is assessed as part of the carrying amount of the investment. An impairment loss is subsequently reversed if there is indication of a reversal and there is a change in the estimates used to determine the recoverable amount. An impairment loss is reversed to the extent that the recoverable amount exceeds its carrying amount, but cannot exceed the original impairment loss.

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..

Significant judgements and critical accounting estimates and assumptions:

The most significant estimates and assumptions relate to the assessment of (reversal of) impairment of the investment in TMBThanachart Bank Public Company Limited (hereafter: TTB) which involves estimation of value in use.

Management's best estimate of the expected future earnings of TTB is based on forecasts derived from broker consensus over the short to medium term and reasonable and supportable assumptions capturing a combination of TTB specific and market data points for longer term and steady state expectations into perpetuity. A capital maintenance charge is applied, which is management's forecast of the earnings that need to be withheld in order for TTB to meet target regulatory requirements over the forecast period. Both of these factors are subject to a high degree of uncertainty.

Key assumptions used in estimating TTB's value in use and the sensitivity of the value in use calculations to different assumptions are described in note 8 'Investments in associates and joint ventures'.

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.

In principle, the fair values of land and buildings are appraised annually by independent qualified valuers. 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 ING 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 years to five years, and four years 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 net income.

Right-of-use assets

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). Reference is made to the 'Risk management' section of the Annual Report.

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 to note 16 'Other liabilities'.

Subsequent to initial recognition, the right-of-use asset amortises using a straight-line method to the income statement over the life of the lease. The lease liability increases 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 results in a corresponding adjustment to the carrying amount of the right-of-use asset.

1.13 ING Group as 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 and are therefore not included in 'Property and equipment'. Instead, 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.

1.14 Acquisitions, goodwill and other intangible assets

Goodwill resulting from a business combination

ING Group's business combinations are accounted for using the acquisition method of accounting. The consideration for each business combination 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 investee's identifiable 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 business combination 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 are 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.

Impairment of goodwill and other non-financial assets

ING Group assesses at each reporting period, whether there is an indication that a non-financial 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 cash generating units (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 on a basis that is consistent with the way in which the recoverable amount of the CGU is determined. The recoverable amount is estimated as the higher of fair value less costs of disposal and value in use. Impairment of goodwill, if applicable, is included in the statement of profit or loss in Other operating expenses and is not subsequently reversed.

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 five years and ten years.

1.15 Taxation

Income tax on the result for the year consists of 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, for temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the Consolidated statement of financial position. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted at 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 when it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax is provided for temporary differences arising from investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by ING 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 remeasurements 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.

1.16 Other assets

Investment property

Investment properties are recognised at fair value at the balance sheet date. The fair values of investment properties are appraised annually by independent qualified valuers. 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.

1.17 Disposal groups held for sale and discontinued operations

Disposal groups (and 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 non-current assets) is available for immediate sale in its present condition; including 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 'Non-current Assets Held for Sale and Discontinued Operations'. 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 net income/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'.

1.18 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 ING Group is demonstrably committed to either terminate 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 governmental, regulatory, arbitration and legal proceedings and investigations and may be subject to third party claims. With or without reference to the above, ING Group may also offer compensation to certain of its customers. Judgement is required to assess whether a present obligation exists and to estimate the probability of an unfavourable outcome and the amount of potential loss. The degree of uncertainty and the method of making the accounting estimate depends on the individual case, its nature and complexity. Such cases are usually one of a kind. For the assessment of related provisions ING Group consults with internal and external legal experts. Even taking into consideration legal experts' advice, the probability of an outflow of economic benefits can still be uncertain and the provision recognised can remain sensitive to the assumptions used. Reference is made to Note 15 'Provisions'. For 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, where relevant. Reference is made to Note 45 '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 15 'Provisions'.

1.19 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.

The defined benefit obligation is calculated by internal and external independent qualified 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 effect Shareholders' equity and/or Net result, include mainly:

- Service cost which is 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, ING Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. ING 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 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.

1.20 Treasury shares

Treasury shares (own equity instruments bought back by ING Group or its subsidiaries) are deducted from Equity (Other reserves). No gain or loss is recognised in the statement of profit or loss when purchasing, selling or cancelling these shares. Treasury shares are not taken into account when calculating earnings per ordinary share or dividend per ordinary share as they are not considered to be outstanding.

Treasury shares can be purchased by ING as part of a share buyback programme. If a share buyback is executed by a broker and the agreement with the broker is irrevocable, ING has a contractual obligation to purchase its own shares that is unavoidable once it signs the agreement with the broker. This is the moment when ING recognises a financial liability measured at the present value of the redemption amount with a corresponding reduction in equity (Retained earnings). During the share buyback programme, ING settles this liability for the actual purchase price paid for the shares bought on a daily basis. Actual shares bought back and held by ING are presented as Treasury shares within Other reserves in equity.

1.21 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, ING 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 performance obligation has been satisfied based on the particular contract and ING 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 based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease.

1.22 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

ING Group only engages in share-based payment transactions with its staff and directors. 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.

1.23 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.

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.

1.24 Statement of cash flows

The statement of cash flows is prepared in accordance with the indirect method, distinguishing 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, lease liabilities and subordinated loans.

1.25 Parent company accounts

The condensed parent company financial statements of ING Groep N.V. are prepared using the recognition and measurement principles as those applied in the Consolidated financial statements.

Notes to the Consolidated statement of financial position

2 Cash and balances with central banks

Cash and balances with central banks		
in EUR million	2022	2021
Amounts held at central banks ¹	85,934	104,870
Cash and bank balances	1,681	1,650
	87,614	106,520

1 Amounts held at central banks include an amount of EUR -12 million (2021: EUR -6 million) of Loan loss provisions.

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 'Transfer of financial assets, assets pledged and received as collateral' for restrictions on amounts held at central banks.

3 Loans and advances to banks

Loans and advances to banks						
in EUR million	Netherlands		Rest of the world		Total	
	2022	2021	2022	2021	2022	2021
Loans and advances to banks	23,463	7,019	11,679	16,595	35,141	23,614
Loan loss provisions	-12	-10	-26	-13	-37	-22
	23,451	7,010	11,653	16,582	35,104	23,592

Loans include balances (mainly reverse repos) with central banks amounting to EUR 19,395 million (2021: EUR 3,403 million). Reference is made to Note 7 'Loans and advances to customers' for information on finance lease receivables included in Loans and advances to banks.

As at 31 December 2022 and at 31 December 2021, 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		
in EUR million	2022	2021
Trading assets	56,870	51,381
Non-trading derivatives	3,893	1,536
Designated at fair value through profit or loss	6,159	6,355
Mandatorily measured at fair value through profit or loss	46,844	42,684
	113,766	101,956

(Reverse) repurchase transactions

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. For repurchase agreements the gross amount of assets must be considered together with the gross amount of related 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.

ING Group's exposure to (reverse) repurchase transactions is included in the following lines in the statement of financial position:

Exposure to (reverse) repurchase agreements		
in EUR million	2022	2021
Reverse repurchase transactions		
Loans and advances to banks	19,395	3,403
Loans and advances to customers	1,306	71
Trading assets, loans and receivables	9,732	8,026
Loans and receivables mandatorily measured at fair value through profit or loss	43,153	39,823
	73,587	51,322
Repurchase transactions		
Deposits from banks	3,809	4,138
Trading liabilities, funds on deposit	5,715	7,127
Funds entrusted designated and measured at fair value through profit or loss	43,131	34,608
	52,654	45,873

Securities purchased under agreements to resell (reverse repos), securities borrowings and similar agreements are not recognised in the consolidated statement of financial position. Based on the business model assessment and counterparty, 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.

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, or Trading, as appropriate.

Reference is made to Note 42 'Transfer of financial assets, assets pledged and received as collateral' for information on transferred assets which were not derecognised.

Trading assets

Trading assets by type		
in EUR million	2022	2021
Equity securities	11,737	17,566
Debt securities	4,189	5,319
Derivatives	30,841	19,764
Loans and receivables	10,103	8,733
	56,870	51,381

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).

Reference is made to Note 14 'Financial liabilities at fair value through profit or loss' for information on trading liabilities.

Non-trading derivatives

Non-trading derivatives by type		
in EUR million	2022	2021
Derivatives used in		
- fair value hedges	836	365
- cash flow hedges	814	300
- hedges of net investments in foreign operations	119	18
Other non-trading derivatives	2,124	852
	3,893	1,536

Reference is made to Note 39 'Derivatives and hedge accounting' for information on derivatives designated 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		
in EUR million	2022	2021
Debt securities	5,437	5,870
Loans and receivables	722	485
	6,159	6,355

'Financial assets designated at fair value through profit or loss' is partly economically hedged by credit derivatives. The hedges do not meet the criteria for hedge accounting and the loans and debt securities are recorded at fair value to avoid an accounting mismatch. The maximum credit exposure of the loans and receivables and debt securities included in 'Financial assets designated at fair value through profit or loss' approximates its carrying value and amounts to EUR 6,159 million (2021: EUR 6,355 million). The cumulative

change in fair value of the loans and debt securities attributable to changes in credit risk is EUR 357 million (2021: EUR 101 million).

The notional value of the related credit derivatives is EUR 3,370 million (2021: EUR 2,640 million). The cumulative change in fair value of the credit derivatives attributable to changes in credit risk since the financial assets were first designated, amounts to EUR 3 million (2021: EUR -69 million) and the change for the current year is EUR 72 million (2021: EUR -53 million).

The changes in fair value attributable to changes in credit risk have been calculated by determining the changes in credit spread implicit in the fair value of loans and 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		
in EUR million	2022	2021
Equity securities	203	161
Debt securities	821	787
Loans and receivables	45,820	41,735
	46,844	42,684

Equity securities are individually insignificant for ING Group. For debt securities total exposure reference is made to Note 6 'Securities at amortised cost'. Loans and receivables include mainly reverse repurchase agreements.

5 Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income by type		
in EUR million	2022	2021
Equity securities	1,887	2,457
Debt securities ¹	29,095	27,340
Loans and advances ¹	643	838
	31,625	30,635

¹ Debt securities include an amount of EUR -21 million (2021: EUR -12 million) and the Loans and advances includes EUR -1 million (2021: EUR -1 million) of Loan loss provisions.

Exposure to equity securities

Equity securities designated as at fair value through other comprehensive income

	Carrying value	Carrying value	Dividend income	Dividend income
in EUR million	2022	2021	2022	2021
Investment in Bank of Beijing	1,614	1,700	111	97
Other Investments	273	757	38	25
	1,887	2,457	149	122

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 2022 ING holds approximately 13% (2021:13%) of the shares of Bank of Beijing, a bank listed on the stock exchange of Shanghai. As per 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 2022 (2021: nil).

Changes in fair value through other comprehensive income

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

in EUR million	FVOCI equity securities		FVOCI debt instruments ¹			Total
	2022	2021	2022	2021	2022	2021
Opening balance	2,457	1,862	28,178	34,033	30,635	35,895
Additions	17	518	18,789	12,669	18,806	13,186
Amortisation			-18	-46	-18	-46
Transfers and reclassifications	10	-7			10	-7
Changes in unrealised revaluations ²	-65	-88	-3,230	-1,209	-3,295	-1,296
Impairments				-5		-5
Reversals of impairments			3	4	3	4
Disposals and redemptions	-492	-19	-14,034	-17,730	-14,526	-17,750
Exchange rate differences	-39	191	49	460	10	651
Changes in the composition of the group and other changes			1	2	1	2
Closing balance	1,887	2,457	29,739	28,178	31,625	30,635

¹ Fair value through other comprehensive income debt instruments includes both debt securities and loans and advances.

² Changes in unrealised revaluations of FVOCI debt instruments include changes on hedged items which are recognized in the statement of profit or loss. Reference is made to Note 19 'Equity' for details on the changes in revaluation reserve.

FVOCI equity securities

In 2022, disposals of EUR 492 million mainly relate to the sale in the second quarter of HQLA eligible equity instruments triggered by the changing interest rate environment and deteriorating market sentiment. This portfolio was built up in early 2021 (additions in 2021: EUR 499 million) and was a relatively small part of the HQLA portfolio. This was a diversified buy-and-hold portfolio aimed at generating stable dividend income stream.

In 2022, exchange rate differences of EUR -39 million are mainly related to the stake in Bank of Beijing following the depreciation of CNY vs EUR. Furthermore, changes in unrealised revaluations of equity securities are mainly related to negative revaluation of the stake in Bank of Beijing following a decline in share price (EUR -49 million).

FVOCI debt instruments

In 2022, changes in unrealised revaluations of EUR -3,230 million relate to increased yield curves.

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 financial position:

Exposure to debt securities		
in EUR million	2022	2021
Debt securities at fair value through other comprehensive income	29,095	27,340
Debt securities at amortised cost	48,160	48,319
Debt securities at fair value through other comprehensive income and amortised cost	77,255	75,659
Trading assets	4,189	5,319
Debt securities at fair value through profit or loss ¹	6,258	6,658
Total debt securities at fair value through profit or loss	10,447	11,976
	87,703	87,635

ING Group's total exposure to debt securities (excluding debt securities held in the trading portfolio) of EUR 83,513 million (31 December 2021: EUR 82,316 million) is specified as follows:

Debt securities by type of exposure								
in EUR million	Debt Securities at FVPL		Debt Securities at FVOCI		Debt Securities at AC		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Government bonds	63	48	16,016	16,271	24,629	26,588	40,708	42,908
Sub-sovereign, Supranationals and Agencies	2,343	3,115	8,529	7,587	14,210	13,752	25,082	24,454
Covered bonds			2,663	1,729	5,543	5,063	8,206	6,792
Corporate bonds	857	778	108	156	26	90	991	1,024
Financial institutions' bonds	2,237	1,993	772	798	2,551	1,932	5,561	4,724
ABS portfolio	758	723	1,028	810	1,217	913	3,003	2,445
	6,258	6,658	29,116	27,352	48,177	48,338	83,551	82,347
Loan loss provisions			-21	-12	-17	-19	-39	-31
Debt securities portfolio	6,258	6,658	29,095	27,340	48,160	48,319	83,513	82,316

7 Loans and advances to customers

Loans and advances to customers by type ¹						
in EUR million	Netherlands		Rest of the world		Total	
	2022	2021	2022	2021	2022	2021
Loans to public authorities	837	1,153	11,840	9,672	12,677	10,824
Residential mortgages	110,017	108,466	212,833	202,961	322,850	311,427
Other personal lending	5,835	6,551	30,345	31,511	36,180	38,063
Corporate Lending	68,077	68,062	211,092	202,020	279,169	270,082
	184,766	184,232	466,111	446,164	650,876	630,396
Loan loss provisions	-993	-1,119	-4,990	-4,156	-5,984	-5,274
	183,772	183,113	461,120	442,009	644,893	625,122

¹ 2021 presentation has been updated to improve consistency and comparability

For details on credit quality and loan loss provisioning, refer to 'Risk management – Credit risk' paragraphs 'Credit quality' and 'Loan loss provisioning'.

As at 31 December 2022 EUR 644,697 million (2021: EUR 624,962 million) of loans and advances to customers are non-subordinated.

No individual loan or advance has terms and conditions that significantly affect the amount, timing or certainty of the consolidated cash flows of ING Group.

Loans and advances to customers and to banks include finance lease receivables and are detailed as follows:

Finance lease receivables ¹

in EUR million	2022	2021
Maturities of gross investment in finance lease receivables		
- within 1 year	3,452	3,204
- between 1-2 years	2,463	2,311
- between 2-3 years	1,870	1,716
- between 3-4 years	1,294	1,178
- between 4-5 years	747	734
- more than 5 years	1,423	1,495
	11,251	10,637
Unearned future finance income on finance leases	-792	-525
Net investment in finance leases	10,459	10,112
Included in Loans and advances to banks	6	5
Included in Loans and advances to customers	10,453	10,106
	10,459	10,112

¹ The total loan loss provision of EUR 160 million (2021: EUR 167 million) for finance lease receivables is classified into the following loan loss provision stages: Stage 1: EUR 9 million (2021: EUR 8 million), Stage 2: EUR 28 million (2021: EUR 30 million) and Stage 3: EUR 123 million (2021: EUR 129 million).

The finance lease receivables mainly relate to the financing of equipment and are mainly part of corporate lending. To a lesser extent, the finance lease receivables relate to real estate for third parties, where ING is the lessor. Interest income in 2022 on finance lease receivables amounts to EUR 292 million (2021: EUR 217 million).

8 Investment in associates and joint ventures

Investments in associates and joint ventures

in EUR million 2022	Interest held (%)	Fair value of listed investments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMBThanachart Bank Public Company Limited	23%	849	1,109	49,506	43,677	1,303	957
Other investments in associates and joint ventures			391				
			1,500				

Investments in associates and joint ventures

in EUR million 2021	Interest held (%)	Fair value of listed investments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMBThanachart Bank Public Company Limited	23%	866	1,208	46,478	40,957	1,286	1,038
Other investments in associates and joint ventures			379				
			1,587				

TMBThanachart Bank Public Company Limited

ING Group has a 23% investment in TMBThanachart Bank Public Company Limited (hereafter: TTB), a bank listed on the Stock Exchange of Thailand. TTB is providing products and services to Wholesale, Small and Medium Enterprise (SME), and Retail customers. TTB is accounted for as an investment in associate based on the size of ING shareholding and representation on the Board.

Other investments in associates and joint ventures

Included in Other investments in associates and joint ventures are mainly financial services and (non) financial technology funds or vehicles operating predominantly in Europe, and represents a number of associates and joint ventures that are individually not significant to ING Group.

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 associates and joint ventures of ING are subject to legal and regulatory restrictions regarding the amount of dividends they 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

in EUR million	2022	2021
Opening balance	1,587	1,475
Additions	48	91
Revaluations	-8	-24
Share of results	92	141
Dividends received	-48	-34
Disposals	-10	-23
Impairments	-192	-3
Exchange rate differences	27	-31
Other	4	-5
Closing balance	1,500	1,587

Share of results from associates and joint ventures of EUR 92 million (2021: EUR 141 million) as included in the table above is mainly attributable to results of TTB of EUR 81 million (2021: EUR 61 million). In 2021, share of results from associates includes additional EUR 28 million gain on our stake in Ebusco.

Impairments

In 2022, Impairments of EUR 192 million is predominantly attributable to TTB of EUR 165 million. TTB is part of the Retail Other segment.

Impairment testing TTB

The fair value of TTB has been below the purchase cost of the investment for a prolonged period of time (since 1Q 2020). This is considered to be objective evidence of impairment. As a result ING performed quarterly impairment tests that led to impairment loss of EUR 165 million (2021: EUR nil).

The impairment test performed in 2022 led to an impairment at 31 March 2022 of EUR 150 million and EUR 15 million at 30 September 2022, as the recoverable amount as determined by a Value in Use calculation, was below the carrying amount at that point in time. The impairment test at year end resulted in no further impairments.

Methodology

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 price. The VIU calculation uses discounted cash flow projections based on management's best estimates. VIU is derived using a Dividend

Discount Model (DDM) where distributable equity, i.e. future earnings available to ordinary shareholders, is used as a proxy for future cash flows. The valuation looks at expected cash flows into perpetuity resulting in two main components to the VIU calculation:

- the estimation of future earnings over a 5 year forecast period; and
- the terminal value being the extrapolation of earnings into perpetuity applying a long term growth rate. The earnings that are used for extrapolation represent the stable long term financial results and position of TTB, i.e. a steady state. The terminal value comprises the majority of the total VIU.

Key assumptions used in the VIU calculation as at 31 December 2022 (and as at 30 September 2022 resulting in impairment)

The VIU is determined using a valuation model which is subject to multiple management assumptions. The key assumptions, i.e. those to which the overall result is most sensitive to, are the following:

- Expected future earnings of TTB: Short to medium term expectations are based on forecasts derived from broker consensus. Longer term and steady state expectations into perpetuity are derived using reasonable and supportable assumptions capturing a combination of TTB specific and market data points. A capital maintenance charge is applied, which is management's forecast of the earnings that need to be withheld in order for TTB to meet target regulatory requirements over the forecast period;
- Discount rate (cost of equity): 9.71% (30 September 2022: 10.54%), based on the capital asset pricing model (CAPM) calculated for TTB using current market data.
- Terminal growth rate: 3.05% (30 September 2022: 3.82%) consistent with current long term government bond yield in Thailand as a proxy for a risk-free rate;

To assess the risk of further impairment at 31 December 2022, the model was evaluated for reasonably possible changes to key assumptions in the model. This reflects the sensitivity of the VIU to each key assumption on its own and it is possible that more than one favourable and/or unfavourable change may occur at the same time. Holding the other key assumptions constant, a reduction in all of the forecasted annual cash flows, including terminal value, of 836bps would reduce the recoverable amount to the carrying amount. An increase of 55bps in terminal growth rate and discount rate would cause the VIU to equal the carrying amount.

Reversal of the impairment loss recognised was not considered appropriate as at 31 December 2022 mainly due to the lack of sufficiently positive changes observed in the underlying performance of TTB since the impairment loss as reflected in the broker consensus. Furthermore, the share price remains below the original cost of the investment for a prolonged period of time.

9 Property and equipment

Property and equipment by type

in EUR million	2022	2021
Property in own use	681	702
Equipment:		
- Data processing equipment	213	207
- Other equipment	476	493
Right-of-use assets:		
- ROU property	1,000	1,009
- ROU cars	64	83
- ROU other leases	12	21
	2,446	2,515

Changes in property and equipment

	Property in own use		Equipment		Right-of-use assets		Total	
in EUR million	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	702	745	699	842	1,113	1,255	2,515	2,841
Additions	2	9	229	175	173	164	404	348
Transfers	-1	-5	-1	1	-4	-20	-5	-24
Depreciation	-13	-15	-220	-287	-252	-271	-485	-573
Impairments ¹	-9	-10	-16	-8	-9	-15	-35	-33
Reversals of impairments	16	6				1	16	7
Remeasurements	15	17			67	6	81	24
Disposals	-67	-24	-15	-15	-15	-10	-98	-49
Exchange rate differences	36	-21	13	-7	3	4	52	-25
Closing balance	681	702	688	699	1,076	1,113	2,446	2,515
Costprice	847	910	3,554	3,581	1,680	1,738	6,081	6,229
Accumulated depreciation	-362	-373	-2,853	-2,871	-714	-644	-3,929	-3,888
Accumulated impairments	-107	-134	-12	-10	-21	-29	-140	-173
Accumulated revaluation surplus	304	299					304	299
Accumulated remeasurement					130	48	130	48
Net carrying value	681	702	688	699	1,076	1,113	2,446	2,515

1 Impairments of property and equipment are presented within Other operating expenses in the statement of Profit or Loss.

ING considers valuations from third party experts in determining the fair values of property in own use. Property in own use purchase costs amounted to EUR 847 million (2021: EUR 910 million). Cost or the purchase price less accumulated depreciation and impairments would have been EUR 368 million (2021: EUR 403 million) had property in own use been valued at cost instead of at fair value.

The reported impairment losses of EUR -35 million (2021: EUR -33 million) mainly result from a change in the post-pandemic way of working through downscaling of physical office spaces.

10 Intangible assets

Changes in intangible assets

in EUR million	Goodwill		Software		Other		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	472	533	682	846	2	15	1,156	1,394
Opening balance adjustment	25						25	
Additions			54	44			54	44
Capitalised expenses			144	135			144	135
Amortisation			-226	-260		-1	-226	-261
Impairments ¹	-32		-22	-82		-12	-54	-94
Reversal of impairment								
Exchange rate differences	-1	-61	4				2	-62
Disposals			-3				-3	
Changes in the composition of the group and other changes			3	-1			3	
Closing balance	464	472	636	682	2	2	1,102	1,156
Gross carrying amount	464	472	2,491	2,521	8	59	2,962	3,052
Accumulated amortisation			-1,787	-1,710	-4	-9	-1,790	-1,719
Accumulated impairments			-69	-129	-2	-48	-70	-177
Net carrying value	464	472	636	682	2	2	1,102	1,156

1 Impairments of intangible assets are presented within Other operating expenses in the statement of Profit or Loss.

Goodwill

Following a change in monitoring from a centralised towards a de-centralised approach for Retail as from the beginning of 2022, goodwill related to the group of cash generating units (CGUs) 'Retail Growth Markets' was re-allocated to the underlying CGUs Retail Romania, Retail Poland and Retail Turkey using a relative value approach.

