Issuer Filing Information

ING Bank N.V.

ISSUER FILING INFORMATION

Type of Information:	Issuer Filing Information
Date of Filing:	31 March 2020
Company Name:	ING Bank N.V. (the **"Issuer"**)
Name and Title of Representative:	D.E. Haring, Principal Treasury Manager
Address of Registered Office:	Bijlmerplein 888, 1102 MG Amsterdam, The Netherlands
Telephone:	+31(20)563 8008
Liaison Contact:	Attorney-in-Fact: Eiichi Kanda, Attorney-at-law Chihiro Ashizawa, Attorney-at-law Clifford Chance (Gaikokuho Kyodo Jigyo) Address: Palace Building, 3rd floor 1-1, Marunouchi 1-chome Chiyoda-ku, Tokyo 100-0005 Telephone: 81-3-6632-6600
Financial Instruments Exchange Market:	Not applicable
Address of Publication Website:	https://www.jpx.co.jp/equities/products/tpbm/announcement/index.html

Notes to Investors:

1. TOKYO PRO-BOND Market is a market for professional investors, etc. and bonds and other instruments listed on the market ("**Listed Bonds**") may involve a higher investment risk. Investors should act with responsibility and be aware of the listing qualification, timely disclosure requirements that apply to issuers of Listed Bonds in the TOKYO PRO-BOND Market and associated risks such as the fluctuation of market prices. Prospective investors should make an investment judgment only after having carefully considered the contents of this Issuer Filing Information.

2. The regulatory framework for TOKYO PRO-BOND Market is different in certain fundamental respects from the regulatory framework applicable to existing exchange markets in Japan. Investors should be aware of the Rules and Regulations of the Tokyo Stock Exchange, which are available on its website.

3. The Tokyo Stock Exchange does not represent or warrant any part of the Issuer Filing Information (including, but not limited to, whether the Issuer Filing Information (a) contains a false statement on important matters or (b) lacks a statement on: (i) important matters that should be stated or (ii) a material fact that is necessary for avoiding misunderstanding) and will not be liable to any damages for any other liabilities.

4. This Issuer Filing Information shall constitute and form the Issuer Filing Information as provided for in Article 27-32, Paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No.25, as amended, the "**FIEL**") as information set forth in Specified Exchange Regulations (as defined in Article 2, Paragraph 1, Item 1 of the Cabinet Office Ordinance on Providing and Publishing of Securities Information, Etc).

ING Bank

Annual Report 2019

Contents

Who we are

Report of Management Board

Corporate Governance

Risk Management

Consolidated financial statements

Parent company financial statements

Other Information

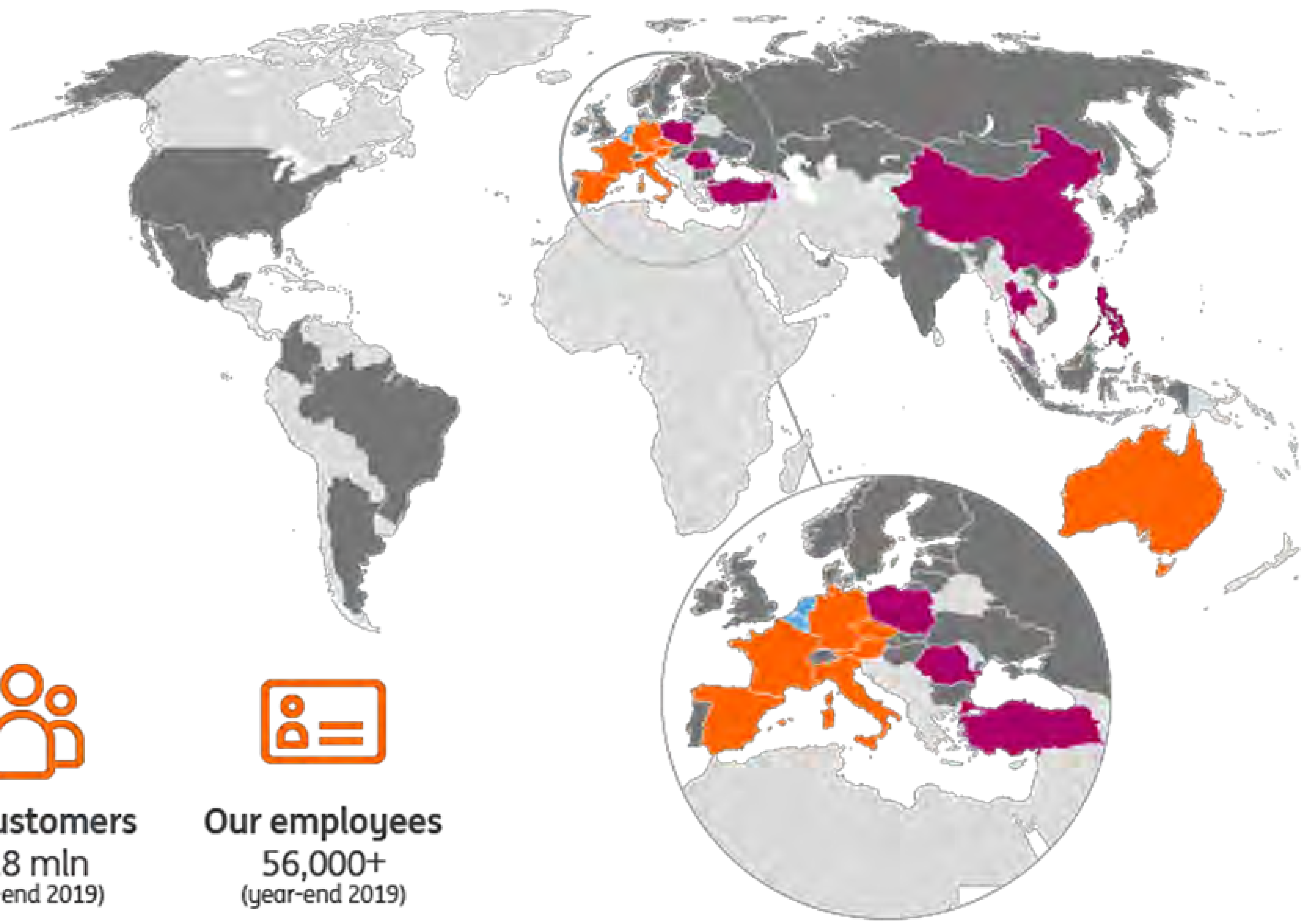
ING at a glance

Market leaders:
Netherlands, Belgium, Luxembourg

- Leading retail and wholesale banks
- Cross-border customer interaction platform with mobile-first customer experience and cost efficiency

Challengers:
Australia, Austria, Czech Republic, France, Germany, Italy, Spain

- Digital bank developing scalable platform with uniform, mobile-first customer experience
- Broadening product capabilities



Our customers
38.8 mln
(year-end 2019)

Our employees
56,000+
(year-end 2019)

Growth Markets:
Poland, Romania, Turkey, the Philippines and our stakes in Asia

- Universal banks in economies with high growth potential
- Developing differentiating customer experience based on mobile-first approach

Wholesale Banking:
Network and global franchises

- International network: active in more than 40 countries
- Extensive international client base across all regions
- Sector-focused client business in lending, capital structuring and advisory, transaction services and financial markets

About ING

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

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

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

Think Forward

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

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

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

Platform approach

The competitive landscape that banks face is increasingly being shaped by Big Tech companies. They offer customers a superior digital experience through an open platform approach that delivers a range of their primary needs in a go-to digital ecosystem. This ability to provide for primary needs, with both proprietary and third-party offerings that are easily accessed through mobile devices, defines their success. Banking, by contrast, is a facilitator and not a primary need. The choice for banks is to challenge their existing business models, to disrupt themselves, or risk being disintermediated and relegated to a status of white label facilitators of others' platforms.
ING chooses to pursue its own platform approach. It aims to create a go-to financial services platform offering one customer experience wherever we operate and one that's mobile-first in keeping with ING's clear and easy, anytime anywhere Customer Promise. To support this ambition, we're evolving to a single global modular technological foundation that can be easily scaled up to

accommodate growth, and one that's open so it's ready to connect to other platforms and offers users relevant third-party products and services.

Innovation and transformation

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

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

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

And through ING Labs in Amsterdam, Brussels, London and Singapore we're also collaborating with fintechs and others on disruptive innovations in value spaces that best match the expertise and ecosystems in those locations.

Examples of collaborative innovations include beyond banking initiatives for retail customers. In 2019 we launched the first protection products as part of the global insurance partnership with AXA, distributed primarily through our mobile app. Examples in Wholesale Banking include Cobase, a platform that enables companies to manage accounts at multiple banks through one interface, and blockchain solutions in areas like trade finance that drastically reduce the time and complexity of trades.

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

Promoting a sustainable society

ING's empowerment purpose is not limited to our own customers. In striving to help people to stay a step ahead in life and in business, we see a key role for ING in promoting a sustainable society, as well as important opportunities both for us and our customers.

To promote people's financial health, we focus on giving them the knowledge and tools to make informed decisions, and we support initiatives that are developing awareness about the drivers behind how people arrive at financial decisions so better methods and tools can be developed in the future. And through our financing we seek to positively influence society's transition to a more sustainable, low-carbon economy. One of the important ways we do that is through our Terra approach to steer the impact of our lending portfolio to support the Paris Climate Agreement's goal to limit the rise of global temperatures to well below two degrees Celsius.

Our strategy on a page

Purpose

Empowering people to stay a step ahead in life and in business

Customer Promise

Clear and easy | Anytime, anywhere | Empower | Keep getting better

Strategic Priorities

Creating a differentiating customer experience

1. Earn the primary relationship

2. Develop analytics skills to understand our customers better

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

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

Enablers

Simplify and streamline | Operational Excellence | Performance Culture | Lending Capabilities

Financial developments

In 2019, ING Bank showed solid commercial performance despite the challenging rate environment, geopolitical uncertainties and demanding regulatory environment. The net result rose 5.1 percent to €4,843 million in 2019 from €4,607 million in 2018, which has been negatively affected by the €775 million settlement agreement with the Dutch authorities on regulatory issues that was recorded as a special item.

The underlying net result[1] of ING Bank (which is derived from total net result by excluding the impact of special items) dropped 10.0 percent to €4,843 million from €5,382 million. This was in part due to an increased underlying effective tax rate of 27.7 percent from 27.1 percent in 2018, mainly reflecting higher non-deductible costs.

The underlying result before tax declined 9.2 percent to €6,831 million in 2019 from €7,526 million in 2018, primarily due to increased operating expenses and higher risk costs. Commercial momentum remained solid, albeit at a slower pace than previous year. ING Bank grew net core lending (adjusted for currency impacts, and excluding Treasury and the run-off portfolios) by €17.2 billion, or 2.9 percent, and net customer deposits rose by €23.4 billion in 2019. The global retail customer base grew to 38.8 million at year-end, and the number of primary customers rose during the year by 0.8 million to 13.3 million.

The underlying income increased 1.1 percent to €18,295 million from €18,102 million in 2018, driven by Corporate Line (predominantly one-offs) and Retail Banking, while income in Wholesale Banking (mainly in Financial Markets and Lending) declined. Net interest income rose 0.9 percent to €14,074 million. The increase was driven by higher interest results on customer lending mainly supported by volume growth, partly offset by lower margins on savings and current accounts. The total lending margin was slightly up compared with 2018, as the impact of improved interest margins on mortgages was largely offset by lower margins on other customer lending. ING Bank's overall net interest margin improved by 1 basis point to 1.54 percent from 1.53 percent in 2018. Net fee and commission income rose 2.3 percent to €2,868 million. The increase was driven by Retail Banking with increases in most countries, partly offset by a small decline in Wholesale Banking. Investment and other income slightly increased to €1,352 million from €1,350 million in 2018, with increases in Retail Banking and Corporate Line. The latter was supported by a €119 million gain from the release of a currency translation reserve following the sale of ING's stake in Kotak Mahindra Bank and the recognition of a €79 million receivable related to the insolvency of a financial institution. These increases were largely offset by Wholesale Banking, mainly due to negative valuation adjustments in Financial Markets, and some one-offs.

Underlying operating expenses increased 4.3 percent to €10,343 million from €9,920 million in 2018. The increase was visible in all segments, except for Retail Netherlands and Retail Belgium. Regulatory expenses rose to €1,021 million from €947 million in previous year. Excluding regulatory costs, expenses were up 3.9 percent, mainly due to higher KYC-related costs, increased staff costs and continued investments in business growth, partly offset by costs savings and one-offs (including a higher VAT refund, recorded in Corporate Line). The cost/income ratio was 56.5 percent versus 54.8 percent in 2018.

The net addition to the provision for loan losses rose to €1,120 million from €656 million in 2018. This increase was mainly caused by a number of large individual files in Wholesale Banking and higher, but still relatively low risk costs in Retail Netherlands. Risk costs rose to 18 basis points of

[1] Underlying figures are non-GAAP measures. There are derived from figures according to IFRS-EU by excluding the impact from special items. See note 32 'Segments' of the consolidated financial statements for a reconciliation between GAAP and non-GAAP figures.

average customer lending, remaining below ING Bank's through-the-cycle average of approximately 25 basis points.

The underlying return on IFRS-EU equity of ING Bank declined to 10.6 percent in 2019 from 12.6 percent in 2018.

Our markets

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

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

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

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

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

Achieving our business goals

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

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

Financial Performance in 2019

Total Retail Banking

Retail Banking showed good commercial performance, despite continued pressure from the low interest environment. However, net profit declined 7.8 percent to €3,347 million from €3,630 million in 2018. This was mainly caused by higher risk costs and higher expenses (largely caused by higher KYC-related expenses and increased regulatory costs), whereas income increased marginally. No special items were excluded from the underlying results in both years, and therefore Retail Banking’s net result is equal to its underlying net result.

The underlying result before tax decreased 6.4 percent to €4,744 million in 2019, as mentioned before mainly due to higher expenses and increased risk costs. Underlying income was 0.3 percent higher, driven by higher income in most of the Retail Challengers & Growth Markets (supported by strong commercial growth and an increased retail customer base) and Retail Belgium. These increases were largely offset by a decline in Retail Netherlands, mainly due to lower net interest income on savings and current accounts. Total customer lending increased by €17.4 billion to €437.1 billion compared with year-end 2018. Adjusted for currency impacts, Treasury and the WestlandUtrecht Bank (WUB) run-off portfolio, Retail's net core lending book grew by €16.1 billion. Net customer deposits (also excluding Treasury and currency impacts) grew by €20.2 billion in 2019.

Underlying operating expenses rose 3.2 percent compared with 2018. The increase was mainly due to higher KYC-related costs, increased regulatory expenses, higher salaries and continued investments in business growth, partly offset by costs savings. The underlying cost/income ratio was 57.1 percent in 2019, compared with 55.5 percent in 2018.

Risk costs rose to €588 million, or 14 basis points of average customer lending, from €447 million, or 11 basis points, in 2018. Risk costs increased primarily in Retail Netherlands after net releases in 2018, but are still relatively low. Retail Germany continued to record a net release.

Market Leaders

Retail Netherlands

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

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

Underlying operating expenses declined 0.5 percent on 2018, this was mainly due to lower regulatory costs, benefits from the ongoing cost-saving initiatives and some positive one-offs, partly offset by increased salaries as well as higher KYC and IT-related expenses.
Risk costs in 2019 increased to a relatively low €91 million, or 6 basis points of average customer lending, partly caused by a change in the house price index that is used for Dutch mortgages. This compared with a net release of €41 million 2018, which included releases in both mortgages and business lending.

Retail Belgium

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

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

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

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

Challengers & Growth Markets

Retail Germany

Retail Germany includes ING in Austria.

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

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

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

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

Retail Other

Retail Other consists of the Other Challengers & Growth Markets, including the bank stakes in Asia.

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

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

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

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

Total wholesale banking

The full-year 2019 results for Wholesale Banking show that conditions were challenging in our markets. The net result declined to €1,352 million from €1,877 million in 2018. There were no special items excluded from the underlying results in both years. The underlying result before tax dropped 27.6 percent to €1,830 million, down from €2,529 million in 2018. The decline reflects elevated risk costs (compared with a relatively low level a year ago), lower revenues in mainly Financial Markets and Lending, as well as higher expenses.

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

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

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

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

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

The world around us

Data

Over the years, ING has been working to meet the needs of our customers by transforming to a global, digital organisation. This process is strongly driven by data. It's at the heart of everything we do: getting to know our customers, giving them the tailored services they need, and ensuring their experience is personal, instant, relevant and seamless.

We take our responsibility seriously to safeguard our customers against loss or misuse of data. This is not only our duty of care towards customers, but a wider social responsibility to act as gatekeepers to the financial system, keeping it safe, secure and protected against fraudulent and criminal activities.

Along with financial economic crime (FEC), digitalisation presents challenges in areas like digital identity, privacy, data exchange, code of conduct on data usage, and storage and protection of data. While many of these are addressed in various ways by regulators, governments and industry guidelines, these measures don't always keep up with developments. At ING, we see an increasing urgency to develop a data framework encompassing all these areas, particularly at European level. This would promote innovation by establishing common standards across industries.

Protecting our ICT infrastructure and systems and personally identifiable information from cyber-attacks will remain an extremely important factor for the banking sector and for ING. Breaches can lead to serious legal, reputational and financial damage. Digital innovation and the further development of our data-driven business models (e.g. open platforms), along with more stringent regulations on data privacy, pose compliance and cybersecurity risks.

Cybersecurity

Cybercrime is a growing threat to companies in general and to the financial system specifically. Cyber-attacks are becoming more frequent, and more intense. At the same time, banks are becoming more exposed as they digitalise, rely more on cloud computing, and are increasingly connected to third-party providers.

Cyber security is a key concern for ING. Our objective is to anticipate cybercrime-related activities and prevent threats from becoming a reality. ING takes a multi-faceted approach to cyber security. Our digital-first approach means that the safeguards deployed around assets change in line with the evolving threat landscape. Safeguards include security and communication monitoring capabilities that use behavioural analysis, machine learning and rules engines. ING is also partnering with fintech companies to build a framework that supports security innovation within the bank.

Personal data protection

The regulatory framework for personal data is fundamentally shaped by the EU. It seeks to walk the fine line between privacy protection and fostering data sharing.

Two crucial pieces of the new personal data architecture were rolled out across the EU in 2018 – the second Payment Services Directive (PSD2) and the General Data Protection Regulation (GDPR).
The GDPR is a landmark personal data protection framework that is arguably the world's most stringent. It gives customers the right to receive their personal data on request and for their data to be directly transmitted to third parties. ING has been subject to the data protection requirements set out in the EU's General Data Protection Regulation 2016/679 (GDPR). We have updated our

Global Data Protection Policy (GDPP) accordingly and are implementing revised and new requirements in each country.

PSD2 opens banking and allows customers to authorise their bank to share their account information with licensed third parties. For example, customers can view their accounts at other banks in ING's mobile banking app; or authorise ING to access their account information at other banks when applying for a loan, which can help speed up the approval process. The payment initiation services element of PSD2 allows a third party to initiate a payment on a user's behalf or from their account. As of September 2019, ING's entities based in Europe comply with PSD2. Further guidance is yet to follow on the role of banks in providing services around anti-money laundering (AML).

KYC and anti-money laundering

We take our role as a gatekeeper to the financial system seriously, and are taking important steps to boost our ability to keep the bank safe from criminal activities and protect our customers, the bank and society.

Financial economic crimes such as money laundering and tax evasion are not contained within a single country or jurisdiction, but are a global challenge that impact the entire financial system. A recent study found that in the Netherlands alone, almost EUR 13 billion worth of criminal money is laundered each year. At the same time, technology is advancing and criminals are becoming more sophisticated, which increases the risk that the growing number of digital card and payment transactions are used for fraud or money laundering purposes.

In 2019, we continued to focus on our global know your customer (KYC) enhancement programme. We now have around 4,000 FTEs working in KYC-related activities. File enhancement and transaction monitoring look-back activities resulted in improved reporting of suspicious activities to authorities in various countries. We're also working on promising tools that use machine learning and artificial intelligence to increase the effectiveness of our KYC operations.

We made ongoing progress raising awareness and improving the skills and behaviour of our staff and our governance of KYC across ING. The programme will deliver the basis for ING's KYC operations. Further improvements, from continuous learning and quality-assurance cycles, will continue to be embedded.

ING welcomes steps by the Dutch and other authorities to achieve wider cooperation between banks, law enforcement and regulators on both a national and European level to strengthen the financial system's resilience in the fight against financial economic crime.

We are working with the Dutch Banking Association (NVB) and the Dutch Central Bank (DNB) on harmonising efforts to counter financial economic crime and participate actively in various working groups and project teams in this area. To help in the fight against money-laundering, ING joined several other Dutch banks in 2019 to explore the possibilities of setting up a joint organisation to monitor payment transactions: Transactie Monitoring Nederland ('transaction monitoring Netherlands').

In 2019, the European Commission conducted an investigation into anti-money laundering (AML) infringements by EU Financial Institutions. In July, it published three reports setting out the lessons learned from this exercise. The EU confirmed that financial institutions fell short in their compliance with requirements from AML legislation on a number of occasions. It also noted structural shortcomings in the control frameworks put in place by financial institutions, particularly for transaction monitoring and suspicious transactions reporting, in sectors with high volumes of transactions.

AML supervisory practices, both in terms of expectations and sanctions, differ across member states and the cross-border cooperation between authorities could be improved. In its reports, the European Commission envisages setting up central supervision and harmonising standards for and formats to be used by authorities.

The European Commission also finds that national implementations and interpretations of EU AML directives are not aligned and require improvement, possibly through a regulation instead of a directive. The European Commission is considering legislative proposals, which are expected before the summer of 2020.

Commitment to human rights

ING strives to respect people's rights in accordance with the Universal Declaration of Human Rights. We apply these and other principles, such as those of the UN Global Compact, UN Guiding Principles for Business and Human Rights, the International Labour Organisation, and OECD Guidelines for Multinational Enterprises throughout our operations. This includes the right to collective bargaining and freedom of association.

We base our own human rights policy on these conventions. We seek to judge employees on their merit and skills and without discrimination according to race, age, sex, religion, ability or belief. We believe that by respecting human rights and increasing our efforts in diversity, we are strengthening our workforce and our business.

Climate change

There is an increased urgency around climate change – it's now viewed to be at crisis stage and is topping global agendas. The International Monetary Fund (IMF) is examining the impact of climate on the world's financial markets and whether it is priced into market valuations. The financial cost of climate change was the subject of many discussions at the IMF at its meetings in 2019. Climate-related risk also tops the World Economic Forum's (WEF) 2019 global risk ranking in terms of likelihood and impact. The environmental risk category is becoming more prominent.
Read more in the 'Developments in risk and capital management' chapter.

We are continuing to advance our understanding and approach to climate risks and opportunities. We support clients and transactions with a positive climate and social impact, and steering our entire loan book to meeting the Paris Climate Agreement's well-below two-degrees Celsius goal. We call our strategy to get there the Terra approach. In September 2019, we published the first progress report on Terra. The report presents ING's pathway towards climate alignment in the sectors most responsible for climate change and is intended to be published every year.

Developments in risk and capital management

Managing risk is at the core of ING's business. Financial risks include credit risk, for example when we offer loans, market risk through our trading and banking book positions, and liquidity or funding risk through financial management. For further information relating to financial instruments and the management of financial risks, please refer to the 'Risk management' section.

Non-financial risks are those associated with IT and cybersecurity, our daily operations (e.g. fraud and money laundering), compliance, adhering to socially-acceptable ethical norms and reputational issues.

We continually develop our risk and capital management to address political and economic developments, evolving regulatory requirements, changing customer expectations, emerging competitors and new technologies, all of which could potentially impact our business.

Some of these developments are highlighted in this chapter, particularly non-financial risks related to the rapid digitalisation of banking and financial economic crime.

On the financial risk side, in 2019 our credit risk costs increased, but remained below our through-the-cycle average. During the year, supervisory model impact (largely related to the European Central Bank's review of internal models, or TRIM) had an effect on our credit capital requirements. Interest rates in the eurozone declined further to low and negative levels. These low interest rates led to margin pressure on replication income in connection with customer deposits. Financial risk developments are extensively covered in the Risk management section.

Capital Management

Risk and capital management remain central to the entrepreneurship of the bank. Maintaining our risk profile within our risk appetite and strengthening our capital base is how we grow a sustainable business and achieve our strategic objectives.

Our overall approach to capital management is to ensure we have enough capital to cover our (economic) risks at all levels and comply with local and global regulations, while delivering a return for our shareholders and investing in innovation.

In 2019, our capital position remained strong, despite higher capital requirements and additional RWA growth from model impacts. ING bank's CET1 ratio was 13.1% at the end of 2019. The CET1 ratio at the end of the year improved as risk-weighted assets increased due to volume growth and model impacts, effects that were offset by profit retention and positive risk migration.

See 'Note 50 Capital management' in the 'Consolidated Financial Statements' for more information.

Risk approach

ING's Risk Appetite Framework, which is complemented by the Non-Financial Risk Framework, provides a single coordinated approach and gives the business an overview of the various risks ING faces and how these are managed. The risk appetite is approved by both the Supervisory and Executive Boards. It defines our desired forward-looking risk profile and informs our strategic and financial planning. The framework is designed to withstand market volatility and stress while meeting regulatory requirements. We also have a process for internal control over financial reporting.

Risk governance

ING's risk and control structure is based on the three lines of defence model, in which each line has its own distinct role, responsibilities and oversight. All employees are responsible for managing risk, with the Executive Board ultimately accountable.

The first line of defence comprises the heads of our business lines, who are best positioned to act in the best interests of both our customers and ING. They have primary ownership, accountability and responsibility for assessing, controlling and mitigating all financial and non-financial risks affecting their business, and ensuring financial statements, regulatory and risk reports are complete and accurate. The COO is responsible and accountable for proper security and controls on their local and global applications and IT platforms.

The specialist functions Risk Management and Compliance are the second line of defence, who support, review and, where necessary, challenge the first line. They oversee risk management and are co-responsible for articulating and translating the risk appetite into methodologies and policies for the rest of ING to follow. The second line constantly monitors for strategy changes that will impact ING's activities and evolves the risk appetite accordingly. They act to keep the risk profile within the defined risk appetite.