Goodwill is allocated to groups of cash generating units (CGUs) as follows:

Goodwill allocation to group of CGUs

in EUR million	Method used for recoverable amount	Discount rate	Terminal growth rate	Goodwill 2022	Goodwill 2021
Group of CGU's				2022	2021
Retail Netherlands	Value in use	8.46 %	2.04 %	30	30
Retail Germany	Value in use	8.35 %	1.82 %	349	349
Retail Poland	Value in use	10.31 %	2.50 %	69	70
Retail Romania	Value in use	12.32 %	2.60 %	15	15
Retail Turkey					7
				464	472

Impairment testing

Goodwill is tested for impairment annually in the fourth quarter by comparing the recoverable amount of each goodwill-carrying CGU with its carrying amount. The key assumptions used in the calculation of the recoverable amounts are included in the table above. Furthermore, ING Group tests goodwill whenever a triggering event is identified, as with the re-allocation from Group of CGUs to country level CGUs on 1 January 2022. The re-allocated goodwill to Turkey CGU, after first being adjusted for hyperinflation accounting for EUR 25 million, was fully impaired for the amount of EUR 32 million (based on discount rate 24.04% and terminal growth rate 10.40% as per 1 January 2022). Turkey is part of the Retail Other segment.

At the annual impairment test in the fourth quarter, the recoverable amount exceeds the carrying value of the CGUs as at 31 December 2022 and therefore no impairment is required.

Methodology

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). The VIU calculation is based on a Dividend Discount model using three year management approved plans, updated for expected changes in the macroeconomic environment. 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.

Sensitivity of key assumptions

Key assumptions in the goodwill impairment test model are the projected locally available cash flows (based on local capital requirements and projected profits), discount rates (cost of equity), and long term growth rates.

The recoverable amounts of the CGUs are sensitive to the above key assumptions. A decrease in the available cash flows of 10%, an increase in the discount rate of 1 percent point or a reduction of future growth rate to zero are considered reasonably possible changes in key assumptions. If the aforementioned changes occur to one of the above key assumptions holding the other key assumptions constant, goodwill of the remaining CGUs will continue to be recoverable.

Other changes

Other changes in goodwill in 2022 relate to changes in currency exchange rates of Retail Poland and Retail Romania goodwill.

Software

Software includes internally developed software amounting to EUR 540 million (2021: EUR 573 million).

Software is reviewed for indicators of impairment. Irrespective of whether there is an indication of impairment, software under development is tested annually for impairment. In 2022, individually immaterial items were impaired for an amount of EUR 22 million. In 2021, an impairment of EUR 51 million with regard to software in the payments and cash management business was recognised. The remaining software impairments in 2021 related to various, individually immaterial items.

11 Other assets

Other assets by type		
in EUR million	2022	2021
Net defined benefit assets	617	783
Investment properties	18	26
Property development and obtained from foreclosures	34	52
Accrued assets	917	798
Amounts to be settled	5,191	2,424
Other	2,073	1,914
	8,850	5,996

Disclosures in respect of Net defined benefit assets are provided in Note 36 'Pensions and other post-employment benefits'.

Amounts to be settled include primarily transactions not settled at the balance sheet date. The nature of these transaction is short term and they are expected to settle shortly after the closing date of the balance sheet.

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 Deposits from banks

Deposits from banks includes non-subordinated deposits and repurchase agreements from banks.

Deposits from banks by type						
in EUR million	Netherlands		Rest of the world		Total	
	2022	2021	2022	2021	2022	2021
Non-interest bearing	86	570	315	321	400	891
Interest bearing	32,858	51,893	23,374	32,307	56,232	84,201
	32,943	52,463	23,689	32,629	56,632	85,092

Deposits from banks includes ING's participation in the Targeted Longer-Term Refinancing Operations (TLTRO) of EUR 36.0 billion (2021: EUR 65.5 billion). 2022 includes the impact of an early repayment of EUR 29.5 billion of ING's TLTRO III participation. For the details of the applicable rates and impact on net interest income reference is made to Note 20 'Net interest income'.

13 Customer deposits

Customer deposits		
in EUR million	2022	2021
Savings accounts	321,034	314,997
Credit balances on customer accounts	283,417	279,805
Corporate deposits	36,011	22,174
Other	336	424
	640,799	617,400

Savings accounts relate to the balances on savings accounts, savings books, savings deposits, and time deposits of private individuals.

Customer deposits by type

	Netherlands		Rest of the world		Total	
	2022	2021	2022	2021	2022	2021
in EUR million						
Non-interest bearing	2,332	1,861	24,229	27,636	26,561	29,497
Interest bearing	231,914	214,228	382,324	373,674	614,238	587,902
	234,246	216,090	406,552	401,310	640,799	617,400

14 Financial liabilities at fair value through profit or loss**Financial liabilities at fair value through profit or loss**

in EUR million	2022	2021
Trading liabilities	39,088	27,113
Non-trading derivatives	3,048	2,120
Designated at fair value through profit or loss	50,883	41,808
	93,019	71,041

Trading liabilities**Trading liabilities by type**

in EUR million	2022	2021
Equity securities	935	322
Debt securities	1,291	753
Funds on deposit	5,993	7,513
Derivatives	30,869	18,525
	39,088	27,113

Non-trading derivatives**Non-trading derivatives by type**

in EUR million	2022	2021
Derivatives used in:		
- fair value hedges	244	270
- cash flow hedges	1,275	485
- hedges of net investments in foreign operations	83	88
Other non-trading derivatives	1,446	1,278
	3,048	2,120

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**

in EUR million	2022	2021
Debt securities	6,537	6,065
Funds entrusted	44,263	35,513
Subordinated liabilities	82	230
	50,883	41,808

As at 31 December 2022, 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 -75 million (2021: EUR 95 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 (part of funds entrusted) is EUR 8,408 million (2021: EUR 6,853 million).

Funds entrusted include mainly repurchase agreements. In 2022, the balance increased to EUR 44,263 million as a result of rising customer demand.

15 Provisions**Provisions by type**

in EUR million	2022	2021
Reorganisation provisions	418	421
Litigation provisions	150	132
Other provisions	484	441
	1,052	995

Changes in provisions								
in EUR million	Reorganisation		Litigation		Other			Total
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	421	381	132	105	441	205	995	691
Additions	217	310	59	50	227	354	503	715
Interest					-2	-2	-2	-2
Releases	-46	-96	-8	-11	-166	-79	-221	-186
Utilised	-170	-172	-33	-18	-15	-25	-218	-215
Exchange rate differences				-3		-2	-1	-4
Other changes	-4	-3		9	-1	-11	-4	-5
Closing balance	418	421	150	132	484	441	1,052	995

In 2022 and 2021 the additions to the reorganisation provisions mainly relate to the discontinuation of retail banking activities in France and the restructuring of the branch network and retail advice organisation in the Netherlands, as well as to restructuring activities in Belgium in 2022.

These initiatives are implemented over a period of several years and the estimate of the reorganisation provisions is inherently uncertain.

Reference is made to Note 45 'Legal proceedings' for developments in litigation provisions.

The additions to the Other provisions in 2022 include EUR 75 million which relates to the provision for the compensation of Dutch retail customers for past interest charges that did not sufficiently track market rates and largely reflects the impact of interest-on-interest compensation. This is in addition to the provision of EUR 180 million recognised in 2021.

In 2022, Other provisions include provisions of EUR 29 million (2021: EUR 34 million) that relate to credit replacement facilities and EUR 109 million (2021: EUR 114 million) that relate to non-credit replacement off balance facilities. The additions and releases in 2022 include EUR 138 million (2021: EUR 109 million) and EUR 141 million (2021: EUR 66 million) respectively related to these off balance facilities.

As at 31 December 2022, amounts expected to be settled within twelve months in provisions amount to EUR 837 million (2021: EUR 761 million). The amounts included are based on best estimates with regard to amounts and timing of cash flows required to settle the obligation.

Additions to provisions and unused amounts released are presented in Note 27 'Other operating expenses'.

16 Other liabilities

Other liabilities by type		
In EUR million	2022	2021
Net defined benefit liability	139	227
Other post-employment benefits	29	72
Other staff-related liabilities	633	612
Share-based payment plan liabilities	3	4
Other taxation and social security contributions	365	409
Rents received in advance	30	19
Costs payable	2,016	2,016
Amounts to be settled	6,715	5,082
Lease liabilities	1,174	1,220
Other	2,543	3,178
	13,646	12,839

Disclosures in respect of Net defined benefit liabilities are provided in Note 36 'Pensions and other post-employment benefits'.

Other staff-related liabilities includes vacation leave provisions, variable compensation provisions, jubilee provisions, and disability/illness provisions.

Amounts to be settled includes primarily transactions not settled at the balance sheet date. The nature of these transactions is short term and have settled after the closing date of the balance sheet.

Lease liabilities relate to right-of-use assets. Disclosures in respect to right-of-use assets are provided in Note 9 'Property and equipment'. The total cash outflow for leases in 2022 was EUR 296 million (2021: EUR 301 million).

The line other relates mainly to balances on margin accounts or amounts payable to customers and includes the remaining EUR 297 million obligation to the shareholders regarding the share buyback programme.

17 Debt securities in issue

Debt securities in issue relates 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 does 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.

Debt securities in issue – maturities		
In EUR million	2022	2021
Fixed rate debt securities		
Within 1 year	21,176	34,559
More than 1 year but less than 2 years	2,777	6,245
More than 2 years but less than 3 years	7,897	2,791
More than 3 years but less than 4 years	10,067	4,924
More than 4 years but less than 5 years	8,039	7,035
More than 5 years	28,582	29,843
Total fixed rate debt securities	78,539	85,397
Floating rate debt securities		
Within 1 year	15,286	3,389
More than 1 year but less than 2 years	307	1,534
More than 2 years but less than 3 years	256	137
More than 3 years but less than 4 years	958	194
More than 4 years but less than 5 years	467	192
More than 5 years	105	942
Total floating rate debt securities	17,379	6,388
Total debt securities	95,918	91,784

Reference is made to Note 32 'Changes in liabilities arising from financing activities' for further information on issuances, redemptions and non-cash movements.

18 Subordinated loans

Subordinated loans by the group		
In EUR million	2022	2021
ING Groep N.V.	15,786	16,715

Subordinated loans issued by ING Groep N.V. include bonds issued to raise Tier 1 and 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.

In 2022 ING Groep N.V. issued in August EUR 1 billion 4.13% Fixed Rate Subordinated Tier 2 Green Notes. ING Groep N.V. redeemed in April 2022 USD 1 billion 6.875% Perpetual Additional Tier 1 Contingent Convertible Capital Securities and in May 2022 JPY 10 billion 1.10% Subordinated Tier 2 Notes on the first call dates. Reference is made to Note 32 'Changes in liabilities arising from financing activities' for further information on issuances and redemptions.

The average interest rate on subordinated loans is 4.01% (2021: 3.75%). The interest expense during the year 2022 was EUR 648 million (2021: EUR 571 million).

19 Equity

Total equity			
In EUR million	2022	2021	2020
Share capital and share premium			
- Share capital	37	39	39
- Share premium	17,116	17,105	17,089
	17,154	17,144	17,128
Other reserves			
- Revaluation reserve: Equity securities at FVOCI	1,187	1,282	1,181
- Revaluation reserve: Debt instruments at FVOCI	-341	96	309
- Revaluation reserve: Cash flow hedge	-3,055	-153	1,450
- Revaluation reserve: Credit liability	70	-80	-117
- Revaluation reserve: Property in own use	176	208	221
- Net defined benefit asset/liability remeasurement reserve	-232	-212	-307
- Currency translation reserve	-2,395	-3,483	-3,636
- Share of associates and joint ventures and other reserves	3,603	3,416	3,246
- Treasury shares	-1,205	-1,612	-4
	-2,192	-540	2,342
Retained earnings	41,538	35,462	32,149
Shareholders' equity (parent)	56,500	52,066	51,619
Non-controlling interests	504	736	1,022
Total equity	57,004	52,802	52,640

Adjustments for hyperinflation

In 2022 Turkey was deemed a hyperinflationary economy for accounting purposes and ING started applying IAS 29 'Hyperinflation' on its investment in Turkey. The IAS 29 indexation impact on equity was EUR 100 million in total including EUR 1,011 million in currency translation reserve, EUR -563 million in retained earnings, EUR -17 million in revaluation reserves and EUR -331 million in profit or loss.

Share capital and share premium

Share capital

	Ordinary shares (par value EUR 0.01)					
	Number x 1,000			In EUR million		
	2022	2021	2020	2022	2021	2020
Authorised share capital	9,142,000	14,729,000	14,729,000	91	147	147
Unissued share capital	5,415,461	10,824,935	10,828,331	54	108	108
Issued share capital	3,726,539	3,904,065	3,900,669	37	39	39

Changes in issued share capital

	Ordinary shares (par value EUR 0.01)	
	Number x 1,000	In EUR million
Issued share capital as at 1 January 2020	3,896,734	39
Issue of shares	3,934	
Issued share capital as at 31 December 2020	3,900,669	39
Issue of shares	3,397	
Issued share capital as at 31 December 2021	3,904,065	39
Issue of shares	2,935	0
Cancellation of shares	-180,461	-2
Issued share capital as at 31 December 2022	3,726,539	37

In 2022, ING Groep N.V. issued 2.9 million ordinary shares (2021: 3.4 million and in 2020: 3.9 million ordinary shares). These issues were made in order to fund obligations arising from share-based employee incentive programmes. The cancellation of shares relate to the shares purchased under the share buyback programmes (reference is made to 'Ordinary shares held by ING Group (treasury shares)').

As at 31 December 2022 ING Groep N.V. has issued USD 6,750 million (2021: USD 7,750 million) 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 a conversion are fulfilled. As a result of this conversion, the issued share capital can increase by up to 750 million (2021: 861 million) ordinary shares. Reference is made to Note 18 'Subordinated loans'.

Ordinary shares

All ordinary shares are registered. No share certificates have been issued. The par value of ordinary shares is

EUR 0.01. The authorised ordinary share capital of ING Groep N.V. currently consists of 9,142 million ordinary shares. As at 31 December 2022, 3,727 million ordinary shares were issued and fully paid.

Ordinary shares held by ING Group (Treasury shares)

As at 31 December 2022, 107.4 million ordinary shares (2021: 128.3 million and 2020: 0.6 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 share plans will be funded either by cash or by repurchasing shares from the market.

Share premium

Share premium			
In EUR million	2022	2021	2020
Opening balance	17,105	17,089	17,078
Issue of shares	12	16	11
Closing balance	17,116	17,105	17,089

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 and Debt instruments at FVOCI						
In EUR million	Equity securities at FVOCI			Debt instruments at FVOCI		
	2022	2021	2020	2022	2021	2020
Opening balance	1,282	1,181	1,580	96	309	322
Unrealised revaluations	-118	94	-337	-412	-173	20
Realised gains/losses transferred to the statement of profit or loss				-25	-40	-33
Realised revaluations transferred to retained earnings	23	6	-1			
Other changes			-62			
Closing balance	1,187	1,282	1,181	-341	96	309

Equity securities at FVOCI

In 2022, the unrealised revaluation of EUR -118 million (2021: 94 million and 2020: -337 million) includes revaluation of shares in Bank of Beijing for EUR -86 million (2021: 38 million and 2020: -339 million).

In 2020, Other changes of EUR -62 million is related to prior years revaluations of Visa shares, which are reclassified to Financial assets at fair value through profit or loss and for which the unrealised revaluation up until 2020 is transferred to retained earnings.

Changes in cash flow hedge and credit liability reserve

In EUR million	Cash flow hedge			Credit liability		
	2022	2021	2020	2022	2021	2020
Opening balance	-153	1,450	1,208	-80	-117	-114
Changes in credit liability reserve				165	37	-19
Unrealised revaluations	-2,901	-1,603	242			
Realised revaluations transferred to retained earnings				-15		16
Closing balance	-3,055	-153	1,450	70	-80	-117

Cash flow hedge

ING mainly hedges floating rate lending with interest rate swaps. Due to an increase in yield curves in 2022 the interest rate swaps had a negative revaluation of EUR -2,901 million which is recognised in the cash flow hedge reserve.

Changes in Property in own use reserve

In EUR million	2022	2021	2020
Opening balance	208	221	253
Impact IAS 29 on opening balance ¹	-20		
Unrealised revaluations	15	-2	-7
Realised revaluations transferred to retained earnings	-26	-11	-26
Closing balance	176	208	221

¹ Impact of application of hyperinflation accounting under IAS 29 from 1 January 2022.

Net defined benefit asset/liability remeasurement reserve

Reference is made to Note 36 'Pensions and other post-employment benefits'.

Currency translation reserve

Changes in currency translation reserve			
In EUR million	2022	2021	2020
Opening balance	-3,483	-3,636	-2,079
Impact IAS 29 on opening balance ¹	647		
Unrealised revaluations	-7	-61	106
Realised gains/losses transferred to the statement of profit or loss	4		-1
Exchange rate differences	444	214	-1,662
Closing balance	-2,395	-3,483	-3,636

¹ Impact of application of hyperinflation accounting under IAS 29 from 1 January 2022.

Unrealised revaluations relates to changes in the value of hedging instruments that are designated as net investment hedges. The hedging strategy is to protect the CET1 ratio against adverse impact from exchange rate fluctuations. The net increase of unrealised revaluations and Exchange rate differences of EUR 437 million is related to several currencies including USD (EUR 380 million), TRY (EUR 192 million, including EUR 364 million IAS 29 indexation effect) GBP (EUR -73 million), PLN (EUR -49 million), CHF (EUR 41 million), AUD (EUR -20 million), UAH (EUR -27 million) and other currencies (EUR -7 million).

Share of associates and joint ventures and other reserves

Changes in share of associates, joint ventures and other reserves			
In EUR million	2022	2021	2020
Opening balance	3,416	3,246	3,189
Result for the year	161	191	94
Transfer to/from retained earnings	26	-21	-37
Closing balance	3,603	3,416	3,246

The Share of associates, joint ventures and other reserves includes non-distributable profits from associates and joint ventures of EUR 797 million (2021: EUR 738 million). Other reserves includes a statutory reserve of EUR 2,264 million (2021: EUR 2,103 million) related to the former Stichting Regio Bank and the former Stichting Vakbondsspaarbank SPN and a legal reserve of EUR 540 million (2021: EUR 573 million) related to own developed software.

Treasury shares

Changes in treasury shares						
	In EUR million			Number x 1,000		
	2022	2021	2020	2022	2021	2020
Opening balance	-1,612	-4	-10	128,301	572	919
Purchased/sold for trading purposes	4	-4	5	-312	102	-348
Purchased Share buyback programme	-1,721	-1,604		159,866	127,628	
Cancelled Share buyback programme	2,124			-180,461		
Closing balance	-1,205	-1,612	-4	107,395	128,301	572

ING Group initiated three share buyback programmes:

First programme of EUR 1,744 million, commencing on 5 October 2021 and completed by February 2022. A total of 140 million shares have been repurchased at an average price of EUR 12.47 per share. The shares have been cancelled in July 2022

Second programme of EUR 380 million, commencing on 12 May 2022 and completed by July 2022. A total of 41 million shares have been repurchased at an average price of EUR 9.41 per share. The shares have been cancelled in November 2022

Third programme of EUR 1,500 million, commencing on 3 November 2022 and completed by December 2022. A total of 107 million shares have been repurchased at an average price of EUR 11.25 per share for a total consideration of EUR 1,204 million. The remaining amount of EUR 297 million was paid out as a cash distribution in January 2023.

Retained earnings

Changes in retained earnings			
In EUR million	2022	2021	2020
Opening balance	35,462	32,149	29,866
Impact IAS 29 on opening balance ¹	-563		
Transfer to/from other reserves	-8	26	108
Result for the year	11,965	5,760	2,156
Dividend and other distributions	-3,349	-2,342	
Employee stock options and share plans	15	12	11
Changes in composition of the group and other changes	-1,984	-143	6
Closing balance	41,538	35,462	32,149

¹ Impact of application of hyperinflation accounting under IAS 29 from 1 January 2022

Dividend and other distributions

In 2022, a cash dividend of EUR 2,178 million (2021: EUR 1,288 million and 2020: EUR nil million) and other cash distributions of EUR 1,171 million (2021 EUR 1,054 million and 2020: nil) related to prior year profits and reduction of capital were paid to the shareholders of ING Group. For further information, reference is made to Note 30 'Dividend per ordinary share'.

Other changes

Other changes includes an amount of EUR -1,983 million (2021: EUR -140 million), which corresponds to the purchase and cancellation of treasury shares purchased under the share buyback programmes.

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 2022, an amount of EUR 2,264 million (2021: EUR 2,103 million; 2020: EUR 1,912 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.

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			
In EUR million	2022	2021	2020
ING Bank	8,408	8,205	9,829
Other	0	0	2
Non-distributable reserves	8,408	8,205	9,831

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, 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 and may or may not be temporary in nature. It is not possible to disclose a reliable quantification of these limitations. 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. Refer to Note 50 'Capital management' for further details of the minimal capital requirements and dividend policy of ING Group.

Furthermore, ING Groep N.V. is subject to legal restrictions with respect to repayment of capital to holders of ordinary shares. 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. A right to acquire cumulative preference shares has been granted to Stichting Continuïteit ING (ING Continuity Foundation).

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 short-term rate (€STR) 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 2.585 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

20 Net interest income

Net interest income							
in EUR million	2022	2021	2020		2022	2021	2020
Interest income on loans	18,440	13,914	15,624	Interest expense on deposits from banks	420	109	177
Interest income on financial assets at fair value through OCI	511	346	512	Interest expense on customer deposits	2,800	915	1,331
Interest income on debt securities at amortised cost	591	468	508	Interest expense on debt securities in issue	1,722	1,218	1,732
Interest income on non-trading derivatives (hedge accounting)	4,011	2,361	3,392	Interest expense on subordinated loans	648	571	612
Negative interest on liabilities	887	1,487	678	Negative interest on assets	285	572	353
Total interest income using effective interest rate method	24,439	18,577	20,715	Interest expense on non-trading derivatives (hedge accounting)	4,144	1,700	3,198
				Total interest expense using effective interest rate method	10,019	5,085	7,402
Interest income on financial assets at fair value through profit or loss	1,444	435	658				
Interest income on non-trading derivatives (no hedge accounting)	2,390	2,025	1,154	Interest expense on financial liabilities at fair value through profit or loss	1,237	304	514
Interest income other	100	14	32	Interest expense on non-trading derivatives (no hedge accounting)	2,411	1,605	1,029
Total other interest income	3,934	2,474	1,843	Interest expense on lease liabilities	15	14	18
Total interest income	28,373	21,051	22,559	Interest expense other	98	43	44
				Total other interest expense	3,762	1,966	1,605
				Total interest expense	13,780	7,051	9,007
				Net interest income	14,593	14,000	13,552

Total net interest income amounts to EUR 14,593 million (2021: EUR 14,000 million). Net interest income was affected by reversing the hedge accounting impacts that are applied under EU 'IAS 39 carve-out' with an impact of EUR 836 million (2021: EUR 385 million). The net increase, without the IAS 39 carve out impact, is EUR 141 million. Despite a one-off impact related to credit moratoria in Poland (EUR -343 million), net interest income is increasing: a reflection of the changing interest rate environment which reprices faster on the asset side than the liability side of the balance sheet.

Negative interest on liabilities in 2022, amounting to EUR 887 million (2021: EUR 1,487 million) includes ECB funding rate benefit from the TLTRO III programme of EUR 314 million (2021: EUR 808 million).

As ING met the 2020-2021 TLTRO III lending growth targets, the funding rate for TLTRO III amounted -100 bps during the special interest periods between 24 June 2020 and 23 June 2022 (of which -50 bps was unconditional and -50 bps was conditional). As a result, -100 bps was the applicable TLTRO III rate throughout the entire 2021 and the first half of 2022 until 23 June 2022.

In October 2022, the ECB changed the terms of the unconditional interest related to the periods before and after the special interest periods. Interest rate before 24 June 2020 and from 23 June 2022 until 22 November 2022 is now based on the average Deposit Facility (DF) rate during the period between the draw down date until 22 November 2022. As ING participated in series 3, 4 and 7 of TLTRO III, 3 different average DF rates apply to those and comprised -37 bps, -36 bps and -29 bps, respectively.

Under the revised terms of TLTRO III, interest rate after 22 November 2022 until maturity is now based on the average DF rate during that period instead of the average DF rate for the whole life of TLTRO III, as it was contemplated previously. The DF rate was at 150 bps between 22 November 2022 and 21 December 2022 and at 200 bps thereafter until the end of 2022.

Interest income recognised in 2022 within 'Negative interest on liabilities' is based on the above updated terms of TLTRO.

21 Net fee and commission income

Net fee and commission income			
in EUR million	2022	2021	2020 ¹
Fee and commission income			
Payment Services	1,888	1,661	1,566
Securities business	632	853	700
Insurance and other broking	682	734	705
Portfolio management	600	617	525
Lending business	556	477	368
Financial guarantees and other commitments	496	458	364
Other	232	204	286
Total fee and commission income	5,085	5,004	4,514
Fee and commission expenses			
Payment Services	600	563	611
Securities business	160	164	133
Distribution of products (Externally)	555	591	548
Other	184	169	211
Total fee and commission expenses	1,499	1,487	1,503
Net fee and commission income	3,586	3,517	3,011

¹ ING changed the presentation of net fee and commission income as of 2021. The comparative figure for 2020 has been updated accordingly. The reclassification does not affect the total amount of Net Fee and Commission Income.

Payment services fees are earned for providing services for deposit accounts and cards, cash management and transaction processing including interchange. Securities fees and commissions are fees for securities brokerage and securities underwriting. Portfolio management fees include fees earned for asset management activities, fiduciary and related activities in which ING holds or invests assets on behalf of its

customers. Fees and commissions from Lending business include income earned for lending advisory, origination, underwriting and loan commitments which are not part of the effective interest rate. Financial guarantees and other commitments fees and commissions are earned from bank guarantees, letters of credit and other trade finance related products, factoring and leasing. Fees paid for distribution of products are all fees paid for the distribution of ING's products and services through external providers.

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.

22 Valuation results and net trading income

Valuation results and net trading income			
in EUR million	2022	2021	2020
Securities trading results	-356	787	-500
Derivatives trading results	11	-554	701
Other trading results	71	84	72
Change in fair value of derivatives relating to			
- fair value hedges	-5,928	-1,317	538
- cash flow hedges (ineffective portion)	20	1	-5
- other non-trading derivatives	12,358	1,179	-90
Change in fair value of assets and liabilities (hedged items)	5,563	1,330	-541
Valuation results on assets and liabilities designated at FVPL (excluding trading)	439	-13	-123
Foreign exchange transactions results	38	567	422
	12,214	2,065	474

In general, the fair value movements are influenced by changes in the market conditions, such as stock prices, credit spreads, interest rates and currency exchange rates. In 2022 the market has been affected by a significant increase in interest rates volatility, interest rate hikes across EU, and US and a steady fall of the EUR value and appreciation of USD. Moreover, a significant increase in interest rates volatility resulted in a positive EU IAS39 carve out adjustment of EUR 10,713 million (2021: EUR 1,218 million).

Securities trading results includes the results of market making in instruments such as government securities, equity securities, corporate debt securities, money-market instruments. Derivatives trading results includes the results of derivatives such as interest rate swaps, options, futures, and forward contracts. Trading gains and losses relating to trading securities still held as at 31 December 2022 amount to EUR -157 million (2021: EUR -268 million; 2020: EUR -690 million).

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.

Other trading results include the results of trading loans and funds entrusted.

Foreign exchange transactions results include gains and losses from spot and forward contracts, options, futures, and translated foreign currency assets and liabilities. The result on currency trading is included in foreign exchange transactions results.

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 14 'Financial liabilities at fair value through profit or loss' for information on trading assets and trading liabilities respectively.

'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. During 2022, the interest rate movements significantly affected the fair value changes of other non-trading derivatives as well as the fair value changes of both the derivatives and the hedged items designated in fair value hedges. Reference is made to Note 39 'Derivatives and hedge accounting' for information on derivatives used for hedge accounting.

Furthermore, derivatives trading results is also impacted by fair value movements arising from changes in credit spreads (CVA and DVA), bid offer spreads, model risk and incremental cost of funding on derivatives (FVA and CollVA). Spreads widened in 2022 compared to 2021 and the fair value changes increased.

In 2022, Derivatives trading results include EUR 43 million CVA/DVA adjustments on trading derivatives (2021: EUR 98 million; 2020: EUR 17 million).

Valuation results on assets and liabilities designated at fair value through profit or loss (excluding trading)' include fair value changes on financial assets and financial liabilities driven by changed market conditions.

Refer to Note 4 'Financial assets at fair value through profit or loss' and to Note 14 'Financial liabilities at fair value through profit or loss'.

In addition, '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 745 million (2021: EUR 65 million; 2020: EUR -1 million).

Interest income from trading assets in 2022 amounted to EUR 18,593 million (2021: EUR 13,737 million; 2020: EUR 13,412 million). Interest expense from trading liabilities in 2022 amounted to EUR 18,765 million (2021: EUR 14,079 million; 2020: EUR 13,052 million).

23 Investment income

Investment income			
in EUR million	2022	2021	2020
Dividend income	149	122	107
Realised gains/losses on disposal of debt instruments measured at FVOCI	32	45	44
Income from and fair value gains/losses on investment properties	-1		1
	181	167	152

In 2022, 2021 and 2020 dividend income mainly consists of dividend received from ING's equity stake in Bank of Beijing.

24 Net result on derecognition of financial assets measured at amortised cost

Net result on derecognition of financial assets measured at amortised cost			
in EUR million	2022	2021	2020
Loans at amortised cost		1	4
Securities at amortised cost	-5	-1	185
	-5	0	189

In 2020, driven by exceptional market circumstances in the first quarter, ING realised a profit on the sale of debt securities at amortised cost of EUR 186 million.

25 Other net income

In 2022, Other net income of EUR -56 million (2021: EUR 236 million; 2020: EUR 20 million) includes EUR -333 million net monetary loss reflecting the IAS 29 hyperinflation impact in Turkey related to the indexation of Turkey's statement of financial position and statement of profit or loss and is directly recognized in equity (retained earnings).

Furthermore, it includes the proceeds of the agreement with Boursorama after our exit from the retail banking market in France of EUR 125 million and a gain of EUR 67 million from a legacy entity in Retail Belgium.

In 2021, other net income included the recognition of EUR 72 million relating to a better than expected recovery of the insolvency of a financial institution in the Netherlands and EUR 34 million proceeds of the agreement with Raiffeisenbank due to the withdrawal from the retail banking market in the Czech Republic. Furthermore, it includes the positive recovery of defaulted receivables of EUR 25 million (2020: EUR 27 million).

In 2020, Other net income is impacted by positive and negative non-recurring results, including a loss of EUR -58 million following a settlement with the Australian Tax Authorities related to former insurance activities, that were fully indemnified by NN Group. This was offset by a tax profit for the same amount resulting from the release of the provision for uncertain tax positions in current tax liabilities.

26 Staff Expenses

Staff expenses			
in EUR million	2022	2021	2020
Salaries	4,145	4,011	3,751
Pension costs and other staff-related benefit costs	390	408	395
Social security costs	584	563	538
Share-based compensation arrangements	26	31	19
External employees	738	699	881
Education	47	47	43
Other staff costs	222	182	186
	6,152	5,941	5,812

Share-based compensation arrangements include EUR 25 million (2021: EUR 29 million; 2020: EUR 17 million) relating to equity-settled share-based payment arrangements and EUR 1 million (2021: EUR 2 million; 2020: EUR 2 million) relating to cash-settled share-based payment arrangements.

Number of employees

	Netherlands			Rest of the world			Total		
	2022	2021	2020	2022	2021	2020	2021	2020	
Total average number of internal employees at full time equivalent basis	14,488	15,138	15,201	43,081	42,523	40,701	57,569	57,660	55,901

Remuneration of senior management, Executive Board and Supervisory Board

Reference is made to Note 49 'Related parties'.

Share plans and Stock Options

ING grants various types of share awards, namely deferred shares, performance shares and upfront shares, which form part of the variable remuneration offering via the Long-term Sustainable Performance Plan (LSPP). 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. 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, typically a minimum retention of 12 months applies. ING has the authority to apply a holdback to awarded but unvested shares and a clawback to vested shares.

The share awards granted in 2022 relate to the performance year 2021. In 2022, 55,651 share awards (2021: 0; 2020: 63,837) were granted to the members of the Executive Board of ING Groep N.V., and 137,506 share awards (2021: 123,750; 2020: 122,338) were granted to the Management Board Banking. To senior management and other employees 2,913,926 share awards (2021: 3,267,372; 2020: 3,678,776) were granted.

The obligations with regard to share plans are funded by newly issued shares at the discretion of ING Group.

Changes in share awards

	Share awards (in numbers)			Weighted average grant date fair values (in euros)		
	2022	2021	2020	2022	2021	2020
Opening balance	3,674,672	3,878,219	3,857,048	7.60	7.25	11.14
Granted	3,107,083	3,391,122	3,864,951	8.99	9.69	5.12
Vested	-2,962,698	-3,459,163	-3,690,340	8.60	9.25	9.01
Forfeited	-119,502	-135,506	-153,440	7.63	7.61	8.55
Closing balance	3,699,555	3,674,672	3,878,219	7.97	7.60	7.25

As at 31 December 2022 the share awards consists of 3,201,579 share awards (2021: 3,154,715; 2020: 3,326,457) relating to equity-settled share-based payment arrangements and 497,976 share awards (2021: 519,957; 2020: 551,762) 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 share prices, expected volatilities and the dividend yield of ING shares.

As at 31 December 2022, total unrecognised compensation costs related to share awards amount to EUR 13 million (2021: EUR 13 million; 2020: EUR 10 million). These costs are expected to be recognised over a weighted average period of 1.9 years (2021: 1.7 years; 2020: 1.6 years).

27 Other operating expenses

Other operating expenses in EUR million	2022	2021	2020
Regulatory costs	1,250	1,265	1,105
Audit and non-audit services	31	34	29
IT related expenses	818	781	812
Advertising and public relations	331	305	335
External advisory fees	310	301	418
Office expenses	273	281	320
Travel and accommodation expenses	91	52	68
Contributions and subscriptions	109	112	110
Postal charges	31	38	38
Depreciation of property and equipment	485	573	578
Amortisation of intangible assets	226	261	251
(Reversals of) impairments of property and equipment	19	26	43
(Reversals of) impairments of intangible assets	60	95	515
Addition to / (unused amounts reversed of) provision for reorganisations	170	214	149
Addition to / (unused amounts reversed of) other provisions	117	254	39
Other	726	658	532
	5,047	5,251	5,341

Reference is made to Note 9 'Property and equipment' for (reversals of) impairments of property and equipment and Note 10 'Intangible assets' for (reversals of) impairments of intangible assets.

For further information on addition to (unused amounts reversed of) provision for reorganisations refer to Note 15 'Provisions' and for further information on addition to (unused amounts reversed of) other provisions refer to Note 15 'Provisions' and Note 45 'Legal proceedings'.

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 2022, are contributions to DGS of EUR 425 million (2021: EUR 435 million; 2020: EUR 413 million) mainly related to the Netherlands, Germany, Belgium, and Poland and contributions to the SRF and local resolution funds of EUR 354 million (2021: EUR 308 million; 2020: EUR 277 million). In 2022 local bank taxes decreased by EUR 51 million from EUR 522 million in 2021 to EUR 470 million (2020: EUR 414 million).

In 2022, ING Bank Slaski, together with seven other Polish banks, has established an Institutional Protection Scheme (IPS). The fund can be used to ensure the liquidity and solvency of each of its participants, and to

assist in the resolution of participating and non-participating banks. The contribution by ING amounts to EUR 99 million and is recognized as regulatory costs (DGS).

28 Audit fees

Total audit and non-audit services include the following fees for services provided by the Group's auditor.

Fees of Group's auditors			
in EUR million	2022	2021	2020
Audit fees	27	27	25
Audit related fees			1
Total ¹	27	27	26

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 total expected audit fees for the period excluding VAT.

29 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)		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
	Basic earnings	12,126	5,951	2,250	3,619.1	3,888.5	3,898.9	3.35	1.53
Basic earnings from continuing operations	12,126	5,951	2,250				3.35	1.53	0.58
Effect of dilutive instruments:									
Stock option and share plans				5.2	2.2	2.2			
				5.2	2.2	2.2			
Diluted earnings	12,126	5,951	2,250	3,624.3	3,890.7	3,901.1	3.35	1.53	0.58
Diluted earnings from continuing operations	12,126	5,951	2,250				3.35	1.53	0.58

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 (including share buyback programmes) are deducted from the total number of ordinary shares in issue.

Dilutive instruments

Diluted earnings per share is calculated as if the 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 dilutive instruments (if any) 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 share plans is added to the average number of shares used for the calculation of diluted earnings per share. From 2021, the effect of dilutive instruments no longer includes stock options. The stock option scheme was terminated in 2020.

30 Dividend per ordinary share

Dividends to shareholders of the parent

	Per ordinary share	Total (in EUR million)
Dividends on ordinary shares:		
In respect of 2020		
- Interim dividend, paid in February 2021 ¹	0.12	468
Total dividend in respect of 2020	0.12	468
In respect of 2021		
- Interim dividend, paid in October 2021	0.21	820
- Final dividend, paid in May 2022	0.41	1,548
Total dividend in respect of 2021	0.62	2,368
In respect of 2022		
- Interim dividend, paid in August 2022	0.17	636
- Final dividend declared	0.389	1,408
Total dividend in respect of 2022	0.559	2,044

¹ AGM declared the interim dividend of EUR 0.12 per ordinary share, paid in February 2021, as final dividend over 2020.

On 28 February 2022 ING announced it had fully completed the share buyback programme, which started on 5 October 2021. The total number of shares repurchased under the programme was 140 million shares and were cancelled in July 2022.

On 25 April 2022, the Annual General Meeting of shareholders ratified the total dividend of EUR 0.62 per ordinary share of which EUR 0.21 was paid as an interim cash dividend during 2021. The final dividend of EUR 0.41 per ordinary share was paid entirely in cash.

On 6 May 2022, ING announced EUR 1.25 billion programme to return capital to the shareholders. An additional cash dividend of EUR 0.23 per share was paid on 18 May 2022 and the remaining amount, EUR 380 million, has been distributed via a share buyback programme. A total number of 40.7 million ordinary shares were repurchased under the programme, which was completed on 14 July 2022.

On 3 November 2022, ING announced a share buyback programme for a maximum total amount of EUR 1.5 billion. The program was completed on 28 December 2022 for a total consideration of EUR 1,204 million, with the repurchase of 107 million shares. The remaining EUR 297 million (or EUR 0.08 per share) was paid to shareholders as a cash distribution on 16 January 2023.

In 2022, other cash distributions related to prior year profits and reduction of capital of EUR 1,171 million; EUR 0.31 per share (2021: EUR 1,054 million; EUR 0.27 per share) were paid to the shareholders of ING Group.

ING Groep N.V. is required to withhold tax of 15% on dividends paid.

Reference is made to Note 19 'Equity' for further information.

Notes to the consolidated statement of cash flows

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			
<i>in EUR million</i>	2022	2021	2020
Cash flows from operating activities			
Result before tax	17,358	8,385	3,399
Adjusted for: - Depreciation and amortisation	711	834	829
- Addition to loan loss provisions	1,861	516	2,675
- Other non-cash items included in result before tax	-6,332	-1,190	1,671
Taxation paid	-1,474	-1,873	-1,734
Changes in: - Loans and advances to banks, not available on demand	-5,837	262	10,033
- Deposits from banks, not payable on demand	-26,976	8,438	43,044
Net change in loans and advances to/ from banks, not available/ payable on demand	-32,813	8,700	53,078
- Trading assets	-5,489	-25	-2,101
- Trading liabilities	11,975	-5,596	4,667
Net change in Trading assets and Trading liabilities	6,486	-5,620	2,566
Loans and advances to customers	-19,297	-27,860	2,876
Customer deposits	25,057	10,339	39,740
- Non-trading derivatives	-5,469	290	-1,440
- Assets designated at fair value through profit or loss	45	-1,907	-1,369
- Assets mandatorily at fair value through profit or loss	-4,143	1,650	-1,963
- Other assets	-2,866	-113	1,082
- Other financial liabilities at fair value through profit or loss	9,886	-6,791	1,189
- Provisions and other liabilities	-123	-304	-1,355
Other	-2,671	-7,175	-3,856
Net cash flow from/(used in) operating activities	-11,112	-14,943	101,243

32 Changes in liabilities arising from financing activities

Changes in liabilities arising from financing activities								
in EUR million	Debt securities in issue		Subordinated Loans		Lease liabilities		Total Liabilities from financing activities	
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	91,784	82,065	16,715	15,805	1,220	1,339	109,719	99,208
Cashflows:								
Additions	92,707	85,113	983	3,163			93,690	88,276
Redemptions / Disposals	-82,844	-76,150	-1,090	-2,449	-296	-301	-84,230	-78,900
Non cash changes:								
Amortisation	312	1	30	27	15	14	357	42
Other	39	-92	7	-26	239	161	285	43
Changes in unrealised revaluations	-7,658	-1,923	-1,470	-414			-9,127	-2,336
Foreign exchange movement	1,577	2,771	611	609	-4	6	2,185	3,386
Closing balance	95,918	91,784	15,786	16,715	1,174	1,220	112,878	109,719

Part of Debt securities in issue and subordinated loans are in fair value hedge accounting. Hence, 'Changes in unrealised revaluations' represent fair value adjustments to the hedged item attributable to the hedged interest rate risk. Reference is made to paragraph 'fair value hedge accounting' in Note 39 'Derivatives and hedge accounting'.

33 Cash and cash equivalents

Cash and cash equivalents			
in EUR million	2022	2021	2020
Treasury bills and other eligible bills	1	23	0
Deposits from banks/Loans and advances to banks	7,776	1,122	478
Cash and balances with central banks	87,614	106,520	111,087
Cash and cash equivalents at end of year	95,391	107,665	111,566

Treasury bills and other eligible bills included in cash and cash equivalents

in EUR million	2022	2021	2020
Treasury bills and other eligible bills included in trading assets	0	0	0
Treasury bills and other eligible bills included in FVOCI	0	0	0
Treasury bills and other eligible bills included in securities at AC	0	23	0
	1	23	0

Deposits from banks/Loans and advances to banks

in EUR million	2022	2021	2020
Included in cash and cash equivalents:			
- Deposits from banks	-6,172	-7,059	-8,788
- Loans and advances to banks	13,948	8,181	9,266
	7,776	1,122	478
Not included in cash and cash equivalents:			
- Deposits from banks	-50,460	-78,033	-69,310
- Loans and advances to banks	21,156	15,411	16,098
	-29,304	-62,621	-53,212
Total as included in the statement of financial position:			
- Deposits from banks	-56,632	-85,092	-78,098
- Loans and advances to banks	35,104	23,592	25,364
	-21,528	-61,500	-52,733

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 'Transfer of financial assets, assets pledged and received as collateral' for restrictions on Cash and balances with central banks.

Segment reporting

34 Segments

ING Group's segments are based on the internal reporting structure by lines of business.

The Executive Board of ING Group and the Management Board Banking (together the Chief Operating Decision Maker (CODM)) 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 CODM.

Recognition and measurement of segment results are in line with the accounting policies as described in Note 1 'Basis of preparation and significant accounting policies'. The results for the period for each reportable segment are after intercompany and intersegment eliminations and are those reviewed by the CODM to assess performance of the segments. 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 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 up to and including 2021, after which ING left the retail market). 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.

Specification of geographical split of the segments

Geographical split of the segments	Main countries
The Netherlands	
Belgium	Including Luxembourg
Germany	Including Retail Banking Austria ¹
Other Challengers	Australia, Retail Banking Czech Republic ¹ , France ² , Italy, Spain, Portugal, Other
Growth Markets	Poland, Romania, Turkey, Philippines ² and Asian stakes
Wholesale Banking Rest of World	UK, Americas, Asia and other countries in Central and Eastern Europe ³
Other	Corporate Line

¹ Retail Banking Austria and Retail Banking Czech Republic up to and including 2021, after which ING left the retail market.

² In 2022, ING discontinued its retail activities in France and the Philippines.

³ As from 2022, Wholesale Banking Austria as well as Wholesale Banking Czech Republic are recorded in Wholesale Banking Rest of World. Previously these financials were reported in Germany and Other Challengers respectively.

ING Group monitors and evaluates the performance of ING Group at a consolidated level and by segment. The Executive Board and the Management Board Banking consider this 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 results in accordance with IFRS-EU helps investors compare its segment performance on a meaningful basis by highlighting result before tax attributable to ongoing operations and the profitability of the segment businesses. IFRS-EU result is derived by including the impact of the IFRS-EU 'IAS 39 carve out' adjustment.

The IFRS-EU 'IAS 39 carve-out' adjustment relates to fair value portfolio hedge accounting strategies for the mortgage and savings portfolios in the Benelux, Germany and Other Challengers that are not eligible under IFRS-IASB. As no hedge accounting is applied to these mortgage and savings portfolios under IFRS-IASB, the fair value changes of the derivatives are not offset by fair value changes of the hedge items (mortgages and savings).

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 EU (IFRS-EU) and reconciled to 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 Banking segment, and in the geographical split of the segments in the Netherlands, Belgium, Germany and Other Challengers.

Reference is made to Note 1 'Basis of preparation and significant accounting policies' for a reconciliation between IFRS-EU and IFRS-IASB. 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.

ING Group reconciles the total segment results to the total result using Corporate Line. The Corporate Line is a reflection of capital management activities and certain income and expenses that are not allocated to the banking businesses. Furthermore, the Corporate Line 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. In 2022, results in the Corporate Line were impacted by the application of hyperinflation accounting in the consolidation of our subsidiary in Turkey.

Income in 2022 included a hyperinflation accounting impact of EUR -279 million and a net TLTRO impact of EUR 16 million, while previous year was supported by a EUR 143 million net TLTRO impact and the recognition of a EUR 72 million receivable related to the insolvency of a financial institution. The decline was partly compensated by higher income from foreign currency ratio hedging, mainly on US dollar and the Polish zloty. Expenses in 2022 included a hyperinflation impact of EUR 30 million and a EUR 32 million impairment loss related to the goodwill allocated to Turkey, while previous year had included EUR 87 million of regulatory costs due to an incidental 50% increase in the Dutch bank tax.

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 types of products and services from which each reportable segment derives its revenues, as this is not reported internally and is therefore not readily available.