Corporate Audit is our third line of defence. It provides an independent assessment of our internal controls over the risks to our business processes and assets, including the risk management activities performed in the first and second lines of defence.

Climate change risk

The potential financial impacts of extreme weather events such as hurricanes, floods and heatwaves are elevating the risks associated with climate change. Our business activities can both significantly influence communities and the environment and be impacted by climate risks. As such, we take our responsibility to help mitigate this risk seriously.

For example, we've set ambitious targets to reduce financing for coal-power generation to close to zero by 2025, and no longer provide financing to new clients whose business is over 10 percent reliant on coal-fired power. By the end of 2025 we will not finance any clients in the utilities sector who are more than five percent reliant on coal. In addition, we are steering our loan portfolio to meet the well-below two-degrees goal of the Paris Climate Agreement. In 2019, we published our first progress report on Terra, our pathway towards climate alignment in the sectors most responsible for climate change.

To help our customers be more sustainable, environmental and social risk (ESR) assessments are integrated into our due diligence processes. We have an ESR framework that helps us make transparent choices about how, where and who we do business with. In 2019, this framework was renewed, based on input from customers, peers, NGOs and our own experts. For more information about ESR see the 'Risk management' section.

We expect climate change to remain firmly on ING's agenda, as well as the agendas of our customers and of regulatory and supervisory bodies around the world. We have committed to report in line with the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD) and we continue to work on the challenging exercise of translating potential climate risks and transition risks into financial risk for ING. Please see the Risk management section for more information on TCFD.

Risk in the digital age

While digitalisation is enabling the easy, customer-oriented and secure service offering customers now expect, it is also amplifying non-financial risk. The more digital society becomes, the more important it becomes for banks to protect their customers, society and their own business against threats that could erode people's trust in our business and our sector. These include threats posed by cybercriminals, identity theft, misuse of data, security breaches, system failures and unethical business practices. Managing non-financial risk is therefore a priority for ING. It's a skillset we have to master to the same level of expertise as financial risk management.

IT risk

Reputation starts with satisfied customers. In today's always-on, convenience-oriented society, people expect their bank to be available 24/7. Tolerance for technical failures is low. And customers can quickly and easily share their dissatisfaction online, increasing the risk of reputational damage, or move their account to another bank, risking a loss of business. We therefore have to ensure our systems are available whenever our customers need them. Round-the-clock access is the first element for delivering a differentiating digital experience for customers. To this end, ING continued in 2019 to focus strongly on managing exposure to IT risks, including the cost of new technologies that until proven effective have to run in parallel with legacy systems, and increasing the efficiency and effectiveness of our IT structure and continuity of IT processing.

Model risk

New technologies like artificial intelligence (AI) rely heavily on data. Data also drives more and more of ING's business decisions, providing the input for the models we use to calculate the value of savings, for example, or to calculate risk metrics. Our customers also use data to help them make better financial decisions. It is therefore imperative to get the right data at the right time to drive the right decisions. At the same time, models are becoming increasingly complex as regulations, customer needs and risk management techniques constantly evolve. To help mitigate the risk that our models get it wrong – leading to the risk of a loss of earnings or even a regulatory breach – we have a model risk management framework to identify, assess, control and monitor the risks caused by applying models across ING. In 2019, we initiated a programme to improve the availability and quality of our data, model governance and processes, further strengthening our risk modelling and data capabilities to give ING a competitive advantage.

Data, privacy and cybersecurity

Customers trust us with their money and, increasingly, with their data. We have a social responsibility and a duty to maintain that trust and to safeguard them against loss or misuse of their data. Our duty of care is not only towards our customers, but there is a wider social responsibility to act as gatekeepers to the financial system.

In an increasingly open and connected environment we have to be ever more vigilant about data protection, data privacy and IT security. Regulations like the new European Payments Services Directive (PSD2) give customers more choice by opening up payments and money management to new players, including non-banks. But PSD2 also obliges banks to share account information with licensed third parties if our customers authorise us to do so. Any data or IT breach, irrespective of whether anything is actually lost or stolen, could severely damage customers' trust in our bank and in the entire sector. There may be legal, regulatory or compliance repercussions. This is an ever growing risk, given ING's platform ambitions and increasing cooperation with third-party providers.

To ensure the prudent use of data, there are local and global Data Ethics Councils to help manage data-related dilemmas and ensure our decisions are aligned with the values and behaviours in ING's Orange Code.

We have developed a new e-learning module for all employees underlining the importance of data, which was rolled out in early 2020.

ING has set solid standards in line with international guidelines for platform security, data management, cybercrime resilience and security monitoring, as well as for identity and access management. This aims to ensure the right people have the right access to the right resources at the right time. User Access Management remains an important element of our control framework to mitigate unauthorised and inappropriate access to our data and information. We are building on our cybercrime resilience to further enhance the control environment to protect, detect and respond to digital fraud, DDoS and targeted attacks.

Financial economic crime

As a global financial institution, ING is at risk of being used to launder the proceeds of crime, finance terrorism or for other financial economic crimes such as transactions involving a sanctioned person or country, or trade-controlled exports. Criminals are becoming ever more sophisticated as they harness new technologies like AI and machine learning. Given the growing number of digital card and payment transactions – around 13 billion in 2019 – ING faces an increased risk that some of these interactions are used for fraud or for money laundering purposes.
Technology can help us deal with these risks by improving customer due diligence processes and the prevention, detection, quality and speed of response to financial economic crime. For example, we developed a virtual alert handler that uses artificial intelligence to better detect suspicious transactions and customer behaviours, allowing our employees to concentrate on those alerts that actually require attention. An AI solution detects instances of 'smurfing', which is where large fraudulent transactions are broken up into smaller ones that are not picked up by conventional monitoring systems. An AI-based anomaly detection tool went live in September, which is used to uncover suspicious transactions in the clearing and settlement process between banks. And in Wholesale Banking we have developed a platform that uses advanced analytics to analyse transactions as part of the know your customer (KYC) process. It collects and connects data about payments, lending and financing to provide insights that would not normally be readily available. Fighting financial crime is a challenge affecting the entire financial services industry. ING cooperates with other banks, law enforcement and regulators at national and European levels to strengthen the resilience of the financial system. This includes working with the Dutch central bank (DNB) and the Dutch Banking Association (NVB) to harmonise efforts to fight financial economic crime, as well as participating in public-private partnerships such as with the Dutch Financial Expertise Centre (FEC) to strengthen the integrity of the financial sector through preventative action to identify and combat threats.

In July 2019, we joined peers from other banks at the UK's Financial Conduct Authority TechSprint to find better ways of detecting and preventing financial crime. ING Labs innovates with others to create solutions like CoorpID, a centralised digital vault for corporate customers to store, control and share their KYC documentation in a secure way. We're also developing a platform to help banks that serve other financial institutions to be more effective in their KYC efforts. In September 2019, ING and four other Dutch banks announced the ambition to set up a joint organisation to monitor payment transactions.

We believe that sharing knowledge across the financial industry and with the authorities will allow us to manage and control our own KYC activities and risks more effectively and improve our management of non-financial risks.

Know your customer

In the fight against financial economic crime, customer due diligence and transaction monitoring are indispensable. To address shortcomings in the execution of these, ING continued to deliver on its global KYC enhancement programme in 2019. This includes in Italy, where Banca d'Italia had identified shortcomings in our anti-money laundering processes. The global programme consists of enhancing customer due diligence files (documentation, data and identity verification) and structural solutions to become sustainably better in the way we fight financial economic crime. We also assess past transactions and follow the applicable reporting process should we identify any unusual transactions. At year-end, we had around 4,000 FTEs working on KYC-related activities.

The structural solutions that the KYC enhancement programme focuses on are divided into five pillars:

- Policies: Develop and roll out a global KYC policy, global KYC risk appetite statements, and customer and maturity assessments.
- Tooling: Develop and roll out a bank-wide digital KYC service platform, including standard processes and tools for customer due diligence, screening and monitoring.
- Monitoring: Translate risk assessment outcomes into scenarios and alert definitions that can be applied to transaction monitoring.
- Governance: Install a global KYC governance to ensure consistent decision-making on standards, operations, customer acceptance and continuous improvements.
- Knowledge and behaviour: Increase employee knowledge of KYC, provide specialist training and set up a behavioural risk department to carry out risk assessments, detect high-risk behaviours and intervene where needed.

See the ‘Risk management’ section for more information about the global KYC enhancement programme and ING’s progress in each of these pillars. The main developments for 2019 are highlighted in the graphic below.

KYC milestones in 2019

Policies

- Updated KYC policy incorporating all existing policies relating to AML/FEC/customer due diligence
- Updated the environmental and social risk (ESR) framework
- Implemented a systematic integrated risk approach (SIRA) in all business lines globally

Governance

- Continued to build global KYC organisation to develop consistent processes, work instructions, roles and responsibilities
- Established KYC Committees to manage and steer all KYC activities in the countries/regions and business lines
- Installed Client Integrity Risk Committees to steer decisions on client relationships based on compliance criteria

Tooling

- Developed new customer due diligence case management modules for mid-corporate customers in Poland and private banking clients in Luxembourg. Roll out in other countries to follow
- Target adverse media screening tool rolled out in most locations
- ING innovations to automate and improve KYC include an anti-smurfing tool, virtual alert handler and anomaly detection tool

Monitoring

- Introduced new standard transaction monitoring tooling, supported by risk-based scenarios with follow-up in terms of handling alerts and reporting suspicious activities
- Global customer activity monitoring (CAM) control guidance came into effect outlining a uniform CAM methodology framework
- ING and four other Dutch banks announced their intent to jointly monitor payment transactions
- Increased focus on KYC led to more accounts being closed, including those of customers who did not respond to requests for information

Knowledge & behaviour

- Global KYC Academy set up
- Outcomes of behavioural risk assessments in the Netherlands, US and Philippines discussed at ING leadership days to raise awareness of high-risk behaviours
- Set up Behavioural Risk Management workstreams with senior managers and initiated interventions to address high-risk behaviours
- Held an employee ‘nudge’ lab to identify small behavioural changes that can positively improve KYC execution
- Conducted a behavioural risk assessment in Belgium. Outcomes and interventions to follow in 2020
- Piloted a campaign to raise awareness among customers of trade-based money laundering

Behavioural risk

Wherever people work together they are influenced by group dynamics and beliefs that drive the way they make decisions, communicate with each other and take ownership. Behavioural risk management (BRM) is a new expertise to help us understand what drives the behaviours within our organisation, and identify high-risk behaviours that could negatively impact ING's reputation and performance.

Behavioural risk is complex and less tangible than other types of risks. Detecting and reducing high-risk behaviours requires a deep understanding of what drives them. In August 2018, we set up a global Centre of Expertise, which carries out behavioural risk assessments to identify, analyse and mitigate high-risk behaviours within ING and provides management with specific direction on how to change these behaviours.

The outcomes of the first assessments, which were conducted in the Netherlands, US and Philippines, were shared with the top 200 managers at ING's International Conference in March 2019, and with the departments involved. Based on these outcomes, a number of interventions that aim to change high-risk behavioural patterns have been implemented. Theory and evidence-based techniques and tools developed in behavioural science play an important role in designing and evaluating interventions.

Given the crucial role of leaders in creating the right conditions for employees, interventions are first initiated at leadership level. Leadership labs address topics such as 'governance and ownership', 'connection, alignment and trust' and 'collective learning'. Employee labs focus on implementing ideas identified during deep dives into behavioural drivers and solutions that require more development. The labs develop and test these ideas before they are implemented on a larger scale.

The BRM team works closely with other departments such as HR, Audit, Compliance and business units to align on and embed desired leadership and risk behaviours (i.e. speak up, psychological safety, communication, guiding leadership). See the 'Risk management' section for more information about BRM.

Compliance risk

ING faces the risk of compliance failures, especially in areas where regulations are unclear, subject to multiple interpretations, in conflict with each other, or where regulators revise their guidance. While we are vigilant in our efforts to comply with applicable laws and regulations, it remains a significant operational challenge to meet all the requirements within the regulatory timelines. People with the necessary knowledge and skills are scarce and implementing the necessary processes and procedures has significant implications for IT systems and data.

To help us manage and mitigate compliance risks we have a set of policies and procedures based on laws and regulations, as well as the standards defined for managing all non-financial risks as set out in ING's internal control framework. We provide training for employees on topics such as money laundering, terrorist financing, sanction and export control compliance and conduct risks such as conflicts of interest, misselling, corruption and protection of customers' interests. There is also training on risk culture, the Foreign Account Tax Compliance Act (FATCA), the Common Reporting Standard (CRS), and US withholding tax and information reporting regulations. Some of these trainings are specifically for risk and compliance experts, others aim to raise awareness among all employees and new joiners.

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 take place on a continuous basis with regular reporting to various stakeholders. For 404/SOX purposes (section 404 of the Sarbanes-Oxley Act), an 'effectiveness of internal control statement' has been provided. Tax risk management is subject to Corporate Audit testing and evaluation. In the Netherlands, ING has opted for cooperative tax compliance ('horizontaal toezicht'), which implies overall transparency and disclosure of relevant tax risks to the Dutch tax authorities. Tax risks not only refer to ING's own tax position, but also to the risks in relation to the tax positions of our customers. In this respect, we have integrated a tax integrity assessment in our overall customer risk assessment process.

In 2019, we continued to support the business in the area of risk culture and monitoring compliance risk. This included training by compliance and data experts to enhance balanced decision-making that is in line with the Orange Code and consistent with compliance risk culture monitoring. It covered topics such as compliance risk awareness, group dynamics and tone from the top. We introduced a new global learning model in 2019 that aims to professionalise Compliance, KYC and Risk training and tailor it to our specific business needs. A Risk Academy has been set up for people working in Risk, with the aim of eventually bringing this training to a broader audience.

Whistleblower policy

ING's Whistleblower policy enables employees to anonymously report any actual or suspected irregularity or misconduct that violates our Orange Code, ING's internal policies or any law or regulation. This can be done via internal or external channels, alongside normal reporting channels. In 2019, ING recorded 102 alleged irregularities as part of the Whistleblower process, including 52 reports of suspected breaches of Orange Code or unethical behaviour.

Composition of the Management Board Banking and Supervisory Board

Management Board Banking

Composition on 31 December 2019

- R.A.J.G. (Ralph) Hamers (53)
  CEO, chairman of Management Board Banking
- T. (Tanate) Phutrakul (55)
  CFO
- S.J.A. (Steven) van Rijswijk (49)
  CRO
- A. (Aris) Bogdaneris (56)
  Head of Challengers & Growth Markets
- M.I. (Isabel) Fernandez Niemann (51)
  Head of Wholesale Banking
- R.M.M. (Roel) Louwhoff (54)
  COO/CTO

Supervisory Board

Composition on 31 December 2019

G.J. (Hans) Wijers (68)
Chairman
H.J.M (Hermann-Josef) Lamberti (63)
Vice-chairman
J.P. (Jan Peter) Balkenende (63)
E.F.C.B. (Eric) Boyer de la Giroday (67)
M. (Mariana) Gheorghe (63)
M. (Margarete) Haase (66)
A.M.G. (Mike) Rees (63)
R.W.P. (Robert) Reibestein (63)
H.W.P.M.A. (Herna) Verhagen (63)

Committees of the Supervisory Board

Composition on 31 December 2019

Audit Committee

H.J.M (Hermann-Josef) Lamberti
Chairman
E.F.C.B. (Eric) Boyer de la Giroday
M. (Margarete) Haase
G.J. (Hans) Wijers
R.W.P. (Robert) Reibestein

Risk Committee

R.W.P. (Robert) Reibestein
Chairman
J.P. (Jan Peter) Balkenende
E.F.C.B. (Eric) Boyer de la Giroday
M. (Mariana) Gheorghe
H.J.M (Hermann-Josef) Lamberti
A.M.G. (Mike) Rees

Remuneration Committee

H.W.P.M.A. (Herna) Verhagen
Chairman
M. (Mariana) Gheorghe
R.W.P. (Robert) Reibestein
G.J. (Hans) Wijers

Nomination and Corporate Governance Committee

G.J. (Hans) Wijers
Chairman
M. (Mariana) Gheorghe
H.W.P.M.A. (Herna) Verhagen

Corporate governance

This chapter, including the parts of this Annual Report incorporated by reference, with the separate publication of 'ING's application of the Dutch Banking Code' dated 5 March 2020, (see www.ing.com), together comprise the 'corporate governance statement' as specified in section 2a of the decree with respect to the contents of the Annual Report ('Besluit inhoud bestuursverslag')[1]

Dutch Banking Code

The Dutch Banking Code, as revised in 2014, is applied by ING Bank N.V. The Banking Code can be downloaded from the website of the Dutch Banking Association (www.nvb.nl). Its application to ING Bank is described in 'Application of the Dutch Banking Code by ING Bank N.V.', available on the ING Group website (www.ing.com). This is to be read in conjunction with and deemed to be incorporated in the Annual Report of ING Bank N.V.

Financial reporting process

As ING Bank N.V. is a consolidated subsidiary of ING Groep N.V. ('ING Group') its policies and procedures for establishing and maintaining adequate internal control over financial reporting are the same as those applied by ING Group for its consolidated financial statements with respect to ING Bank N.V. and the entities included in the latter's own consolidated financial statements.

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 the 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.

ING has a process in place where, under the supervision and with the participation of the CEO and CFO, ING assesses the effectiveness of internal control over financial reporting, based on the criteria of the Committee of Sponsoring Organisations of the Treadway Commission ('COSO') in Internal Reporting – Integrated Framework (2013 Framework).

[1] Dutch Bulletin of Acts (Staatsblad) 2004, 747, most recently amended with effect from 1 January 2018: Dutch Bulletin of Acts 2017, 332.

Board composition

ING Bank aims to have an adequate and balanced composition of its Management Board. Thereto, annually, the Supervisory Board assesses the composition of the Management Board. In the context of such assessment, ING Bank aims to have a gender balance by having at least 30 percent men and at least 30 percent women amongst its Management Board members. However, because of the fact that ING Bank needs to balance several other relevant selection criteria when composing its Management Board, the composition of the Management Board did not meet the abovementioned gender balance in 2019 (17 percent women, with the appointment of Pinar Abay per 1 January 2020: 29 percent women). ING Bank will continue to strive for an adequate and balanced composition of its Management Board in future appointments, by taking into account all relevant selection criteria including but not limited to gender balance, executive experience, experience in corporate governance of large stock-listed companies and experience in the political and social environment.

Changes in the composition

Roland Boekhout stepped down as member of the Management Board Banking on 11 July 2019 to become a member of the Board of managing directors with responsibility for the corporate clients segment at Commerzbank as of 1 January 2020. As announced on 20 December 2019, Pinar Abay, his successor, was appointed as member of the Management Board Banking and head of Market Leaders effective 1 January 2020. Her appointment was approved by the European Central Bank. As announced on 20 February 2020, Ralph Hamers will step down as chief executive officer of ING Groep N.V. and ING Bank N.V. as of 30 June 2020. He will join UBS on 1 September 2020 and will become group chief executive officer per 1 November 2020. Further announcements on the succession process will be made if and when appropriate.

Information on members of the Management Board Banking

R.A.J.G. (Ralph) Hamers member and Chairman Management Board

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

Ralph Hamers was appointed a member of the Executive Board of ING Group on 13 May 2013. On 1 October 2013, he was appointed CEO and Chairman of this Board and of the Management Board Banking. Ralph Hamers joined ING in 1991. Before his appointment to the Executive Board, he was CEO of ING Belgium and Luxembourg.

As announced on 20 February 2020, Ralph Hamers will step down from his position and leave ING as of 30 June 2020. He will join UBS on 1 September 2020 and will become group chief executive officer per 1 November 2020. He will remain in his role as chief executive officer of ING Groep N.V. and ING Bank N.V. until 30 June 2020 continuing to run the daily business and working with the Executive Board and the Management Board Banking to ensure a smooth transition of leadership. Further announcements on the succession process will be made if and when appropriate.

Relevant positions pursuant to CRD IV[2]

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

Other relevant ancillary positions

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

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

T. (Tanate) Phutrakul, member and Chief Financial Officer (‘CFO’)

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

Tanate Phutrakul was appointed as Chief Financial Officer of ING Groep N.V. and ING Bank N.V. and member of the Management Board Banking of ING Bank on 7 February 2019. Subsequently, he was appointed as a member of the Executive Board of ING Groep N.V. at the Annual General Meeting on 23 April 2019.

Tanate Phutrakul is responsible for ING’s financial departments, Group Treasury (including capital management activities), Investor Relations, Group Research and Regulatory & International Affairs. Prior to this appointment, Tanate Phutrakul was the ING Group controller.

Relevant positions pursuant to CRD IV

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

S.J.A. (Steven) van Rijswijk, member and Chief Risk Officer (‘CRO’)

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

Steven van Rijswijk has been a member of the Management Board Banking since 8 May 2017. He was appointed CRO on 1 August 2017. He is also a member and CRO of the Executive Board of ING Groep N.V. Before becoming a member of the Management Board Banking, Steven van Rijswijk was global head of Client Coverage within ING Wholesale Banking. Steven van Rijswijk joined ING in 1995 in the Corporate Finance team holding various positions in the areas of Mergers & Acquisitions and Equity Markets.

Relevant positions pursuant to CRD IV

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

A. (Aris) Bogdaneris, member and head of Challengers & Growth Markets

(Born 1963, Canadian nationality, male; appointed in 2015)
Aris Bogdaneris was appointed a member of the Management Board Banking on 1 June 2015. He is also head of Challengers & Growth Markets, responsible for all markets where ING is active in both retail and wholesale banking outside the Benelux.

Prior to this appointment, Aris Bogdaneris was a member of the Management Board Banking responsible for Retail Banking at Raiffeisen Bank International as well as Chief Operating Officer overseeing Information Technology and Operations/Shared Service Centers.

Relevant positions pursuant to CRD IV

Member of the Management Board Banking of ING Bank N.V., member of Management Board of ING Bank (Australia) Ltd and member of the Supervisory Board of ING DiBa.

M.I. (Isabel) Fernandez Niemann, member and head of Wholesale Banking

(Born 1968, Spanish Dutch nationality, female; appointed in 2016)
Isabel Fernandez Niemann was appointed a member of the Management Board Banking as from 1 September 2016. She is also head of Wholesale Banking as from 1 November 2016. Prior to her appointment Isabel Fernandez Niemann was Global Commercial Leader and Head of Sales for General Electric.

Relevant position pursuant to CRD IV

Member of the Management Board Banking of ING Bank N.V.

Other relevant ancillary position

Member of the board of Stichting het Nationale Ballet Fonds.

R.M.M. (Roel) Louwhoff, member and COO Management Board

(Born 1965, Dutch nationality, male; appointed in 2014)
Roel Louwhoff was appointed a member and chief operations officer (COO) of the Management Board Banking on 1 May 2014. He was also appointed Chief Transformation Officer (CTO) per 1 October 2016. In this role, that he fulfils alongside his COO role, he is responsible for operations of the bank-wide transformation that was announced in 2016. Roel Louwhoff is responsible for Operations, IT (including standardisation), data management, transformation, KYC, information security and process management. Prior to this appointment, Roel Louwhoff was CEO of BT Operate.

Relevant position pursuant to CRD IV

Member of the Management Board Banking of ING Bank N.V.

Supervisory Board

ING Group needs to balance several relevant selection criteria when composing its Supervisory Board but strives for an adequate and balanced composition thereof, by taking into account all relevant selection criteria including, but not limited to experience in retail and wholesale banking, gender balance, executive experience, experience in corporate governance and experience in the political and social environment.

The Nomination Committee assesses the composition of the Supervisory Board, annually. In the context of such assessment, ING Group aims to have a gender balance by having at least 30 percent men and at least 30 percent women amongst its Supervisory Board members. With regard to Supervisory Board succession planning, the Nomination and Corporate Governance Committee continued its search for potential suitable successors so as to maintain a balanced Supervisory Board composition, taking into account the evolving role of supervisory boards in general.

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

Ancillary positions

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

Information on members of the Supervisory Board

G.J. (Hans) Wijers (Chairman)

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary positions

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

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

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

Relevant positions pursuant to CRD IV

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

J.P. (Jan Peter) Balkenende

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary positions

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

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

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary position

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

M. (Mariana) Gheorghe

(Born 1956, Romanian nationality, female, appointed in 2015, term expires in 2019)
Former position: CEO of OMV Petrom SA.

Relevant positions pursuant to CRD IV

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

Other relevant ancillary position

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

M. (Margarete) Haase

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary positions

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

A.M.G. (Mike) Rees

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary position

Non-executive director Mauritius Africa FinTech Hub.

R.W.P. (Robert) Reibestein

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

Relevant positions pursuant to CRD IV

Member of the Supervisory Board of ING Groep N.V./ING Bank N.V. and member of the Supervisory Board of IMC B.V.

Other relevant ancillary positions

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

H.W.P.M.A. (Herna) Verhagen

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

Relevant positions pursuant to CRD IV

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

Other relevant ancillary positions

Member of the Supervisory Board, nomination committee and sponsoring 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.).

Changes in the composition

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

Conformity statement

The Management Board Banking is required to prepare the Financial statements and the Annual Report of ING Bank N.V. for each financial year in accordance with applicable Dutch law and those International Financial Reporting Standards (IFRS) that were endorsed by the European Union.

Conformity statement pursuant to section 5:25c paragraph 2(c) of the Dutch Financial Supervision Act (Wet op het financieel toezicht).

The Management Board Banking is responsible for maintaining proper accounting records, for safeguarding assets and for taking reasonable steps to prevent and detect fraud and other irregularities. It is responsible for selecting suitable accounting policies and applying them on a consistent basis, making judgements and estimates that are prudent and reasonable. It is also responsible for establishing and maintaining internal procedures which ensure that all major financial information is known to the Management Board Banking, so that the timeliness, completeness and correctness of the external financial reporting are assured.