Reconciliation between IFRS-IASB and IFRS-EU income, expense and net result

12 month period	2022					2021					2020				
in EUR million	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-IASB attributable to equity holder of the parent	30,418	13,060	5,130	102	12,126	20,093	11,708	2,306	128	5,951	17,227	13,828	1,070	78	2,250
Remove impact of:															
Adjustment of the EU 'IAS 39 carve out' ²	-11,856		-3,405		-8,451	-1,603		-429		-1,174	410		176		234
Result IFRS-EU³	18,561	13,060	1,725	102	3,674	18,490	11,708	1,877	128	4,776	17,637	13,828	1,246	78	2,485

1 Net result, after tax and non-controlling interests.

2 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' version of IAS 39. For the IFRS-EU result, the impact of the carve-out is re-instated as this is the measure at which management monitors the business.

3 IFRS-EU figures are derived from figures according to IFRS-IASB by excluding the impact of adjustment of the EU 'IAS 39 carve-out'.

ING Group Total									
12 month period									
	2022			2021			2020		
in EUR million	ING Bank	Other	Total ING Group	ING Bank	Other	Total ING Group	ING Bank	Other	Total ING Group
Income									
- Net interest income	13,745	11	13,756	13,615		13,615	13,600	3	13,604
- Net fee and commission income	3,586		3,586	3,517		3,517	3,011		3,011
- Total investment and other income	1,215	4	1,219	1,354	5	1,359	1,034	-12	1,022
Total income	18,546	16	18,561	18,485	5	18,490	17,645	-9	17,637
Expenditure									
- Operating expenses	11,193	6	11,199	11,195	-3	11,192	11,160	-8	11,153
- Addition to loan loss provisions	1,861		1,861	516		516	2,675		2,675
Total expenses	13,053	6	13,060	11,711	-3	11,708	13,835	-8	13,828
Result before taxation	5,493	9	5,502	6,774	8	6,782	3,810	-1	3,809
Taxation	1,723	2	1,725	1,876	1	1,877	1,317	-71	1,246
Non-controlling interests	102		102	128		128	78		78
Net result IFRS-EU	3,667	7	3,674	4,770	7	4,776	2,415	70	2,485
Adjustment of the EU 'IAS 39 carve out'	8,451		8,451	1,174		1,174	-234		-234
Net result IFRS-IASB	12,119	7	12,126	5,944	7	5,951	2,180	70	2,250

Segments by line of business																						
12 month period in EUR million	2022							2021							2020							
	Retail Nether- lands	Retail Belgium	Retail Germany	Retail Other ¹	Wholesale Banking	Corporate Line	Total	Retail Nether- lands	Retail Belgium	Retail Germany ²	Retail Other ²	Wholesale Banking	Corporate Line	Total	Retail Nether- lands	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking	Corporate Line	Total	
Income																						
- Net interest income	2,888	1,668	1,666	2,726	4,260	550	13,756	3,290	1,747	1,447	2,712	4,151	267	13,615	3,511	1,816	1,587	2,760	3,718	212	13,604	
- Net fee and commission income	892	511	437	535	1,217	-6	3,586	771	519	497	530	1,197	3	3,517	681	413	437	412	1,069	-1	3,011	
- Total investment and other income	417	-32	69	402	849	-486	1,219	201	209	65	361	568	-45	1,359	279	145	93	89	609	-192	1,022	
Total income	4,196	2,147	2,172	3,663	6,325	58	18,561	4,262	2,475	2,009	3,602	5,916	226	18,490	4,471	2,373	2,117	3,261	5,396	18	17,637	
Expenditure																						
- Operating expenses	2,115	1,786	1,140	2,516	3,114	529	11,199	2,403	1,667	1,174	2,452	2,926	570	11,192	2,236	1,737	1,110	2,469	3,218	383	11,153	
- Addition to loan loss provisions	67	139	131	302	1,220	2	1,861	-76	225	49	202	117		516	157	514	57	593	1,351	2	2,675	
Total expenses	2,182	1,924	1,271	2,818	4,334	531	13,060	2,326	1,892	1,223	2,654	3,042	570	11,708	2,393	2,251	1,167	3,063	4,568	385	13,828	
Result before taxation	2,014	223	901	845	1,991	-473	5,502	1,936	583	786	949	2,874	-345	6,782	2,078	122	950	199	827	-367	3,809	
Taxation	540	72	202	257	581	73	1,725	499	146	252	212	703	65	1,877	523	51	331	105	295	-58	1,246	
Non-controlling interests	0	0	3	47	52	1	102	0	0	4	98	26	0	128	-1	0	4	55	20	0	78	
Net result IFRS-EU	1,474	151	696	541	1,358	-546	3,674	1,437	437	529	639	2,144	-410	4,776	1,556	71	615	39	512	-308	2,485	
Adjustment of the EU 'IAS 39 carve out'					8,451		8,451					1,174		1,174					-234		-234	
Net result IFRS-IASB	1,474	151	696	541	9,810	-546	12,126	1,437	437	529	639	3,318	-410	5,951	1,556	71	615	39	278	-308	2,250	

1 In 2022, ING discontinued its retail activities in France and the Philippines.

2 In the fourth quarter of 2021, ING exited from the retail banking markets in Austria and the Czech Republic.

Geographical split of the segments

12 month period in EUR million	2022								2021								2020							
	Nether-lands	Belgium	Ger-many	Other Challengers ¹	Growth markets ¹	Wholesale Banking Rest of World	Other	Total	Nether-lands	Belgium	Ger-many ^{2,3}	Other Challengers ^{2,3}	Growth markets	Wholesale Banking Rest of World ³	Other	Total	Nether-lands	Belgium	Ger-many ³	Other Challengers ³	Growth markets	Wholesale Banking Rest of World ³	Other	Total
- Net interest income	3,782	2,065	2,126	1,988	1,464	1,786	546	13,756	4,068	2,109	1,938	1,833	1,532	1,866	268	13,615	4,178	2,116	2,083	1,744	1,578	1,697	208	13,604
- Net fee and commission income	1,171	714	494	312	376	526	-6	3,586	1,070	717	523	327	351	525	3	3,517	981	583	466	271	286	425	-1	3,011
- Total investment and other income	577	-14	94	192	416	435	-481	1,219	314	265	118	80	446	182	-46	1,359	398	196	125	27	215	244	-184	1,022
Total income	5,531	2,765	2,714	2,491	2,256	2,746	58	18,561	5,452	3,092	2,578	2,240	2,330	2,574	226	18,490	5,557	2,896	2,674	2,042	2,078	2,366	23	17,637
Expenditure																								
- Operating expenses	3,001	2,120	1,318	1,456	1,444	1,331	529	11,199	3,279	1,960	1,339	1,516	1,276	1,251	570	11,192	3,347	2,037	1,263	1,536	1,272	1,310	387	11,153
- Addition to loan loss provisions	181	230	460	241	230	517	2	1,861	28	184	118	100	110	-23	516		421	589	267	297	412	685	2	2,675
Total expenses	3,182	2,350	1,778	1,696	1,674	1,847	531	13,060	3,307	2,143	1,457	1,616	1,386	1,228	570	11,708	3,769	2,627	1,530	1,833	1,684	1,995	390	13,828
Result before taxation	2,349	415	936	795	581	899	-473	5,502	2,145	948	1,121	623	944	1,346	-345	6,782	1,788	269	1,144	209	395	371	-367	3,809
Retail Banking	2,014	223	901	547	298			3,983	1,936	583	786	206	742		4,253		2,078	122	950	-27	225			3,348
Wholesale Banking	335	192	34	248	284	899		1,991	209	365	336	417	202	1,346		2,874	-290	147	194	236	169	371		827
Corporate Line							-473	-473							-345	-345							-367	-367
Result before taxation	2,349	415	936	795	581	899	-473	5,502	2,145	948	1,121	623	944	1,346	-345	6,782	1,788	269	1,144	209	395	371	-367	3,809
Taxation	658	114	297	255	156	189	57	1,725	556	240	358	185	178	296	64	1,877	518	89	380	90	141	87	-59	1,246
Non-controlling interests			3		98		1	102			4		124		128		-1		4		75			78
Net result IFRS-EU	1,691	301	636	540	327	710	-531	3,674	1,589	708	759	438	641	1,050	-409	4,776	1,271	180	760	119	178	284	-308	2,485
Adjustment of the EU 'IAS 39 carve out'	2,818	1,570	3,911	152				8,451	723	47	390	14			1,174		-177	27	-115	30				-234
Net result IFRS-IASB	4,510	1,871	4,547	692	327	710	-531	12,126	2,312	755	1,149	452	641	1,050	-409	5,951	1,094	207	645	149	178	284	-308	2,250

1 In 2022, ING discontinued its retail activities in France and the Philippines.

2 In the fourth quarter of 2021, ING exited from the retail banking markets in Austria and the Czech Republic.

3 As from 2022, Wholesale Banking Austria as well as Wholesale Banking Czech Republic are recorded in Wholesale Banking Rest of World. Previously these financials were reported in Germany and Other Challengers respectively. Historical 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 and do not include countries where ING only has representation offices. The Netherlands is ING Group's country of domicile.

In order to increase ING Group's tax transparency, additional financial information on a per country basis has been included in this disclosure: Tax paid represents all income tax paid to and/or received from tax authorities in the current year, irrespective of the fiscal year to which these payments or refunds relate.

Total assets by country does not include intercompany balances and reconciles to the total assets in the consolidated statement of financial position of ING Group. In December 2021 the OECD released a draft legislative framework that is designed to ensure, from 2024 onwards, that large multinational groups pay income tax at a minimum rate of 15% in all the countries they are present in. At the date when these financial statements were authorized for issue, of all the countries ING is present in, only South Korea has enacted legislation to this effect. At 31 December 2022 ING Group does not have sufficient information to determine the future potential quantitative impact.

The table below provide additional information, for the years 2022, 2021 and 2020 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			Tax paid		
				2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Netherlands	Netherlands	ING Bank N.V.	Wholesale / Retail	14,488	15,138	15,201	8,831	6,621	5,100	310,913	299,768	283,664	4,874	2,383	612	1,399	728	284	376	428	588
Belgium	Belgium	ING België N.V.	Wholesale / Retail	6,582	6,965	7,397	4,365	2,754	2,637	128,323	130,335	133,269	2,298	843	212	584	213	75	152	174	66
	Luxembourg	ING Luxembourg S.A.	Wholesale / Retail	927	856	855	503	366	280	18,415	20,407	15,290	261	189	100	65	48	25	37	20	24
Rest of Europe	Poland ¹	ING Bank Slaski S.A.	Wholesale / Retail	11,130	10,674	9,425	1,652	1,509	1,399	45,598	43,888	40,928	544	660	438	143	154	131	-23	235	232
	Germany	ING DiBa A.G.	Wholesale / Retail	5,573	5,521	5,059	8,574	2,962	2,376	167,517	159,799	162,538	6,798	1,587	896	2,175	522	310	189	493	409
	Romania ¹	Branch of ING Bank N.V.	Wholesale / Retail	3,580	3,319	3,049	584	495	456	10,555	9,635	8,526	324	273	141	51	41	20	67	21	24
	Turkey	ING Bank A.S.	Wholesale / Retail	3,076	3,338	3,724	64	335	420	5,400	5,818	7,316	-143	144	125	65	35	27	79	33	25
	Spain	Branch of ING Bank N.V.	Wholesale / Retail	1,439	1,380	1,228	899	743	679	32,277	32,559	29,899	321	212	104	104	57	37	101	59	52
	Italy	Branch of ING Bank N.V.	Wholesale / Retail	1,118	1,099	1,025	345	335	337	14,152	13,983	13,747	63	73	44	22	25	24	2	2	2
	UK	Branch of ING Bank N.V.	Wholesale	692	698	709	693	636	546	46,066	50,734	64,676	286	277	97	81	73	15	58	50	32
	France ^{2,3}	Branch of ING Bank N.V.	Wholesale	600	764	737	557	313	239	9,087	12,397	11,555	229	-65	-70	60	-16	-17	22	-7	9
	Russia	ING Bank (Eurasia) Z.A.O.	Wholesale	272	281	297	246	38	51	2,783	898	1,035	128	3	3	9	0	0	21	-7	-3
	Czech Republic ⁴	Branch of ING Bank N.V.	Wholesale	137	285	355	78	100	145	3,192	2,894	3,848	38	33	59	6	8	12	13	-2	4
	Hungary	Branch of ING Bank N.V.	Wholesale	120	119	131	82	44	43	1,993	1,148	1,092	38	12	6	5	3	2	2	2	1
	Slovakia ¹	Branch of ING Bank N.V.	Wholesale	1,129	983	878	15	15	18	391	352	385	-1	3	7	1	0	3	0	2	1
	Ukraine	PJSC ING Bank Ukraine	Wholesale	91	96	108	45	22	26	385	409	335	9	11	16	2	2	3	2	2	3
	Austria ⁴	Branch of ING Bank N.V.	Wholesale	17	292	332	19	175	75	261	419	1,840	9	101	0	2	16	-5	3	6	-14
	Bulgaria	Branch of ING Bank N.V.	Wholesale	60	61	65	15	14	13	436	420	406	1	2	2	0	0	0	0	0	0
	Ireland	Branch of ING Bank N.V.	Wholesale	72	64	50	66	70	72	2,773	1,831	2,051	28	77	66	3	10	8	6	10	8
	Portugal	Branch of ING Bank N.V.	Wholesale	11	11	13	15	15	16	689	675	790	9	9	11	3	3	7	2	3	4
	Switzerland	Branch of ING Bank N.V.	Wholesale	277	259	256	290	241	187	9,513	11,081	7,939	182	148	88	25	21	13	45	67	14

¹ Includes significant number of FTEs in relation to global services provided.

² Public subsidies received, as defined in article 89 of the CRD IV, amounts to EUR 0.1 million (2021: EUR 0.0 million; 2020: EUR 0.3 million).

³ In 2022, ING discontinued its retail activities in France and the Philippines.

⁴ In the fourth quarter of 2021, ING exited from the retail banking markets in Austria and the Czech Republic.

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			Tax paid			
				2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020	
North America	Canada	Payvision Canada Services Ltd.	In liquidation	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
	USA	ING Financial Holdings Corp.	Wholesale	586	563	600	892	936	720	65,024	55,582	48,205	413	779	39	115	182	16	135	148	38	
Latin America	Brazil	Branch of ING Bank N.V.	Closed in 2022	30	63	89	17	13	30	57	288	1,813	9	1	3	1	5	19	5	8	4	
	Colombia	ING Capital Colombia S.A.S.	Dissolved in 2021		0	3		0	1		0	2		0	0		0	0		0	0	
	Mexico	ING Consulting, S.A. de C.V.	Wholesale	6	6	7	0	1	1	1	3	2	-2	-1	-1	0	0	0	0	0	0	
Asia	China	Branch of ING Bank N.V.	Wholesale	76	79	90	30	26	26	1,181	1,654	1,598	4	0	-2	5	6	1	13	-1	-5	
	Japan	Branch of ING Bank N.V.	Wholesale	31	30	32	30	25	29	5,128	2,256	3,104	20	4	-1	7	2	-1	-1	3	2	
	Singapore	Branch of ING Bank N.V.	Wholesale	565	573	608	354	331	353	25,701	24,163	24,498	105	133	42	14	19	8	21	9	7	
	Macau	Payvision Macau Ltd.	Liquidated in 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hong Kong	Branch of ING Bank N.V.	Wholesale	103	105	122	82	79	92	4,343	6,691	7,030	-33	5	-9	-5	1	-1	0	-7	15	
	Philippines ^{1,3}	Branch of ING Bank N.V.	Wholesale	3,098	2,414	1,857	10	6	13	381	567	497	-39	-33	-26	8	-5	6	2	1	2	
	South Korea	Branch of ING Bank N.V.	Wholesale	78	75	77	86	65	66	7,989	5,800	6,692	47	26	18	12	6	4	7	-2	10	
	Taiwan	Branch of ING Bank N.V.	Wholesale	35	33	34	33	26	36	3,578	2,963	3,160	-16	-3	19	-5	-1	4	4	0	1	
	Indonesia	PT ING Securities Indonesia	Liquidated in 2022	0	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	
	Malaysia	Branch of ING Bank N.V.	Closed in 2022	0	4	6	0	0	1	1	1	141	0	-1	-1	0	0	0	0	0	0	
	Sri Lanka	Branch of ING Hubs B.V.	Global services	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	United Arab Emirates	Branch of ING Bank N.V.	Wholesale	10	10	10	-1	0	0	1	1	1	-1	-1	-2	0	0	0	0	0	0	
Australia	Australia	ING Bank (Australia) Ltd.	Wholesale / Retail	1,556	1,503	1,472	948	782	740	52,728	49,826	46,014	557	500	362	172	149	40	135	121	181	
Other	Mauritius	ING Mauritius Investment I	Liquidated in 2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total				57,569	57,660	55,901	30,418	20,093	17,227	976,834	949,250	933,891	17,358	8,385	3,399	5,130	2,306	1,070	1,474	1,873	1,734	

1 Includes significant number of FTEs in relation to global services provided.

3 In 2022 ING discontinued its retail activities in France and the Philippines.

2022

The higher tax charge of 29% in the Netherlands (compared to the statutory rate of 25.8%) is mainly caused by the non-deductible Dutch bank tax (EUR 179 million) and the non-deductible impairments regarding goodwill ING Turkey (EUR 32 million) and TTB (EUR 165 million).

The higher positive tax charge of Turkey combined with its accounting loss based on hyperinflation accounting is mainly caused by the non deductibility of this loss for tax purposes.

Since the Russian invasion of the Ukraine our strategy is no new business with Russian clients, including Russian owned entities outside of Russia and to get existing Russia-related credit exposures repaid as quickly as possible. These exposures are booked in various countries and totalled EUR 6.7 billion, published on 4 March 2022. Remaining at risk for ING Group at year-end 2022 is EUR 0.3 billion local equity and EUR 2.5 billion credit exposures booked outside of Russia. In 2022, ING's results in connection with Russia-related credit exposures declined significantly, as we have recognized EUR 0.5 billion

risk costs related to these exposures. The local results on a stand-alone basis were higher compared to 2021. This was driven by the high local interest rate environment and increased rouble inflow from existing, predominantly non-Russian, clients. Under local law and banking regulations, ING Russia must accept these rouble inflows. Furthermore, the local result before tax expressed in euro (EUR 128 million) was positively impacted by the appreciation of the rouble against the euro for an amount of EUR 80 million throughout 2022. Going forward, we will continue to actively reduce our Russia-related credit exposure.

The higher tax charge in Poland is mainly caused by non-deductible regulatory and other costs.

2021

The higher tax charge of 31% in the Netherlands (compared to the statutory rate of 25%) is mainly caused by the non-deductible Dutch bank tax (EUR 260 million) and the impairments on deferred tax assets regarding Payvision and Yolt (EUR 26 million tax).

The lower tax charge in Austria is caused by previously not recognised tax losses (EUR -10 million tax).

The higher tax charge in Poland is mainly caused by non-deductible regulatory- and other costs.

2020

The higher tax charge of 47% in the Netherlands (compared to the statutory rate of 25%) is mainly caused by the non-deductible Dutch bank tax (EUR 169 million) and the non-deductible impairments regarding goodwill (EUR 266 million) and TMB (EUR 230 million).

The lower tax charge in Australia is caused by a release of a tax provision after concluding a settlement with the Australian Tax Authorities on an issue related to former Insurance activities, which issue was fully indemnified by NN Group.

The higher tax charges in Brazil and the Philippines are mainly caused by the de-recognition of tax benefits for incurred tax losses due to expected insufficient future taxable profits.

The higher tax charges in Poland and Belgium are mainly caused by non-deductible regulatory- and other costs.

Additional notes to the Consolidated financial statements

36 Pensions 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, including the defined contribution plan in the Netherlands, are principally determined as a percentage of remuneration. 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 and in other 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 former employees. These are primarily discounts on ING products.

Defined contribution plans

ING, as part of the labour agreements with its employee's, sponsors a number of defined contribution plans. ING's obligation is limited to contributions which are agreed in advance and also includes employee contributions. The most significant plans are in The Netherlands and Belgium. The Employer contribution are recognized as an expense which amounted for 2022 EUR 364 million (2021: EUR 369 million).

Defined benefit retirement plans

Statement of financial position - Net defined benefit asset/liability

Plan assets and defined benefit obligation per country						
in EUR million	Plan assets		Defined benefit obligation		Funded Status	
	2022	2021	2022	2021	2022	2021
The Netherlands	310	427	400	578	-90	-151
United States	248	332	230	312	18	20
United Kingdom	1,277	1,968	750	1,236	527	732
Belgium	507	606	475	617	32	-11
Other countries	295	338	305	372	-10	-34
Funded status (Net defined benefit asset/liability)	2,637	3,671	2,159	3,115	478	556
Presented as:						
- Other assets					617	783
- Other liabilities					-139	-227
					478	556

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 2022. 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.

The current worldwide uncertainty due to the Russian invasion in the Ukraine and the resulting increasing interest rates and inflation has a strong negative impact on most investment markets in 2022, the effect on the fair value of ING Group's plan assets and defined benefit obligation is significant however the funding status declined only by EUR -78 million mainly following the Liability Driven Investment (LDI) strategy in the United Kingdom.

Changes in the fair value of plan assets for the period were as follows::

Changes in fair value of plan assets

in EUR million	2022	2021
Opening balance	3,671	3,583
Interest income	54	37
Remeasurements: Return on plan assets excluding amounts included in interest income	-947	2
Employer's contribution	34	26
Participants contributions	3	2
Benefits paid	-126	-136
Exchange rate differences	-53	158
Closing balance	2,637	3,671
Actual return on the plan assets	-894	39

As at 31 December 2022 the defined benefit plans did not hold any direct investments in ING Groep N.V. (2021: nil). During 2022 and 2021 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 funds have 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 2023.

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

in EUR million	Defined benefit obligation		Other post-employment benefits	
	2022	2021	2022	2021
Opening balance	3,115	3,208	72	83
Current service cost	33	33	1	1
Interest cost	46	31	1	2
Remeasurements: Actuarial gains and losses arising from changes in demographic assumptions		-5		
Remeasurements: Actuarial gains and losses arising from changes in financial assumptions	-882	-122	-45	-16
Participants' contributions	3	1		1
Benefits paid	-129	-141	-1	-1
Past service cost			-1	
Effect of curtailment or settlement				-2
Exchange rate differences	-26	109	5	4
Closing balance	2,159	3,115	29	72

Amounts recognised directly in Other comprehensive income were as follows:

Changes in the net defined benefit assets/liability remeasurement reserve

in EUR million	2022	2021	
Opening balance	-212	-307	
Remeasurement of plan assets		-947	2
Actuarial gains and losses arising from changes in demographic assumptions		0	5
Actuarial gains and losses arising from changes in financial assumptions		882	122
Taxation and Exchange rate differences		46	-34
Total Other comprehensive income movement for the year		-19	95
Closing balance		-232	-212

In 2022 EUR -947 million (2021: EUR 2 million) remeasurement of plan assets, that is recognised as a loss in other comprehensive income, is driven by higher yields on investments. Also the war in Ukraine and high inflation had impact on the investment return. Material changes in interest rates and equity returns impacted plan assets negatively during 2022 substantially.

The EUR 882 million (2021: EUR 122 million) actuarial gains arising from changes in financial assumptions in the calculation of the defined benefit obligation are mainly due to an increase in discount rates.

The accumulated amount of remeasurements recognised directly in Other comprehensive income is EUR -289 million (EUR -232 million after tax) as at 31 December 2022 (2021: EUR -296 million; EUR -212 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

in EUR million	Net defined benefit asset/liability			Other post-employment benefits			Total		
	2022	2021	2020	2022	2021	2020	2022	2021	2020
Current service cost	33	33	31	1	1	-2	34	34	29
Past service cost			2	-1					2
Net Interest cost	-8	-6	-6	1	2	2	-6	-4	-4
Effect of curtailment or settlement					-2			-2	
Defined benefit plans	26	27	27	2	1		27	28	28
Defined contribution plans							364	369	356
Pension and other post employment benefits							392	397	383
Other staff related benefits							-2	11	12
Pension and other staff-related benefits							390	408	395

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 2022 was 4.3% (2021: 1.5%) 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 in 2022 was 5.5% (2021: 2.9%).

Sensitivity analysis of key assumptions

ING performs sensitivity analyses 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 1.0% creates an impact on the defined benefit obligation of EUR 247 million (decrease) and EUR 287 million (increase), 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 supervisory 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 2023 the expected contributions to defined benefit pension plans are EUR 33 million.

The benefit payments for defined benefit and other post-employment benefits expected to be made by the plan between 2023-2027 are estimated to be between EUR 128 million and EUR 150 million per year. From 2028 to 2032 the total payments made by the plan are expected to be EUR 739 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

in EUR million 2022	Net liability (-) Net asset (+) opening balance	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-) Net asset (+) ending balance
Financial assets at FVOCI	-71	151	5	-3		81
Financial assets and liabilities at FVPL	746		-3,493	9		-2,739
Depreciation	-7		-5	-2		-13
Cash flow hedges	-126	875		2		752
Pension and post-employment benefits	-49	6	-13	8	-7	-54
Other provisions	19		44	-4		59
Loans and advances	430		177	-3	7	612
Unused tax losses carried forward	199		137	-8		327
Other	-148	-123	26	-6		-251
Total	991	910	-3,122	-5		-1,227
Presented in the statement of financial position as:						
- Deferred tax liabilities	-311					-2,652
- Deferred tax assets	1,303					1,425
	991					-1,227

The above table shows netted deferred tax amounts related to right-of-use assets and lease liabilities included in the row 'Other', and includes a deferred tax amount for right-of-use assets of EUR 205 million (2021: EUR 220 million and 2020: EUR 306 million) and a deferred tax amount for lease liabilities of EUR 231 million (2021: EUR 252 million and 2020: EUR 326 million).

The changes in Deferred tax on financial assets and liabilities at FVPL in 2022 amounting to EUR-3,493 million (2021: EUR-468 million is mainly driven by the EU IAS39 carve out adjustment, we refer to Note 1.2.2 Reconciliation between IFRS-EU and IFRS-IASB).

The deferred tax on cash flow hedges relate to floating rate lending with interest rate swaps. Due to an increase in the interest rate yield curve in 2022 there was a negative revaluation through other

comprehensive income of EUR 875 million (2021 EUR 233 million) and an increase of the deferred tax asset from -126 million in 2021 to EUR 752 million in 2022.

Changes in deferred tax

in EUR million 2021	Net liability (-)	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-)
	Net asset (+) opening balance					Net asset (+) ending balance
Financial assets at FVOCI	-107	29	-1	1	7	-71
Financial assets and liabilities at FVPL	1,201		-468	20	-7	746
Depreciation	-10		5	-2		-7
Cash flow hedges	-360	233		1		-126
Pension and post-employment benefits	36	-54	-23	-8		-49
Other provisions	-5		28	-4		19
Loans and advances	517	-2	-83	-1		430
Unused tax losses carried forward	63		129	7		199
Other	-82	-83	15	1		-148
Total	1,253	123	-399	15	-1	991
Presented in the statement of financial position as:						
- deferred tax liabilities	-343					-311
- deferred tax assets	1,596					1,303
	1,253					991

Deferred tax in connection with unused tax losses carried forward

in EUR million	2022	2021
Total unused tax losses carried forward	2,668	2,165
Unused tax losses carried forward not recognised as a deferred tax asset	937	819
Unused tax losses carried forward recognised as a deferred tax asset	1,731	1,345
Average tax rate	21.1%	22.3%
Deferred tax asset	365	300

Total unused tax losses carried forward analysed by expiry terms

in EUR million	No deferred tax		Deferred tax	
	2022	2021	2022	2021
Within 1 year			591	
More than 1 year but less than 5 years	120	3	587	642
More than 5 years but less than 10 years	9	9	2	
More than 10 years but less than 20 years				
Unlimited	808	808	550	704
	937	819	1,731	1,345

The above mentioned deferred tax asset of EUR 365 million (2021: EUR 300 million) and the related unused tax losses carried forward exclude the deferred tax liability recognised in the Netherlands with respect to the recapture of tax losses originated in the United Kingdom but previously deducted in the Netherlands for the amount of EUR 37 million (2021: EUR 102 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

in EUR million	2022	2021
Poland	391	265
France	70	66
Philippines		7
China		12
Czech		2
Hong Kong	6	1
United States of America	1	1
Turkey	7	
Taiwan	8	
	483	354

The table above includes 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.

In 2022 and 2021 ING Bank Slaski (Poland) incurred a tax loss following the large value changes of the cash flow hedge derivatives which are settled net via a central clearing party. This tax loss can be carried forward for 5 years. Based on a taxable profit forecast, ING considers it probable that the future taxable profits will compensate for this tax loss carry forward position within 2 years. Based on this a deferred tax asset on unused tax losses carried forward (EUR 224 million) is fully recognised during 2021. The remaining deferred tax amount in Poland of EUR 167 million relates to temporary tax differences on loans and advances and financial assets at fair value through profit and loss.

Recognition is based on the fact that it is probable that the entity will have taxable profits and/or can utilise tax planning opportunities before expiration of the deferred tax assets. Changes in circumstances in future periods may adversely impact the assessment of the recoverability. The uncertainty of the recoverability is taken into account in establishing the deferred tax assets.

At 31 December 2021 and 2022, ING Group had no significant temporary differences associated with the parent company's investments in subsidiaries as any economic benefit from those investments will not be taxable at parent company level.

Statement of profit or loss – Taxation

Taxation by type									
	Netherlands			Rest of the world			Total		
in EUR million	2022	2021	2020	2022	2021	2020	2022	2021	2020
Current taxation	498	459	355	1,510	1,448	1,016	2,008	1,908	1,371
Deferred taxation	901	269	-72	2,221	129	-230	3,122	399	-301
	1,399	728	283	3,731	1,578	786	5,130	2,306	1,070

Reconciliation of the weighted average statutory income tax rate to ING Group's effective income tax rate

in EUR million	2022	2021	2020
Result before tax from continuing operations	17,358	8,385	3,399
Weighted average statutory tax rate	27.5%	24.7%	25.2%
Weighted average statutory tax amount	4,770	2,074	856
Permanent differences affecting current tax			
Participation exemption	-64	-68	-46
Other income not subject to tax	-40	-32	-6
Expenses not deductible for tax purposes	403	201	320
Current tax from previously unrecognised amounts	10	51	17
State and local taxes	68	64	44
Adjustments to prior periods	-29	-12	-85
Differences affecting deferred tax			
Impact on deferred tax from change in tax rates	5	9	-47
Deferred tax benefit from previously unrecognised amounts	-3	-18	-6
Write-off/reversal of deferred tax assets	10	37	24
Effective tax amount	5,130	2,306	1,070
Effective tax rate	29.6%	27.5%	31.5%

The weighted average statutory tax rate in 2022 (27.5%) increased compared to that of 2021 (24.7%).

The effective tax rate of 29.6% in 2022 is higher than the weighted average statutory tax rate. This is mainly caused by the impact in 2022 of the following non-deductible items for income tax purposes: hyperinflation accounting loss in Turkey, impairments on TTB and interest expenses in various countries.

The weighted average statutory tax rate in 2021 (24.7%) was lower than the rate of 25.2% in 2020.

The effective tax rate of 27.5% in 2021 was significantly higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes like the non-deductible bank tax and a tax charge caused by the recapture of tax losses originated in the United Kingdom but previously deducted in the Netherlands.

The effective tax rate of 31.5% in 2020 was higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes like the non-deductible bank tax and non-deductible losses with respect to goodwill impairments and impairments on associates in the Netherlands and in some other European countries.

Adjustments to prior periods in 2020 relates to a release of a tax provision of EUR 68 million after concluding on a settlement with the Australian tax authorities with respect to an issue related to former insurance activities, which issue was fully indemnified by NN Group.

Equity - Other comprehensive income

Income tax related to components of other comprehensive income			
in EUR million	2022	2021	2020
Unrealised revaluations financial assets at fair value through other comprehensive income and other revaluations	142	17	-1
Realised gains/losses transferred to the statement of profit or loss (reclassifications from equity to profit or loss)	8	12	10
Changes in cash flow hedge reserve	875	233	-23
Remeasurement of the net defined benefit asset/liability	6	-54	-8
Changes in fair value of own credit risk of financial liabilities at fair value through profit or loss	19	-8	-1
Exchange rate differences and other	-141	-77	62
Total income tax related to components of other comprehensive income	910	123	40

38 Fair value of assets and liabilities

a) 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.

In 2022 the financial market witnessed globally a higher-volatility due to a confluence of factors, such as changing expectations about the paths of future interest rates in major advanced economies, energy crisis

and geopolitical tensions after Russia's invasion of Ukraine. Globally, interest rates hike across EU and US. The USD appreciates against EURO and various currencies during the year. These main factors drive the market-to-market movements across different asset classes and spread movement through the year.

Overall in 2022, financial assets and liabilities, including Level 3, continued to be valued using agreed methodologies and ING continued to limit the unobservable input to arrive at the most appropriate Fair Market value.

b) Valuation Control framework

The valuation control framework covers the product approval process (PARP), pricing, market data assessment and independent price verification (IPV), valuation adjustments, model use, fair value hierarchy and day one profit or loss. Valuation processes are governed by various governance bodies, including Local Parameter Committees, Global Valuation and Impairment Committee, Market Data Committee and Valuation Model Committee. All relevant committees meet on a regular basis (monthly/quarterly), where agenda covers the aforementioned valuation controls.

The Global Valuation and Impairment Committee is responsible for the oversight and the approval of the outcome of impairments (other than loan loss provisions) and valuation processes. It oversees the quality and coherence of valuation methodologies and performance. The Valuation Model Committee is responsible for the approval of all valuation models used for the Fair valuation (IFRS) and Prudent Valuation (CRR) of positions measured at fair value. The Local Parameter Committee discusses the valuation results and monitors the performance of the valuation activities carried out on local or regional level. The Market Data Committee is responsible for the approval of the market data used in valuation.

c) Valuation Adjustments

Valuation adjustments are an integral part of the fair value. They are the adjustments to the output from a valuation technique in order to appropriately determine a fair value in accordance with IFRS13. ING considers various fair value adjustments including Bid-Offer adjustments, Model Risk adjustments, Bilateral Valuation Adjustments (BVA, consisting of Credit Valuation Adjustments or CVA, and Debit valuation Adjustments or DVA), Collateral Valuation Adjustment (CollVA) and Funding Valuation Adjustment (FVA).

For financial instruments where the fair value at initial recognition is based on one or more significant unobservable inputs, a difference between the transaction price and the fair value resulting from the internal valuation process can occur. Such difference is referred to as Day One Profit or Day One Loss (DOP). ING defers material Day One Profit or Loss of instruments with significant unobservable valuation inputs, which are the financial instruments classified as Level 3 and financial instruments with material unobservable inputs into CVA which are not necessarily classified as Level 3. The Day One Profit or Loss is amortised over the life of the instrument, or until the significant unobservable inputs become observable, or

until the significant unobservable inputs become non-significant. Both the impact on the profit and loss in 2022 and the Day One Profit or Loss reserve is disclosed in the below table.

The following table presents the models reserves for financial assets and liabilities.

Valuation adjustment reserves on financial assets and liabilities		
in EUR million	2022	2021
Deferred Day One Profit or Loss ¹	-108	-7
Own credit adjustments ²	75	-95
Bid/Offer	-216	-143
Model Risk	-13	-11
CVA	-192	-159
DVA ²	99	30
CollVA	-8	-8
FVA	-78	-95
Total Valuation Adjustments	-441	-489

1. In 2022, the presentation of Day One Profit or Loss reserve has been included in the table above

2. The change in the DVA as of 2022 entails the split into DVA on derivatives and Own credit adjustments on own issued liabilities. Comparatives figures for 2021 have been updated accordingly.

Overall, the fair value adjustments balance move down compared to last year end explained by own credit adjustments on own issued liabilities, mainly driven by the widening of ING CDS curve spread across all tenors, and for DVA on derivatives.

Deferred Day One Profit or Loss Reserve

The table below summarizes the movement in the aggregate profit not recognised when financial instruments were initially recognised (Day One Profit or Loss), because of the use of valuation techniques for which not all the inputs were market observable data.

As at 31 December 2022 ING further refined the thresholds to identify trades with significant unobservable CVA which triggered more Day One Profit or Loss deferral. Reference is made to the table below.

Deferred day one profit or loss reserve

in EUR million	2022	2021
Opening balance at 1 January	-7	-5
DOP deferred on new transactions during the period	107	-8
DOP recognised in the statement of profit or loss during the period	6	6
Closing balance at 31 December	-108	-7

Own Credit Adjustment

Own issued debt and structured notes that are designated at fair value through profit or loss are adjusted for ING's own credit risk by means of DVA.

Bid-Offer Adjustment

For positions priced based upon mid-market input parameters, Bid-Offer adjustments are required in order to reflect the valuation of that position based on bid price or offer price. 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 a market quoted price is not available, the price used is the fair value that is most representative within the bid-offer spread.

Model Risk Adjustment

Financial instruments that are valued using a valuation model can be subject to model risk. Model risk is the risk of possible financial loss resulting from pricing model or model-based parameter deficiencies and/or uncertainties.

Bilateral Valuation Adjustments (Credit and Debit Valuation Adjustments)

Bilateral Valuation Adjustment is the valuation adjustment reflecting the counterparty credit risk of derivative contracts. It has a bilateral nature, where both the counterparty's credit risk (i.e. Credit Valuation Adjustment or CVA) and ING's own credit risk (Debit Valuation Adjustment or DVA) are taken into account:

- CVA is the fair value adjustment applicable to derivative instruments to account for the possibility that the counterparty defaults (i.e. it is the market value of the counterparty's credit risk).
- DVA is the fair value adjustment applicable to derivative instruments to account for the possibility that ING defaults (i.e. it is the market value of ING's credit risk).

The calculation of CVA and DVA on derivatives is based on their expected exposures, the counterparties' and ING's risk of default, 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) spreads. Where counterparty CDS spreads

are not available, relevant proxy spreads are used. Additionally, wrong-way risk (which occurs when the probability of default by the counterparty increases (decreases) when ING's exposure to the counterparty increases (decreases)) and right-way risk (which occurs when the probability of default by the counterparty increases (decreases) when ING's exposure to the counterparty decreases (increases)) are included in the adjustment.

Collateral Valuation Adjustment (CollVA)

Collateral Valuation Adjustment is a fair valuation adjustment applied on derivative instruments to capture specific features of CSA (Credit Support Annex) with a counterparty that the regular OIS discounting framework does not capture. Non-standard CSA features may include deviations in relation to the currencies 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, etc.

Funding Valuation Adjustment (FVA)

Funding Valuation Adjustment (FVA) is a fair valuation adjustment applied on derivative instruments to address the asymmetry in funding costs or funding benefits between collateralized and uncollateralized derivatives portfolios. This adjustment is based on the expected exposure profiles of the uncollateralized or partially collateralized OTC derivatives and market-based funding spreads.

d) 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 observability of the valuation inputs. Highest priority is retained to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to valuation techniques supported by unobservable inputs.

Transfers into and transfers out of fair value hierarchy levels are made on a quarterly basis at the end of the reporting period.

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. 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 observable inputs, either directly or indirectly, other than quoted prices included within Level 1. The fair value for financial instruments in this category can be determined by reference to quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, inputs other than quoted prices that are observable or market-corroborated inputs. 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.

Instruments, where inputs are unobservable are 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, as the significance assessment of the valuation input on the entire fair value measurement will determine whether the instrument should be classified as Level 2 or Level 3. Expert judgement is required on the significance assessment approach.

Level 3 – Valuation technique supported by unobservable inputs

This category includes financial instruments whose fair value is determined using a valuation technique for which a significant part of the overall valuation is driven by unobservable valuation inputs. Where valuation inputs are unobservable, the Group must use the best information available to value the instruments. This may require internally derived inputs taking into account market participants assumptions that are reasonably available, including assumptions on the risk inherent in a particular valuation technique used to measure fair value and the risk inherent in the inputs to the valuation technique. Unobservable inputs may include, among others, volatility, correlation, spreads to discount rates, default rates, recovery rates, prepayment rates, and certain credit spreads.

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)								
in EUR million	Level 1		Level 2		Level 3		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Financial Assets								
Financial assets at fair value through profit or loss								
- Equity securities	11,783	17,591	2	2	156	134	11,941	17,727
- Debt securities	1,636	2,317	5,361	7,016	3,450	2,643	10,447	11,976
- Derivatives	22	6	34,229	21,154	483	140	34,734	21,299
- Loans and receivables	0	0	54,097	48,706	2,547	2,248	56,644	50,954
	13,441	19,914	93,690	76,877	6,635	5,165	113,766	101,956
Financial assets at fair value through other comprehensive income								
- Equity securities	1,639	2,232	0	0	247	225	1,887	2,457
- Debt securities	25,644	21,753	3,451	5,587	0	0	29,095	27,340
- Loans and receivables	0	0	0	0	643	838	643	838
	27,284	23,984	3,451	5,587	891	1,063	31,625	30,635
Financial liabilities								
Financial liabilities at fair value through profit or loss								
- Debt securities	822	827	5,743	5,333	53	135	6,619	6,295
- Deposits	0	0	50,257	43,026	0	0	50,257	43,026
- Trading securities	1,952	955	273	120	1	0	2,226	1,075
- Derivatives	40	63	33,200	20,388	678	195	33,917	20,646
	2,814	1,844	89,473	68,867	732	330	93,019	71,041

The following methods and assumptions were used by ING Group to estimate the fair value of the financial instruments:

Equity securities

Instrument description: Equity securities include stocks and shares, corporate investments and private equity investments.

Valuation: If available, the fair values of publicly traded equity securities and private equity securities are based on quoted market prices. In absence of active markets, fair values are estimated by analysing the investee's financial position, result, risk profile, prospect, price, earnings comparisons and revenue multiples.

Additionally, reference is made to valuations of peer entities where quoted prices in active markets are available. 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 the fair values.

Fair value hierarchy: The majority of equity securities are publicly traded and quoted prices are readily and regularly available. Hence, these securities are classified as Level 1. Equity securities which are not traded in active markets mainly include corporate investments, fund investments and other equity securities and are classified as Level 3.

Debt securities

Instrument description: Debt securities include government bonds, financial institutions bonds and Asset-backed securities (ABS).

Valuation: Where available, fair values for debt securities are generally based on quoted market prices. Quoted market prices are obtained from an exchange market, dealer, broker, industry group, pricing service, or regulatory service. The quoted prices from non-exchange sources are reviewed on their tradability of market prices. If quoted prices in an active market are not available, fair value is based on an analysis of available market inputs, which includes consensus prices obtained from one or more pricing services. Furthermore, fair values are determined by valuation techniques discounting expected future cash flows using market interest rate curves, referenced credit spreads, maturity of the investment, and estimated prepayment rates where applicable.

Fair value hierarchy: Government bonds and financial institutions bonds are generally traded in active markets, where quoted prices are readily and regularly available and are hence, classified as Level 1. The remaining positions are classified as Level 2 or Level 3. Asset backed securities for which no active market is available and a wide discrepancy in quoted prices exists, are classified as Level 3.

Derivatives

Instrument description: Derivatives contracts can either be exchange-traded or over the counter (OTC).

Derivatives include interest rate derivatives, FX derivatives, Credit derivatives, Equity derivatives and commodity derivatives.

Valuation: The fair value of exchange-traded derivatives is determined using quoted market prices in an active market and are classified as Level 1 of the fair value hierarchy. For instruments that are 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. The valuation techniques and inputs depend on the type of derivatives 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 simulations. These valuation models calculate the present value of expected future cash flows, based on 'no-arbitrage' principles. The models are commonly used in the financial industry and inputs to the validation 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. These inputs include 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 and reference is made 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 and Debit Valuation Adjustments to reflect the credit risk of ING for its counterparty. In addition, for these derivatives ING applies Funding Valuation Adjustment. See sections CVA/DVA and FVA in section c) Valuation Adjustments for more details regarding the calculation.

Fair value hierarchy: The majority of the derivatives are priced using observable inputs and are classified as Level 2. Derivatives for which the input cannot be implied from observable market data are classified as Level 3.

Loans and receivables

Instrument description: Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables carried at fair value includes trading loans, being securities lending and similar agreement comparable to collateralised lending, syndicated loans, loans expected to be sold and receivables with regards to reverse repurchase transactions.

Valuation: The fair value of loans and receivables is generally 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. Fair value hierarchy: Loans and receivables are predominantly classified as Level 2. Loans and receivables 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, are classified as Level 3.

Financial liabilities at fair value through profit and loss

Instrument description: Financial liabilities at fair value through profit and loss include debt securities, debt instruments, primarily comprised of structured notes, which are held at fair value under the fair value option. Besides that, it includes derivative contracts and repurchase agreements.

Valuation: 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.

Fair value hierarchy: The majority of the derivatives and debt instruments are classified as Level 2. Derivatives and debt instruments for which the input cannot be derived from observable market data are classified as Level 3.

e) Transfers between Level 1 and 2

As a consequence of change in observable inputs, ING recorded an EUR 1.8 billion transfer from Level 2 to Level 1 in debt securities measured at fair value through other comprehensive income. No significant transfers from Level 1 to Level 2 were recorded in the reporting period 2022

f) Level 3: Valuation techniques and inputs used

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 2022 of EUR 7.5 billion (31 December 2021: EUR 6.2 billion), an amount of EUR 2.2 billion (29.2%) (31 December 2021: EUR 2.0 billion, being 32.5%) 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 4.2 billion (31 December 2021: EUR 2.9 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 1.1 billion (31 December 2021: EUR 1.3 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 2022 of EUR 0.7 billion (31 December 2021: EUR 0.3 billion), an amount of EUR 0.02 billion (2.5%) (31 December 2021: EUR 0.1 billion, being 42.0%) 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 0.6 billion (31 December 2021: 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 0.1 billion (31 December 2021: 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)

In EUR million	Assets		Liabilities		Valuation techniques		Significant unobservable inputs		Lower range		Upper range		
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	
At fair value through profit or loss													
Debt securities	3,447	2,643	1	1	Price based		Price (%)		0%	0%	125%	121%	
					Present value techniques		Price (price per share)		208		208		
							Credit spread (bps)		60		100		
							Price (%)		97%		100%		
Equity securities	156	134				Price based		Price (price per share)		0	0	5,457	5,475
Loans and advances	1,485	1,598			Price based		Price (%)		0%	0%	100%	100%	
					Present value techniques		Credit spread (bps)		2	0	12	250	
(Reverse) repo's	1,062	650				Present value techniques		Interest rate (%)		3%	0%	5%	1%
Structured notes	3	0	53	135	Price based		Price (%)		84%	84%	107%	125%	
					Option pricing model		Equity volatility (%)		13%	13%	42%	30%	
							Equity/Equity correlation		0.5	n.a.	1.0	n.a.	
							Equity/FX correlation		-0.4	0.0	0.6	0.0	
							Dividend yield (%)		0%	3%	8%	4%	
						Present value techniques		Credit spreads (bps)		96		96	
Derivatives													
- Rates	431	5	476	35	Option pricing model		Interest rate volatility (bps)		49	43	148	82	
					Present value techniques		Reset spread (%)		0%	2%	1%	2%	
							Interest rate (%)		2%		2%		
							Prepayment rate (%)		5%		13%		
- FX	5	27	4	30		Present value techniques		FX volatility (%)			1%		16%
					Option pricing model		Implied volatility (%)		6%	1%	20%	22%	
- Credit	13	75	175	94	Present value techniques		Credit spread (bps)		5	1	623	359	
					Price based		Price (%)		0%	0%	100%	100%	
- Equity	33	30	22	27		Option pricing model		Equity volatility (%)		0%	11%	77%	119%
							Equity/Equity correlation		0.5	0.5	0.9	0.8	
							Equity/FX correlation		-0.5	-0.7	0.1	0.1	
							Dividend yield (%)		1%	0%	14%	18%	
- Other	1	3		9	Price based		Price (%)		n.a.	0%	n.a.	0%	
					Option pricing model		Commodity volatility (%)		0%	20%	63%	89%	
At fair value through other comprehensive income													
- Loans and advances	643	838			Present value techniques		Prepayment rate (%)		6%	9%	6%	9%	
					Price based		Price (%)		67%	99%	99%	100%	
- Equity	247	225				Present value techniques		Credit spread (bps)		6.7	1.9	6.7	1.9
							Interest rate (%)		4%	3%	4%	3%	
					Price based		Price (%)		n.a.	1%	n.a.	1%	
					Price based		Other (EUR)		70	63	90	80	
Total	7,526	6,228	732	330									

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 yield above current market rates.