As required by section 5:25c paragraph 2(c) of the Dutch Financial Supervision Act, each of the signatories hereby confirms that to the best of his knowledge:

- the ING Bank N.V. 2019 Financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of ING Bank N.V. and the enterprises included in the consolidation taken as a whole; and
- the ING Bank N.V. 2019 Annual Report gives a true and fair view of the position at the balance sheet date, the development and performance of the business during the financial year 2019 of ING Bank N.V. and the enterprises included in the consolidation taken as a whole, together with a description of the principal risks ING Bank N.V. is being confronted with.

Amsterdam, 2 March 2020

The Management Board Banking

R.A.J.G. (Ralph) Hamers
CEO, chairman of the Management Board Banking

T. (Tanate) Phutrakul
CFO

S.J.A. (Steven) van Rijswijk
CRO

P. (Pinar) Abay
Head of Market Leaders

A. (Aris) Bogdaneris
Head of Challengers & Growth Markets

M.I. (Isabel) Fernandez Niemann
Head of Wholesale Banking

R.M.M. (Roel) Louwhoff
COO/CTO

Report of the Supervisory Board

In 2019, the Supervisory Board and its committees continued to focus on overseeing and constructively challenging ING's management in their efforts to implement the Think Forward strategy. Other important topics of attention included the preparations for updating the Executive Board and Supervisory Board remuneration policies to reflect new Shareholders' Rights Directive (SRD II) requirements that take effect on 1 January 2020 and ING's global AML/KYC priorities and discharge following the investigation by Dutch authorities.

The Supervisory Board met 10 times in 2019. On average, 95 percent of the Supervisory Board members were present at the meetings. This attendance rate illustrates that the members of the Supervisory Board are continuously engaged with ING and are able to devote sufficient time and attention to overseeing ING's affairs. Since 2018, the Supervisory Board discusses and reconfirms all of its members' outside positions on an annual basis and approves any intended outside positions when they occur, among other topics in order to safeguard this level of engagement.

The Management Board Banking was present during each regular Supervisory Board meeting. For part of the regular meetings only the chief executive officer was present; this was dependent on the nature of the topics being addressed. The Supervisory Board also had sessions with its individual members only, prior to its regular meetings when justified by the nature of the topics on the agenda. The purpose of pre-meetings and Supervisory Board-only meetings is to allow the Supervisory Board independent reflection on, and consideration of, important matters in the absence of the Management Board Banking. The Supervisory Board aims to strike a balance between the interests of all stakeholders while maintaining an open dialogue with ING's internal organisation and external supervisors.

Besides the topics mentioned in the introduction of this report, the Supervisory Board also focused on the progress and delivery of the various transformation initiatives and how these relate to external developments in areas such as the regulatory domain, to ensure the right priorities continue to be set, with the appropriate allocation of resources. Also discussed were the anticipated impact of the low interest rate environment, model risk, Basel IV, IFRS 16, SRD II and several topical regulatory themes with a global ING scope such as ICAAP, compliance, IT, sourcing, and suitability requirements for boards and key function holders. Furthermore, the Supervisory Board discussed the financing of the company in accordance with our capital and liquidity adequacy in line with our annually updated Risk Appetite Framework, dividend capacity and ongoing supervisory developments.

At the 2019 Annual General Meeting of ING Groep N.V. (AGM), a majority of our shareholders voted not to discharge the (former) members of the Executive Board and Supervisory Board from their potential liability against the company for their duties performed for the 2018 financial year– the year in which the settlement agreement with Dutch authorities had a significant negative impact on ING. As clearly stated at the 2019 AGM, and in all other communication with shareholders and investors before and since the meeting, ING fully understands the dissatisfaction expressed through this vote and takes this matter very seriously.

The Supervisory Board, together with the Executive Board and Management Board Banking, regarded the rejection of the discharge as a clear signal and firm encouragement to continue the know your customer (KYC) enhancement programme that was already launched in 2017. This programme is designed to ensure that ING structurally improves its gatekeeping function in the area of Customer Due Diligence (CDD) and Anti-Money Laundering (AML) to a sustainable high level.

For further details on this programme, read more in the 'Developments in risk and capital management' chapter and the Risk Management section.

Ahead of the 2019 AGM, ING had interactions with large institutional shareholders, Dutch shareholder interest groups and proxy voting advisors. During these engagements—which ING initiates each year ahead of its AGM—views were exchanged on topics including the 2019 shareholder resolutions, corporate governance matters, and the measures ING has in place to improve its management of non-financial risks.

In August 2019, the Executive Board and Supervisory Board published a letter expressing their understanding of the shareholder vote against discharge and detailing the actions ING has undertaken with respect to the global KYC enhancement programme. This letter was published in the General Meeting section on www.ing.com and was proactively distributed to the investment community.

In addition, ING has consistently provided regular updates on the progress of structural improvements to compliance policies, tooling, monitoring, governance, and knowledge and behaviour to bring ING's gatekeeping function in the area of Customer Due Diligence and Anti-Money Laundering to the appropriate level. These updates can be found, for example, in ING's quarterly reporting and on the corporate website www.ing.com, under the "About us" section.

The Supervisory Board, Executive Board and Management Board Banking are committed to rebuilding trust in ING and will continue to be open and transparent on these matters. The Supervisory Board, Executive Board and Management Board Banking appreciate having the opportunity to interact with ING's shareholders and other stakeholders—their views are invaluable to maintaining a constructive dialogue as ING moves forward.

ING interacts with shareholders and other stakeholders on a daily basis. Naturally, the settlement and its resulting impact on ING have been frequent topics on which engagements have taken place, and on which ING continuously reports progress.

Please refer to Note 44 to the consolidated financial statements of ING Bank for more information.

SB Attendance 2019[1]	SB	RiCo	AC	NCGcom[2]	RemCo[3]
Wijers (chairman)	9/10	-	5/5	12/13	10/10
Lamberti (vice-chairman)	9/10	7/8	4/5	-	-
Balkenende	10/10	7/8	-	-	-
Boyer	8/10	8/8	5/5	-	-
Breukink	3/5	-	-	3/4	1/2
Gheorghe	9/10	7/8	-	12/13	7/7
Haase	10/10	-	5/5	-	-
Rees	5/5	5/5	-	-	-
Reibestein	10/10	8/8	5/5	-	9/10
Verhagen	1/1	-	-	3/3	4/4
Total attendance[4]	**95%**	**93%**	**96%**	**91%**	**97%**

1 This SB attendance overview shows the regular SB (committee) meetings that took place during the year.
2 Additional NCGcom meetings took place in 2019 in view of medium to longer term board succession planning
3 Additional RemCo meetings took place in 2019 because of increased attention to the board remuneration policies, among others in view of SRD II
4 The numbers exclude observers, if any. In case an SB member cannot join a meeting, he/she will at all times continue to receive the meeting materials to allow him/her to provide feedback prior to the meetings.
Please note that (i) Henk Breukink stepped down as of the end of the AGM on 23 April 2019. Mike Rees and Herna Verhagen were appointed as of the same moment. Although Herna Verhagen's appointment became effective on 1 October 2019, she already prepared for and participated in many Supervisory Board related meetings before this date as an observer
Abbreviations used: SB = Supervisory Board; RiCo = Risk Committee; AC = Audit Committee; NCGcom = Nomination and Corporate Governance Committee, RemCo = Remuneration Committee

Continuous dialogue with stakeholders

ING aims to maintain continuous interaction with customers, shareholders, employees, and our societal and other stakeholders. For the Supervisory Board the dialogue between ING and external supervisors was a standard agenda item throughout the year. This included a discussion on the results of the annual Supervisory Review and Evaluation Process (SREP) through which the European Central Bank aims to promote a resilient banking system as a prerequisite for a sustainable and sound financing of the economy. The SREP involves a comprehensive assessment of banks' strategies, processes and risks, and takes a forward-looking view to determine how much capital each bank needs to cover its risks.

The topic of managing ING's reputation and brand was also on the Supervisory Board agenda. The Supervisory board has had periodic conversations with various internal and external stakeholders and it exercised its oversight role to ensure that necessary actions resulting from this cascaded down into the organisation and were followed up, including those actions related to culture and behaviour. In addition, in 2019 extensive stakeholder consultation took place with among others customer, employee and shareholder representatives, external supervisors, society at large and other stakeholders in light of the proposed updates to the Executive Board and Supervisory Board remuneration policies which will be put to the vote at ING's 2020 Annual General Meeting.

Looking back at 2019 and given the ever increasing importance of what is happening in the world around us and the importance thereof to ING and its stakeholders, the Supervisory Board concluded that it would be beneficial to intensify the Supervisory Board's in-depth discussions on increasingly complex matters. To support this, the Supervisory Board worked with an advanced delivery of its meeting materials as from 2H 2019 onwards and it will extend its quarterly meetings by at least 25 percent as from next year. Additional meetings of the Risk Committee and the Audit Committee will be organised at the same time.

SB and EB remuneration policy

The Supervisory Board intends to submit proposed new remuneration policies for the Executive Board and the Supervisory Board to the Annual General Meeting of ING Groep N.V. (AGM) of its shareholders in April 2020. This follows an extensive review of executive remuneration at ING, which was carried out in consultation with a broad range of stakeholders in 2019. It is also in line with the guidelines of the revised SRD II, which require listed companies to submit their remuneration policies to the AGM at least once every four years. The last year ING's remuneration policies were submitted in full to the AGM for approval was 2010.
As part of its review, the Supervisory Board held meaningful discussions with stakeholders to ensure the proposed remuneration approach achieves the right balance among their various viewpoints and interests. It also took into account public sentiment around remuneration.
Shareholders will have the opportunity to cast a binding vote (≥ 75 percent) on the proposed new remuneration policies at the 2020 AGM. The policies aim to maintain a sustainable balance between the short and long-term interests of our stakeholders and build on ING's long-term responsibility towards customers, shareholders, employees, other stakeholders and society at large.

ING's global KYC/AML priorities

On 4 September 2018, ING announced that it had reached a settlement agreement with Dutch authorities relating to an investigation that found serious shortcomings in the execution of customer due diligence and requirements related to fighting financial economic crime. Since the start of the investigation, various initiatives have been launched to further enhance AML/KYC throughout the bank. More broadly, ING has launched a bank-wide KYC enhancement programme, the progress of which is being monitored by and discussed between the Supervisory Board, management and the relevant supervisors.

As part of the aforementioned programme and also part of the Permanent Education session on KYC, the Supervisory Board visited ING's local and centralised compliance/KYC operations in Poland, Belgium, Slovakia and Romania in 2019, with additional visits in the pipeline for 2020. During these visits a dialogue takes place with the local teams, the results of which feed into the discussions at global level. The purpose of these local compliance/KYC visits was to provide the Supervisory Board members and the local organisation with a better mutual understanding of the importance of local initiatives and processes and how their results feed into the board discussions at the global level.

The Supervisory Board and Management Board Banking also discussed ING's internal KYC governance and processes. Improvements were identified that are now being implemented. The aforementioned boards reconfirmed their commitment to ensure ING fulfils its gatekeeper role, complies with applicable regulatory requirements and continue taking the necessary actions to strengthen compliance risk management and culture throughout the organisation.

Appointment CFO

Following the settlement with the Dutch authorities in September 2018 and in consultation with the Supervisory Board, Koos Timmermans stepped down from his position as CFO and member of the Management Board Banking of ING after the presentation of the 2018 fourth quarter and full year results on 6 February 2019. He was succeeded by Tanate Phutrakul, who was appointed as CFO and member of the Management Board Banking effective 7 February 2019. The Supervisory Board nominated Tanate Phutrakul for appointment as a member of the Executive Board and Management Board Banking, subject to shareholder approval. The appointment was supported by 99.3 percent of shareholders at the ING Groep N.V. Annual General Meeting on 23 April 2019 and also was approved by the European Central Bank.

Appointment head of Market Leaders

Roland Boekhout stepped down as member of the Management Board Banking and head of Market Leaders on 11 July 2019 to become a member of the Board of managing directors with responsibility for the corporate clients segment at Commerzbank as of 1 January 2020. His board responsibilities for the Market Leaders segment were transferred to Ralph Hamers on an ad interim basis. Upon Supervisory Board approval and ECB approval, he was succeeded by Pinar Abay on 1 January 2020 as head of Market Leaders (also becoming a member of the Management Board Banking), taking up the responsibility for ING's operations in the Benelux.

Permanent education and business visits

Permanent education and business visits are important for the members of the Supervisory Board as part of their continuous learning, aimed at maintaining their expertise at the required level and expanding it where necessary. They also help to keep up-to-date with and gain in-depth insight into the global and local economic, financial and political landscape and to increase the Supervisory Board's understanding of and engagement with ING's business operations and its stakeholders.

The annual Supervisory Board Knowledge Days, which took place in Amsterdam on 17 and 18 January 2019, were combined with regular Supervisory Board meetings and focused on compliance, AML/KYC, innovation and digitalisation, also including the concept of open banking.

As part of the annual business visit, the entire Supervisory Board, together with the Management Board Banking, visited the offices of ING in Slovakia and Romania in September 2019. This allowed the Supervisory Board to get a better understanding of local business challenges, with specific focus on AML/KYC and data security, as well as on sourcing including the role of ING's shared service centres.

Throughout the year, a number of other educational sessions on specific topics were organised for and at the request of the Supervisory Board. For 2019 a balance was sought between sessions focused on Compliance/KYC and other relevant topics, the latter including among others: the impact of low interest rates and mitigating measures, how to manage ING's reputation and brand, the platform business model, model risk management challenges, ICAAP, pricing and valuation adjustments to trading books, ING's credit rating in relation to the risk appetite framework, risk management of innovation, information security and anti-fraud, the Organisational Health Index, talent management and talent-to-value, and performance management and remuneration practices.

These visits and educational sessions provided ample opportunities for Supervisory Board members to interact with senior management and employees on location and to interact with senior management in dedicated speed-meet sessions. Such interaction contributes to a better mutual understanding and alignment on what matters most to ING, both for its employees and for the Supervisory Board. As in previous years, the Supervisory Board will continue this practice.

Strategy based on long-term value creation

In 2019, ING continued to implement its Think Forward strategy focused on long-term value creation and guided by our purpose to empower people to stay a step ahead in life and in business.

In late 2016, ING announced the acceleration of the implementation of the Think Forward strategy, focusing on investing in our digital transformation and creating a scalable banking platform. A global transformation programme was approved to realise the acceleration of the strategy. The basic starting point of the programme was ING's value proposition, captured in multiple workstreams across the ING network.

Throughout 2019, the Supervisory Board monitored and discussed the progress of the strategy and its transformation and, as part of this, had an active dialogue with the Executive Board and the Management Board Banking. In general ING is progressing well on the delivery of structural savings, despite the impact of an increase in programmes to comply with key regulatory requirements.

ING's strategy, together with the transformation programmes, includes an overarching view on our transformation into a dynamic digital player. Underlying that are initiatives to further improve our differentiated customer experience, earn primary customers, develop analytical skills to understand our customers better, increase the pace of innovation to serve changing customer needs, enhance efficiency, and think beyond traditional banking to develop new services and business models while growing our lending capabilities.

Our plans to become a go-to platform for customers' financial needs, to participate on others' platforms and to develop independent initiatives in partnership with others will drive our opportunities. To continue unlocking the value embedded in our platform in a fast-changing world, ING identified six key accelerators, which were shared with investors during ING's Investor Day on 25 March 2019: growing primary customers, increasing cross-buy through our own products or those of our partners, improving cross-border scalability, faster time to volume, benefiting from an attractive funding and lending mix and leveraging our sustainability profile.
Driving and delivering commercial momentum is also dependent on how we fund and manage the transformation and manage (non-financial) risk. This is being discussed between the Supervisory Board and management during periodic meetings, which in 2019 also included a dedicated Strategy Day. The Supervisory Board acknowledges it is important to take into account the duty of care towards those stakeholders of the bank who may be impacted by the transition.

Financial and risk reporting

The Management Board Banking has prepared the financial statements and discussed these with the Supervisory Board. The financial statements will be submitted for adoption at the 2020 Annual General Meeting as part of the 2019 Annual Report.

The 2019 quarterly results, were discussed and approved in May, July and October 2019, and in January 2020 including the relevant press releases. The full-year 2018 financial results were discussed and approved in March 2019. ING Bank paid EUR 2,819 million dividend to ING Groep N.V.

The Supervisory Board approved the annual review of the risk appetite framework that reflects recent changes in regulatory requirements. Per standard practice, the Supervisory Board was informed in detail throughout the year of the potential financial and non-financial risks for ING, including updates on upcoming regulatory changes (such as Basel IV) and political and economic developments in various countries and regions, and discussed how these could best be mitigated.

KPMG was appointed as external auditor of ING Bank for the financial years 2016 to 2019 (inclusive) by the 2015 Annual General Meeting. The 2019 Annual General Meeting reappointed KPMG for the audit of the financial statements for a subsequent four years (2020 to 2023 inclusive). KPMG, in its role as ING's external auditor, audited ING's 2019 accounts and financial statements. As part of the standard procedures, KPMG declared itself independent from ING, in compliance with applicable rules and regulations. Based on the Audit Committee proposal, the Supervisory Board supported the audit plans of the internal and external auditor, the latter including the scope and materiality of the external audit. There has been a significant increase in regulatory reporting since the start of ECB supervision. Reporting timelines are strict and the granularity of the data being requested has increased. In addition, local requirements need to be met. ING aims to safeguard data quality and all reporting processes so these remain up to standard.

Internal Supervisory Board meetings

During the internal meetings of the Supervisory Board in 2019 (with the CEO in attendance, except when the annual self-evaluation of the Supervisory Board or matters concerning the CEO were discussed), the Management Board Banking performance assessments were discussed and approved. Furthermore the Management Board Banking annual targets were reviewed and approved. The future composition of the Management Board Banking (including the new head of Market Leaders) and the Supervisory Board, its committees and potential candidates were recurring topics of discussion in light of various developments. ING's talent and succession planning were also discussed, including the outcome of the Annual Talent Review. Remuneration was another recurring agenda item.

The Supervisory Board self-assessment was also on the agenda. Last year's action points were addressed during the year, covering: (1) increased efforts to improve stakeholder management, by means of for example having participated in several roadshows and sector round tables, and foremost through the stakeholder dialogue that was initiated in view of the upcoming new proposed remuneration policies for the Executive Board and Supervisory Board; (2) an improved balance between the focus on performance management and compliance, through renewed reports and dashboards that include priorities, milestones and metrics; (3) more in-depth educational sessions, with a clear balance between the focus on risk, KYC and compliance (including on-site visits to ING's local KYC/compliance operations) and other areas of importance; and (4) an enhanced meeting practice, with advanced delivery timelines and additional regular meetings.

As in previous years, the Supervisory Board also conducted its annual self-assessment over this reporting year, facilitated by an independent external party and with input from several executives who regularly interact with the Supervisory Board and attend Supervisory Board meetings. The self-assessment has been made more comprehensive by specifically addressing the 'what' (roles and responsibilities) and the 'how' (culture and behaviour). We believe this also better aligns with developments among external stakeholders' and their expectations.

The performance of the Supervisory Board and its committees was considered to have improved compared to previous year's self-assessment, taking into account that the environment in which ING and the Supervisory Board are operating is now even more complex and challenging than before. The Supervisory Board will therefore continue to closely monitor and assess developments in the areas of financial and non-financial risk, compliance and internal control, as well as in the regulatory and external supervision landscape.

The Supervisory Board's spearhead objectives for 2020 will be to continue strengthening stakeholder dialogue and focusing on ING's longer-term strategic ambition and how to make AML/compliance an integral part of this. In this regard, the Supervisory Board will constructively challenge and support the Executive Board and the Management Board Banking to enable more clearly set expectations on prioritisation and milestones.

Following the discussions in early 2020 on the 2019 annual self-assessment results, a number of suggestions were made as key priorities to contribute to the performance of the Supervisory Board over the coming year. These include achieving more focused Supervisory Board (committee) plenary meetings by rethinking the meeting approach and set-up, potentially enhancing them with deep dives and thematic sessions. The Supervisory Board will also enhance its lifelong learning. In addition to participating in the annual plenary permanent education sessions that will be more specifically linked to ING's key themes, priorities and challenges, the Supervisory Board members will additionally take in knowledge on specific topics, for example via written public and already existing ING reports of the Executive Board and Management Board Banking.

Audit Committee meetings

The Audit Committee met five times in 2019. On average, 96 percent of the members were present at the scheduled meetings. The Audit Committee discussed the quarterly results, the interim accounts and the financial statements. Key audit matters, as included in the auditors' reports, were also a topic of discussion.

In addition to financial results and accounts, the Audit Committee's regular deliberations included financial reporting, the external auditor's audit plan, engagement letter, independence and fees, the overall internal control environment, the internal controls over financial reporting, the internal and external auditor reports, review of the internal audit function, and matters related to the financing of the company, including the assessment of ING's capital and liquidity position. The Audit Committee also reviewed the press releases related to the periodic results, the Annual Report, and discussed and made recommendations for the approval of the internal audit plan.

Specific attention was paid to a variety of other, related topics. These included generic IFRS-related developments and their potential impact on our disclosures, legal proceedings, the impact of the transition from EONIA to €str, assessment of the internal audit function, the remediation of open-control deficiencies in areas including loan-loss provisioning and user access and change management. Also addressed were non-financial risks relevant for financial reporting. High and critical overdue issues, as reported by the internal audit function, were also discussed. The updated internal audit charter and the quarterly whistleblower report were also areas of attention. The Audit Committee performed a thorough assessment of the functioning of the external auditor and the scope and materiality of the audit plan and the principal risks identified in the audit plan. All relevant items discussed by the Audit Committee were reported to the Supervisory Board, with the Supervisory Board approving those items as required from a governance perspective. Directly following the Audit Committee meetings, the members of the Audit Committee met with the internal and external auditors to seek confirmation that all relevant topics were discussed in the Audit Committee meetings.

To properly prepare for the regular Audit Committee meetings, the chairman of the Audit Committee held separate sessions with the external auditor, the general manager of the internal audit department, the CFO and the Group Controller. He also met with various senior managers.

Risk Committee meetings

The Risk Committee met eight times in 2019. On average, 93 percent of the members were present at the scheduled meetings. As with the meetings of the other committees, all relevant items discussed by the Risk Committee were reported to the Supervisory Board, with the Supervisory Board approving those items as required from a governance perspective. In each quarterly Risk Committee meeting financial and model risk as well as non-financial and compliance risk reports were discussed, including the status of ING's accompanying metrics, with regard to solvency, liquidity and funding, credit, country, market, IT, non-financial and compliance risks. The non-financial and compliance risk discussions were supported by updates of the bank-wide know your customer enhancement programme, on IT and various compliance dashboards (on KYC, GDPR/GDPP, PSD2, MiFID II, sourcing and data quality) and implementation of related regulatory programmes.

In 2019 the Risk Committee also discussed the annual review of the Risk Appetite Framework and statements, the updated Recovery Plan and stress-testing scenarios, as well as the impact of upcoming regulations such as Basel IV. Enterprise risk management, credit developments in certain countries and portfolios, the investor protection and markets policy and ING's new global code of conduct were also on the agenda. As in 2018, the Risk committee held an additional meeting to allow it to deal with high-priority issues such as the risks related to ING's sourcing activities.

The Risk Committee's feedback is also brought to bear on discussions regarding remuneration practices. It considers the implications of proposed new remuneration policies for the Management

Board Banking and the Supervisory Board and the Variable Remuneration Accrual Model, which was introduced in 2018 (see also 'Remuneration Committee meetings' in this section).

While transforming its organisation, ING needs to ensure that integrity continues to come first and that critical non-financial risk areas stay top of mind, because this is an integral part of who we are. We need to build up strong foundations with structural solutions that continue to earn the trust of our customers and society at large.

Read more in the 'Developments in risk and capital management' chapter and the Risk Management section.

Nomination and Corporate Governance Committee meetings

The Nomination and Corporate Governance Committee met 13 times in 2019. On average, 91 percent of the members were present at the scheduled meetings.

The Nomination and Corporate Governance Committee discussed the medium- to longer term succession planning for the Management Board Banking (including the new CFO), the Management Board Banking (including the new Head of Market Leaders) and the Supervisory Board. With regard to Supervisory Board succession planning, the Nomination and Corporate Governance Committee continued its search for potential suitable successors so as to maintain a balanced Supervisory Board composition, taking into account the evolving role of supervisory boards in general.

Finding suitable candidates remains challenging, as numerous requirements must be met to enhance the composition of the Supervisory Board including regulatory requirements, diversity, banking and other industry knowledge, outside positions, independence, no conflicts of interest, availability, etc. Diversity-related aspects that are being taken into account, include the minimum and optimal size of a supervisory board and how to arrive at an appropriate balance in its representation of regions, age, gender, and financial and generalist expertise. The Nomination and Corporate Governance Committee also has a continuing conversation on Management Board Banking succession planning as part of its regular meetings by means of deep dives by function and business line. Please refer to ING's diversity and competence matrix that shows the current composition of the Management Board Banking, Management Board Banking and Supervisory Board (see the 'Diversity and Competence Matrix' in this section).

In addition the Nomination and Corporate Governance Committee focused on improving diversity at the higher management levels, supported by senior management succession planning and accelerating refreshment. Time was spent on the role requirements and succession of several senior management roles that have a direct reporting line to the boards, such as the chief compliance officer, the general manager of the internal audit function, the general counsel and the chief HR officer. Talented individuals are being identified internally who are considered to have the potential to assume more senior and complex roles in the organisation over time, also taking into account ING's diversity policy (70 percent principle for mixed-teams) as published on www.ing.com. As was the case last year, periodic conversations with them took place outside regular meetings.

In terms of corporate governance, the committee discussed the agenda for the 2019 Annual General Meeting, including the publication of the booklet on ING's application of the Dutch Corporate Governance Code, the Dutch Banking Code and further implementation of the renewed EBA guidelines on Internal Governance. During the year, the committee also discussed: the 2019 Annual General Meeting voting against discharge of the corporate boards, its implications and how to take this further going forward: the Winning Performance Culture results over 2018 (the employee engagement survey we hold every two years, alternating with an organisational health survey in the years in between) and related attention points for the future; and the development and implementation of a global suitability policy framework that brings together several already existing policies and procedures, sets out clear criteria and a process for assessment and re-assessment of governing bodies and key function holders in scope. Standard topics on the committee's agenda also included the annual review and update of the corporate board charters.

All relevant items discussed by the committee were reported to the Supervisory Board, with the Supervisory Board approving those items as required from a governance perspective.

Remuneration Committee meetings

In 2019, the Remuneration Committee met 10 times. On average, 97 percent of the members were present at the scheduled meetings. Regular and additional meeting have taken place in view of the development of the proposed remuneration policies for the Executive Board and Supervisory Board and the related stakeholder engagement plan.

The Remuneration Committee, where necessary with input and advice from the Risk Committee following strengthened risk management governance, reviewed the predefined thresholds above which the pool for variable remuneration may be unlocked for those eligible. The committee discussed the variable remuneration pool and reviewed the performance assessment for the Management Board Banking, as well as the individual variable remuneration proposals. Following the settlement with the Dutch authorities in September 2018, it was agreed that the Management Board Banking would forego their variable pay over 2018. It was also decided to considerably cut the bonus pool for the rest of the organisation, resulting in a significant reduction of the total bonus rewarded over 2018.

In view of the new SRD II requirements, which will become effective as per 1 January 2020, the Remuneration Committee discussed and prepared proposed new remuneration policies for the Executive Board and the Supervisory Board in consultation with the Risk Committee and taking into account the feedback obtained from extensive stakeholder consultation. The proposed policies are subject to approval by the Annual General Meeting of April 2020. For further details, see the 'Remuneration report' in this Annual Report.

The Remuneration Committee also reviewed the remuneration proposals pertaining to the preceding performance year for Identified Staff, including potential cases for holdback of deferred compensation by way of malus. In addition, the proposed annual targets for the Executive Board and the Management Board Banking members were discussed and the ING Bank Remuneration Regulations Framework was updated as part of an annual review, including the Variable Remuneration Accrual Model. Throughout the year the Remuneration Committee approved Identified Staff and High Earner-related remuneration matters, based on ING's accompanying governance framework.

Composition of the Management Board Banking and Supervisory Board

At the ING Groep N.V. Annual General Meeting on 23 April 2019, Mariana Gheorghe was reappointed as Supervisory Board member. Henk Breukink stepped down as Supervisory Board member and chairman of the Remuneration Committee as per the end of the 2019 Annual General Meeting, having completed the maximum allowed regulatory term. Mike Rees and Herna Verhagen were appointed as Supervisory Board members. Mike Rees' membership became effective as per the end of the 2019 Annual General Meeting and he then also became a member of the Risk Committee. Herna Verhagen's membership became effective as of 1 October 2019. In between the end of the 2019 Annual General Meeting and 1 October 2019 she was already present at various Supervisory Board related meetings as an observer, including at the meetings of the Remuneration Committee of which she became the chairman as of 1 October 2019. As per that date she also became a member of the Nomination and Corporate Governance Committee. Mariana Gheorghe fulfilled the chairman role of the Remuneration committee on an interim basis in the period after the Annual General Meeting until 1 October 2019, after which she also remained a member of the Remuneration Committee.

After seven years of dedicated service, Robert Reibestein, also chairman of the Risk Committee and a member of the Audit Committee and the Remuneration Committee, decided in 4Q 2019 to step down from the Supervisory Board per 1 January 2020, because of persistent personal health issues. As from that date Mike Rees has taken over the role of chairman of the Risk Committee.

The Nomination and Corporate Governance Committee and the Supervisory Board will continue to strive for an adequate and balanced composition of the Supervisory Board when selecting and nominating new members for appointment, taking into account ING's diversity policy and other factors. Read more in the 'Corporate governance' chapter on the composition of the Supervisory Board committees at year-end 2019.

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

On 7 February 2019 Tanate Phutrakul was appointed as CFO and member of the Management Board Banking, succeeding Koos Timmermans. The Supervisory Board nominated Tanate Phutrakul for appointment as a member of the Management Board Banking of ING Bank, which was subsequently approved by the Annual General Meeting on 23 April 2019. These appointments and the appointments of Mike Rees and Herna Verhagen have been approved by the European Central Bank.

Diversity and competence matrix

Management Board

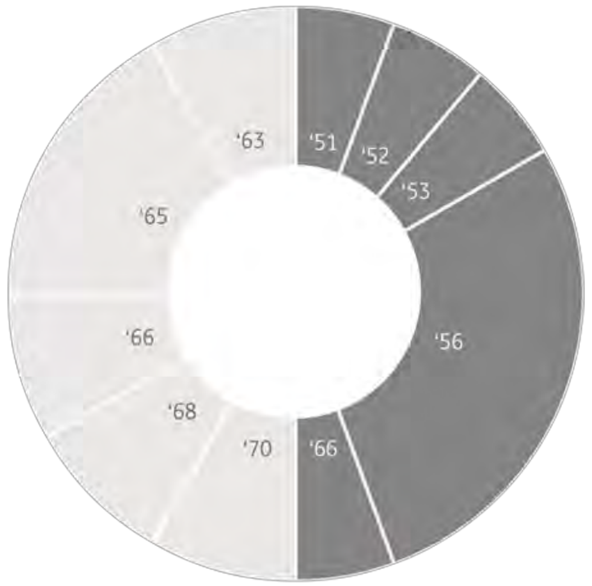
Competencies	Ralph Hamers (EB/MBB) NL 1966	Tanate Phutrakul (EB/MBB) TH 1965	Steven van Rijswijk (EB/MBB) NL 1970	Aris Bogdaneris (MBB) CA 1963	Isabel Fernandez (MBB) ES 1968	Roel Louwhoff (MBB) NL 1965
Executive experience	••	••	••	••	••	••
International experience	••	••	•	••	••	••
Banking/Finance/Audit/Risk	••	••	••	••	••	•
Operations a/o IT	•	••	••	••	•	••
Corporate governance	••	•	••	•	•	•

• some generic to average experience in the area
•• (had been) accountable and (had) executed over several years

Supervisory Board

	Hans Wijers (chair) NL 1951	Hermann-Josef Lamberti (vice-chair) DE 1956	Jan Peter Balkenende NL 1956	Eric Boyer de la Giroday BE 1952	Mariana Gheorghe RO/UK 1956	Margarete Haase AT 1953	Mike Rees UK 1956	Robert Reibestein NL 1956	Herna Verhager NL 1966
Executive experience	••	••	•	••	••	••	••	•	••
International experience	••	••	••	•	••	••	••	••	•
Banking/Finance/Audit/Risk	•	••	•	••	••	••	••	••	•
Operations a/o IT	••	••	•	•	•	•	••	•	••
Corporate governance	••	•	••	••	••	••	••	•	••



Age spread

Management Board
Supervisory Board

Information as at 31 December 2019. Please note the following: the competencies included in this matrix represent a non-exhaustive overview of the competencies of ING's corporate board members that they already had before joining ING and/or developed during their position(s) at ING. The purpose of this matrix is to provide ING's stakeholders with an overview on the main competencies ING considers to be the most relevant for its stakeholders. As ING's situation, markets and environment are subject to continuous change, the contents of the matrix is subject to change as well. Furthermore, for the appointments of new corporate board members, all relevant competencies are also shared with the DNB/ECB based on their Suitability Matrix to assess the collective competence of members of the members of the management/supervisory body.

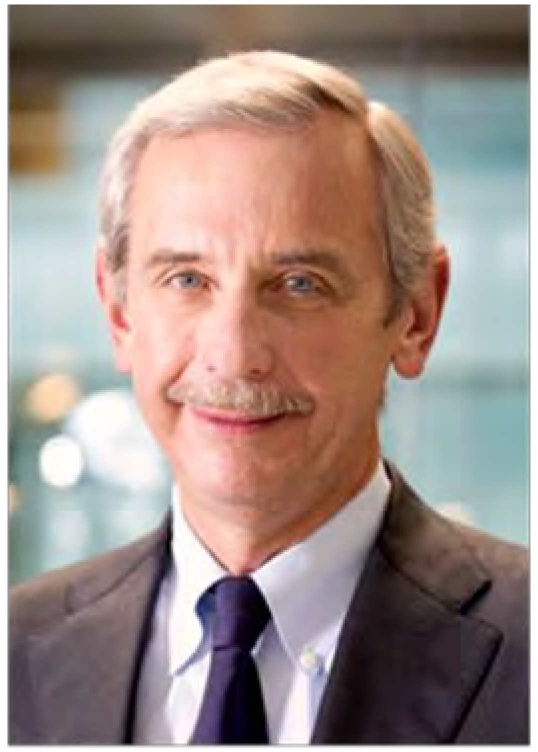
The Supervisory Board

The Supervisory Board of ING Bank is responsible for controlling management performance and advising, supervising and constructively challenging the Management Board Banking. All Supervisory Board members, with the exception of not more than one person, shall qualify as independent as defined in the best practice provision 2.1.8 of the Dutch Corporate Governance Code. Under this code, Eric Boyer de la Giroday is considered not to be independent. The current members of the Supervisory Board are:

Hans Wijers
Chairman Supervisory Board

Hermann-Josef Lamberti
Vice-chairman Supervisory Board

Jan Peter Balkenende



Eric Boyer de la Giroday

Mariana Gheorghe

Margarete Haase

Mike Rees

Herna Verhagen

Appreciation for the Management Board Banking and ING employees

The Supervisory Board would like to thank the members of the Management Board Banking for their hard work in 2019. Important milestones were the further steps taken towards creating an open banking platform for customers, further digitalising our offering and other innovative achievements such as the integration of Apple Pay for our retail customers. The Supervisory Board would also like to thank all ING employees for their contribution in realising these achievements and for continuing to serve the interests of customers, shareholders and other stakeholders of ING. The Supervisory Board is fully aware that ING is still going through a challenging period with economic crime and regulatory programmes, and would therefore also like to thank everyone for their efforts to regain the trust of our customers and other stakeholders.

Amsterdam, 2 March 2020

Contents

Risk Management

ING Bank Risk Management

As a global financial institution with a strong European base, offering banking services, ING is exposed to a variety of risks. We manage these risks through a comprehensive risk management framework that integrates risk management into daily business activities and strategic planning. This safeguards ING Bank's financial strength by promoting the identification, measurement and control of risks at all levels of the organisation. Taking measured risks is the core of ING's business.

The risk management function supports the Management Board Banking in formulating the risk appetite, strategies, policies and limits. It provides review, oversight and support functions throughout ING on risk-related items. ING's main financial risks exposures are to credit risk (including transfer risk), market risk (including interest rate, equity, real estate, credit spread, and foreign exchange risks), funding & liquidity risk and business risk. ING Bank is also exposed to non-financial risks, including operational, IT and compliance risks, as well as to model risks. The ING Bank Chief Risk Officer (CRO) is also the CRO of ING Bank.

This section sets out how ING manages its risks on a day-to-day basis. It explains how the risk management function is embedded within the organisation based on the 'three lines of defence'. It describes the key risks that arise from ING's business model and how these are managed by dedicated risk management departments, with various specific areas of expertise. The section provides qualitative and quantitative disclosures about credit, market, funding & liquidity, business, operational, IT, compliance and model risks.

Basis of disclosures

The risk management section contains information relating to the nature and the extent of the risks of financial instruments as required by International Financial Reporting Standards (IFRS) 7 'Financial Instruments: Disclosures'. These disclosures are an integral part of ING Bank Consolidated financial statements and are indicated by orange brackets.

This risk management section also includes additional disclosures beyond those required by IFRS-EU standards, such as certain legal and regulatory disclosures. Not all information in this section can be reconciled back to the primary financial statements and corresponding notes, as it has been prepared using risk data that differs to the accounting basis of measurement. Examples of such differences include the exclusion of accrued interest and certain costs and fees from risk data, and timing differences in exposure values (IFRS 9 models report expected credit loss on underlying exposures). Disclosures in accordance with Part Eight of the CRR and CRD IV, and as required by the supervisory authority, are published in our 'Additional Pillar III Report', which can be found on our corporate website ing.com.

Risk governance

Effective risk management requires firm-wide risk governance. ING's risk and control structure is based on the 'three lines of defence' governance model, whereby each line has a specific role and defined responsibilities in such a way that the execution of tasks is separated from the control of these same tasks. At the same time, they have to work closely together to identify, assess, and mitigate risks. This governance framework is designed such that risk is managed in line with the risk appetite as approved by the Management Board Banking (MBB), the Executive Board (EB) and the Supervisory Board (SB), and is cascaded throughout ING. The MBB is composed of the Management Board Banking of ING Bank, the heads of the business lines and the chief operating officer.

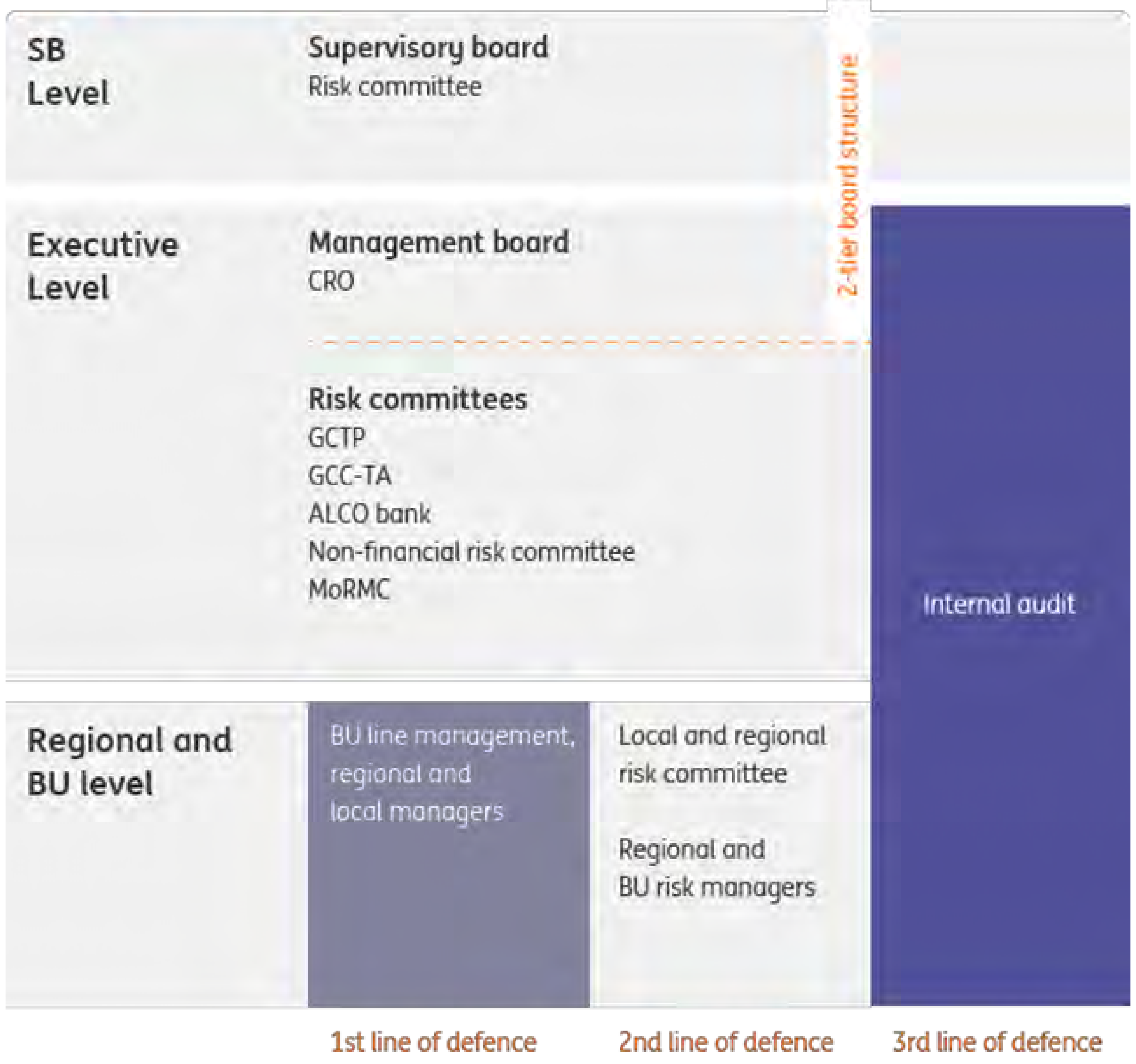
The heads of ING's banking business & support functions and the heads of the country units, or their delegates, are the first line of defence. They have the primary ownership, accountability and responsibility for assessing, controlling and mitigating all financial and non-financial risks affecting their businesses, and, for the completeness and accuracy of the financial statements and risk reports with respect to their responsible areas. The COO is responsible and accountable for proper security and controls on global applications and IT platforms servicing the Bank and implementing proper processes.

The second line of defence consists of oversight and specialised functions in risk management and compliance, and includes at least the control functions Risk and Compliance. They (i) have co-responsibility for risk management, through articulating and translating the risk appetite into methodologies and policies to support and monitor business management's control of risk, (ii) objectively challenge risk management execution and control processes and coordinate the reporting of risks and controls by the first line of defence, (iii) advise management on risk management and compliance and have decision-making power in relation to business activities that are judged to present unacceptable risks to ING and (iv) can set minimum requirements in terms of quality and quantity of global resourcing in the risk management and compliance functions.

The internal audit function forms the third line of defence. It provides an independent assessment of the effectiveness of internal controls over the risks to ING's business processes and assets, including risk management activities performed in both the first and second lines of defence. To protect its independent nature, decisions regarding the appointment, re-appointment or dismissal from office as well as the remuneration package of the head of the internal audit function require supervisory board approval.

The next graph illustrates the different key senior management level committees in place in the risk governance structure.

Risk governance



Board level risk oversight

ING has a two-tier board structure consisting of a management board (EB for ING Group and MBB for ING Bank) and the SB; both tiers play an important role in managing and monitoring the risk management framework.

- The SB is responsible for supervising EB and MBB policy, the general course of affairs of ING Bank, ING Bank and its business (including its financial policies and corporate structure). For risk management purposes the SB is advised mainly by the Risk Committee, which assists and advises in monitoring the risk profile and approving the overarching risk appetite of the company as well as the structure and effective operation of the internal risk management and control systems.
- The EB is responsible for managing risks associated with all activities of ING Bank, 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 Bank and ING Bank comply with relevant legislation and regulations. On a regular basis, the EB and MBB report on these issues and discuss the internal risk management and control systems with the SB. On a quarterly basis, the EB and MBB report on ING's risk profile versus its risk appetite to the Risk Committee, explaining changes in the risk profile.

As a member of the EB and the MBB, the CRO is responsible for ensuring that risk management issues are heard and discussed at the highest level. The CRO steers a risk organisation both at head-office and business-unit levels, which participates in commercial decision-making, bringing countervailing power to keep the agreed risk profile within the risk tolerance. The CRO reports to the SB committees on ING's risk appetite levels and on ING's risk profile at least quarterly. In addition, the CRO briefs them on developments in internal and external risk-related issues and seeks to ensure they understand specific risk concepts.

Executive level

The key risk committees described below act within the overall risk policy and delegated authorities granted by the MBB:

- Global Credit & Trading Policy Committee (GCTP) discusses and approves policies, methodologies, and procedures related to credit, trading, country, and reputation (i.e. environmental and social risk or ESR) risks. The GCTP meets on a monthly basis. After the MBB and the GCTP, the Credit & Trading Risk Committee (CTRC) is the highest level body authorised to discuss and approve policies, methodologies, and procedures related to credit risk;
- Global Credit Committee – Transaction Approval (GCC(TA)) discusses and approves transactions that entail taking credit risk (including investment risk), country, legal, and ESR risk. The GCC(TA) meets twice a week;
- Asset and Liability Committee Bank (ALCO Bank) discusses and steers, on a monthly basis, the overall risk profile of all ING Bank's balance sheet and capital management risks. ALCO Bank discusses and approves policies, methodologies and procedures regarding solvency, market risk in the banking book and funding and liquidity risks;
- Non-Financial Risk Committee Bank (NFRC Bank) is accountable for the design and maintenance of the Non-Financial Risk Management Framework including Operational Risk Management, Compliance and Legal policies, minimum standards, procedures and guidelines, development of tools, methods, and key parameters (including major changes) for risk identification, measurement, mitigating and monitoring/ reporting. NFRC Bank meetings are at least quarterly; and
- The Model Risk Management Committee (MoRMC) aims to align overall model strategy, model risk appetite, supporting model frameworks, policies and methodologies.

Regional and business unit level

ING's regional and/or business unit management have primary responsibility for the management of risks (credit, market, funding and liquidity, operational, IT and compliance risks) that arise in their daily operations. They are accountable for the implementation and execution of appropriate risk frameworks affecting their businesses in order to comply with procedures and processes at the corporate level. Where necessary, the implementation is adapted to local requirements. The regional and/or business unit CROs are involved in these activities. The local (regional and BU) CRO is responsible for the analysis, control and management of risks across the whole value chain (from front to back office). The local risks are discussed in local risk committees that roll up to the key risk committees at executive level. Local Client Integrity Risk Committees (CIRCs) assess client integrity risk and they have a final decision on client acceptance or client off-boarding, from a risk-based perspective, in the areas of Financial Economic Crime (FEC), Foreign Account Tax Compliance Act (FATCA), Common Reporting Standards (CRS) and ESR.

Risk management function

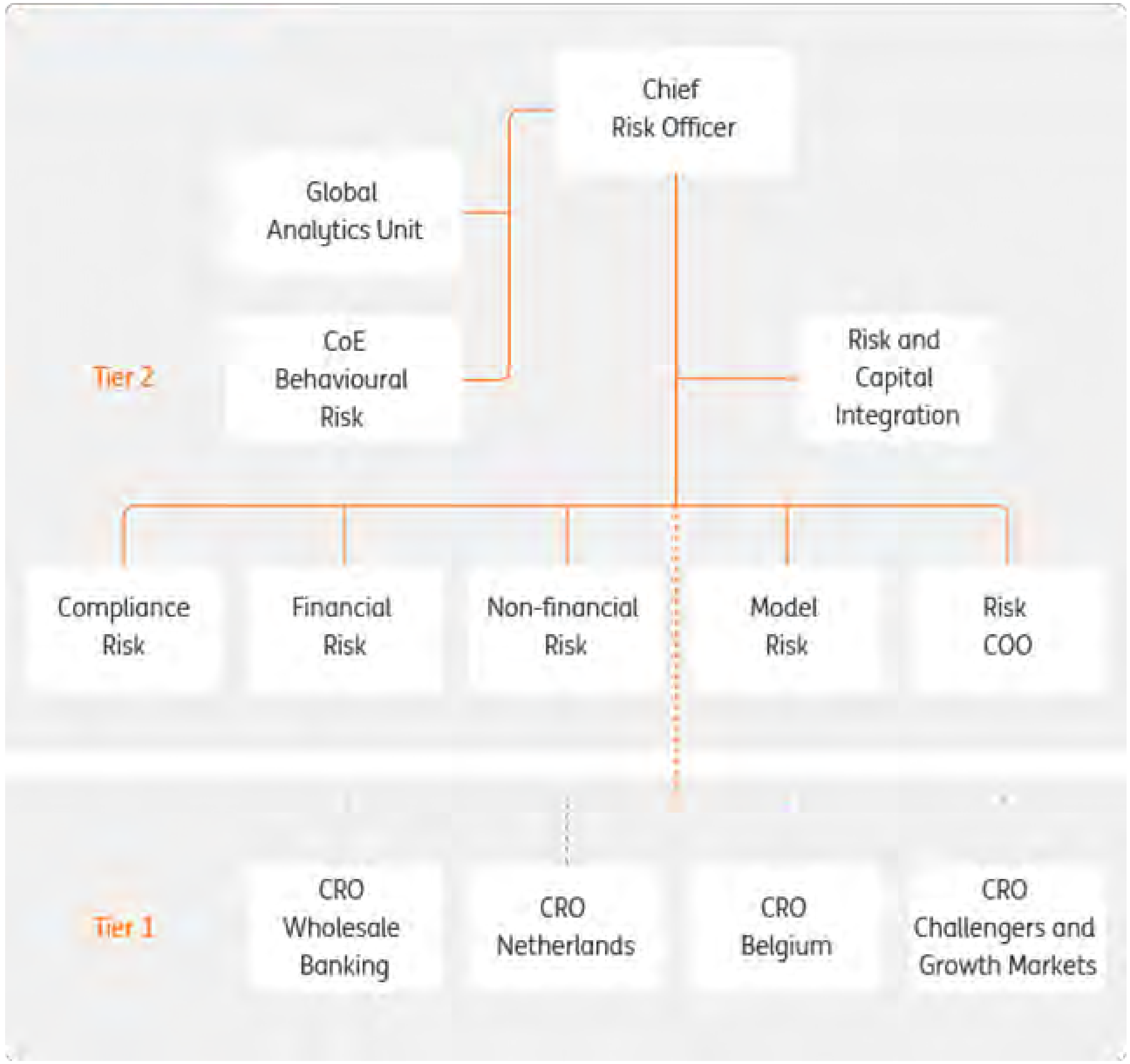
Organisational structure

Over the past years, banks have been faced with regulatory and public pressure with regard to their risk management policies, processes, and systems. A raft of new requirements and regulations has been introduced and implemented. To address these internal and external (market and regulatory) developments and challenges effectively, ING regularly reviews the set-up of its risk-management organisation. This allows for better support of the Bank's Think Forward strategy and enhances the interconnectedness of the risk oversight responsibilities in business units with global risk functions. The organisation chart illustrates the reporting lines in 2019 for the risk organisation:

Risk policies, procedures and standards

ING has a framework of risk management policies, procedures, and minimum standards in place to create consistency throughout the organisation, and to define requirements that are binding to all business units. The goal of the governance framework of the local business units is to align with ING's framework and to meet local (regulatory) requirements. Senior management is responsible for the implementation and adherence to policies, procedures and standards. Policies, procedures, and standards are regularly reviewed and updated via the relevant risk committees to reflect changes in requirements, markets, products and practices.

Risk function



Internal Control Framework

ING has organised its Internal Control Framework (ICF) with the objective to translate policies and control objectives into consistent standards and controls in the business lines and as such support and promote an effective risk and control environment. The framework includes binding principles, definitions, process steps and roles and responsibilities to create consistent bank-wide policies and standards.