Credit spreads

Credit spread is the premium above a benchmark interest rate 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 having more than one underlying reference. High positive correlation (close to 1) indicates strong positive (statistical) relationship, where underliers move, everything else equal, into the same direction. The same holds for a high negative correlation.

Reset spread

Reset spreads are key inputs to mortgage linked prepayment swaps valuation. Reset spread is the future spread at which mortgages will re-price at interest rate reset dates.

Inflation rate 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.

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.

Jump rate

Jump rates simulate abrupt changes in valuation models. The rate is an added component to the discount rate in the model to include default risks.

Prepayment rate

Prepayment rate is a key input to mortgage and loan valuation. Prepayment rate is the estimated rate at which mortgage borrowers will repay their mortgages early, e.g. 5% per year. Prepayment rate and reset spread are key inputs to mortgage linked prepayment swaps valuation.

Level 3: Changes during the period

Changes in Level 3 Financial assets

In EUR million	Trading assets		Non-trading derivatives		Financial assets mandatorily at FVPL		Financial assets designated at FVPL		Financial assets at FVOCI		Total	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	822	882	1	1	1,862	1,191	2,480	796	1,063	1,231	6,228	4,101
Realised gain/loss recognised in the statement of profit or loss during the period ¹	53	22	52		-57	32	122	-80	8	-12	178	-37
Revaluation recognised in other comprehensive income during the period ²									-84	22	-84	22
Purchase of assets	694	453	15	3	1,586	1,496	772	1,919	221	165	3,288	4,036
Sale of assets	-49	-48	-4	-3	-669	-612	-191	-141	-275	-234	-1,187	-1,037
Maturity/settlement	-511	-14	-2		-617	-163		-13	-59	-109	-1,188	-299
Reclassifications					-18	-5			10	-6	-8	-11
Transfers into Level 3	288	43	474		605	-1	322		-43	-1	1,646	42
Transfers out of Level 3	-442	-517	-115	-1	-856	-98					-1,414	-615
Exchange rate differences	18				14	20	-12		49	9	68	29
Changes in the composition of the group and other changes										-2		-2
Closing balance	873	822	421	1	1,849	1,862	3,492	2,480	891	1,063	7,526	6,228

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 -171 million (2021: EUR 50 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'.

In 2022, the transfers into Level 3 mainly consisted of (non) trading derivatives that were transferred to Level 3 as a result of the valuation being significantly impacted by unobservable inputs. Furthermore, it relates to debt obligations of which the valuation is being significantly impacted by unobservable inputs.

In 2022, following the enhancement of the significance assessment, transfers into and out of Level 3 of financial assets mandatorily at fair value mainly relate to a portfolio of securitization loans. Furthermore, transfers out of Level 3 relate to two syndicated deals due to the unobservable parameters were insignificant.

In 2022, transfers into level 3 financial assets designated at fair value relate to government bonds of which the valuation being significantly impacted by unobservable inputs

In 2021, transfers out of Level 3 of financial assets designated at fair value mainly relate to (long term) reverse repurchase transactions that were transferred out of Level 3 due to the valuation not being significantly impacted by unobservable inputs.

Changes in Level 3 Financial liabilities

in EUR million	Trading liabilities		Non-trading derivatives		Financial liabilities designated as at fair value through profit			Total
	2022	2021	2022	2021	2022	2021	2022	2021
Opening balance	160	180	35	39	135	180	330	398
Realised gain/loss recognised in the statement of profit or loss during the period ¹	131	101	59	0	-10	13	179	113
Additions	124	58	16	3	13	52	153	113
Redemptions	-38	-10	0	-3	-13	-140	-51	-153
Maturity/settlement	-282	-44	-7	0	-71	-1	-360	-45
Transfers into Level 3	254	48	368	0	88	233	710	282
Transfers out of Level 3	-117	-173	-21	-3	-88	-203	-226	-378
Exchange rate differences	-3		0		0		-3	
Closing balance	229	160	449	35	54	135	732	330

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 179 million (2021: EUR 113 million) of unrealised gains and losses recognised in the statement of profit or loss.

In 2022, the transfers into Level 3 mainly consisted of non-trading derivatives that were transferred to Level 3 as a result of the valuation being significantly impacted by unobservable inputs.

In 2021, financial liabilities transfers into and out of Level 3 mainly consisted of structured notes, measured as designated at fair value through profit or loss. The structured notes were transferred out of Level 3 as the valuation was no longer impacted by significantly unobservable inputs.

g) 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.

h) Level 3: Sensitivity analysis of unobservable inputs

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 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.

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.

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 valuation uncertainty in the table below is broken down by related risk class rather than by product. The possible impact of a change of unobservable inputs in the fair value of financial instruments where unobservable inputs are significant to the valuation is as follows:

Sensitivity analysis of Level 3 instruments

in EUR million	Positive fair value movements from using reasonable possible alternatives		Negative fair value movements from using reasonable possible alternatives	
	2022	2021	2022	2021
Equity (equity derivatives, structured notes)	12	3	-6	-27
Interest rates (Rates derivatives, FX derivatives)	22	15	-14	-1
Credit (Debt securities, Loans, structured notes, credit derivatives)	32	27	-28	-2
Loans and advances			-32	
	65	45	-80	-30

i) Financial instruments not measured at fair value

The following table presents the estimated fair values of the financial instruments not measured at fair value in the statement of financial position. The aggregation of the fair values presented below does not represent, and should not be construed as representing, the underlying value of ING Group.

Methods applied in determining fair values of financial assets and liabilities (carried at amortised cost)

in EUR million	Carrying Amount		Carrying amount approximates fair value		Level 1		Level 2		Level 3		Total fair value	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Financial Assets												
Loans and advances to banks ¹	35,104	23,592	2,859	1,675		1	29,459	17,033	2,786	4,926	35,104	23,635
Loans and advances to customers	644,893	625,122	19,095	16,939			15,264	18,465	575,805	600,253	610,164	635,657
Securities at amortised cost	48,160	48,319			39,787	40,314	3,160	7,327	1,406	681	44,353	48,323
	728,157	697,032	21,954	18,614	39,788	40,316	47,883	42,825	579,996	605,860	689,621	707,614
Financial liabilities												
Deposits from banks	56,632	85,092	3,696	4,298			48,524	75,847	3,954	5,890	56,174	86,035
Customer deposits	640,799	617,400	589,851	585,929			35,123	20,089	15,331	11,624	640,306	617,641
Debt securities in issue	95,918	91,784			43,352	37,345	35,642	40,704	17,796	15,036	96,790	93,085
Subordinated loans	15,786	16,715			7,843	12,826	7,705	4,377			15,548	17,203
	809,135	810,990	593,547	590,227	51,194	50,171	126,995	141,017	37,082	32,549	808,818	813,964

1 The prior period has been updated to improve consistency and comparability of level 3 and 2.

The following methods and assumptions were used by ING Group to estimate the fair value of the financial instruments which are not recorded and measured at fair value. These fair values were calculated for disclosure purposes only. The carrying amount of financial instruments presented in the above table includes the fair value hedge adjustment, this explains why the carrying amount approximates fair value.

Loans and advances to banks

For short term receivables from banks carrying amounts represent a reasonable estimate of the fair value. The fair value of long term receivables from banks is estimated by discounting expected future cash flows using a discount rate based on specific available market data, such as interest rates and appropriate spreads that reflects current credit risk or quoted bonds.

Loans and advances to customers

For short term loans carrying amounts represent a reasonable estimate of the fair value. The fair value of long term loans is estimated by discounting expected future cash flows using a discount rate that reflects current credit risk, current interest rates, and other current market conditions where applicable. The fair value of mortgage loans is estimated by taking into account prepayment behaviour. Loans with similar characteristics are aggregated for calculation purposes.

Deposits from banks

For short term payables to banks carrying amounts represent a reasonable estimate of the fair value. The fair value of long term payables to banks is estimated by discounting expected future cash flows using a discount rate based on available market interest rates and appropriate spreads that reflects ING's own credit risk.

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.

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..

39 Derivatives and hedge accounting

Use of derivatives

ING uses derivatives for economic hedging purposes to manage its asset and liability portfolios and structural risk positions. The primary objective of ING'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 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 accounting 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 1.7 'Financial instruments' of Note 1 'Basis of preparation and significant accounting policies'.

IBOR transition

Reference is made to the note Risk management/ IBOR Transition for information on how ING is managing the transition to alternative benchmark rates and ING's progress in completing the transition. At the reporting date, ING assessed the extent to which hedge relationships are subject to uncertainties driven by IBOR reform.

The IBOR's in scope of ING's IBOR Transition program are a component of either the hedging instrument and/or the hedged item where the interest rate and/or foreign currency risk are the designated hedged risk. The hedged exposures are mainly loan portfolios, issued debt securities and purchased debt instruments.

ING early adopted the amendments to IAS 39 issued in September 2019 to these hedging relationships directly affected by IBOR reform (Phase 1). This excludes EURIBOR hedges as EURIBOR is Benchmarks Regulation compliant and continues to be available. Refer to section 1.7.4 of Note 1 'Basis of preparation and significant accounting policies' for more information on the Phase 1 amendments.

Phase 1 amendments to IFRS allow ING to apply a set of temporary exceptions to continue hedge accounting even when there is uncertainty about contractual cash flows arising from IBOR reform. Phase 1 reliefs cease to apply when uncertainty arising from IBOR Reform is no longer present with respect to the timing and amount of the IBOR-based cash flows of the relevant instruments.

In Poland the local working group (the 'National Working Group') for benchmark reform issued a roadmap to replace the current Polish benchmark rate Warsaw Interbank Offered Rate (WIBOR) with a new rate named Warsaw Interest Rate Overnight (WIRON). The National Working Group indicated that the plan is for the market to be ready for a cessation of WIBOR by the start of 2025, consequently ING extended the application of the phase 1 reliefs to those hedge accounting relationships that will be subject to WIBOR reform.

Hedging relationships are being amended to incorporate the new benchmark rates. During 2022, ING focussed on USD LIBOR contracts. In the coming year, ING will continue the focus on the remaining USD LIBOR contracts as the used USD LIBOR tenors will cease to be published on 30 June 2023.

As of 31 December 2022, USD LIBOR and WIBOR indexed fair value and cash flow hedges are 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 assumes that the USD LIBOR and WIBOR based cash flows from the hedging instrument and hedged item will remain unaffected.

The same assumption is used to assess the likelihood of occurrence of the forecast transactions that are subject to cash flow hedges. The hedged cash flows in cash flow hedges directly impacted by the IBOR reform still meet the highly probable requirement, assuming the USD LIBOR and WIBOR benchmark on which the hedged cash flows are based is not altered as a result of the reform.

The total gross notional amounts of hedging instruments as at 31 December that are used in the ING's hedge accounting relationships for which the Phase 1 amendments to IAS39 were applied are:

Notional amounts of Hedging instruments in EUR mln as at 31 December		
Benchmark	2022	2021
USD LIBOR	28,316	41,473
WIBOR ¹	57,774	

1 WIBOR transition plans became concrete in 2022 and therefore no comparatives for 2021 are included.

Approximately 89% (31 December 2021: 72%) of the notional amounts for USD LIBOR have a maturity date beyond 30 June 2023. Approximately 71% of the notional amounts for WIBOR have a maturity date beyond 1 January 2025.

The notional amounts of the derivative hedging instruments provide a close approximation of the extent of the risk exposure ING manages through these hedging relationships.

Fair value hedge accounting

ING'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's approach to manage market risk, including interest rate risk, is discussed in 'Risk management –Market risk'. ING's exposure to interest rate risk is disclosed in paragraph 'Interest rate risk in banking book'.

ING Group designates specific non-contractual risk components of hedged items. This is usually determined by designating benchmark interest rates such as EURIBOR, SOFR, SONIA or TONAR, between others.

By using derivative financial instruments to hedge exposures to changes in interest rates, ING also exposes itself to credit risk of the derivative counterparty, which is not offset by the hedged item. ING minimises counterparty credit risk in derivative instruments by clearing most of the derivatives through Central Clearing Counterparties. In addition, ING 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, ING 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 considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING 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 uses the following derivative financial instruments in a fair value hedge accounting relationship:

Gross carrying value of derivatives designated under fair value hedge accounting				
in EUR million	Assets 2022	Liabilities 2022	Assets 2021	Liabilities 2021
As at 31 December				
Hedging instrument on interest rate risk				
- Interest rate swaps	2,750	8,047	2,665	1,528
- Other interest derivatives	395	39	87	83

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 836 million (2021: EUR 365 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 244 million (2021: EUR 270 million). The difference between the gross carrying value as presented in the table and the net carrying value as presented in the statement of financial position is due to offsetting 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 2.75% (2021: 3.06%) for EUR and 3.86% (2021: 3.83%) 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

in EUR million

As at 31 December 2022	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	-15	1,295	5,744	5,727	9,526	9,153	6,638	16,454	54,523
- Other interest derivatives	-10	-55	-190	-260	-415	-216	-228	-296	-1,669
As at 31 December 2021									
Hedging instrument on interest rate risk									
- Interest rate swaps	-83	2,654	1,340	7,213	5,862	3,772	7,533	20,282	48,574
- Other interest derivatives		-102	-307	-286	-287	-357	-224	73	-1,490

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 in 'Valuation results and net trading income'. As a result, only the net accounting ineffectiveness has an impact on the net result.

Hedged items included in a fair value hedging relationship

in EUR million	Carrying amount of the hedged items		Accumulated amount of fair value hedge adjustment on the hedged item included in the carrying amount of the hedged item		Change in fair value used for measuring ineffectiveness for the period	Change in fair value hedging instruments	Hedge ineffectiveness recognised in the statement of profit or loss gain (+) / loss (-)
	Assets	Liabilities	Assets	Liabilities			
As at 31 December 2022							
Interest rate risk							
- Debt securities at fair value through other comprehensive income	19,816		n/a		-2,798		
- Loans at FVOCI			n/a				
- Loans and advances to customers	879		-20		-90		
- Debt instruments at amortised cost	4,098		-448		-678		
- Debt securities in issue		61,449		-6,122	7,658		
- Subordinated loans		14,750		-1,344	1,470		
- Amounts due to banks							
- Customer deposits and other funds on deposit					2		
- Discontinued hedges			261	-2			
Total	24,794	76,199	-208	-7,468	5,563	-5,928	-365
As at 31 December 2021							
Interest rate risk							
- Debt securities at fair value through other comprehensive income	17,307		n/a		-798		
- Loans at FVOCI			n/a				
- Loans and advances to customers	1,056		93		-42		
- Debt instruments at amortised cost	3,458		301		-165		
- Debt securities in issue		53,756		1,498	1,923		
- Subordinated loans		16,713		115	414		
- Amounts due to banks							
- Customer deposits and other funds on deposit					-2		
- Discontinued hedges			372	8			
Total	21,821	70,469	767	1,621	1,330	-1,317	13

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).

There were no other sources of significant ineffectiveness in these hedging relationships.

Cash flow hedge accounting

ING applies cash flow hedge accounting on micro and macro level. ING'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'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 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 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 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 considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING 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, 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 uses the following derivative financial instruments in a cash flow hedge accounting relationship:

Gross carrying value of derivatives used for cash flow hedge accounting

in EUR million	Assets	Liabilities	Assets	Liabilities
	2022	2022	2021	2021
As at 31 December				
Hedging instrument on interest rate risk				
– Interest rate swaps	10,038	14,836	-437	781
Hedging instrument on combined interest and FX rate risk				
– Cross currency interest rate derivatives	428	168	73	285

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 814 million (2021: EUR 300 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 1,275 million (2021: EUR 485 million). The difference between the gross carrying value as presented in the table and the net carrying value as presented in the statement of financial position is due to offsetting 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 0.51% (2021: -0.16%) for EUR, 3.27% (2021: 1.73%) for PLN, 1.96% (2021: 2.09%) for USD and 1.28% (2021: 0.55%) for AUD. The average currency exchange rates for cross currency swaps used in cash flow hedge accounting is for EUR/USD 0.99 (2021: 1.01) and for EUR/AUD 1.58 (2021: 1.61).

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

in EUR million

As at 31 December 2022	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	-562	-935	-6,730	-12,464	-8,926	-8,115	-3,620	-8,947	-50,300
Hedging instrument on combined interest and FX rate risk									
- Cross currency interest rate derivatives	0	-834	-1,535	-721	-2,140	-52	7	-48	-5,323
As at 31 December 2021									
Hedging instrument on interest rate risk									
- Interest rate swaps	418	-1,075	-6,939	-5,470	-6,711	-5,825	-5,272	-18,107	-48,982
Hedging instrument on combined interest and FX rate risk									
- Cross currency interest rate derivatives	-256	-1,048	-1,760	-3,831	-2,528	-2,580	181	-56	-11,878

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

in EUR million	Change in value of hedged item used for calculating hedge ineffectiveness for the period	Carrying amount cash flow hedge reserve at the end of the reporting period ¹	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 2022						
Interest rate risk on;						
- Floating rate lending	4,817	-5,460	395			
- Floating rate borrowing	-775	923	-181			
- Other	-5	-2				
- Discontinued hedges		330	-263			
Total interest rate risk	4,037	-4,210	-50		-4,279	21
Combined interest and FX rate risk on;						
- Floating rate lending	-47	-16	-269			
- Floating rate borrowing	-7	-4	14			
- Other	4	-2	-3			
- Discontinued hedges		4	-5			
Total combined interest and Fx	-51	-18	-263		296	-1
Total cash flow hedge	3,986	-4,227	-313		-3,982	20
As at 31 December 2021						
Interest rate risk on;						
- Floating rate lending	2,937	-1,132	-454			
- Floating rate borrowing	-915	366	143			
- Other	165	-122	15			
- Discontinued hedges		674	-306			
Total interest rate risk	2,188	-214	-603		-1,825	-2
Combined interest and FX rate risk on;						
- Floating rate lending	-90	-19	-153			
- Floating rate borrowing	-2	-16	9			
- Other		-1	-1			
- Discontinued hedges		-13	-90			
Total combined interest and Fx	-92	-49	-235		250	3
Total cash flow hedge	2,096	-262	-838		-1,574	1

¹ The carrying amount is the gross amount, excluding tax adjustments.

The decrease in the carrying amount of the cash flow hedge reserve is driven by increased interest rates.

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.

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 the presentation currency of ING. The risk arises from the fluctuation in spot exchange rates between the functional currency of the subsidiaries and ING's presentation currency, which causes the amount of the net investment to vary in the consolidated financial statements of ING. This risk may have a significant impact on ING's financial statements. ING's policy is to hedge these exposures only when not doing so it is expected to have a significant impact on the regulatory capital ratios of ING and its subsidiaries.

ING'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 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 in 'Valuation results and net trading income'.

ING has the following derivative financial instruments used for net investment hedging:

Gross carrying value of derivatives used for net investment hedging

in EUR million	Assets		Liabilities	
	2022	2022	2021	2021
As at 31 December				
- FX forwards and Cross currency swaps	119	83	18	88

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 119 million (2021: EUR 18 million) respectively 'Financial liabilities at fair value through profit or loss - Non trading derivatives' EUR 83 million (2021: EUR 88 million).

For ING's main currencies the average exchange rates used in net investment hedge accounting for 2022 are EUR/USD 1.06 (2021: 1.18), EUR/PLN 4.68 (2021: 4.58), EUR/AUD 1.52 (2021: 1.58) and EUR/THB 36.87 (2021: 37.84).

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

in EUR million									
As at 31 December 2022	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 cross currency swaps	-6,164	-2,638	-97						-8,899
As at 31 December 2021									
- FX forwards and Cross currency swaps	-4,462	-461	-590						-5,514

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

in EUR million

	Change in value used for calculating hedge ineffectiveness for the period	Carrying amount net investment hedge reserve at the end of the reporting period ¹	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(-)
As at 31 December 2022					
Investment in foreign operations		-33			
Discontinued hedges		304	-1		
As at 31 December 2021					
Investment in foreign operations	72	330		-72	-1
Discontinued hedges		-59			

¹ The carrying amount is the gross amount, excluding tax adjustments.

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

in EUR million							
2022	Less than 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	87,614						87,614
Loans and advances to banks	28,734	1,633	2,331	2,190	216		35,104
Financial assets at fair value through profit or loss							
- Trading assets	15,520	5,399	9,991	13,062	12,900		56,870
- Non-trading derivatives	623	95	592	1,555	1,027		3,893
- Mandatorily at fair value through profit or loss	29,153	10,504	3,753	2,329	901	203	46,844
- Designated as at fair value through profit or loss	287	158	185	2,497	3,031		6,159
Financial assets at fair value through other comprehensive income							
- Equity securities						1,887	1,887
- Debt securities	167	420	2,458	12,587	13,463		29,095
- Loans and advances	3	1	7	226	407		643
Securities at amortised cost	1,810	1,719	4,566	24,689	15,376		48,160
Loans and advances to customers	54,431	23,554	54,056	206,662	306,190		644,893
Other assets ²	7,155	272	1,162	1,065	1,418	4,600	15,671
Total assets	225,499	43,754	79,101	266,862	354,928	6,690	976,834
2021							
Cash and balances with central banks	106,520						106,520
Loans and advances to banks	15,163	2,204	3,921	1,937	367		23,592
Financial assets at fair value through profit or loss							
- Trading assets	21,055	3,859	8,735	7,922	9,810		51,381
- Non-trading derivatives	240	171	217	421	488		1,536
- Mandatorily at fair value through profit or loss	20,462	12,063	7,487	1,741	770	161	42,684
- Designated as at fair value through profit or loss	96	120	520	2,510	3,109		6,355
Financial assets at fair value through other comprehensive income							
- Equity securities						2,457	2,457
- Debt securities	593	518	1,926	11,182	13,121		27,340
- Loans and advances	14	11	173	214	427		838
Securities at amortised cost	1,108	1,217	4,509	24,413	17,072		48,319
Loans and advances to customers	52,269	26,414	53,616	185,836	306,988		625,122
Other assets ²	3,827	362	1,524	1,185	1,482	4,725	13,106
Total assets	221,345	46,940	82,627	237,360	353,634	7,343	949,250

¹ Includes assets on demand.

² Includes other financial assets such as assets held for sale, current and deferred tax assets as presented in the consolidated statement of the financial position. Additionally, non-financial assets are included in that position where maturities are not applicable as property and equipment and investments in associates and joint ventures. Due to their nature non-financial assets consist mainly of assets expected to be recovered after more than 12 months.

41 Liabilities and off-balance sheet commitments by maturity

The tables below include all liabilities and off-balance sheet commitments by maturity based on contractual, undiscounted cash flows. These balances are included in the maturity analysis as follows:

- Perpetual liabilities are included in the column 'Maturity not applicable'.
- 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.
- Undiscounted future coupon interest on financial liabilities payable is included in a separate line and in the relevant maturity bucket.
- Non-financial liabilities are included based on a breakdown of the amounts per statement of financial position, per expected maturity.
- Loans and other credit-related commitments are classified on the basis of the earliest date they can be drawn down.