The scope of the ICF is the development and maintenance or update of global internal control documents: policies, minimum standards, product control frameworks, support control frameworks and process-related control standards. These global documents are designed by head office functions and are to be adhered to by entities and support functions. Domain ownership of policies and minimum standards is with the 2nd Line of Defence, whereas product and support control frameworks are owned by the 1st Line of Defence and are approved by 2nd line of Defence. Process control standards can be owned by both 1st and 2nd Line of Defence, related to the underlying processes involved.

Domain owners are responsible for a specific risk domain and aim that their internal policies and standards do not overlap with other documents. The ICF aims for single testing for multiple purposes meaning that the same control should not have to be tested more than once for different functions. This means that the test results of one control can be used for more than one sign-off.

The principal role of the independent ICF gatekeeper function is that of a quality assurance role and to provide advice for approval to the SB, EB, MBB and NFRC Bank. The ICF gatekeeper challenges the alignment of the internal control documents with the agreed methodology and taxonomy and verifies that the process of development and communication of internal control documents is executed in adherence to the process as described below. The ICF gatekeeper is the guardian of the ICF binding principles.

The process of developing internal control documents is standardised for each type of internal control document. Domain owners should adhere to the standardised process that includes the following steps: domain owner identification, risk-based approach, impact assessment, approval body and involvement of local entities for sounding on key and expected controls. The gatekeeper oversees the steps above.

All policies, procedures and control standards are published on ING's intranet and new and updated documents are periodically communicated by means of a policy update to all country senior managers and heads of business departments.

Risk model governance and validation

Risk models are built according to ING's internal risk modelling methodology standards and model life cycle. After the review and documentation of each model by the Model Development (MD) and Model Risk Management (MoRM) departments, dedicated risk committees approve new and changed models. After approval by the applicable risk committee, and where necessary by the regulator, the risk model is implemented. MoRM re-validates models on a regular basis. Validation results and capital impacts are reported on a quarterly basis to senior management, the risk committees and the supervisor.

The MoRM department is one of the cornerstones of ING's risk model governance. The department sets and maintains a model risk framework containing (1) the governance setting out the responsibilities; (2) the model risk appetite; (3) model risk management policies and standards; and (4) the model management inventory and tooling. MoRM monitors global model risk and model performance.

The validation teams provide independent model validation, which starts with the determination that a model is appropriate for its intended use. This is followed by an on going process whereby the reliability of the model is verified at different stages during its lifecycle: at conception, before approval, periodically after implementation and when significant changes to the model are made. The validation process contains a mix of developmental evidence assessment, process verification and outcome analysis. When model validation identifies model risks, it provides recommendations to address those.

Risk culture

The reputation and integrity of ING's organisation are core elements to operate successfully in the financial world. ING's risk culture promotes awareness of collectively shared values, ideas and goals, but also of potential threats and aligns the individual performance objectives with the short- and long-term strategy. ING therefore aims to make risk responsibilities transparent within the different levels of the organisation and to hold every employee accountable for his/her actions.

Orange code

Commonly seen as norms and traditions of behaviour of individuals and of groups within an organisation, risk culture determines the way in which employees identify, understand, discuss, and act on the risks the organisation is confronted with and the risks it takes. This is a continuous long-term commitment and journey. In this respect, The Orange Code is a declaration of who we are. It describes what we can expect from each other when we turn up to work each day. It is a set of standards that we collectively value, strive to live up to, and invite others to measure us by.

The Orange Code is the sum of two parts, the ING values and ING behaviours, with integrity being the overarching principle. The ING values (being honest, prudent and responsible) are designed to be non-negotiable promises we make to the world, principles we seek to stick to, no matter what. The ING behaviours (take it on and make it happen, help others to be successful, and always be a step ahead) represent our way to differentiate ourselves. The Orange Code is embedded in commitments we make to each other and the standards by which we will measure each other's performance.

Risk awareness is about being alert to potential threats that can occur during day-to-day business, which can be specific to the sector, the region or the clients ING is doing business with. To support the further embedding of risk culture into business practices, ING has initiated different programmes and issued several guidelines.

To reinforce the values and behaviours in our Orange Code, which puts integrity above all, we invite all employees to participate in e-learnings that aim to equip them to make the right decisions when faced with a dilemma or issue. In 2019, we commenced the creation of new e-learnings on anti-competitive conduct, anti-bribery and corruption and data protection for launch early 2020. We also developed a global code of conduct that builds on the Orange Code and sets the standards we expect our people to uphold. This global code of conduct was launched during 1Q 2020.

Orange code dilemma dialogue

To enhance risk awareness we continued to support the business in the area of risk culture and monitor compliance risk. This included training by compliance and data experts to enhance balanced decision-making in line with the Orange Code dilemma model (introduced in 2017) to support well-balanced and integrity-led decision-making. This four-step model helps to delay judgment and aims to find out where the moral weight lies for a potential decision.

The model is already embedded in some decision-making processes (such as the data ethics governance process) and we are exploring how to embed it in other decisive governance processes within the bank. During early 2019 around 30 compliance officers were trained globally to support the organisation in properly applying the model in practice in their respective countries.

Global data ethics and the I-for-integrity programme

Other initiatives such Global Data Ethics and the I-for-integrity programme within the Netherlands and Belgium are continuing. In addition, new employees undergo a series of e-learnings on topics such as KYC, compliance, dealing with dilemmas, data risk and integrity in practice.

We also introduced a new global learning model in 2019 to further professionalise Compliance, KYC and risk training. It introduces governance, a board to approve trainings based on business needs, global planning and greater cooperation between content owners, learning experts and corporate communications teams to ensure the best fit for the training need. In addition, a Risk Academy was set up for people working in risk, with the aim of eventually bringing Risk training to a broader audience if necessary.

Banker's Oath

In the Netherlands, employees of all financial institutions – and that includes ING – are required to take the Banker's Oath. This requirement came into force on 1 April 2015 as part of the joint approach from all banks, known as 'Future-oriented Banking.' The introduction of social regulations, the revision of the Dutch Banking Code, and the implementation of a Banker's Oath (with the associated rules of conduct and disciplinary law), are a way for Dutch banks to show society what they stand for and are accountable for, as both individual banks and as a sector.

Remuneration

ING aims to align its remuneration policy with its risk profile and the interests of all stakeholders. For more information on ING's compensation and benefits policies and its relation to the risk taken, please refer to the "Capital Requirements Regulation (CRR) Remuneration disclosure" published on the corporate website ing.com. https://www.ing.com/About-us/Annual-reporting-suite.htm

Centre of Expertise on Behavioural Risk

Behavioural Risk Management (BRM) is a new expertise that has been added to ING's global Risk organisation. Behavioural risk is an increasingly important risk area for ING and across the financial industry. It arises when behavioural patterns are at the root of financial and non-financial risks in the organisation.

The complexity of this type of risk is less tangible compared to other risk areas. It is about how decisions are made, how people communicate and whether they can take ownership. Behaviour is motivated by formal and informal drivers. Examples of formal drivers are the processes ING applies and how its governance is structured. Informal drivers are less tangible, such as group dynamics or underlying beliefs that influence behaviour.
At ING, BRM is positioned in the second line of defence, reporting directly to the chief risk officer. The global BRM Centre of Expertise, set up in 2018, not only assesses behavioural risk in the organisation, but also has the mandate to direct, challenge and support business owners to intervene on high-risk behaviours and their underlying drivers.

Behavioural risk assessments

Behavioural risk assessments identify, analyse and mitigate high-risk behaviours within ING and provide management with specific direction on how to change these behaviours. They focus on the effectiveness of groups rather than individuals, the role of leadership and on less visible aspects such as team dynamics and unwritten social norms. The goal is to understand and systematically assess what drives undesired habits at ING. The BRM model of behavioural risk will be used as the standard across ING to signal behavioural risks going forward.

In 2019, the outcomes of the first behavioural risk assessments were shared with senior leaders at ING's International Conference in March and with the relevant departments. These were primarily teams involved in Know Your Customer activities in the Netherlands, US and Philippines. Based on these outcomes, a number of interventions have been implemented with the goal to change high-risk behavioural patterns.

Behavioural risk assessments were also carried out in Belgium and the interventions based on these outcomes will be implemented in 2020. The BRM team will continue to assess behavioural risk, focusing predominantly on KYC.

Behavioural risk interventions

Effective mitigation requires a deep understanding of what drives undesired behaviours. Theory and evidence-based techniques and tools developed in behavioural science play an important role in designing and evaluating interventions. These interventions impact all levels of the organisation.

Employees are invited to participate in ‘nudge labs’ where they work together to identify small behavioural changes that can have a positive impact on processes and collaboration.

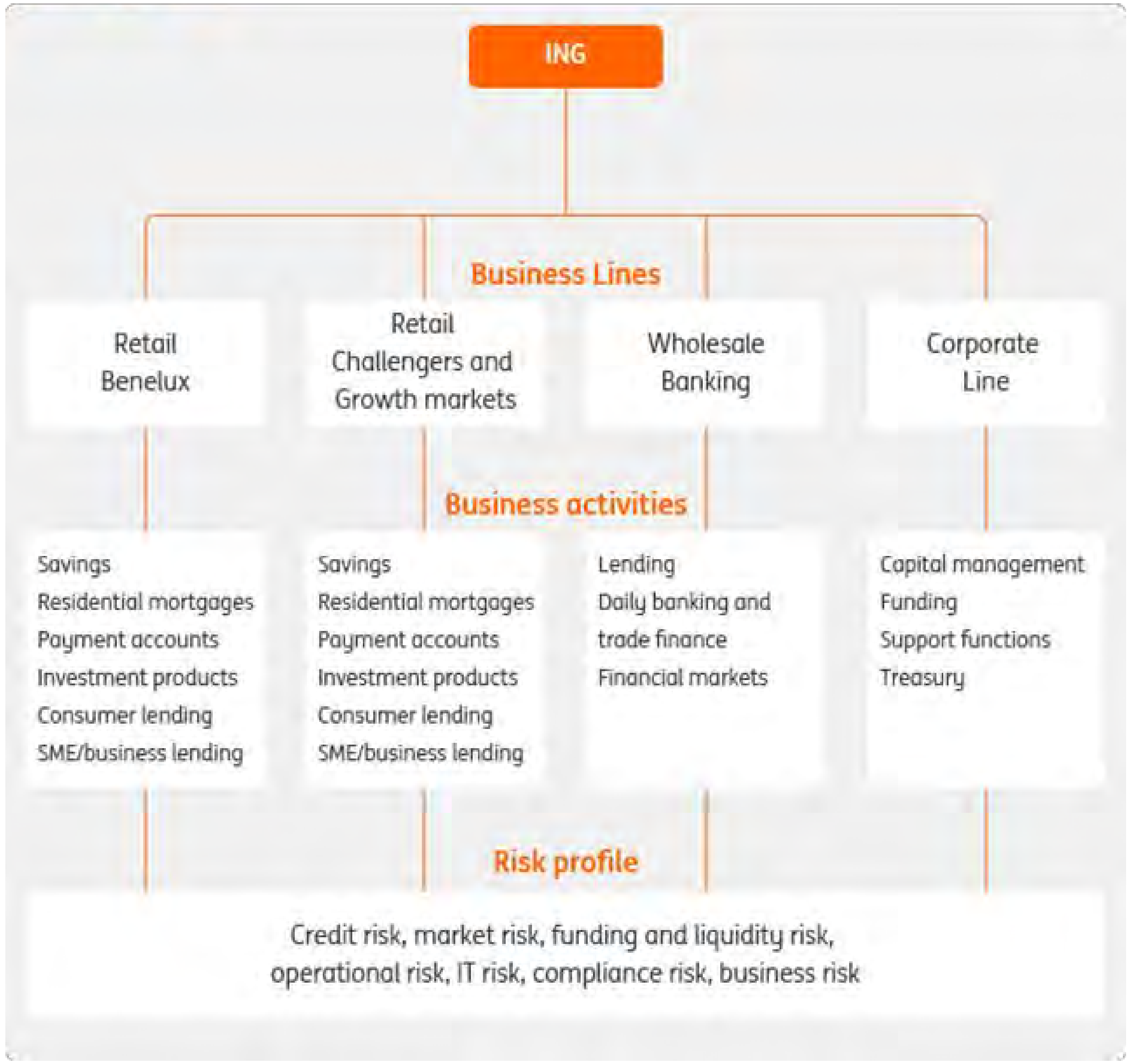
Given the crucial role of leaders in creating the right conditions for employees, interventions are first initiated at leadership level. These include leadership labs, which address topics such as ‘governance and ownership’ and ‘alignment and trust’, as well as bringing together the ‘whole system in the room’. Here senior leaders delve into the outcomes of the assessments, identifying deeply rooted and often complex issues for improvement.

The BRM team works closely with the business units and departments such as HR, Audit, and Compliance to align on and embed desired leadership and risk behaviours (i.e. speak up, psychological safety, communication, guiding leadership).

Risk profile

This chart provides high level information on the risks arising from ING’s business activities:

Risk profile



Risk cycle process

ING uses a step-by-step risk management approach to monitor, manage and mitigate its financial and non-financial risks. The approach consists of a cycle of five recurrent activities: risk identification, risk assessment, risk control, risk monitoring, and risk reporting. In short, this implies: determining what the risks are, assessing which of those risks can really do harm, taking mitigating measures to control these risks, monitoring the development of the risk to see if the measures taken are effective, and reporting the findings to management at all relevant levels to enable them to take action when needed.

The recurrence is twofold. Firstly, the identification, assessment, review, and update of mitigating measures are done periodically. Secondly, the periodic monitoring exercise may indicate emerging risks, known risks that are changing, risk levels that are changing, or current control measures that are not effective enough. Further analyses of these findings may result in renewed and more frequent risk identification, and/or assessment, and/or change of mitigating measures.

Risk identification

Risk identification is a joint effort of the business and the risk management functions. Its goal is to detect potential new risks and determine changes in known risks. Regular risk identification is essential for effective risk management. Potential risks that are not identified, will not be controlled and monitored and may lead to surprises later. Known risks may have changed over time and as a consequence the existing mitigating measures and monitoring may be inadequate or obsolete.

Risk identification is performed periodically. In case of material internal or external change, additional ad-hoc risk identification can be performed.

Risk assessment

Each identified risk is assessed to determine its importance. This enables ING to decide which of the identified risks need control measures and how strict or tolerant these measures should be. Known risks are re-assessed to detect any change in the risk level.
The importance of a risk is based on the likelihood that the risk materialises and the subsequent financial or reputational impact that may occur should the risk arise. Unlikely risks with a potentially high impact need to be controlled. A risk that is likely to happen regularly but expected to have a modest financial impact may not need to be mitigated if the consequences are accepted by management.

Risk control

Risks can be controlled by mitigating measures that lower the likelihood the risk occurs, lower the impact when it occurs or both. The ultimate measure to lower a risk is to stop the activity or service that causes the risk (risk avoidance). Risk control and mitigation measures are defined and maintained at both the bank-wide and local level.

Monitoring and reporting

ING monitors the risk control measures by checking if they are executed, complied with and have the expected mitigating effects and by following the development of the risks and their risk levels. Risk reporting provides senior and local management with information needed to manage risks.

Risk Appetite Framework

The Risk Appetite Framework (RAF) is one of the pillars of the Enterprise Risk Management (ERM) Framework. Its objective is to set the appropriate risk appetite at the consolidated level across the different risk categories and to allocate the risk appetite throughout the organisation.

The RAF policy states the overarching global risk appetite. Within the RAF, ING monitors a range of financial and non-financial risk metrics to ensure that our risk profile is in line with our risk appetite while executing our strategy. ING's RAF, which is approved by the Supervisory Board (SB), defines our desired risk profile that is integrated in the strategic decision-making and financial planning process. It is designed to be able to withstand market volatility and stress, while meeting regulatory requirements. The framework including underlying assumptions and metrics, is regularly reviewed so that it remains relevant. The RAF combines various financial and non-financial risk appetite statements into a single coordinated approach to provide the business with a clear overview of the relevant risks and the tools to manage them. This view allows the Executive Board (EB), the Management Board Banking (MBB) and senior management to form an opinion on the adequacy of internal risk management and control systems for the risks ING faces while pursuing its strategy.

Process

The RAF is focused on setting the risk appetite at the consolidated level and across the different risk categories, and provides the principles for cascading this risk appetite down into the organisation. The RAF and underlying limit allocation is reviewed on an annual basis, or more frequently if necessary, based on their quarterly review in the EB, the MBB and the SB. It is therefore a top-down process, which bases itself on the ambition of the bank in terms of its risk profile and is a function of the capital and liquidity levels, the regulatory environment, and the economic context. The set of limits used are split based on the approval level needed for them. The limits that need SB approval are called Boundary and the underlying metrics supporting the boundaries which need EB and MBB approval are called instruments.

Step 1. Identify & assess ING's key risks

The outcome of the risk identification & risk assessment process is used as starting point for the review of the RAF. Within this step the risks ING is facing when executing its strategy are identified, it is assessed if the potential impact is material and if it is controlled within ING's risk management function; benchmarking current risk framework versus regulatory developments; re-assessing known risks to confirm risk level or detect potential changes; and reflecting on the current set of Risk Appetite Statements.

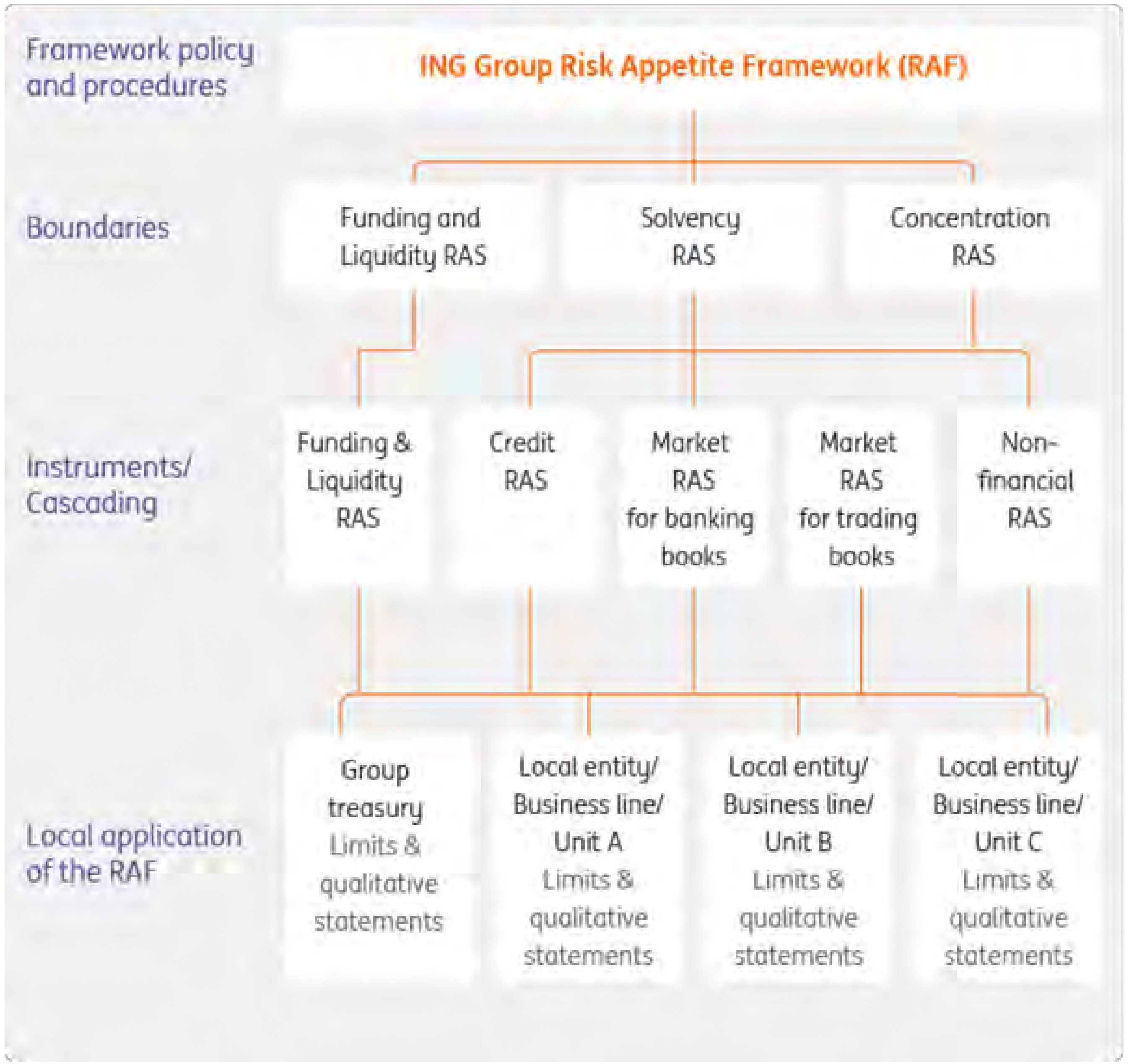
Step 2. Set Risk Appetite Framework

Based on ING's risk assessment and risk purpose, boundary for the overarching risk frameworks are set. Once the overarching risk appetite thresholds have been set and approved by EB/MBB and subsequent SB, the statements are translated into risk-type specific statements and lower level thresholds which are set and approved by senior risk committees ALCO Bank, GCTP and NFRC Bank. Cascading is done via a number of detailed risk appetite statements which have been defined per risk type, the combination of which ensure compliance with the overarching Solvency, Concentration and Funding & Liquidity RAS.

Step 3. Cascade into statements per risk type and business unit

The bank-wide risk appetite is translated per risk type, which is further cascaded into the organisation to the lowest level. Risk appetite statements are then translated into dedicated underlying risk limits that are used for the day-to-day monitoring and management of ING's risks. The suite of risk appetite statements serve as inputs for the quarterly planning process as well as for the establishment of key performance indicators and targets for senior management.

Risk appetite framework policy



Risk Appetite Statements

Boundaries	Underlying risk metrics
Funding & Liquidity	Liquidity Coverage Ratio Net Liquidity Position – internal stress test
Solvency	CET1 ratio Leverage ratio Capital Utilisation MREL TLAC
Concentration	Concentration event Risk (LGD) Event Risk

Instruments	Underlying risk metrics
Credit Risk	EAD RWA ECL INCAP
Market Risk (Trading Book)	Value-at-Risk Stressed VaR Incremental Risk Charge Regulatory/ Economic Market Risk capital
Market Risk (Banking Book)	IFRS P&L-at-Risk NPV-at-Risk Customer Behavior/Market Risk Economic capital Revaluation-Reserve-at-Risk
Non-Financial Risk	Expected Loss Regulatory/ Economic Operational Risk capital Overdue iRisk
Business Risk	IFRS P&L-at-Risk

Step 4. Monitor and manage underlying risk limits

In order to verify that it remains within the risk appetite framework, ING reports its risk positions vis-à-vis its limits on a regular basis to senior management committees. The Quarterly Risk Update reflecting the exposure of ING against the risk appetite targets is submitted quarterly to the EB and the MBB and to the (Risk Committee of the) SB. Moreover, every quarter the financial plan is checked for potential limit breaches within a 1 year horizon, where in the strategic dialog the MBB can take mitigating measures or adjustments to the dynamic plan can be made.

Stress testing

Stress testing is an important risk management tool that provides input for strategic decisions and capital planning. The purpose of stress testing is to assess the impact of plausible but severe stress scenarios on ING's capital and liquidity position. Stress tests provide insights into the vulnerabilities of certain portfolios, with regards to adverse macroeconomic circumstances, stressed financial markets, and changes in the (geo)political climate.

Types of stress tests

Within ING, different types of stress tests are performed. The most comprehensive type of stress tests are the firm-wide scenario analyses, which involve setting scenario assumptions for all the relevant macroeconomic and financial market variables in all countries relevant to ING. These assumptions usually follow a qualitative narrative that provides a background to the scenario. In addition to firm-wide scenario analyses, ING executes scenario analyses for specific countries or portfolios. Furthermore, sensitivity analyses are performed, which focus on stressing one or more risk drivers; usually without an underlying scenario narrative. Finally, ING performs reverse stress tests, which aim to determine scenarios that could lead to a pre-defined severe adverse outcome.

Process

The stress testing process of ING consists of several stages, which are:

- Risk identification & risk assessment: It identifies & assesses the risks ING or the relevant entity is facing when executing its strategy based on the current and possible future economic, political, regulatory and technological environment. It provides a description of the main risks related to the nature of ING's business, activities and vulnerabilities.
- Scenario definition & parameterisation: Based on the outcome of the previous step, a set of scenarios should be determined where the relevant scope and set of risk drivers is determined for each scenario, as well as the severity, the key assumptions and input parameters. The output of this phase includes a quantitative description of the stress scenarios to be analysed, the relevant output metrics and, when applicable, a narrative description.
- Impact calculation and aggregation: Based on the quantitative description of the stress scenarios determined in the previous step, the impact is determined for the relevant scenario, scope and horizon. The impact calculation and aggregation can be part of a recurring process or are part of a specific process set-up for one-off stress tests.
- Scenario reporting: For each stress test, a report is prepared after each calculation which describes the results of the scenario, gives a recap of the scenario and its main assumptions and parameters. It is complemented, if needed, with an advice for management action based on the stress testing results.
- Scenario control & management assessment: Depending on the outcomes of the stress test and the likelihood of the scenario, mitigating actions may be proposed. Mitigating actions may include, but are not limited to, sales or transfers of assets and reductions of risk limits.

Methodology

Detailed and comprehensive models are used to calculate the impact of the scenarios. In these models, statistical analysis is combined with expert opinion to make sure that the results adequately reflect the scenario assumptions. The methodologies are granular and portfolio-specific and use different macroeconomic and market variables as input variables. The calculations are in line with our accounting and regulatory reporting frameworks. The stress testing models are subject to review by Model Risk Management.

Regulatory environment

CRRII/CRDV and BRRDII

On 16 April 2019, the European Parliament (EP) approved the final agreement on a package of reforms proposed by EC to strengthen the resilience and resolvability of European banks. The package of reforms comprises two regulations and two directives, namely amendments to the Capital Requirements Regulation and Directive (CRR/CRD), the Bank Recovery and Resolution Directive (BRRD), and the Single Resolution Mechanism Regulation (SRMR).

The key changes introduced by the banking reform package consist of among others a binding Leverage Ratio (LR) requirement, independent from the riskiness of the underlying exposures, as a backstop to risk-weighted capital requirements, and a Net Stable Funding Ratio (NSFR) based on the Basel NSFR standard but including adjustments with regard to pass-through models and covered bonds issuance. Further, the EBA obtained a mandate to investigate how to incorporate environmental, social, and governance (ESG) risks into the supervisory process and what the prudential treatment of assets associated with environmental or social objectives should look like. Also, the rules on the subordination of Minimum Requirement for own funds and Eligible Liabilities (MREL) instruments are tightened and a new category of large banks with a balance sheet size greater than EUR 100 billion, is introduced.

Basel III revisions and upcoming regulations

In December 2017, the Basel III revisions were formally announced by the Basel Committee on Banking Supervision (BCBS). These new prudential rules for banks consist of a revision to the standardised approach to credit risk, the introduction of a capital floor based on standardised approaches, the use of internal models, the limitation of options for modelling operating risks, and new rules for the establishment of risk-weighted items and unused credit lines at the banks. In Europe, this will be implemented through the CRR III / CRD VI in the coming years. With this long implementation phase and the transposition into EU regulation still pending, some question marks remain on how this will shape up.

Targeted Review of Internal Models

In order to make capital levels more comparable and to reduce variability in banks' internal models, the European Central Bank (ECB) introduced the Targeted Review of Internal Models (TRIM) in June 2017 to assess the reliability and comparability between banks' models. The TRIM aims to create a level playing field by harmonising the regulatory guidance around internal models with the ultimate goal to restore trust in European banks' use of internal models.

In July 2019, the ECB published final chapters of the guide to internal models, covering credit risk, market risk and counterparty credit risk. These risk type-specific chapters are intended to ensure a common and consistent approach to the most relevant aspects of the regulations on internal models for banks directly supervised by the ECB. Additionally, they provide transparency on how the ECB understands the regulations on the use of internal models to calculate own funds requirements for the three risk types. Impact on ING is through more stringent regulation on internal models as well as an increase of Risk Weigthed Assets (RWA).

Top and emerging risks

The risks listed below are defined as material existing and emerging risks that may have a potentially significant impact on our financial position or our business model. They may have a material impact on the reputation of the company, introduce volatility in future operation results, or impact ING's medium and long-term strategy including the ability to pay dividends, maintain appropriate levels of capital or meet liquidity and funding targets. An emerging risk is defined as a risk that has the potential to have a significant negative effect on our performance, but whose impact on the organisation is currently more difficult to assess than other risk factors that are not identified as emerging risks.

The topics have emerged as part of the annual Risk Assessment that is performed as part of the Stress Testing Framework and the Risk Appetite Framework. The sequence in which the risks are presented below is not indicative of their likelihood of occurrence or the potential magnitude of their financial consequences.

During 2019, several changes were made to our top and emerging risks. The top risks in 2019 are related to financial crime, cybercrime and persistent low interest rates in Eurozone. Also, climate change risk remains an emerging risk, reflecting the impact a deterioration of the climate may have for the financial position and/or reputation of ING.

Macroeconomic developments

The economic activity was marked in 2019 by a slowdown in global growth led by prolonged uncertainty on Brexit, effects of US-China trade tensions and reduced US fiscal stimulus. The decision of the United Kingdom to leave the European Union ('Brexit') remains a major political and economic event that continues to affect sentiment. Despite negotiating a revised deal in October 2019, the vote in the UK parliament did not go ahead. The UK parliament chose to postpone the vote on the deal until legislation needed to turn the withdrawal agreement into UK law was completed. ING continued to take steps throughout the year to prepare for various options. Although ING has activities in the UK through the Wholesale Banking (WB) business line, no material asset quality deterioration following the Brexit decision has taken place.

The coronavirus, COVID-19, is recently dominating global news. As the coronavirus outbreak spreads rapidly, a central ING team has been set up to monitor the situation globally and provide guidance on health and safety measures, travel advice and business continuity for our company. As the situation differs from country to country, we are following local government guidelines in our response to the virus. Also the potential economic implications for the countries and sectors where ING is active in are being assessed and discussed in order to identify possible mitigating actions.

Financial economic crime

Knowing who we do business with helps us to protect our customers, society and our bank from financial economic crimes (FEC). We believe that as gatekeepers to the financial system we have an obligation to prevent criminals from misusing it or detect and respond when it is being misused. We believe we can be even more effective in safeguarding the financial system if we join forces and work with other banks and with national, European and global authorities and law enforcement agencies to tackle financial economic crime.

In 2019, we continued to implement and execute policies and procedures to further enhance our Know Your Customer (KYC) activities. We continued to work on the global KYC enhancement programme that started at ING in 2017 and which we built on in 2018 and 2019. The programme encompasses all customer segments in all ING business units. For more information on FEC and KYC see 'Compliance risk' chapter.

Model risk

Risk management also depends on models more and more as banking has become a digital business in a volatile, uncertain, complex and ambiguous world with constantly changing customer needs, more demanding regulatory expectations, increasing dependency on the use of models and the need to adapt and react quickly.

In 2019, we initiated a programme (the Model Paradigm Shift) to improve the availability and quality of our data, model governance and processes, further strengthening our risk modelling and data capabilities to give ING a competitive advantage.

Cybercrime

Cybercrime remains a continuous threat to companies in general and to financial institutions specifically. Both the frequency and the intensity of attacks increase on a global scale. Threats from Distributed Denial of Service (DDoS), targeted attacks (also called Advanced Persistent Threats) and Ransomware have intensified worldwide.

ING builds on its cybercrime resilience through its dedicated Cyber Crime Expertise and Response Team, further enhancing the control environment to protect, detect and respond to e-banking fraud, DDoS and targeted attacks. Controls and monitoring continue to be embedded in the organisation as part of the overall internal control framework and are continuously re-assessed against existing and new threats. The identification and monitoring of new threat actors and campaigns relevant to ING also informs this process as does the closer alignment between IT security and fraud teams. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration with financial industry peers, law enforcement authorities, government (e.g. National Cyber Security Center) and internet service providers (ISPs).

Low interest rates in Eurozone

The persistence of a low interest rate environment in Europe, where central banks held their rates at very low and even negative levels in most countries, continued to negatively impact short-term as well as long-term market rates. This is posing a challenge for banks to maintain positive income in the form of net interest income from traditional savings activities.

Sourcing risk and third-party resources

The amount of business processes that is sourced to third-parties increased significantly over the years. Most notable is our (internal) sourcing in Poland, the Philippines and Slovakia but also (external) third-party sourcing increased.

Through the renewed sourcing policy and related control standard, ING will actively monitor the controls around sourcing (internal & external). According to 2019 EBA guidelines, all external and internal contracts have to re-assessed and properly classified and registered before end of 2021. In 2020, NFR will focus on improving business units' risk data on Sourcing risk and related reporting.

Climate change risk

The urgency around climate change is escalating and climate-related risk tops the World Economic Forum's global ranking in terms of likelihood and impact. The potential financial impacts of extreme weather events such as hurricanes, floods and heatwaves are elevating the risks associated with climate change. With more than 38 million customers in over 40 countries, our business activities can both significantly influence communities and the environment and be impacted by climate risks. As such, we take our responsibility to help mitigate this risk seriously.

Shifts in societal expectations on climate change and developments in climate science are driving new initiatives and policy updates within the bank to address this threat. For example, we've set ambitious targets to reduce financing for coal power generation to close to zero by 2025, and no longer provide financing to new clients whose business is over 50 percent reliant on coal-fired power. By the end of 2025, we will not finance any clients in the utilities sector who are more than five percent reliant on coal. In addition, we are steering our loan portfolio to meet the well-below two degrees goal of the Paris Climate Accord. In 2019, we published our first progress report on Terra, our pathway towards climate alignment in the sectors most responsible for climate change.

We expect climate change to remain firmly on ING's agenda, as well as the agendas of our customers and of regulatory and supervisory bodies around the world. We have committed to report in line with the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD) and we continue to work on the challenging exercise of translating potential climate risks and transition risks into financial risk for ING.

Task Force on Climate-Related Financial Disclosures (TCFD)

ING endorses the Financial Stability Board's (FSB) Task Force on Climate-Related Financial Disclosures (TCFD) recommendations. This voluntary disclosure outlines the progress made to date. To further strengthen understanding and adoption of TCFD recommendations, ING has joined the UNEP FI TCFD Phase 2 to develop transition and physical risk assessment models in 2019.

Governance

ING's Climate Change Committee (CCC) is mandated to oversee and set priorities for the implementation of the TCFD recommendations and other strategic climate-related topics that impact the group. For details please refer to our approach to climate governance.

Strategy

In order to get an understanding of our company's exposure to climate risk, we have started with the analysis of climate-affected sectors as outlined in the report 'Recommendations of the Task Force on Climate-related Financial Disclosures (June 2017)'. We conducted an Energy Transition assessment for particularly sensitive sectors within the Transportation, Industrials, Power and Real Estate sectors where the results can help improve our understanding of the impacts of changing regulation and technology developments. ING is committed to continuously reviewing and monitoring its policies and strategies as climate-related risks and opportunities emerge. As a result of transition risk ING further refined its coal policy in 2017, targeting near-zero coal exposure by 2025.

In 2018, ING started measuring and steering our lending portfolio towards the Paris Agreement's well-below two degree goal by 2040 – our Terra Approach (Report of the Executive Report). For instance, our automotive, real estate and power portfolio have been assessed. For an overview of how we capitalise on climate-related opportunities, please refer to Responsible Finance (Report of the Executive Report).

Risk Management

Our approach continues to evolve as we develop a better understanding of climate risk and we start to embed climate risk within our risk management process. ING has a Risk Identification and Risk Assessment process in place, helping us to adjust risk appetite and policies to reflect external environment management.

ING's Environmental and Social Risk (ESR) management process evaluates risks on a client and transaction basis. In 2019, we updated our ESR policy and implemented a standalone climate change policy which aims to limit deal-specific potential negative climate impacts. (refer to ESR policy).

Metrics and Targets

We have set climate-related targets in our lending portfolio. This includes exiting coal by 2025 and steering our €600 billion portfolio towards meeting the Paris Agreement's well-below two degree goal (Terra Approach). Under Terra, we need to set one target per sector for each of the nine sectors. As of year-end 2019, we had developed an approach and target for five sectors. For details refer to our 2019 Terra Progress Report. For our approach to setting opportunity-related metrics and targets please refer to Climate Finance.

Next Steps

In the course of 2020 we aim to identify physical risk in our lending portfolio while we continue our transition risk analysis. We utilise learnings and best practices from sector initiatives and our participation in the UNEP FI TCFD programme.

Credit risk

Introduction

Credit risk is the risk of loss from the default and/or credit rating deterioration of clients. Credit risks arise in ING's lending, financial markets and investment activities. The credit risk section provides information on how ING measures, monitors and manages credit risk and gives an insight into the portfolio from a credit risk perspective.

Governance

ING’s credit risk strategy is to maintain an internationally diversified loan and bond portfolio, avoiding large risk concentrations. The emphasis is on managing business developments within the business lines by means of a top-down risk appetite framework, which sets concentration limits for countries, individual clients, sectors, products, secondary risk (collateral/guarantees) and investment activities. The aim is to support relationship-banking activities, while maintaining internal risk/reward guidelines and controls.

Credit risk is a Tier 1 level risk function within ING and is part of the second line of defence. It is managed by regional and/or business unit CROs. The CRO Wholesale Banking (WB), CRO Challengers & Growth Markets (C&G), CRO Netherlands and CRO Belux focus on specific risks in the geographical and/or business areas of their responsibilities. The Financial Risk department is a Tier 2 level risk function, which is responsible for the consolidated risk appetite setting, risk frameworks, model development and policies.

The credit risk function encompasses the following activities:
- Measuring, monitoring and managing credit risks in the bank’s portfolio;
- Challenging and approving new and modified transactions and borrower reviews;
- Managing the levels of provisioning and risk costs, and advising on impairments; and
- Providing consistent credit risk policies, systems and tools to manage the credit lifecycle of all activities.

Credit risk categories

Credit risk uses the following risk categories to differentiate between the different types of credit risk:
- **Lending risk**: is the risk that the client (counterparty, corporate or individual) does not pay the principal, interest or fees on a loan when they are due, or on demand for letters of credit (LCs) and guarantees provided by ING.
- **Investment risk**: is the credit default and risk rating migration risk that is associated with ING’s investments in bonds, commercial paper, equities, securitisations, and other similar publicly traded securities. This can be viewed as the potential loss that ING may incur as a result of holding a position in underlying securities whose Issuer's credit quality deteriorates or defaults. All investments in the banking book are classified in the investment risk category. The primary purpose of ING’s investments in the banking books is for liquidity management.
- **Money market (MM) risk**: arises when ING places short-term deposits with a counterparty in order to manage excess liquidity. In the event of a counterparty default, ING may lose the deposit placed.
- **Pre-settlement (PS) risk**: arises when a client defaults on a transaction before settlement and ING must replace the contract by a trade with another counterparty at the then prevailing (possibly unfavourable) market price. This credit risk category is associated with derivatives transactions (exchange-traded derivatives, over-the-counter (OTC) derivatives and securities financing transactions).
- **Settlement risk**: is the risk that arises when there is an exchange of value (funds or instruments) for the same value date or different value dates and receipt is not verified or expected until after ING has given irrevocable instructions to pay or has paid or delivered its side of the trade. The risk is that ING delivers but does not receive delivery from its counterparty. ING manages settlement risk in the same way as other credit risks by setting a risk limit per client. Due to the short-term

nature (typically one day), ING does not hold provisions or capital for settlement risk. Although a relatively low risk, ING increasingly uses DVP (delivery versus payment) and safe settlement payment techniques to reduce settlement risk.

For the reconciliation between credit risk outstandings categories and financial assets, refer to table below:

Reconciliation between credit risk categories and financial position

Credit risk categories	Mainly relates to:	Notes in the consolidated financial statements
Lending risk	-Cash and balances with central banks -Loans and advances to banks -Loans and advances to customers -Off-balance sheet items e.g. obligations under financial guarantees and letters of credit and undrawn credit facilities	Note 2 Cash and balances with central banks Note 3 Loans and advances to banks Note 4 Financial assets at fair value through profit or loss Note 5 Financial assets at fair value through other comprehensive income Note 7 Loans and advances to customers Note 43 Contingent liabilities and commitments
Investment risk	-Debt securities -Equity securities	Note 4 Financial assets at fair value through profit or loss Note 5 Financial assets at fair value through other comprehensive income Note 6 Securities at amortised cost
Money market (MM) risk	-Cash and balances with central banks -Loans and advances to banks -Loans and advances to customers	Note 2 Cash and balances with central banks Note 3 Loans and advances to banks Note 7 Loans and advances to customers
Pre-settlement (PS) risk	-Financial assets at fair value through profit or loss (trading assets and non-trading derivatives) -Financial liabilities at fair value through profit or loss (trading assets and non-trading derivatives) -Securities financing	Note 4 Financial assets at fair value through profit or loss Note 15 Financial liabilities at fair value through profit or loss Note 44 Offsetting financial assets and liabilities
Settlement risk	-Financial assets at fair value through profit or loss (trading assets and non-trading derivatives) -Financial liabilities at fair value through profit or loss (trading assets and non-trading derivatives) -Amounts to be settled	Note 4 Financial assets at fair value through profit or loss Note 11 Other assets Note 15 Financial liabilities at fair value through profit or loss Note 17 Other liabilities

Credit risk appetite and concentration risk framework

The credit risk appetite and concentration risk framework is designed to prevent undesired high levels of credit risk and credit concentrations within various levels of the ING portfolio. It is derived from the concepts of boundaries and instruments as described in the Risk Appetite Framework.

Credit risk appetite statements

Credit risk appetite is the maximum level of credit risk ING is willing to accept for growth and value creation. The credit risk appetite is linked to the overall bank-wide risk appetite framework. The credit risk appetite is expressed in quantitative and qualitative measures. Having a credit risk appetite achieves:

- Clarity about the credit risks that ING is prepared to assume, target setting and prudent risk management;
- Consistent communication to different stakeholders;
- Guidelines on how to align reporting and monitoring tools with the organisational structure and strategy; and
- Alignment of business strategies and key performance indicators of business units with ING's credit risk appetite through dynamic planning.

Credit risk appetite is present across different levels within ING, at portfolio level as well as transaction level. The various credit risk appetite components at portfolio and transaction levels together result in the credit risk appetite framework.

The credit risk appetite and concentration risk framework is composed of:

- **Country risk concentration**: Country risk is the risk that arises due to events in a specific country (or group of countries). In order to manage the maximum country event loss ING is willing to accept, boundaries are approved by the Supervisory Board ensure ING's consolidated 3-year average result before tax can absorb an estimated country event loss due to a country risk occurrence. The estimated level is correlated to the risk rating assigned to a given country. Actual country limits are set by means of country instruments, which are reviewed monthly and updated when needed. For countries with elevated levels of geopolitical or severe economic cycle risk, monitoring is performed on a more frequent basis with strict pipeline and exposure management.
- **Single name and industry sector concentration**: ING has established a credit concentration risk framework in order to identify, measure and monitor single name concentration and industry sector concentration (systemic risk). The same concept of boundaries and instruments are applied.
- **Product and secondary risk concentration**: ING has established a concentration framework to identify, measure and monitor product concentration and secondary risk.
- **Scenarios and stress tests**: Stress testing evaluates ING's financial stability under severe, but plausible stress scenarios, and supports decision-making that assures ING remains a financially going concern even after a severe event occurs. In addition to the bank-wide stress testing framework as described above, ING performs regularly sensitivity analysis to assess portfolio risks and concentrations. These sensitivity analyses are consistent with the stress scenario established in the Group-wide credit risk appetite framework.
- **Product approvals**: The product approval and review process (PARP) assesses and manages risks associated with the introduction of new or modified products. It ensures that sound due diligence is performed by relevant stakeholders and the relevant risks (credit, operational, compliance, etc.) are addressed appropriately.
- **Sector policies**: These are detailed analyses of defined products and/or industries. They identify the major risk drivers and mitigants, the internal business mandate, and propose the risk (including business) parameters – and potentially the maximum product and/or portfolio limit - to undertake that business. A sector policy is always prepared by the front office responsible for the internal business mandate and requires an approval from the designated approval authority. Sector policies may carry various names and/or may have geographical and/or business limitations (e.g. local vs global).
- **Reference benchmarks**: The maximum credit risk appetite per obligor group is expressed as a (benchmark) exposure at the concentration risk level, which corresponds to (maximum) internal

capital consumption for credit risk. It is used as a reference amount in the credit approval process.

- **Credit approval process**: The purpose of the credit approval process is that individual transactions and the risk associated with these transactions are assessed on a name-by-name basis. For each type of client there is a dedicated process with credit risk managers specialised along the business lines of ING. The credit approval process is supported by a risk rating system and exposure monitoring system. Risk ratings are used to indicate a client's creditworthiness which translates into a probability of default. This is used as input to determine the maximum risk appetite that ING has for a given type of client (reference benchmark). The determination of the delegated authority (the amount that can be approved at various levels of the organisation) is a function of the risk rating of the client and ING's credit risk exposure on the client.

Given the nature of the retail business, roles and responsibilities of the local credit risk policy are delegated to local retail credit risk management. However, the global retail risk policy prescribes no-go criteria and minimum standards for underwriting. Lending standards, including material changes to those standards, are approved by the global head of retail risk.

Environmental and Social Risk Framework

ING's environmental and social risk (ESR) policy framework helps us make transparent choices about how, where and who we do business with. In 2019 we renewed our ESR Framework based on input from different stakeholders including clients, peers, NGOs and our own colleagues. Through regular updates like these we keep abreast of societal norms and regulation relating to sustainability and challenge our own increasingly strong commitments on the topics of human rights and climate change.

ESR in practice in 2019

The ESR policy framework includes standards and best practice guidance for ESR-sensitive sectors. It includes explicit restrictions on activities not in line with ING's values and harmful to people or the environment (for example companies involved in manufacturing cluster munitions), which we will not directly finance.

The next table gives insight into the ESR policies that are part of the Framework and where they are applied.

Credit risk portfolio per economic sector and application of ESR framework

in percentage	2019 outstandings	ING Values	Human rights	Environmental compliance	Animal welfare	Defence	Equator principles	Forestry and Agrocommodities	Mining and Metals	Tobacco*	Infrastructure	Generic engineering*	Manufacturing	Chemicals	Energy**	Fisheries*
Consumer lending	32.4%	•														
Financial institutions	20.5%	•														
Governments	7.1%	•														
Other	0.4%	•														
Corporates	39.6%	•	•	•												
Real estate	6.6%	•	•	•			•									
Natural resources	5.5%	•	•	•			•		•						•	
Transportation & logistics	4.4%	•	•	•		•	•						•			
Services	3.7%	•	•	•		•	•				•		•			
Food, beverages & personal care	3.2%	•	•	•	•		•	•		•		•				•
General industries	3.2%	•	•	•		•	•	•					•			
Builders & contractors	2.0%	•	•	•			•						•			
Chemicals, health & pharmaceuticals	2.0%	•	•	•	•		•					•		•		
Other	1.9%	•	•	•			•									
Utilities	1.5%	•	•	•			•								•	
Media and telecom	1.4%	•	•	•		•	•				•					
Retail	1.1%	•	•	•			•									
Automotive	0.8%	•	•	•		•	•						•			
Technology	2.2%	•	•	•		•	•						•	•		

* Fully or partially excluded activities.
** Includes policies on Oil and Gas, Coal, Nuclear Energy and Power Generation.

The way the Framework is applied in practice differs per product type. Generally the largest potential environmental and social impacts come from large corporates within our Wholesale Banking (WB) segment. WB is therefore the initial focus of our assessments and where we promote active ESR dialogue. We have been working with wholesale clients for more than 15 years to support them in understanding and managing their environmental and social impact. A simplified version of the ESR policy framework, following the same rationale and principles, applies to ING's retail activities for mid-corporates and small medium enterprises.

The ESR policy framework is incorporated in ING's KYC policy framework, meaning the ESR client assessment is part of client on-boarding and review. The ESR framework minimum requirements are also included in ING's procurement policy and apply to the screening of suppliers of ING's procurement activities.

ESR is applied in practice in different ways, including an ESR client assessment during KYC onboarding, an ESR transaction assessment for Wholesale Banking, separate in-depth advice from the global ESR team for ESR high-risk WB transactions and name screening for transactions with fully restricted clients. These ESR check and controls are integrated into our client and transaction due diligence processes.

Of all WB engagements in scope of the ESR policy framework in 2019, 85 percent were considered ESR low risk, 9 percent ESR medium risk and 6 percent ESR high risk. ESR high-risk cases require specialised advice from the global ESR team. The team now consists of 13 dedicated ESR advisors, 11 of them are in Amsterdam and two are located in Geneva and New York. Whereas we have a strong ESR policy framework, we acknowledge that we need to further improve our processes in order to ensure accuracy and completeness of the data. The ESR advice assesses the specific product offered and impacts associated with it, the sector, operating context and geography of the engagement and other relevant factors. Based on this in-depth research, a binding advice is given that can only be overruled at Board level. Of the 304 ESR advices given in 2019, 45 percent were positive, 25 percent positive subject to conditions and 30 percent negative. Conditions can play an important role in helping clients transition towards improved environmental and social performance on the ground.

The ESR team's main focus is on its policy development and transaction advisory roles. However the team also provides training (both in-person and via webinars) to hundreds of colleagues around the world every year in risk, front-office, KYC and compliance teams, so that ESR knowledge is built on and spread.

Updates in the ESR Framework

The renewed ESR Framework went live in July 2019. In this review, building on internal and external stakeholder input, we improved our structure and aimed to provide more clarity on the scope and governance of ESR. The Framework now includes standalone policies on human rights and climate change and an infrastructure policy. This reflects external developments, societal expectations and our ambitions for these topics and sustainability in general.

New restrictions in the updated framework include arctic offshore oil and gas exploration and production, white phosphorus, asbestos and small arms and light weapons for private individuals. We have a zero-tolerance policy for some of the restrictions, such as with companies involved in the production of cluster munitions. For others, we try to refrain as much as possible from any form of involvement, whether directly or indirectly. The new framework also affects companies with both controversial and non-controversial activities.

In the updated ESR policy framework we have ensured that each sector policy includes the proper references to the relevant standards of the human rights and climate change overarching pillars. Incorporating these helps us to determine which transactions require further analysis and action, and provides our stakeholders with a better understanding of our approach to human rights and climate change when assessing transactions. The updated ESR policy also encourages clients to identify and be transparent about how human rights and/or environmental issues affect their supply chains. They should provide evidence of proper monitoring and where relevant, translate these findings into acceptance criteria for partners and suppliers.

Developing international best practice and stakeholder engagement

Our ESR approach helps us and our clients to gradually enhance the implementation of key standards like the UN Guiding Principles on Human Rights and the Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises. But beyond stimulating better environmental and social performance in our own portfolio, ING actively collaborates with other institutions, peers and regulators to address the environmental and social challenges we face:

- **ING and the Equator Principles (EPs):** The EPs, an environmental and social risk management framework adopted by over 100 banks globally, were updated in 2019. The new version (EP4), has increased the scope to capture more project-related transactions. It contains new commitments on human rights, climate change, Indigenous people and biodiversity. ING, an active EP Association member, co-led the coordination of the EP4 update process. ING is a member of several working groups, including those on social risks, climate change and scope. ING also co-leads the capacity building and training working group, which resulted in the roll-out of an online EP learning tool to ING risk and front-office employees last year. The tool is used by other EP banks globally.
- **Dutch Banking Sector Agreement**: We continued our engagement in Dutch multi-stakeholder platforms to implement the Dutch Banking Sector Agreement on International Responsible Business Conduct Regarding Human Rights. In 2018, we published our first human rights report in which we disclosed our saliency process and the human rights salient to ING – child labour, forced labour and land-related community issues. In 2019, we published an update focused on our role as a corporate lender and the outcome of an exercise where we proactively engaged with 29 clients in human rights.
- **Thun Group**: In the international arena, ING actively participates in the Thun Group, an informal group of bank representatives sharing expertise and experience to support the integration of the UN Guiding Principles on Business and Human Rights into the policies and practices of banks.
- **OECD**: ING's active role in promoting and integrating human rights is reflected in our participation as a formal advisory member to the OECD on responsible business conduct in our sector. In 2019 the OECD published the Due Diligence for Responsible Corporate Lending and Securities

Underwriting report, that provides a global environmental and social risk framework for financial institutions. We participate in the annual meetings for practitioners from financial institutions (export credit agencies, EP financial institutions, commercial banks, development institutions, etc.) organised by the OECD in Paris, enhancing knowledge sharing and collaboration.