ING Group's expected cash flows on some financial liabilities vary significantly from contractual cash flows. Principal differences are in demand deposits from customers that are expected to remain stable or increase and in unrecognised loan commitments that are not all expected to be drawn down immediately. 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 and off-balance sheet commitments by maturity

in EUR million

2022	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	10,053	2,238	33,268	9,878	1,794		-598	56,632
Customer deposits	605,154	16,127	15,045	2,729	1,872		-128	640,799
Financial liabilities at fair value through profit or loss								
- Other trading liabilities	5,778	875	304	771	575		-83	8,219
- Trading derivatives	2,100	2,319	4,942	9,330	3,609		8,570	30,869
- Non-trading derivatives	345	288	216	1,204	470		525	3,048
- Designated at fair value through profit or loss	31,505	11,472	1,626	3,177	3,701	22	-620	50,883
Debt securities in issue	2,049	11,227	23,187	30,769	34,335		-5,648	95,918
Subordinated loans			760		9,936	6,307	-1,218	15,786
Lease liabilities	19	43	170	593	377		-28	1,174
Financial liabilities	657,001	44,588	79,518	58,451	56,669	6,329	771	903,328
Other liabilities ³	9,913	683	2,466	3,033	406			16,502
Total liabilities	666,914	45,271	81,984	61,485	57,075	6,329	771	919,829
Coupon interest due on financial liabilities	430	714	3,132	6,346	3,208	347		14,175
Contingent liabilities in respect of								
- Discounted bills								
- Guarantees	28,304			4	550			28,859
- Irrevocable letters of credit	15,660	19	3					15,682
- other					3			3
Guarantees issued by ING Groep N.V.	336							336
Irrevocable facilities	161,147		194	434	166			161,940
	205,447	19	197	438	719			206,820

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 fair value hedge adjustments, 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 and off-balance sheet commitments by maturity

in EUR million

2021	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	10,477	1,062	1,387	71,413	1,719		-967	85,092
Customer deposits	596,625	11,226	6,060	1,571	1,937		-19	617,400
Financial liabilities at fair value through profit or loss								
- Other trading liabilities	6,965	397	322	462	438		4	8,588
- Trading derivatives	1,689	1,608	3,674	8,295	5,731		-2,472	18,525
- Non-trading derivatives	546	245	422	900	571		-564	2,120
- Designated at fair value through profit or loss	24,862	10,224	771	1,851	3,721	20	358	41,808
Debt securities in issue	2,766	19,470	15,712	23,052	28,934		1,851	91,784
Subordinated loans				716	8,948	6,822	229	16,715
Lease liabilities	18	40	159	571	454		-23	1,220
Financial liabilities	643,949	44,272	28,506	108,831	52,453	6,843	-1,602	883,251
Other liabilities ³	8,810	487	2,665	300	934			13,196
Total liabilities	652,759	44,758	31,172	109,132	53,386	6,843	-1,602	896,448
Coupon interest due on financial liabilities	193	406	1,000	2,579	2,773	387		7,338
Contingent liabilities in respect of								
- Discounted bills								
- Guarantees	25,911				550			26,461
- Irrevocable letters of credit	16,851							16,851
- other	1		2	5				8
Guarantees issued by ING Groep N.V.	316							316
Irrevocable facilities ⁴	143,891	1	13	184	78			144,167
	186,969	1	15	189	628			187,802

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 fair value hedge adjustments, 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.

42 Transfer of financial assets, assets pledged and received as collateral

Financial assets pledged as collateral

The financial assets pledged as collateral consist primarily of Loans and advances to customers pledged to secure Debt securities in issue, deposits from the Dutch Central Bank and other banks, as well as debt securities used in securities lending or sale and repurchase transactions. They serve to secure margin accounts and are used for other purposes required by law. Pledges are generally conducted under terms that are usual and customary for collateralised transactions including standard sale and repurchase agreements, securities lending and borrowing and derivatives margining. The financial assets pledged are as follows:

Financial assets pledged as collateral		
in EUR million	2022	2021
Banks		
- Cash and balances with central banks	364	465
- Loans and advances to banks	4,007	3,310
Financial assets at fair value through profit or loss	17,079	15,334
Financial assets at fair value through OCI	2,142	2,320
Securities at amortised cost	3,578	4,468
Loans and advances to customers	98,917	118,868
Other assets	596	796
	126,682	145,560

In addition, in some jurisdictions ING Bank N.V. has an obligation to maintain a reserve with central banks. As at 31 December 2022, the minimum mandatory reserve deposits with various central banks amount to EUR 11,108 million (2021: EUR 10,625 million).

Financial assets received as collateral

The financial assets received as collateral that can be sold or repledged in absence of default by the owner of the collateral consists of securities obtained through reverse repurchase transactions and securities borrowing transactions.

These transactions are generally conducted under standard market terms for most repurchase transactions and the recipient of the collateral has unrestricted right to sell or repledge it, provided that the collateral (or equivalent collateral) is returned to the counterparty at term.

Financial assets received as collateral

in EUR million	2022	2021
Total received collateral available for sale or repledge at fair value		
- equity securities	22,847	27,553
- debt securities	103,723	67,696
of which sold or repledged at fair value		
- equity securities	18,613	23,330
- debt securities	66,636	50,366

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.

in EUR million	Transfer of financial assets not qualifying for derecognition							
	Securities lending				Sale and repurchase			
	Equity		Debt		Equity		Debt ²	
	2022	2021	2022	2021	2022	2021	2022	2021
Transferred assets at carrying amount								
Financial assets at fair value through profit or loss	2,087	3,109			6,357	4,384	7,178	5,863
Financial assets at fair value through other comprehensive income			499				453	527
Loans and advances to customers							4,637	4,386
Securities at amortised cost			435				261	992
Associated liabilities at carrying amount¹								
Financial liabilities at fair value through profit or loss	n/a	n/a	n/a	n/a	6,245	4,130	8,932	7,538

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 on Financial assets at fair value through other comprehensive income and Securities at amortised cost has been updated to improve consistency and comparability

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. Transferred financial assets that are derecognised in their entirety are mentioned in Note 49 'Structured entities'.

43 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 netting criteria (legal right to offset and intention to settle net or to realise the asset and settle the liability simultaneously) and amounts presented gross in the statement of financial position but subject to enforceable master netting arrangements or similar arrangements.

At ING Group amounts that are offset mainly relate to derivatives transactions, sale and repurchase agreements, securities lending agreements and cash pooling arrangements. A significant portion of offsetting is applied to OTC derivatives which are cleared through central clearing parties.

Related amounts not set off in the statement of financial position include transactions where:

- The counterparty has an offsetting exposure and a master netting or similar arrangement is in place with a right to set off only in the event of default, insolvency or bankruptcy, or the offsetting criteria are otherwise not satisfied, and
- In the case of derivatives and securities lending or sale and repurchase agreements, cash and non-cash collateral has been received or pledged to cover net exposure in the event of a default or other predetermined events. The effect of over-collateralisation is excluded.

The net amounts resulting after set off are not intended to represent ING's actual exposure to counterparty risk, as risk management employs a number of credit risk mitigation strategies in addition to netting and collateral arrangements. Reference is made in the Risk Management Credit risk' section 'Credit risk mitigation'.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

in EUR million 2022	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		Net amount	Amounts not subject to enforceable netting arrangements	Statement of financial position total ¹
						Financial instruments	Cash and financial instruments received as collateral			
	Loans and advances to banks ²	Reverse repurchase, securities borrowing and similar agreements	2,576		2,576		2,549	27	16,820	19,395
		Other	1		1	1			-1	
			2,576		2,576	1	2,549	27	16,819	19,395
	Financial assets at fair value through profit or loss									
	Trading and Non-trading	Reverse repurchase, securities borrowing and similar agreements	51,870	-21,245	30,625	102	29,813	710	22,260	52,886
		Derivatives	134,253	-106,523	27,730	18,190	4,525	5,015	7,004	34,734
			186,123	-127,768	58,355	18,292	34,337	5,726	29,264	87,619
	Loans and advances to customers ³	Reverse repurchase, securities borrowing and similar agreements	155		155		155		1,151	1,306
		Cash pools	224,261	-222,857	1,404	74	889	441		1,404
			224,416	-222,857	1,559	74	1,044	441	1,151	2,710
	Other items where offsetting is applied in the statement of financial position ⁴		6,750	-5,899	851	74		777		851
	Total financial assets		419,865	-356,524	63,341	18,440	37,930	6,971	47,234	110,576

¹ 'The statement of financial position total' is the sum of 'Net amounts of financial assets presented in the statement of financial position' and 'Amounts not subject to enforceable master netting arrangements'.

² At 31 December 2022, the total amount of 'Loans and advances to banks' excluding repurchase agreements is EUR 15,709 million which is not subject to offsetting.

³ At 31 December 2022, the total amount of 'Loans and advances to customers' excluding repurchase agreements is EUR 643,587 million of which the net cash pool position of EUR 1,404 million is subject to offsetting.

⁴ Other items mainly include amounts to be settled with Central Clearing Counterparties regarding securities and derivatives transactions and is included in 'Other Assets – Amounts to be settled' for EUR 5,191 million in the statement of financial position of which EUR 851 million is subject to offsetting as at 31 December 2022.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

in EUR million 2021	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		Amounts not subject to enforceable netting arrangements	Statement of financial position total ¹	
						Financial instruments	Cash and financial instruments received as collateral			Net amount
	Loans and advances to banks²	Reverse repurchase, securities borrowing and similar agreements	1,930		1,930		1,923	7	1,473	3,403
		Other	1	-1						
			1,931	-1	1,930		1,923	7	1,473	3,403
	Financial assets at fair value through profit or loss									
	Trading and Non-trading	Reverse repurchase, securities borrowing and similar agreements	43,822	-11,564	32,258	168	31,848	243	15,590	47,848
		Derivatives	52,724	-38,431	14,293	9,005	3,108	2,180	7,006	21,299
			96,546	-49,995	46,552	9,172	34,956	2,423	22,596	69,148
	Loans and advances to customers³	Reverse repurchase, securities borrowing and similar agreements	71		71		71			71
		Cash pools	196,328	-194,522	1,806	19	1,417	369		1,806
			196,400	-194,522	1,878	19	1,489	369		1,878
	Other items where offsetting is applied in the statement of financial position⁴		3,692	-3,470	222			222		222
	Total financial assets		298,569	-247,987	50,581	9,191	38,368	3,022	24,069	74,650

1 'The statement of financial position total' is the sum of 'Net amounts of financial assets presented in the statement of financial position' and 'Amounts not subject to enforceable master netting arrangements'.

2 At 31 December 2021, the total amount of 'Loans and advances to banks' excluding repurchase agreements is EUR 20,189 million which is not subject to offsetting.

3 At 31 December 2021, the total amount of 'Loans and advances to customers' excluding repurchase agreements is EUR 624,635 million of which the net cash pool position of EUR 1,806 million is subject to offsetting.

4 Other items mainly include amounts to be settled with Central Clearing Counterparties regarding securities and derivatives transactions and is included in 'Other Assets – Amounts to be settled' for EUR 2,424 million in the statement of financial position of which EUR 222 million is subject to offsetting as at 31 December 2021.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

in EUR million 2022	Statement of financial position line item	Financial instrument	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		Net amount	Amounts not subject to enforceable netting arrangements	Statement of financial position total ¹
						Financial instruments	Cash and financial instruments pledged as collateral			
	Deposits from banks ²	Repurchase, securities lending and similar agreements							3,809	3,809
		Other								
									3,809	3,809
	Customer deposits ³	Repurchase, securities lending and similar agreements								
		Cash pools	236,219	-222,857	13,362	52		13,310		13,362
			236,219	-222,857	13,362	52		13,310		13,362
	Financial liabilities at fair value through profit or loss									
	Trading and Non-trading	Repurchase, securities lending and similar agreements	57,871	-21,245	36,626	102	31,868	4,655	12,220	48,846
		Derivatives	127,937	-103,988	23,949	18,215	4,964	770	9,967	33,917
			185,808	-125,233	60,575	18,317	36,833	5,425	22,187	82,762
	Other items where offsetting is applied in the statement of financial position ⁴		8,535	-8,435	100	70		30		100
	Total financial liabilities		430,561	-356,524	74,037	18,440	36,833	18,765	25,996	100,033

¹ 'The statement of financial position total' is the sum of 'Net amounts of financial liabilities presented in the statement of financial position' and 'Amounts not subject to enforceable master netting arrangements'.

² At 31 December 2022, the total amount of 'Deposits from banks' excluding repurchase agreements is EUR 52,823 million of which EUR 0 million is subject to offsetting.

³ At 31 December 2022, the total amount of 'Customers deposits' excluding repurchase agreements is EUR 640,799 million of which the net cash pool position of EUR 13,362 million is subject to offsetting.

⁴ Other items mainly include amounts to be settled with Central Clearing Counterparties regarding securities and derivatives transactions and is included in 'Other Liabilities - Amounts to be settled' for EUR 6,715 million in the statement of financial position of which EUR 100 million is subject to offsetting as at 31 December 2022.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

in EUR million 2021	Statement of financial position line item	Financial instrument	Gross amounts of 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		Net amount	Amounts not subject to enforceable netting arrangements	Statement of financial position total ¹
						Financial instruments	Cash and financial instruments pledged as collateral			
	Deposits from banks ²	Repurchase, securities lending and similar agreements	433		433		426	7	3,705	4,138
		Other	3	-1	2			2		2
			436	-1	435		426	9	3,705	4,140
	Customer deposits ³	Repurchase, securities lending and similar agreements								
		Cash pools	207,930	-194,522	13,408	19		13,389		13,408
			207,930	-194,522	13,408	19		13,389		13,408
	Financial liabilities at fair value through profit or loss									
	Trading and Non-trading	Repurchase, securities lending and similar agreements	43,883	-11,564	32,319	168	32,056	96	9,416	41,735
		Derivatives	53,778	-39,053	14,725	9,006	4,326	1,393	5,920	20,646
			97,661	-50,617	47,044	9,173	36,382	1,489	15,337	62,381
	Other items where offsetting is applied in the statement of financial position ⁴		3,098	-2,848	250	-1		252		250
	Total financial liabilities		309,125	-247,987	61,138	9,191	36,808	15,139	19,041	80,179

¹ 'The statement of financial position total' is the sum of 'Net amounts of financial liabilities presented in the statement of financial position' and 'Amounts not subject to enforceable master netting arrangements'.

² At 31 December 2021, the total amount of 'Deposits from banks' excluding repurchase agreements is EUR 80,954 million of which EUR 2 million is subject to offsetting.

³ At 31 December 2021, the total amount of 'Customers deposits' excluding repurchase agreements is EUR 617,400 million of which the net cash pool position of EUR 13,408 million is subject to offsetting.

⁴ Other items mainly include amounts to be settled with Central Clearing Counterparties regarding securities and derivatives transactions and is included in 'Other Liabilities - Amounts to be settled' for EUR 5,082 million in the statement of financial position of which EUR 250 million is subject to offsetting as at 31 December 2021.

44 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		
in EUR million	2022	2021
Contingent liabilities in respect of		
- Guarantees	28,859	26,461
- Irrevocable letters of credit	15,682	16,851
- Other	3	8
	44,544	43,319
Guarantees issued by ING Groep N.V.	336	316
Irrevocable facilities	161,940	144,167
	206,820	187,802

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.

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.

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 other public sector entities under the regulatory requirements. Irrevocable facilities also include commitments made to purchase securities to be issued by governments and private issuers.

As at 31 December 2022, 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 accordance with the Shareholder's agreement, the net exposure of ING Groep N.V. as at 31 December 2022 was nil, as the outstanding principal amount of the US dollar debentures was fully covered with collateral of EUR 344 million (2021: EUR 320 million) pledged by Voya Financial Inc

In addition to the items included in contingent liabilities, ING Group has issued certain guarantees as participant in collective arrangements of national banking funds and as a participant in required collective guarantee schemes which apply in different countries.

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.

Furthermore we refer to Note 45 'Legal proceedings' for any contingent liabilities in respect of legal proceedings.

45 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 the ING and/or the 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. 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. Certain parties filed requests with the Court of Appeal in The Netherlands to reconsider the prosecutor's decision to enter into the settlement agreement with ING and not to prosecute ING or (former) ING employees. In December 2020, the Court of Appeal issued its final ruling. In this ruling the prosecutors' decision to enter into the settlement agreement with ING was upheld, making the settlement final. However, in a separate ruling, the Court ordered the prosecution of ING's former CEO.

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.

In January 2022, a Luxembourg investigating judge informed ING Luxembourg that he intends to instruct the relevant prosecutor to prepare a criminal indictment regarding alleged shortcomings in AML process at ING Luxembourg. Although this matter remains at an early procedural stage and it is currently not possible

to determine how this matter will be resolved or the timing of any such resolution, ING does not expect a financial outcome of this matter to have a material effect.

Payvision is the subject of a criminal investigation by Dutch authorities regarding money laundering and various requirements of the Dutch act on Anti-Money Laundering and Counter Terrorist Financing, focusing on the period from 1 January 2015 up to and including April 2020. Payvision is cooperating with such ongoing investigation. It is currently not feasible to determine how the ongoing investigation may be resolved or the timing of any such resolution, nor to estimate reliably the possible timing, scope or amounts of any resulting fines, penalties and/or other outcome.

ING continues to take steps to enhance its management of compliance risks and embed stronger awareness across the whole organisation. These steps are part of the global KYC programme and set of initiatives, which 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 the Issuer believes that it has adequately provided for all its tax positions, the ultimate resolution of these audits, investigations and procedures is uncertain and may result in liabilities which are materially different from the amounts 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.

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 March 2021, the Second Circuit court vacated the District Court's ruling. The case was remanded to the District Court to reconsider the amended complaint that would add

ING Bank N.V. back to the case. In April 2021, the defendants filed a petition for rehearing with the Second Circuit court. In May 2021, the Second Circuit court denied the defendants' petition. In March 2022, plaintiffs and ING executed a formal class settlement agreement. On 29 November 2022, the Court entered its final judgement, approving ING's settlement (and those of all other defendants) with plaintiffs. The case is now closed.

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. Pursuant to the acquisition contract, ING can claim compensation from SDIF if a court orders ING to pay amounts to the offshore account holders. SDIF has made payments to ING pursuant to such compensation requests, but filed various lawsuits to receive those amounts back. These lawsuits are ongoing. In April 2022 the Turkish Supreme Court decided that the prescription period for the offshore account holders' compensation claims starts on the transfer date of the account holders to the offshore accounts. The exact impact of this decision on the ongoing cases is not clear yet. 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.

Interest surcharges claims: ING received complaints and was involved in litigation with certain individuals in the Netherlands regarding increases in interest surcharges with respect to several credit products, including but not limited to commercial property. 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 surcharge based upon the essential obligations in the contract. In a relevant case the Dutch Supreme Court ruled in favor of another Dutch bank, addressing the question whether or not a bank is allowed to increase interest surcharges unilaterally. The Supreme Court ruled affirmative and referred the case to the Court of Appeal in The Hague. The Court of Appeal also ruled in favour of the Dutch bank in October 2022. ING will continue to deal with all claims individually.

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. Since 2018, the Spanish Supreme Court and the European Court of Justice have issued rulings setting out which party should bear notary, registration, agency, and stamp duty costs. In January 2021, the Spanish Supreme Court ruled that valuation costs of mortgages, signed prior to 16 June 2019, the date the new mortgage law entered into force, should be borne by the bank. Media attention for the statute of limitations applicable to the right to claim reimbursement of costs resulted in an increased number of claims at the beginning of 2021. In June 2021, the Supreme Court published a press release informing of its decision to ask the European Court of Justice for a preliminary ruling regarding the criteria that should be applied to determine the date from which the action for claiming the reimbursement of mortgage expenses is considered to be expired. ING Spain has also been included, together with other Spanish banks, in three class actions filed by customer associations. In one of the class actions an agreement was reached with the association. In another class action ING filed an appeal asking the Spanish Court of Appeal to determine that the ruling of the court of first instance is only applicable to the consumers that were part of the case. The National Court has revoked the ruling and declared that the consumers will not be able to initiate an action for compensation based on the first instance ruling, as the claimant association intended. This last decision is not yet final, as it could be appealed in the Supreme Court. A provision has been established in the past and has been adjusted where appropriate.

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, in March 2018, ING Bank received another claim on the same subject matter from the Dutch Association of Stockholders (Vereniging van Effectenbezitters, "VEB"). In June 2022, VEB reiterated and further substantiated its claim in a letter to ING. 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.

Claims regarding mortgage loans in Swiss franc in Poland: ING Poland is a defendant in several lawsuits with retail customers who took out mortgage loans indexed to the Swiss franc. Such customers have alleged that the mortgage loan contract contains abusive clauses. One element that the court is expected to consider in determining whether such contracts contain abusive clauses is whether the rules to determine the exchange rate used for the conversion of the loan from Polish zloty to Swiss franc are unambiguous and verifiable. In December 2020, the Polish Financial Supervision Authority (PFSA) proposed that lenders offer borrowers voluntary out-of-court settlements on foreign-currency mortgage disputes, with mortgages indexed to Swiss franc serving as a reference point. In February 2021, ING Poland announced its support for

this initiative and in October 2021 began offering the settlements to the borrowers following the PFSA's proposal. ING has recorded a portfolio provision with respect to the claims and the PFSA proposal. The Polish Supreme Court was expected to provide further clarity on this topic in a ruling scheduled for November 2021, however the court's session on this matter was postponed and the date of the next session has not yet been announced. In October 2022, a hearing of the European Court of Justice (CJEU) was held inter alia on the question whether, after cancellation of a contract regarding a Swiss franc loan by a court, banks may still charge interests for the amount borrowed under such loan prior to cancellation.

On 16 February 2023, the Advocate General (AG) of the CJEU provided his opinion on the matter. The AG opined that banks cannot claim any remuneration (i.e. interest) for the duration the principal amount was available to the customer. The customer, however, may assert claims against banks in addition to reimbursement of interest and instalments previously paid to the bank. The AG's opinion is not binding on the CJEU. His role is to propose to the CJEU a legal solution to this case. Should the CJEU follow the opinion of the AG, this will have negative effect for banks in Poland. The CJEU's ruling is expected within a few months.

Certain Consumer Credit Products: In October 2021, ING announced that it would offer compensation to certain of its Dutch retail customers in connection with certain revolving consumer loans with variable interest rates that allegedly did not sufficiently follow market rates. This announcement was made in response to a number of rulings by the Dutch Institute for Financial Disputes (Kifid) regarding similar products at other banks. ING currently expects that any such compensation will be paid before the end of 2022. ING has recognized a provision of EUR 180 million in 2021 for compensation and costs in connection with this matter. On 22 December 2021, ING announced that it has reached an agreement with the Dutch Consumers' Association (Consumentenbond) on the compensation methodology for revolving credits. Based on a recent Kifid ruling regarding similar products, ING will amend its previously announced compensation scheme by also compensating interest on interest. In the third quarter of 2022, ING increased its provision for this matter by EUR 75 million. In the fourth quarter of 2022, ING and the Dutch Consumers' Association reached an agreement on the compensation of customers who have had an overdraft or a revolving credit card with a variable interest rate. ING will compensate such customers according to Kifid jurisprudence about revolving credits including 'interest-on-interest'-effect. Compensation will start in the first half of 2023.

46 Consolidated companies and businesses acquired and divested

Acquisitions

There were no significant acquisitions in 2022, 2021 or 2020.

Divestments 2022

ING announced at 13 December 2022 that it has sold their interest (80%) in Intersoftware Holding BV to the

Sky Group/ DIAS and realised a transaction result of EUR 11.0 million which consists of a profit of EUR 7.0 on sale of InterSoftware Holding BV and the release of the redemption liability of EUR 3.0 million.