- **United Nations Human Rights Office**: In May, at the request of the UN Human Rights Office of the High Commissioner, ING hosted a meeting with Dutch private sector industrials and the UN High Commissioner for Human Rights, Ms Michelle Bachelet, during her first official visit to the Netherlands, to discuss the role and leverage of the private sector in this important area.

By taking part in the above-mentioned initiatives, we aim to contribute our viewpoint and those of our clients, employees and other stakeholders to help shape a consensus and develop clear guidelines that can serve as a standard for our industry.

Credit risk models

Within ING, internal Basel compliant models are used to determine probability of default (PD), exposure at default (EAD) and loss given default (LGD) for regulatory and economic capital purposes. These models also form the basis of ING's IFRS 9 loan loss provisioning (see "IFRS 9 models" below). Bank-wide, ING has implemented around 100 credit risk models, for regulatory capital, economic capital and loan loss provisioning purposes.

There are two main types of PD, EAD and LGD models used throughout the Bank:

- **Statistical models** are created where a large set of default or detailed loss data is available. They are characterised by a sufficient number of data points that facilitate meaningful statistical estimation of the model parameters. The model parameters are estimated with statistical techniques based on the data set available;
- **Hybrid models** contain characteristics of statistical models combined with knowledge and experience of experts from risk management and front-office staff, literature from rating agencies, supervisors and academics. These models are especially appropriate for 'low default portfolios', where limited historical defaults exist.

Credit risk rating process

In principle, all risk ratings are based on a Risk Rating (PD) Model that complies with the minimum requirements detailed in CRR/CRDIV, ECB Supervisory Rules and EBA guidelines. This concerns all borrower types and segments.

ING's PD rating models are based on a 1-22 scale (1=highest rating; 22=lowest rating) referred to as the 'Master scale', which roughly corresponds to the rating grades that are assigned by external rating agencies, such as Standard & Poor's, Moody's and Fitch. For example, an ING rating of 1 corresponds to an S&P/Fitch rating of AAA and a Moody's rating of Aaa; an ING rating of 2 corresponds to an S&P/Fitch rating of AA+ and a Moody's rating of Aa1, and so on.

The 22 grades are composed of the following categories:

- Investment grade (risk rating 1-10);
- Non-investment grade (risk rating 11-17);
- Sub-standard (risk rating 18-19); and
- Non-performing (risk rating 20-22).

The three first categories (1-19) are risk ratings for performing loans. The ratings are calculated in IT systems with internally developed models based on data that is either manually or automatically fed. Under certain conditions, the outcome of a manually fed model can be challenged through a rating appeal process. Risk ratings for non-performing loans (NPL) (20-22) are set by the global or regional credit restructuring department. For securitisation portfolios, the external ratings of the tranche in which ING has invested are leading.

Risk ratings assigned to clients are reviewed at least annually, with the performance of the underlying models monitored regularly. Over 90 percent of ING's credit exposures have been rated using one of the in-house developed PD rating models. Some of these models are global in nature, such as models for large corporates, commercial banks, insurance companies, central governments, local governments, funds, fund managers, project finance and leveraged companies. Other models are more regional- or country-specific: there are PD models for Small Medium

Enterprise (SME) companies in Central Europe, the Netherlands, Belgium, Luxembourg, as well as residential mortgage and consumer loan models in the various retail markets.

Rating models for retail clients are predominantly statistically driven and automated, such that ratings can be updated on a monthly basis. Rating models for large corporates, institutions and banks include both statistical characteristics and manual input, with the ratings being manually updated on at least an annual basis.

Pre-settlement measurement models

For regulatory capital, pre-settlement (PS) exposure is calculated using a marked to market (MtM) plus regulatory-based add-on. For internal capital purposes, ING uses a combination of a MtM plus model add-on approach and a scenario simulation approach.

ING recognises that the above approaches are not sufficiently accurate for certain trading products such as highly structured or exotic derivative transactions. For the assessment of risk exposures of such complex products a bespoke calculation is made.

Under Pillar 1, ING uses the Current Exposure Method (Mark to Market method), which is a standard approach prescribed by the regulation. There are no exposures under the advanced, Internal Model Method (IMM) under Pillar1. Under Pillar 2 however, for FX and interest rate derivatives, ING uses a risk sensitive approach based on Monte Carlo simulations.

Credit risk tools

Credit risk systems and data standards

The acceptance, maintenance, measurement, management and reporting of credit risks at all levels of ING is executed through single, common credit risk data standards using shared credit risk tools that support standardised and transparent credit risk practices. ING has chosen to develop credit risk tools centrally. The philosophy is to use a single source of data, in an integrated approach that includes ING policy, the regulatory environment in which we operate, and the daily processes that are active throughout the Group. Disciplined application in these three areas is essential for achieving high data quality standards. The customer-centric data model conforms to the three core business needs of ING:

- To monitor the risks we undertake;
- To be compliant with our internal and external obligations; and
- To transact effectively and efficiently with our clients.

Credit risk portfolio

ING's credit exposure is mainly related to lending to individuals and businesses followed by investments in bonds and securitised assets. Loans to individuals are mainly mortgage loans secured by residential property. Loans (including guarantees issued) to businesses are often collateralised, but may be unsecured based on the internal analysis of the borrower's creditworthiness. Bonds in the investment portfolio are generally unsecured, but predominantly consist of bonds issued by central governments and EU and/or OECD based financial institutions. Secured bonds, such as mortgage-backed securities and asset-backed securities are secured by the underlying diversified pool of assets (commercial or residential mortgages, car loans and/or other assets) held by the securities issuer. The last major credit risk source involves pre-settlement (PS) exposures which arise from trading activities, including derivatives, repurchase transactions and securities lending/borrowing transactions. This is also commonly referred to as counterparty credit risk.

Portfolio analysis per business line

Outstandings per line of business[1,2,3]

		Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
Rating class		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Investment grade	1 (AAA)	31,859	25,179	372	466	18,973	16,390	24,774	29,333	75,978	71,368
	2-4 (AA)	46,394	46,819	5,853	5,572	36,460	28,515	1,832	1,431	90,539	82,337
	5-7 (A)	66,756	63,797	20,922	19,643	48,587	41,325	529	531	136,794	125,296
	8-10 (BBB)	115,888	110,876	115,192	109,843	49,681	56,520	2,872	2,655	283,632	279,894
Non-Investment grade	11-13 (BB)	86,342	93,299	63,993	66,887	41,584	42,968	31	957	191,950	204,111
	14-16 (B)	22,929	18,684	15,845	16,444	14,755	11,904		13	53,528	47,045
	17 (CCC)	1,081	1,696	2,223	2,324	933	760	98	90	4,335	4,870
Substandard grade	18 (CC)	1,228	1,444	1,409	1,491	531	600			3,168	3,535
	19 (C)	659	299	1,056	1,093	672	629			2,387	2,021
NPL grade	20-22 (D)	4,516	4,396	4,316	4,229	2,399	2,189	275	314	11,506	11,128
Total		**377,651**	**366,489**	**231,180**	**227,992**	**214,575**	**201,800**	**30,411**	**35,324**	**853,818**	**831,605**
Industry											
Private Individuals		31	32	164,466	164,220	167,262	156,385			331,758	320,637
Commercial Banks		44,152	45,094	250	251	8,884	8,889	3,502	4,263	56,788	58,497
Natural Resources		54,113	52,498	976	1,151	806	863			55,894	54,512
Real Estate		30,819	38,481	12,769	12,219	2,732	2,353			46,320	53,053
Central Governments		37,449	32,356	1,364	1,306	6,356	6,244	3,131	3,131	48,300	43,037
Non-Bank Financial Institutions		45,214	37,023	1,832	2,139	378	623	400	762	47,824	40,547
Transportation & Logistics		27,334	27,036	2,882	2,699	764	741			30,980	30,476
Central Banks		34,044	28,962			8,383	6,124	23,339	27,116	65,766	62,202
Services		10,252	12,470	10,929	9,911	862	980	3	2	22,046	23,363
Food, Beverages & Personal Care		16,691	15,093	5,960	5,600	2,151	2,258			24,802	22,951
Lower Public Administration		3,594	3,459	5,619	5,296	8,184	8,227			17,397	16,982
General Industries		12,599	14,919	4,269	3,932	2,764	2,681			19,632	21,532
Chemicals, Health & Pharmaceuticals		9,213	10,248	6,213	6,253	1,017	1,070			16,443	17,571
Other		52,146	48,818	13,651	13,015	4,033	4,362	36	50	69,866	66,245
Total		**377,651**	**366,489**	**231,180**	**227,992**	**214,575**	**201,800**	**30,411**	**35,324**	**853,818**	**831,605**

1,2,3 see next page

Outstandings per line of business [1,2,3] - continued

Region		Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
		2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Europe	Netherlands	41,255	41,816	142,547	142,602	905	656	25,547	30,158	210,253	215,232
	Belgium	33,936	36,546	82,368	79,362	572	671	18	16	116,894	116,595
	Germany	18,067	15,831	485	475	99,966	96,278	43	45	118,561	112,629
	Poland	15,713	14,377	66	66	20,377	17,801			36,156	32,244
	Spain	8,849	10,985	68	64	21,838	19,092	30	15	30,785	30,156
	United Kingdom	27,026	26,516	277	256	225	258	1,872	1,463	29,400	28,493
	Luxemburg	22,209	18,146	4,051	3,779	1,554	1,603	13	13	27,827	23,540
	France	13,914	13,711	519	519	6,267	4,605	3	5	20,703	18,840
	Rest of Europe	65,432	65,764	406	399	22,816	23,542	25	21	88,679	89,726
Americas		67,893	64,621	223	294	1,457	1,572	21	15	69,593	66,502
Asia		52,065	48,557	103	105	180	194	2,840	3,573	55,188	52,429
Australia		8,622	6,751	27	28	38,416	35,524	1	1	47,066	42,304
Africa		2,671	2,868	40	43	2	5			2,713	2,916
Total		**377,651**	**366,489**	**231,180**	**227,992**	**214,575**	**201,800**	**30,411**	**35,324**	**853,818**	**831,605**

1 Based on credit risk measurement contained in lending, pre-settlement, money market and investment activities.
2 Based on the total amount of credit risk in the respective column using ING's internal credit risk measurement methodologies. Economic sectors (industry) below 2% are not shown separately but grouped in Other.
3 Geographic areas are based on country of residence, except for private individuals for which the geographic areas are based on the primary country of risk.

Overall Portfolio

During 2019, ING's portfolio size increased by EUR 22.3 billion (2.69%) to EUR 854 billion outstanding, driven by volume growth and foreign exchange rate changes. The net volume growth was concentrated in the Lending risk category. FX rate movements contributed to EUR 3.2 billion of the total growth, driven by the appreciation of the US dollar (+1.8%), British pound (+5.5%), Australian dollar (+1.5%) and Polish new zloty (+0.9%), partially off-set by the depreciation of New Turkish Lira (-9.0%) and New Romania Leu (-2.7%) against the Euro.

Rating distribution

Overall the rating class concentration improved. The share of Investment grade rating classes increased from 67.2% to 68.7%, while the share of non-investment grade slightly decreased, from 30.8% to 29.3%. Substandard grade outstanding remained stable at EUR 5.5 billion whereas the NPL grade increased by 3.4%.

With respect to the rating distribution within the Business lines, in Wholesale Banking AAA-rated assets increased driven by the reserve deposit to Banque Centrale du Luxembourg and bond exposure to the Federal Government of the United States of America. Wholesale A rating class increased as a result of outstanding to Bank of Japan and large corporate customers in the US, Asia and the Netherlands. Reduced concentration in the BB rating class was mainly seen in real estate exposure.

In Retail Challengers & Growth Markets, the increase in AAA-rating was explained by increased reserve deposit to Deutsche Bundesbank. Volume growth in AA and A-rated residential mortgages was visible in Australia, Germany, Poland and Spain. This positive effect on the rating composition of C&G was slightly off-set by an increase in B rating related to lower ratings of Turkey's mid-corporate segment.

The rating distribution for Retail Benelux improved mostly driven by improved risk profile of Dutch residential mortgages shifting from rating classes BB to BBB, driven by historically low unemployment rate and continuing increase of the NVM House price index, improving LTV's.

Corporate line decreased concentration in AAA rating class due to a reduction in the reserve deposit with De Nederlandsche Bank.

Industry

The industry composition within Retail is concentrated in private individuals with 71% for Retail Benelux and 78% for Retail Challengers & Growth. In C&G, mortgage volume increased, primarily in Germany, Poland and Australia.

In Retail Benelux the slight increase in Belgium and Luxemburg was largely off-set by the overall reduction in Dutch mortgages due to a trend of early pre-payments and the transfer from Westland Utrecht Bank to Nationale Nederlanden.

Within Wholesale Banking, the sector development in Central Governments and Central Banks is consistent with the aforementioned development in the AAA-rating category. Exposure towards Commercial Banks decreased mainly due to reduced pre-settlement and lending exposures within UK, Republic of Korea and Spain. Outstanding to Non-Bank FIs increased, most notably in funds & fund management sub-industry in Western Europe.

Apart from the movements against the financial counterparties, ING Wholesale increased its exposure to Food, Beverages & Personal Care industry (in Brazil and Hong Kong); to Natural Resources (UK and Singapore), and to Utilities (Luxemburg and the UK). Exposure decreased in Real Estate (Italy and the Benelux), Services (France and Belgium), and General Industries (US and the Netherlands).

Portfolio analysis per geographical area

The portfolio analysis per geographical area re-emphasizes the international distribution of the ING portfolio. The share of Netherlands in the overall portfolio decreased further from 25.9% to 24.6%.

The most noticeable outstanding trends in the Netherlands were the previously mentioned reduction in regulatory reserves with the central bank. The lower volumes of residential mortgage loans were almost completely off-set by a growth in term loans granted to SMEs. For Belgium the overall exposure remained fairly stable as the reduction in the central bank deposit was off-set by increased exposures to Non-Bank FIs and growth in term loans to mid-corporates. Outstanding in Germany increased mainly due to residential mortgage lending, instalment loans and central bank exposures.

The higher exposure in the Americas was mainly driven by bond exposures to the US central government. In Asia, the concentration of outstanding slightly increased, with noticeable growth in exposure to Japan and Singapore, partly off-set by reduced exposures in China and Republic of Korea. Australia reported a growth in outstanding which was mainly driven by trade related transactions with Commercial Banks and mortgage lending to Private Individuals.

The top 5 countries within Rest of Europe based on outstanding were: Italy (EUR 16,781 million), Switzerland (EUR 12,016 million), Turkey (EUR 11,383 million), Romania (EUR 7,473 million) and Russian Federation (EUR 5,652 million).

Outstandings by economic sectors and geographical area[1]

Industry	Region: Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	Luxemburg	France	Rest of Europe	America	Asia	Australia	Africa	Total 2019	Total 2018
Private Individuals	117,194	43,057	84,281	11,296	20,758	248	3,019	2,242	15,626	222	179	33,602	36	331,758	320,637
Central Banks	21,635	16,651	7,573	211	370	1,867	5,048	796	6,454	0	4,951	200	8	65,766	62,202
Commercial Banks	1,918	358	4,231	254	743	7,206	3,771	5,945	7,398	7,682	13,576	3,353	352	56,788	58,497
Natural Resources	2,556	1,323	959	729	220	4,307	2,339	652	16,037	9,521	15,442	749	1,061	55,894	54,512
Central Governments	7,970	5,777	3,033	6,626	4,597	42	184	1,554	6,668	9,724	1,071	689	367	48,300	43,037
Non-Bank Financial Institutions	4,375	2,516	3,824	1,292	906	7,486	4,438	1,815	4,974	12,116	3,259	674	149	47,824	40,547
Real Estate	17,162	8,949	450	2,375	659	326	2,410	3,006	3,682	3,395	805	3,091	8	46,320	53,053
Transportation & Logistics	4,722	2,298	505	1,100	569	2,081	868	812	6,129	3,979	6,818	651	447	30,980	30,476
Food, Beverages & Personal Care	6,301	3,095	322	2,093	329	995	1,779	874	2,602	4,632	1,651	111	19	24,802	22,951
Services	4,683	9,272	574	822	162	774	646	711	1,109	2,264	604	426	0	22,046	23,363
General Industries	4,096	3,301	1,143	2,295	274	382	437	144	3,504	2,628	1,423	5	0	19,632	21,532
Lower Public Administration	522	5,949	5,798	727	4		728	471	536	958	18	1,686	0	17,397	16,982
Chemicals, Health & Pharmaceuticals	4,160	3,517	935	1,066	112	95	257	524	2,812	2,286	474	205	0	16,443	17,571
Other	12,959	10,830	4,933	5,269	1,081	3,592	1,902	1,157	11,148	10,187	4,916	1,625	267	69,866	66,245
Total	**210,253**	**116,894**	**118,561**	**36,156**	**30,785**	**29,400**	**27,827**	**20,703**	**88,679**	**69,593**	**55,188**	**47,066**	**2,713**	**853,818**	**831,605**
Rating class															
Investment grade	144,340	73,010	95,685	22,921	23,598	24,429	21,444	15,418	50,878	42,370	41,134	31,542	175	586,943	558,894
Non-Investment grade	60,937	39,994	21,616	12,219	6,832	4,807	6,229	5,163	35,775	25,660	13,553	14,573	2,457	249,814	256,026
Substandard grade	1,993	1,023	555	212	85	17	75	25	484	464	347	265	9	5,555	5,556
NPL grade	2,983	2,867	705	806	270	148	79	96	1,541	1,100	154	686	71	11,506	11,129
Total	**210,253**	**116,894**	**118,561**	**36,156**	**30,785**	**29,400**	**27,827**	**20,703**	**88,679**	**69,593**	**55,188**	**47,066**	**2,713**	**853,818**	**831,605**

1 Geographic areas are based on country of residence, except for private individuals for which the geographic areas are based on the primary country of risk.

Credit risk mitigation

ING uses various credit risk mitigation techniques and instruments to mitigate the credit risk associated with an exposure and to reduce the losses incurred subsequent to a default by a customer. The most common terminology used in ING for credit risk protection is 'cover'. While a cover may be an important mitigant of credit risk and an alternative source of repayment, generally it is ING's practice to lend on the basis of the customer's creditworthiness rather than exclusively relying on the value of the cover.

Cover forms

Within ING, there are two distinct forms of covers. First, where the asset has been pledged to ING as collateral or security ING has the right to liquidate it should the customer is unable to fulfil its financial obligation. As such, the proceeds can be applied towards full or partial compensation of the customer's outstanding exposure. This may be tangible (such as cash, securities, receivables, inventory, plant and machinery, and mortgages on real estate properties) or intangible (such as patents, trademarks, contract rights and licenses). Second, where there is a third-party obligation, indemnification or undertaking (either by contract and/or by law) ING has the right to claim from that third party an amount, if the customer fails on its obligations. The most common examples are guarantees (such as parent guarantees and export credit insurances), letters of comfort or third-party pledged mortgages.

Cover valuation methodology

General guidelines for cover valuation are established to ensure consistent application within ING. These also require that the value of the cover is monitored on a regular basis. Covers are revalued periodically and whenever there is reason to believe that the market is subject to significant changes in conditions. The frequency of monitoring and revaluation depends on the type of cover.

The valuation method also depends on the type of covers. For asset collateral, the valuation sources can be the customer's balance sheet (e.g. inventory, machinery and equipment), nominal value (e.g. cash and receivables), market value (e.g. securities and commodities), independent valuations (commercial real estate) and market indices (residential real estate). For third-party obligations, the valuation is based on the value that is attributed to the contract between ING and that third party.

Cover values

This section provides insight into the types of covers and the extent to which exposures benefit from collateral or guarantees. The disclosure differentiates between risk categories (lending, investment, money market and pre-settlement). The most relevant types of cover include mortgages, financial collateral (cash and securities) and guarantees. ING obtains cover that is eligible for credit risk mitigation under CRR/CRDIV, as well as cover that is not eligible. Collateral covering financial market transactions is valued on a daily basis, and as such not included in the following tables. To mitigate the credit risk arising from Financial Markets transactions, the bank enters into legal agreements governing the exchange of financial collateral (high-quality government bonds and cash).

The cover values are presented for the total portfolio of ING, both the performing and non-performing portfolio. Our definition of non-performing is explained in detail in the Credit restructuring section (below). For additional insight, a breakdown of ING's portfolio by industry and geography is provided.

Exposures are categorised into different Value to Loan (VTL) buckets that give insight in the level of collateralisation of ING's portfolio. VTL is calculated as the cover value divided by the outstandings at the balance sheet date. The cover values are indexed where appropriate and exclude any cost of liquidation. Covers can either be valid for all or some of a borrower's exposures or particular outstandings, the latter being the most common. For the purpose of aggregation, over-collateralisation is ignored in the total overview and VTL coverage of more than 100% is reported as fully covered. For VTL coverage in the tables for Dutch mortgages, consumer lending and business lending, each cover is subsequently assigned to one of the six defined VTL buckets: no cover, >0% to 25%, >25% to 50%, >50% to 75%, >75% to <100%, and ≥ 100%.

The next table gives an overview of the collateralisation of the ING's total portfolio.

Cover values including guarantees received – 2019

		Cover type				Value to Loan		
	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	Partially covered	Fully covered
Consumer Lending	329,949	574,786	3,775	26,766	36,774	6.9%	7.6%	85.5%
Business Lending	378,214	154,351	21,073	93,407	296,286	36.6%	24.3%	39.1%
Investment and Money Market	94,866	33	133	64	266	96.0%	3.9%	0.1%
Total Lending, Investment and Money Market	**803,029**	**729,171**	**24,981**	**120,236**	**333,326**	**31.4%**	**15.0%**	**53.6%**
Pre-settlement	50,789							
Total Bank	**853,818**							

Cover values including guarantees received – 2018

		Cover type				Value to Loan		
	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	Partially covered	Fully covered
Consumer Lending	318,804	547,832	3,509	25,760	39,446	6.6%	7.9%	85.4%
Business Lending	365,480	147,203	19,089	86,215	257,888	37.7%	23.5%	38.8%
Investment and Money Market	95,701		80	145	259	91.0%	8.8%	0.2%
Total Lending, Investment and Money Market	**779,985**	**695,035**	**22,678**	**112,120**	**297,593**	**31.6%**	**15.3%**	**53.1%**
Pre-settlement	51,620							
Total Bank	**831,605**							

Over the year, the collateralisation level of the total portfolio remained stable. Excluding the pre-settlement portfolio, 53.5% of ING Bank's outstandings were fully collateralised in 2019 (2018: 52.9%). Since investments traditionally do not require covers, the percentage for 'no covers' in this portfolio is close to 90%. However, 99% of the investment outstanding is investment grade. Improved economic conditions in ING's main markets contributed to improved collateral valuations, observed in consumer lending.

Consumer lending portfolio

The consumer lending portfolio accounts for 38.6% of ING's total outstanding, primarily consisting of residential mortgage loans and other consumer lending loans, which mainly comprise term loans, revolvers and personal loans to consumers. As a result, most of the collateral consists of mortgages. The mortgage values are collected in an internal central database and in most cases external data is used to index the market value (e.g. mortgage values for the Netherlands are updated on a quarterly basis using the NVM house price index).

A significant part of ING's residential mortgage portfolio is in the Netherlands (37.9%), followed by Germany (25.0%), Belgium and Luxembourg (13.6%) and Australia (10.7%). Given the size of the Dutch mortgage portfolio, the valuation methodology to determine the cover values for Dutch residential mortgages is provided below.

Dutch mortgages valuation

When a mortgage loan is granted in the Netherlands, the policy dictates maximum loan to market value (LTMV) for an existing property and for construction property financing of 100 percent.

In case of newly built houses usually the building /purchase agreement is sufficient as valuation. In the case of existing houses three types of valuations are allowed. If the LTMV is below 90 percent, either WOZ (fiscal market value, determined by government authorities) or an automated model valuation (the Calcasa ING Valuation) are permitted. In most cases, a valuation is performed by certified valuers that are registered at one of the organisations accepted by ING. In addition, the valuer must be a member of the NVM (Nederlandse Vereniging van Makelaars – Dutch Association of Real Estate Agents), VBO (Vereniging Bemiddeling Onroerend Goed – Association of Real Estate Brokers), VastgoedPRO (Association of Real Estate Professionals) or NVR (Nederlandse Vereniging van Rentmeesters).

Consumer lending portfolio – cover values

The below tables show the values of different covers and the VTL split between performing and non-performing loans.