Divestments 2021

On 18 February 2021 ING announced the intention to withdraw from the retail banking market in the Czech Republic. The decision to discontinue Czech Retail Banking entails the closure of retail customer accounts / mutual funds and the sale of assets comprising the related government bond portfolio. ING's retail customers in the Czech Republic have received a welcome offer from Raiffeisenbank Czech Republic. ING's departure from the Czech Retail banking market resulted in EUR 2.5 billion saving accounts being transferred to Raiffeisenbank and the government bond portfolio with a carrying amount of EUR 0.5 billion being sold in the second quarter of 2021.

At 12 July 2021, ING announced that it has reached an agreement to transfer ING's Retail Banking operations in Austria to Bank99. Under the terms of the agreement, approximately EUR 1.7 billion of savings deposits and approximately EUR 1.0 billion of mortgages, approximately EUR 0.4 billion other personal lending and approximately EUR 0.4 billion loans to banks of ING Austria have been transferred to Bank99. In December 2021 the transaction was completed and a loss on disposal of EUR 26 million was realised. In 2022 some final closing activities resulted in an additional loss of EUR 1 million. ING Austria was included in the segment Retail Challengers & Growth Markets.

In 2021, ING and the board of Makelaarsland agreed to continue Makelaarsland independently. The new board will take over all clients and employees, and services to clients will continue unchanged. The negative result on disposal of group companies from this management buyout amounted to approximately EUR 3 million.

On 28 October 2021 ING announced that its subsidiary Payvision will start phasing out its services as a payment service provider and acquirer. In 2021, Payvision recognised an impairment loss of intangible assets of EUR 44 million, mainly with respect to Brand, IT and Customer relationships and an impairment loss of the deferred tax asset of EUR 14 million.

ING has been active in the French retail banking market since 2000 as an online bank. In December 2021 ING announced that it will leave the retail banking market in France in order to sharpen the focus of its business portfolio. ING and Boursorama (a subsidiary of Société Générale) have signed an agreement to offer the attractive services to retail customers of ING in France.

The contract allows ING customers to join Boursorama and benefit from a simplified account opening process and exclusive offers. The agreement also includes the transfer to Boursorama of 'assurance'vie' (investment products) contracts, for which ING acts as a broker with Generali Vie. Home loans

and consumer loans are not included in the agreement and the portfolio will continue to be managed by ING.

The agreement follows ING's announcement in December 2021 to exit the French retail banking market. The exit is finalised end of 2022. ING's departure from the France retail banking market is proceeding well with EUR 9.7 billion saving accounts already transferred to Boursorama. ING will continue its Wholesale Banking activities in France, with a focus on strengthening its position and the ambition to be the go-to bank for sustainable finance.

Most significant companies disposed in 2021

in EUR million	Makelaarsland BV & Above BV	ING Austria Retail Banking	Total divested
Sales Proceeds			
Sales proceeds		29	29
Non-cash proceeds			
Cash proceeds		29	29
Cash outflow / inflow on disposal		29	29
Assets			
Cash assets	3		3
Loans and advances to customers		1,404	1,404
Amounts due from banks		378	378
Miscellaneous other assets		8	8
Liabilities			
Customer deposits and other funds on deposit		1,725	1,725
Miscellaneous other liabilities	1	8	9
Net assets	3	56	58
% disposed	100 %	100 %	
Net assets disposed	3	56	58
Result on disposal	-3	-26	-29

In 2020 there were no significant divestments.

47 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

Subsidiary	Statutory place of Incorporation	Country of operation	Proportion of ownership and interest held by the group	
			2022	2021
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				
TMBThanachart Bank Public Company Ltd ²	Bangkok	Thailand	23%	23%

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 'Investment in associates and joint ventures'.

48 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 and SME loans in the Netherlands, Belgium, Spain, Italy, Australia and Germany.

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 2022, these consisted of approximately EUR 65 billion (2021: EUR 74 billion) of senior and subordinated notes, of which approximately EUR 1 billion (2021: EUR 1 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 2022, 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 1 billion (2021: EUR 1 billion).

In addition ING Group originated various securitisations for liquidity management optimisation purposes. As at 31 December 2022, these consisted of EUR 444 million (2021: EUR 662 million) 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

in EUR million	Fair value pledged mortgage loans	
	2022	2021
Dutch Covered Bond Companies	21,379	16,586
	21,379	16,586

In addition, subsidiaries of ING in Germany, Belgium and Australia also issued covered bonds with pledged mortgages loans of approximately EUR 24,880 million (2021: EUR 22,597 million) in total.

For the covered bond programme, third-party investors in securities issued by the structured entity have recourse to the assets of the entity and 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 2,446 million (2021: EUR 2,581 million). The drawn liquidity amount is nil as at 31 December 2022 (2021: 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 special purpose vehicle (SPV). The transaction resulted in full derecognition of the financial assets from ING's statement of financial position. 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 2022 amounted to EUR -40 million (2021: EUR -34 million); fair value changes on this swap recognised in the statement of profit or loss in 2022 were EUR -6 million (2021: EUR 0 million). Service fee income recognised, for the role as administrative agent, in the statement of profit or loss in 2022 amounted to EUR 1 million (2021: EUR 1 million). The cumulative income recognised in profit or loss since derecognition amounts to EUR 18 million (2021: EUR 17 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.

49 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 'Pensions and other post-employment 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		
in EUR million	2022	2021
Assets	65,704	56,349
Liabilities	56	55
Income received	1,426	1,158
Expenses paid	4	15

Transactions between ING Groep N.V. and its subsidiaries are eliminated on consolidation. Reference is made to Note 47 'Principal subsidiaries, investments in associates and joint ventures' 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				
in EUR million	Associates		Joint ventures	
	2022	2021	2022	2021
Assets	121	115	0	0
Liabilities	309	417	1	3
Off-balance sheet commitments	28	24	0	0
Income received	12	42	0	0
Expenses paid	0	0	0	0

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

The Executive Board of ING Groep N.V., the Management Board Banking and the Supervisory Board are considered Key Management personnel of ING Group. In 2022 and 2021, the three members of the Executive Board of ING Groep N.V. were also members of the Management Board Banking.

Transactions with key management personnel, including their compensation are included in the tables below.

Key management personnel compensation (Executive Board and Management Board Banking)

in EUR thousands	2022	Executive Board of ING Groep N.V.	Management Board Banking ¹	Total
Fixed Compensation				
- Base salary		4,220	4,969	9,189
- Collective fixed allowances ²		1,011	1,073	2,084
- Pension costs		70	116	186
- Severance benefits			932	932
Variable compensation				
- Upfront cash			803	803
- Upfront shares		268	803	1,071
- Deferred cash			1,204	1,204
- Deferred shares		401	1,204	1,605
- Other emoluments ³		296	638	934
Total compensation		6,266	11,742	18,008

1 Excluding members of the Management Board Banking 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 114,866.

3 This includes amongst others: housing, school/tuition fees, international health insurance, relocation costs and tax and financial planning.

Key management personnel compensation (Executive Board and Management Board Banking)

in EUR thousands	2021	Executive Board of ING Groep N.V. ³	Management Board Banking ^{1,4}	Total
Fixed Compensation				
- Base salary		3,836	5,024	8,860
- Collective fixed allowances ²		954	1,214	2,168
- Pension costs		64	116	180
- Severance benefits			1,075	1,075
Variable compensation				
- Upfront cash			664	664
- Upfront shares		265	691	956
- Deferred cash			997	997
- Deferred shares		398	1,036	1,434
- Other emoluments ⁵		274	959	1,233
Total compensation		5,791	11,776	17,567

1 Excluding members of the Management Board Banking 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 112,189.

3 In 2021 one member of the Executive Board joined ING during the year. The table includes compensation earned in the capacity as Executive Board member as of the appointment at the AGM on 26 April 2021.

4 One member of the Management Board Banking left ING during the reporting year 2021. In line with applicable regulation a severance payment was granted.

5 This includes amongst others: housing, school/tuition fees, international health insurance, relocation costs and tax and financial planning.

ING indemnifies the members of the EB against direct financial losses in connection with claims from third parties filed, or threatened to be filed, against them by virtue of their service as a member of the EB, as far as permitted by law, on the conditions laid down in the Articles of Association and their commission contract. ING has taken out liability insurance for the members of the EB.

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

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 2022 relating to the fixed expenses of 2022 and the vesting of variable remuneration of earlier performance years, is EUR 14 million in 2022 (2021: EUR 13 million).

The table below shows the total of fixed remuneration, expense allowances and attendance fees for the Supervisory Board in 2022 and 2021.

Key management personnel compensation (Supervisory Board)		
in EUR thousands	2022	2021
Total compensation	1,048	994

Loans and advance to key management personnel

As at 31 December 2022 Loans and advances outstanding to key management personnel amounted to EUR 2.7 million (2021: EUR 2.4 million) and loan commitments to key management personnel amounted to EUR 203 thousand (2021: EUR 197 thousand). Total interest received in 2022 on these loans and advances amounted to EUR 62 thousand (EUR 37 thousand).

These loans and advances and loan commitments (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 unfavourable features. Loans and advances to members of the Executive Board and Management Board Banking are compliant with the standards set out in the DNB guidelines for loans to officers and directors of a regulated entity, such as ING.

Deposits outstanding to key management personnel

As at 31 December 2022 Deposits outstanding from key management personnel amounted to EUR 11.5 million (2021: EUR 6.1 million). Total interest paid in 2022 on these deposits amounted to EUR 36 thousand (2021: EUR 14 thousand).

ING shares held by key management personnel

Number of ING Groep N.V. shares and stock options to key management personnel		
in numbers	ING Groep N.V. shares	
	2022	2021
Executive Board members	108,217	91,853
Management Board Banking	294,574	237,525
Supervisory Board members	5,295	5,295
Total number of shares and stock options	408,086	334,673

50 Capital management

Objectives

Group Treasury ("GT") 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 Balance Sheet & 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 manages capital using the IFRS-EU equity position as a basis.

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 plus 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 plus subordinated Tier 2 liabilities and regulatory adjustments. Total capital divided by risk-weighted assets equals the Total capital ratio.
- CET1 ratio target - is built on the CET1 requirements specified for ING, potential increase in the regulatory requirement of the Countercyclical Buffer, the potential impact of a standardised and pre-determined stress scenario and general uncertainties.
- Leverage ratio (LR) - is defined as Tier 1 capital divided by the leverage exposure.
- Total Loss Absorbing Capacity (TLAC) - is Total capital plus senior unsecured bonds and amortisations. TLAC ratios are based on both risk-weighted assets and leverage exposure.
- Minimum Required Eligible Liabilities (MREL) - is Total capital plus senior unsecured bonds and amortisations. MREL ratios are based on both risk-weighted assets and leverage exposure.

Capital developments

ING's capital position remained strong despite the challenging economic and geopolitical environment. At both the consolidated and entity level, ING has sufficient buffers to withstand various stressed scenarios.

ING's CET1 target level of around 12.50% is well above the prevailing Maximum Distributable Amount (MDA) level of 10.58%, implying a management buffer of about 190 basis points.

ING's capital ratios at the end of the year decreased compared to 2021 primarily due to additional distributions and higher risk-weighted assets. ING distributed an additional EUR 1.25 billion and EUR 1.5

billion as next steps to converge the CET1 ratio towards ING's CET1 target by 2025. Risk-weighted assets were mainly impacted by rating downgrades on Russia-related exposure, currency movements, the implementation of EBA guidelines on the treatment of structural FX positions, and model impacts. Model impacts reflect the introduction of a risk-weight floor on Dutch residential mortgages by the Dutch Central Bank as well as ongoing redevelopment of internal models and EBA guidelines.

ING Groep N.V. has a CET1 ratio of 14.5% at 31 December 2022 versus an overall SREP requirement (including buffer requirements) of 10.58%. The Group's Tier 1 ratio decreased to 16.4%. The Total capital ratio decreased from 21.0% to 19.4% compared to last year.

ING Group capital position according to CRR II / CRD V

in EUR million	2022	2021
Shareholders' equity ¹	49,909	53,919
Interim profits not included in CET1 capital ²	-1,411	-1,568
- Other adjustments	-537	-2,590
Regulatory adjustments	-1,948	-4,159
Available common equity Tier 1 capital	47,961	49,760
Additional Tier 1 securities ³	6,295	6,808
Regulatory adjustments additional Tier ¹	60	50
Available Tier 1 capital	54,316	56,618
Supplementary capital Tier 2 bonds ⁴	10,046	9,341
Regulatory adjustments Tier 2	-32	-158
Available Total capital	64,330	65,801
Risk weighted assets	331,520	313,064
Common equity Tier 1 ratio	14.47%	15.89%
Tier 1 ratio	16.38%	18.09%
Total capital ratio	19.40%	21.02%

¹ Shareholders' equity is determined in accordance with IFRS-EU.

² All T2 securities are CRR/CRD V-compliant for 2022 (2021: EUR 153 million was subject to CRR/CRD IV grandfathering rules).

In accordance with the applicable regulation, credit and operational risk models used in the capital ratios calculations are not audited.

Distribution

ING's distribution policy is a pay-out ratio of 50% of resilient net profit. Resilient net profit is defined as net profit adjusted for significant items not linked to the normal course of business. The 50% pay-out may be in the form of cash, or a combination of cash and share repurchases, with the majority in cash. Additional distributions to be considered periodically, taking into account alternative opportunities, macro-economic circumstances and the outcome of our capital planning.

For 2022, the resilient net profit amounts to EUR 4,038 million (IFRS-EU net result: 3,674 million), of which EUR 2,019 million was reserved for distribution outside of CET1 capital reflecting ING's distribution policy of a 50% pay-out ratio. Resilient net profit includes a positive adjustment to the net profit of EUR 363 million related to hyperinflation accounting according to IAS 29 in the consolidation of our subsidiary in Turkey and the impairment of the goodwill allocated to Turkey.

Following ING's distribution policy of a 50% pay-out ratio on resilient net profit:

- A final dividend over 2021 of EUR 0.41 per share was paid after shareholders' approval at the Annual General Meeting in April 2022.
- An interim dividend over 2022 of EUR 0.17 per share was paid on 15 August 2022.
- The Board has proposed to pay a final cash dividend over 2022 of EUR 0.389 per share. This is subject to the approval by shareholders at the Annual General Meeting in April 2023.

In addition to this, ING distributed an additional EUR 1.25 billion and EUR 1.5 billion:

- An additional EUR 1.25 billion by means of a cash distribution of EUR 0.232 per share which was paid on 18 May 2022 and a share buyback programme by which a total number of 40.7 million ordinary shares for the amount of EUR 380 million had been repurchased between 12 May and 14 July 2022.
- An additional distribution of EUR 1.5 billion, by means of a share buyback programme by which a total number of 107.0 million ordinary shares for the amount of EUR 1.2 billion had been repurchased between 3 November and 28 December 2022 and the remaining amount has been paid in cash (EUR 0.082 per share) to shareholders on 16 January 2023

Processes for managing capital

GT Balance Sheet & Capital Management ensures adherence to ING's solvency risk appetite statements by planning and executing capital management transactions. The ongoing assessment and monitoring of capital adequacy is embedded in the capital planning process as part of 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. Risk appetite statements are at the foundation of the capital plan and are cascaded to the different businesses in line with ING's risk management framework. Contingency capital measures and early warning indicators are in place in conjunction with ING's contingency and recovery plan to support the strategy in times of stress.

Adverse planning and stress testing, which reflect the outcome of the annual risk assessment, are integral components of ING's risk and capital management framework. It allows to (i) identify and assess potential vulnerabilities in ING's businesses, business model, portfolios or operating environment; (ii) understand the sensitivities of the core assumptions used in ING's strategic and capital plan; and (iii) improve decision-making and business steering through balancing risk and return following a forward looking and prudent management approach.

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 and the ECB for supervisory purposes. In 2010, the Basel Committee issued new solvency and liquidity requirements that superseded Basel II, implemented in the EU via CRR / CRD. In accordance with the CRR the minimum Pillar 1 capital requirements applicable to ING Group are: a CET1 ratio of 4.5%, a Tier 1 ratio of 6.0% and a Total capital ratio of 8.0% of risk-weighted assets.

The overall SREP CET1 requirement (including buffer requirements) for ING Group at a consolidated level increased slightly during 2022 due to announcements in the Countercyclical Buffer and was 10.58% at the end of 2022. This requirement is the sum of a 4.5% Pillar I requirement, a 0.98% Pillar II requirement, a 2.5% Capital Conservation Buffer (CCB), a 0.10% Countercyclical Buffer (CCyB) (based on December 2022 positions) and a 2.5% O-SII buffer that is set separately for Dutch systemic banks by the Dutch Central Bank (De Nederlandsche Bank). This requirement excludes the Pillar II guidance, which is not disclosed.

The Maximum Distributable Amount (MDA) trigger level stood at 10.58% in 2022 for CET1, 12.41% for Tier 1 Capital and 14.85% for Total Capital. These MDA levels are in line with the application of Art.104a in CRD V, which allows ING to partly fulfil the total Pillar II requirement (1.75%) with Additional Tier 1 and Tier 2 securities. As per 1 January 2023 a MDA requirement on the leverage ratio of 3.5% applies to ING Group. In the event that ING Group breaches an MDA level, ING may face restrictions on dividend payments, coupons on AT1 securities and payment of variable remuneration.

Ratings

ING's credit ratings and outlook are shown in the table below. 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.

Main credit ratings of ING at 31 December 2022

	S&P	Moody's	Fitch
ING Groep N.V.			
Issuer rating			
Long-term	A-	n/a	A+
Short-term	A-2	n/a	F1
Outlook	Stable	Stable 1)	Stable
Senior unsecured rating	A-	Baa1	A+

1 Outlook refers to the senior unsecured rating.

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.

51 Condensed financial information of the parent company

Parent company condensed statement of financial position

as at 31 December before appropriation of result

in EUR million	2022	2021		2022	2021
Assets			Equity		
Investments in group companies	49,192	46,109	Share capital	37	39
Fixed assets	49,192	46,109	Share premium	17,116	17,105
Receivables from group companies ¹	65,704	56,349	Legal and statutory reserves	-986	1,073
Other assets	16	39	Other reserves	29,002	28,909
Current assets	65,720	56,389	Unappropriated result	11,331	4,940
			Total equity	56,500	52,066
			Liabilities		
			Subordinated loans	16,441	15,967
			Debenture loans	41,609	34,273
			Other non-current liabilities	0	0
			Non-current liabilities	58,051	50,240
			Amounts owed to group companies	56	47
			Other liabilities	305	145
			Current liabilities	360	192
Total assets	114,912	102,498	Total equity and liabilities	114,912	102,498

1 Receivables from Group companies include EUR 16,441 million subordinated loans provided by ING Groep N.V. to ING Bank N.V. (2021: EUR 15,955 million).

Parent company condensed statement of profit or loss

for the years ended 31 December

in EUR million	2022	2021	2020
Staff expenses	0	3	-5
Other expenses	9	5	5
Total expenses	8	8	0
Interest and other financial income	1,466	1,148	1,113
Valuation results	-1	0	-20
Interest and other financial expenses	-1,450	-1,143	-1,100
Net interest and other financial income	15	5	-8
Result before tax	7	-3	-8
Taxation	2	0	-72
Result after tax	5	-3	64
Result from (disposal of) group companies and participating interests after taxation	12,121	5,954	2,187
Net result	12,126	5,951	2,250

Parent company condensed statement of changes in equity

in EUR million	Share capital	Share premium	Legal and statutory reserves	Other reserves	Unappropriated results	Total
Balance as at 31 December 2021	39	17,105	1,073	28,909	4,940	52,066
Realised and unrealised revaluations of equity securities			-95	-23		-118
Unrealised revaluations debt instruments and other revaluations			-413			-413
Realised gains/losses transferred to the statement of profit or loss			-24			-24
Changes in cash flow hedge reserve			-2,901			-2,901
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss			150	15		165
Realised and unrealised revaluations property in own use			-32	26		-5
Remeasurement of the net defined benefit asset/liability			-19			-19
Exchange rate differences and other			1,115	-26		1,088
Total amount recognised directly in equity			-2,220	-8		-2,228
Net result			161		11,965	12,126
Total comprehensive income net of tax			-2,059	-8	11,965	9,898
Transfer from Unappropriated result				4,940	-4,940	0
Dividends and other distributions				-2,715	-634	-3,349
Share buyback	-2			-1,580		-1,582
Changes in treasury shares				4		4
Employee stock option and share plans		12		15		27
Changes in the composition of the group and other changes				-564		-564
Balance as at 31 December 2022	37	17,116	-986	29,002	11,331	56,500

Parent company condensed statement of changes in equity - continued

in EUR million	Share capital	Share premium	Legal and statutory reserves	Other reserves	Unappropriated results	Total
Balance as at 31 December 2020	39	17,089	2,347	29,988	2,156	51,619
Realised and unrealised revaluations of equity securities			101	-6		94
Unrealised revaluations debt instruments and other revaluations			-173			-173
Realised gains/losses transferred to the statement of profit or loss			-40			-40
Changes in cash flow hedge reserve			-1,603			-1,603
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss			37			37
Realised and unrealised revaluations property in own use			-13	11		-2
Remeasurement of the net defined benefit asset/liability			95			95
Exchange rate differences and other			132	18		150
Total amount recognised directly in equity			-1,465	23		-1,442
Net result			191		5,760	5,951
Total comprehensive income net of tax			-1,274	23	5,760	4,509
Transfer from Unappropriated result				2,156	-2,156	0
Dividends and other cash distributions				-1,522	-820	-2,342
Share buyback programme				-1,744		-1,744
Changes in treasury shares				-4		-4
Employee stock option and share plans		16		12		29
Balance as at 31 December 2021	39	17,105	1,073	28,909	4,940	52,066

Parent company condensed statement of changes in equity - continued

in EUR million	Share capital	Share premium	Legal and statutory reserves	Other reserves	Unappropriated results	Total
Balance as at 31 December 2019	39	17,078	4,023	26,134	3,723	50,996
Realised and unrealised revaluations of equity securities			-399	62		-337
Unrealised revaluations debt instruments and other revaluations			20			20
Realised gains/losses transferred to the statement of profit or loss			-33			-33
Changes in cash flow hedge reserve			242			242
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss			-3	-16		-19
Realised and unrealised revaluations property in own use			-33	26		-7
Remeasurement of the net defined benefit asset/liability			28			28
Exchange rate differences and other			-1,594	43		-1,551
Total amount recognised directly in equity			-1,770	114		-1,656
Net result			94		2,156	2,250
Total comprehensive income net of tax			-1,676	114	2,156	595
Transfer from Unappropriated result				3,723	-3,723	0
Changes in treasury shares				5		5
Employee stock option and share plans		11		11		22
Balance as at 31 December 2020	39	17,089	2,347	29,988	2,156	51,619

Five-year schedule of maturities of subordinated and debenture loans

in EUR million	Subordinated loans		Debenture loans	
	2022	2021	2022	2021
Less than 1 year			4,639	3,963
1 to 2 years			1,570	4,590
2 to 3 years			3,250	1,565
3 to 4 years			7,716	3,250
4 to 5 years			5,563	4,177
Longer than 5 years	10,113	9,125	18,872	16,728
Maturity not applicable	6,329	6,843		
	16,441	15,967	41,609	34,273

As at 31 December 2022 ING Groep N.V. has issued USD 6,750 million (2021: USD 7,750 million) 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 a conversion are fulfilled. As a result of this conversion, the issued share capital can increase by up to 750 million (2021: 861 million) ordinary shares. Reference is made to the ING Group Consolidated financial statements, Note 18 'Subordinated loans' and Note 19 'Equity'.

The number of debentures held by Group companies as at 31 December 2022 is nil (2021: nil).

52 Subsequent events

On 6 February 2023, a devastating earthquake with multiple aftershocks struck southern and central Turkey and northern and western Syria causing a significant tragedy for the people and is causing disruption to business and economic activity in the region. This qualifies as a non-adjusting subsequent event.