Cover values including guarantees received – Consumer lending portfolio - 2019

		Cover type				Value to Loan					
	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Performing											
Residential Mortgages (Private Individuals)	294,658	561,766	2,897	24,281	30,541			0.1%	0.8%	7.2%	91.8%
Residential Mortgages (SME) [1]	5,687	8,786	258	145	1,402		0.2%	0.8%	1.4%	8.0%	89.6%
Other Consumer Lending	26,025	183	603	2,204	3,980	83.8%	0.3%	0.1%	0.1%	0.3%	15.4%
Total Performing	**326,370**	**570,734**	**3,759**	**26,630**	**35,922**	**6.7%**	**0.0%**	**0.1%**	**0.8%**	**6.7%**	**85.7%**
Non-performing											
Residential Mortgages (Private Individuals)	2,477	3,804	14	121	720	0.2%	0.2%	0.7%	2.3%	9.6%	87.1%
Residential Mortgages (SME) [1]	147	240	0	7	36	0.2%	0.3%	0.8%	2.9%	6.0%	89.8%
Other Consumer Lending	956	7	2	8	96	94.0%	0.4%	0.2%	0.4%	0.5%	4.6%
Total Non-performing	**3,579**	**4,052**	**16**	**136**	**852**	**25.3%**	**0.2%**	**0.5%**	**1.8%**	**7.0%**	**65.2%**
Total Consumer Lending	**329,949**	**574,786**	**3,775**	**26,766**	**36,774**	**6.9%**	**0.0%**	**0.1%**	**0.8%**	**6.7%**	**85.5%**

1 Consists mainly of residential mortgages to small one man business clients.

Cover values including guarantees received – Consumer lending portfolio - 2018

		Cover type				Value to Loan					
	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Performing											
Residential Mortgages (Private Individuals)	285,976	535,664	2,839	23,741	33,446			0.1%	1.0%	7.3%	91.6%
Residential Mortgages (SME) [1]	5,383	8,219	160	155	1,239		0.3%	0.8%	1.7%	7.5%	89.7%
Other Consumer Lending	23,937	156	493	1,694	4,072	84.7%	0.3%	0.1%	0.1%	0.5%	14.3%
Total Performing	**315,297**	**544,039**	**3,492**	**25,591**	**38,757**	**6.4%**	**0.1%**	**0.1%**	**0.9%**	**6.8%**	**85.7%**
Non-performing											
Residential Mortgages (Private Individuals)	2,490	3,568	16	152	607	0.5%	0.2%	0.8%	2.9%	13.6%	82.0%
Residential Mortgages (SME) [1]	134	218		9	29	0.4%		0.7%	2.4%	8.9%	87.7%
Other Consumer Lending	884	7	1	9	52	95.4%	0.5%	0.1%	0.2%	0.6%	3.2%
Total Non-performing	**3,508**	**3,793**	**17**	**169**	**689**	**24.4%**	**0.2%**	**0.6%**	**2.2%**	**10.1%**	**62.4%**
Total Consumer Lending	**318,804**	**547,832**	**3,509**	**25,760**	**39,446**	**6.6%**	**0.1%**	**0.1%**	**1.0%**	**6.9%**	**85.4%**

1 Consists mainly of residential mortgages to small one man business clients.

The collateralisation of the consumer lending portfolio continued to improve during 2019. The rise in collateralisation levels was due to rising housing prices observed in different mortgage markets, specifically noticeable the Netherlands.

ING's residential mortgage outstanding increased mainly in Germany (3.1%), Spain (14.8%) and Poland (23.2%). Mortgage outstanding in the Netherlands decreased slightly (0.8%). For the residential mortgages portfolio, the cover type guarantees relate to mortgages covered by governmental insurers under the Nationale Hypotheek Garantie (NHG) in the Netherlands. The NHG guarantees the repayment of a loan in case of a forced property sale.

Business lending portfolio

Business lending accounts for 44.3 percent of ING's total outstanding (44.0 percent in 2018). In line with our objective to give stakeholders insight into the portfolio, we present the business lending portfolio per industry breakdown in accordance with the NAICS definition and per region and main market. Business Lending presented in this section does not include pre-settlement, investment and money market exposures, which are outlined in the next sections.

Cover values including guarantees received - Business lending portfolio – 2019

		Cover type				Value to Loan					
Industry	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Natural Resources	53,796	1,197	2,426	22,041	35,691	26.6%	15.3%	9.6%	11.6%	12.9%	24.1%
Real Estate	45,927	85,946	1,442	5,942	17,765	2.6%	0.7%	1.9%	2.0%	9.7%	83.1%
Central Banks	42,087		7			100.0%					
Non-Bank Financial Institutions	30,000	13,726	11,486	6,565	43,672	25.6%	2.8%	4.6%	5.1%	5.9%	56.0%
Transportation & Logistics	29,303	3,293	168	7,519	36,223	17.0%	6.4%	2.3%	4.1%	11.3%	58.9%
Food, Beverages & Personal Care	22,585	8,030	407	8,777	34,633	24.5%	5.2%	7.8%	10.3%	12.8%	39.5%
Commercial Banks	22,508	331	129	1,656	6,062	72.4%	3.3%	2.0%	1.6%	5.9%	14.8%
Services	21,044	10,090	1,519	8,799	29,470	30.7%	5.0%	6.3%	6.5%	6.9%	44.6%
General Industries	18,849	5,031	246	5,369	22,154	32.2%	5.1%	4.3%	8.3%	9.6%	40.6%
Utilities	15,952	242	1,036	3,785	7,928	41.7%	19.7%	3.9%	5.5%	2.0%	27.3%
Chemicals, Health & Pharmaceuticals	15,410	8,361	203	3,744	12,439	26.4%	6.7%	3.9%	7.5%	11.8%	43.7%
Builders & Contractors	15,054	7,449	201	3,802	15,704	27.5%	6.7%	7.2%	8.6%	8.7%	41.2%
Other [1]	45,698	10,655	1,800	15,407	34,546	41.5%	4.9%	4.6%	5.8%	7.7%	35.4%
Total Business Lending	**378,214**	**154,351**	**21,073**	**93,407**	**296,286**	**36.6%**	**6.0%**	**4.4%**	**5.7%**	**8.2%**	**39.1%**
of which Total Non-performing	**7,856**	***2,600***	***281***	***2,643***	***6,305***	***32.6%***	***3.6%***	***7.9%***	***9.2%***	***16.5%***	***30.2%***

1 'Others' comprises industries with outstandings lower than EUR 10 billion.

Cover values including guarantees received - Business lending portfolio – 2019

			Cover type				Value to Loan					
Region		Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Europe	Netherlands	81,472	60,334	3,265	8,845	52,909	37.5%	2.8%	3.6%	5.3%	10.7%	40.1%
	Belgium	51,881	35,937	1,231	23,583	51,204	25.4%	1.8%	2.6%	4.0%	6.7%	59.5%
	Germany	18,366	3,143	95	1,237	4,916	62.7%	9.2%	2.4%	2.2%	2.5%	20.9%
	Luxembourg	19,013	7,076	1,690	3,780	31,685	48.3%	2.3%	6.6%	3.2%	3.0%	36.7%
	Poland	17,498	8,896	135	3,053	27,356	30.1%	3.4%	4.6%	7.0%	11.4%	43.4%
	United Kingdom	14,919	1,132	1,128	4,381	10,159	39.0%	18.0%	5.7%	8.9%	5.3%	23.0%
	Switzerland	11,328	83	656	2,950	6,085	35.7%	13.7%	12.3%	7.4%	11.7%	19.2%
	France	10,015	6,843	147	2,003	4,661	39.5%	5.7%	5.5%	3.5%	1.3%	44.6%
	Rest of Europe	48,494	15,504	2,873	17,219	40,243	32.1%	7.8%	4.9%	4.7%	10.2%	40.2%
America		47,729	7,253	7,856	8,827	39,792	39.3%	6.1%	5.0%	6.7%	9.2%	33.6%
Asia		45,131	920	1,941	14,051	24,632	37.2%	8.4%	4.5%	9.2%	7.2%	33.5%
Australia		9,731	7,219	4	1,640	1,867	37.3%	9.6%	1.5%	3.0%	5.5%	43.1%
Africa		2,638	9	51	1,838	778	9.2%	16.5%	9.6%	13.2%	12.2%	39.3%
Total Business Lending		**378,214**	**154,351**	**21,073**	**93,407**	**296,286**	**36.6%**	**6.0%**	**4.4%**	**5.7%**	**8.2%**	**39.1%**
of which Non-performing		***7,856***	***2,600***	***281***	***2,643***	***6,305***	***32.6%***	***3.6%***	***7.9%***	***9.2%***	***16.5%***	***30.2%***

Cover values including guarantees received - Business lending portfolio – 2018

		Cover type				Value to Loan					
Industry	Outstandings	Mortgages	Financial Collateral	Guarantees	Other covers	No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Natural Resources	52,774	1,170	2,142	17,944	38,366	28.2%	11.6%	11.4%	10.7%	12.4%	25.7%
Real Estate	52,438	93,179	1,498	7,399	10,995	4.3%	1.2%	2.2%	3.1%	7.6%	81.6%
Central Banks	34,366		6			100.0%					
Transportation & Logistics	28,976	3,085	148	7,470	30,855	17.7%	6.1%	3.0%	4.5%	10.3%	58.5%
Commercial Banks	23,908	323	338	1,312	3,918	79.1%	2.3%	1.7%	0.3%	6.2%	10.4%
Services	22,248	9,379	2,889	7,480	21,433	34.2%	4.6%	4.2%	6.7%	5.7%	44.5%
Non-Bank Financial Institutions	20,806	1,581	9,163	5,529	32,346	33.7%	5.8%	3.1%	9.2%	7.0%	41.2%
Food, Beverages & Personal Care	20,999	7,376	302	7,380	24,099	29.1%	4.7%	6.8%	9.9%	11.5%	38.0%
General Industries	20,344	5,027	263	6,065	31,603	33.4%	5.7%	3.7%	8.4%	8.4%	40.4%
Chemicals, Health & Pharmaceuticals	16,439	8,634	203	3,899	10,849	35.7%	2.8%	3.8%	7.4%	12.0%	38.4%
Builders & Contractors	14,841	7,132	205	4,370	13,740	27.5%	8.5%	4.2%	8.1%	10.5%	41.1%
Utilities	14,442	376	616	3,447	7,955	43.0%	16.2%	4.1%	5.7%	3.8%	27.2%
Others [1]	42,899	9,941	1,316	13,920	31,729	39.4%	5.3%	4.9%	5.5%	8.5%	36.3%
Total Business Lending	**365,480**	**147,203**	**19,089**	**86,215**	**257,888**	**37.7%**	**5.3%**	**4.4%**	**5.8%**	**8.0%**	**38.8%**
of which Total Non-performing	***7,543***	***3,578***	***266***	***2,676***	***4,447***	***28.8%***	***3.8%***	***4.8%***	***9.0%***	***15.1%***	***38.4%***

1 'Others' comprises industries with outstandings lower than EUR 10 billion.

Cover values including guarantees received - Business lending portfolio – 2018

Region		Outstandings	Cover type: Mortgages	Financial Collateral	Guarantees	Other covers	Value to Loan: No Cover	>0% - 25%	>25%-50%	>50% - 75%	>75% - <100%	≥ 100%
Europe	Netherlands	84,664	56,558	2,976	7,553	49,348	43.5%	2.3%	2.7%	5.5%	9.7%	36.3%
	Belgium	49,464	34,299	990	18,601	45,209	25.0%	1.9%	3.1%	4.1%	6.3%	59.5%
	Germany	15,167	2,288	71	1,366	4,064	62.6%	5.0%	2.5%	4.4%	2.4%	23.2%
	Luxembourg	12,903	6,834	2,626	3,758	22,132	23.5%	5.6%	12.8%	6.1%	3.6%	48.4%
	Poland	15,982	7,992	122	3,054	26,347	30.2%	3.8%	3.4%	7.1%	10.1%	45.4%
	United Kingdom	14,624	1,031	1,191	3,411	7,883	41.1%	19.1%	4.8%	3.4%	9.9%	22.3%
	Switzerland	11,109	18	470	2,543	4,773	30.7%	25.2%	11.0%	7.6%	6.8%	18.8%
	France	9,828	7,312	106	2,631	4,054	42.1%	2.5%	4.8%	4.0%	1.0%	45.6%
	Rest of Europe	52,169	17,815	2,689	18,917	28,019	36.9%	5.0%	3.9%	5.9%	7.7%	40.5%
America		47,056	6,105	6,408	7,007	39,839	39.9%	5.6%	6.0%	6.8%	8.8%	32.9%
Asia		41,943	868	1,153	14,391	23,331	39.7%	7.0%	5.3%	7.5%	9.2%	31.4%
Australia		7,741	6,074	226	939	1,965	33.6%	3.4%	1.7%	3.7%	6.2%	51.3%
Africa		2,830	10	62	2,043	925	17.1%	4.6%	8.8%	9.9%	25.7%	33.8%
Total Business Lending		**365,480**	**147,203**	**19,089**	**86,215**	**257,888**	**37.7%**	**5.3%**	**4.4%**	**5.8%**	**8.0%**	**38.8%**
of which Non-performing		***7,543***	***3,578***	***266***	***2,676***	***4,447***	***28.8%***	***3.8%***	***4.8%***	***9.0%***	***15.1%***	***38.4%***

The tables above describe the collateralisation of ING's business lending portfolio. Breakdowns are provided by industry as well as by geographical region or market, based on the residence of the borrowers.

Broken down by industry, the largest increase in outstanding is attributable to Non-Bank Financial Institutions (EUR 9.1 billion, 43.1%), followed by Central Banks (EUR 7.7 billion, 22.5%), with low covers. The largest decrease in outstanding was observed in Chemicals, Health & Pharmaceuticals (EUR 8.2 billion), where the total cover percentage increased.

The proportion of the business lending portfolio in Africa and the Netherlands with no cover decreased substantially year-on-year, respectively from 15.5% to 9.2% and from 43.4% to 37.4% in 2019. All industry types experienced an increase in total covers, but while the industries' cover levels grew, only the outstanding for Utilities grew slightly faster.

The largest increases in outstanding in absolute figures were seen in Germany (21.1%) and Asia (7.6%). The increase in Germany (EUR 3.2 billion) was primarily due to increases in term loans, regulatory reserve deposits and nostro accounts. As these deposits and nostro accounts are not collateralised, this increase had only a small impact on total cover amounts.

Credit quality

Following higher credit risk levels seen as a result of the financial crisis and economic downturn, credit quality has been improving since 2014 and this trend continued in 2019.

Credit risk categories

	Regular	Watch List	Restructuring [1]	Non-performing [1]
Possible ratings	1–19	1–19	11–20	20-22
Typical ratings	1–14	15–17	18–20	20-22
Deterioration in risk	Not significant	Significant	Significant	Significant
Significant intervention	Not required	Not required	Required	Required
Includes impairments	No	No	Yes	Yes
Account Ownership	Front Office	Front Office	Front Office	Front Office
Credit Risk Management	Regular	Regular	Credit Restructuring	Credit Restructuring
Primary Manager	Front Office	Front Office	Credit Restructuring	Credit Restructuring
Accounting provisioning	Stage 1/2	Stage 1/2	Stage 2/3	Stage 3

1 More information on the Restructuring and Non-performing categories can be found in the Credit restructuring section.

Credit quality: outstandings

	2019	2018
Neither past due nor non-performing[1]	831,227	816,063
Business lending past due but performing (1–90 days)	7,747	
Consumer lending past due but performing (1–90 days)	3,367	4,440
Non-performing[2]	11,477	11,102
Total	**853,818**	**831,605**

1 For 2018 the business lending amount past due but performing could not be isolated.
2 Based on lending and investment activities.

The credit quality of the ING portfolio improved overall. For consumer lending past due but performing, the portfolio decreased by EUR 1.1 billion mainly in Retail portfolio in Belgium & Luxembourg, from EUR 1.9 billion to EUR 0.9 billion. For non-performing assets, an increase was observed mainly in Belgium & Luxembourg for Retail portfolio (EUR 0.4 billion) and Wholesale Banking portfolio (EUR 0.3 billion), and the United Kingdom WB (EUR 0.3 billion). This increase was partially offset by the decrease in non-performing exposures in Netherlands Retail (EUR 0.4 billion) and Real Estate & Other (EUR 0.4 billion).

Past due obligations

Retail Banking continuously measures its portfolio in terms of payment arrears and on a monthly basis determines if there are any significant changes in the level of arrears. This methodology is principally extended to loans to private individuals, such as residential mortgage loans, car loans and other consumer loans. An obligation is considered 'past due' if a payment of interest or principal is more than one day late. ING aims to help its customers as soon as they are past due by communicating to remind them of their payment obligations. In its contact with the customers, ING aims to solve the (potential) financial difficulties by offering a range of measures (e.g. payment arrangements, restructuring). If the issues cannot be cured, for example because the customer is unable or unwilling to pay, the contract is sent to the recovery unit. The facility is downgraded to risk rating 20 (non-performing) when arrears exceed 90 days past due and to risk rating 21 or 22 when the contract is terminated. The table below captures all past due exposures starting from day 1.

Aging analysis (past due but performing): Consumer lending portfolio, outstandings[1]

	2019	2018
Past due for 1–30 days	2,564	3,283
Past due for 31–60 days	639	892
Past due for 61–90 days	163	265
Total	**3,367**	**4,440**

1 Based on consumer lending. The amount of past due but performing financial assets in respect of non-lending activities was not significant.

Aging analysis (past due but performing): Consumer lending portfolio by geographic area, outstandings[1]

Region		Residential Mortgages	Other retail	2019	2018
Europe	Netherlands	829	11	840	934
	Belgium	733	166	899	1,870
	Germany	372	104	476	606
	Poland	145	90	236	215
	Spain	21	36	56	46
	Luxemburg	3	24	27	55
	France	2	10	13	11
	United Kingdom	3		3	5
	Rest of Europe	194	290	484	515
America		3		3	3
Asia		3		3	2
Australia		310	18	328	178
Africa					1
Total		**2,618**	**749**	**3,367**	**4,440**

1 Based on consumer lending. The amount of past due but performing financial assets in respect of non-lending activities was not significant.

Total past due, but performing exposure, for consumer loans decreased by EUR 1.1 billion. The improvement was mainly visible in the 1-30 days bucket driven by Belgium and the Netherlands residential mortgages due to macro-economic factors (low unemployment, low inflation and increasing house prices). This was partially offset by the increase in Australia. Less significant decreases were witnessed in the 31-60 and 61-90 days past due buckets mainly driven by the Belgium residential mortgages portfolio.

In Wholesale Banking, ING classifies the relevant obligors for business loans (governments, institutions, and corporates) as non-performing when any of the following default triggers occur:

- The borrower has failed in the payment of principal or interest/fees and such payment failure has remained unresolved for the following periods:
  - for corporates: more than 90 days;
  - for financial institutions and governments – from day 1. However, a period of 14 calendar days will be observed in order for ING to establish whether the payment default was due to non-operational reasons (i.e. the deteriorated credit quality of the financial institution) or due to operational reasons. The latter does not trigger default.
- ING believes the borrower is unlikely to pay; the borrower has evidenced significant financial difficulty, to the extent that it will have a negative impact on the future cash flows of the financial asset. The following events could be seen as indicators of financial difficulty:
  - The borrower (or third party) has started insolvency proceedings.
  - A group company/co-borrower has NPL status.
  - Significant fraud (affecting the company's ability to service its debt).
  - There is doubt as to the borrower's ability to generate stable and sufficient cash flows to service its debt.
  - Restructuring of debt.
- ING has granted concessions relating to the borrower's financial difficulty, the effect of which is a reduction in expected future cash flows of the financial asset below current carrying amount.

Further, Wholesale Banking has an individual name approach, using Early Warnings indicators to signal possible future issues in debt service.

Aging analysis (past due but performing): Business lending, outstandings[1]

	2019
Past due for 1–30 days	6,681
Past due for 31–60 days	658
Past due for 61–90 days	408
Total	**7,747**

1 Wholesale aging analysis only available as of 2019

Aging analysis (past due but performing): Business lending by geographic area, outstandings

Region		2019
Europe	Netherlands	751
	Belgium	1,028
	Germany	385
	United Kingdom	820
	Spain	688
	France	639
	Luxemburg	340
	Poland	279
	Rest of Europe	1,445
America		1,159
Asia		187
Australia		23
Africa		2
Total		**7,747**

Credit restructuring

Global Credit Restructuring (GCR) is the dedicated and independent department that deals with non-performing loans and loans that hold a reasonable probability that ING will end up with a loss, if no specific action is taken. GCR deals with accounts or portfolios requiring an active approach, which may include renegotiation of terms & conditions and business or financial restructuring. The loans are managed by GCR or by units in the various regions and business units.

ING uses three distinct statuses to categorise the management of clients with (perceived) deteriorating credit risk profiles, i.e. there is doubt as to the performance and the collectability of the client's contractual obligations:

- **Watch List**: Usually, a client is first classified as Watch List when there are concerns of any potential or material deterioration in credit risk profile that may affect the ability of the client to adhere to its debt service obligations or to refinance its existing loans. Watch List status requires more than usual attention, increased monitoring and quarterly reviews. Some clients with a Watch List status may develop into a Restructuring status or even a Recovery status.
- **Restructuring**: A client is classified in Restructuring when there are concerns about the client's financial stability, credit worthiness, and/or ability to repay, but where the situation does not require the recall or acceleration of facilities or the liquidation of collateral. ING's actions aim to maintain the going concern status of the client by:
  - Restoring the client's financial stability;
  - Supporting the client's turnaround;
  - Restoring the balance between debt and equity; and
  - Restructuring the debt to a sustainable situation.
- **Recovery:** A client is classified as in Recovery when ING and/or the client concludes that the client's financial situation cannot be restored and a decision is made to end the (credit) relationship or even to enter into bankruptcy. ING will prefer an amicable exit, but will enforce and liquidate the collateral or claim under the guarantees if deemed necessary.

Watch List, Restructuring and Recovery accounts are reviewed at least quarterly by the front office, GCR, and the relevant credit risk management executives.

Non-performing loans

ING's loan portfolio is under constant review. Loans with past due financial obligations of more than 90 days are reclassified as non-performing. For commercial lending portfolios, there generally are reasons for declaring a loan non-performing prior to being 90 days past due. These reasons include, but are not limited to, ING's assessment of the customer's perceived inability to meet its financial obligations, or the customer filing for bankruptcy or bankruptcy protection.

The table below represents the breakdown by industry of credit risk outstandings for lending and investment positions that have been classified as non-performing.

Non-performing Loans: outstandings by economic sector and business lines[1]

	Wholesale Banking		Retail Benelux		Retail Challengers & Growth Markets		Corporate Line		Total	
Industry	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Private Individuals	0	1	2,173	2,163	1,573	1,535			3,746	3,698
Natural Resources	1,108	925	35	43	53	54			1,196	1,022
Food, Beverages & Personal Care	599	372	351	294	168	109			1,119	775
Transportation & Logistics	651	599	96	177	40	28			787	804
Services	320	260	357	265	60	38			737	563
Builders & Contractors	265	405	258	332	168	152			691	889
Real Estate	312	823	311	333	9	3			631	1,159
General Industries	248	373	204	186	153	135			605	693
Non-Bank Financial Institutions	426	25	34	27	2	2			462	54
Retail	89	80	172	134	63	44			325	258
Other[2]	467	507	326	274	110	90	275	314	1,178	1,187
Total	**4,487**	**4,370**	**4,316**	**4,229**	**2,399**	**2,188**	**275**	**313**	**11,477**	**11,102**

1 Based on Lending and Investment outstandings.
2 Economic sectors not specified in above overview are grouped in Other.

Non-performing Loans: outstandings by economic sectors and geographical area

	Region													Total	Total
Industry	Netherlands	Belgium	Germany	Poland	Spain	United Kingdom	France	Luxemburg	Rest of Europe	America	Asia	Australia	Africa	2019	2018
Private Individuals	840	1,271	585	134	195	4	14	24	411	4	3	261	1	3,746	3,698
Natural Resources	83	21		28		63			254	533	84	111	20	1,196	1,022
Food, Beverages & Personal Care	315	153	63	117	1	12	68	1	109	254	26			1,119	775
Transportation & Logistics	432	48	1	31	47	49		3	88	32	10	46		787	804
Services	224	377	0	36				3	49	42	6			737	563
Builders & Contractors	88	226	1	103	1			3	230	39				691	889
Real Estate	219	225	0	96	19		7	28	27	8		4		631	1,159
General Industries	176	148	12	89		3		1	127	48	1			605	693
Non-Bank Financial Institutions	53	8		3	7	0	0	5	14	107		264		462	54
Retail	74	147		40		4	7	1	52					325	258
Other [1]	464	239	44	130		10	1	9	172	34	23		51	1,177	1,187
Total	**2,968**	**2,864**	**705**	**805**	**270**	**144**	**96**	**79**	**1,533**	**1,099**	**154**	**686**	**71**	**11,477**	**11,102**

1 Economic sectors not specified in above overview are grouped in Other.

The non-performing portfolio increased slightly during 2019. The increase was mainly visible in Challengers & Growth and Wholesale Banking. The increase in Challengers & Growth was due to a combination of various smaller items, while the increase in Wholesale Banking was mainly driven by Food, Beverages & Personal Care and Natural Resources. This was largely offset by a significant decrease in Real Estate NPL outstandings. The largest increases were witnessed in Belgium in the services industry, the natural resources industry in the Americas and in Australia over various smaller items. The largest decreases were visible in the Netherlands in real estate and private individuals.

Forbearance

Forbearance occurs when a client is unable to meet their financial commitments due to financial difficulties it faces or is about to face and ING grants concessions towards this client. Forborne assets are assets in respect of which forbearance measures have been granted.

Forbearance may enable clients experiencing financial difficulties to continue repaying their debt.

For business customers, ING mainly applies forbearance measures to support clients with fundamentally sound business models that are experiencing temporary difficulties with the aim of maximising the client's repayment ability and therewith avoiding a default situation or helping the client to return to a performing situation.

For ING retail units, clear criteria have been established to determine whether a client is eligible for forbearance process. Specific approval mandates are in place to approve the measures, as well as procedures to manage, monitor and report the forbearance activities.

ING reviews the performance of forborne exposures at least quarterly, either on a case-by-case (business) or on a portfolio (retail) basis.

All exposures are eligible for forbearance measures, i.e. both performing (Risk Ratings 1-19) and non-performing (Risk Ratings 20-22) exposures. ING uses specific criteria to move forborne exposures from non-performing to performing or to remove the forbearance statuses that are consistent with the corresponding EBA standards. An exposure is reported as forborne for a minimum of two years. An additional one year probation period is observed for forborne exposures that move from non-performing back to performing.

Summary Forborne assets

	2019				2018			
Business Line	Out-standings	Of which: Perfor-ming	Of which: Non-Perfor-ming	% of total portfolio	Out-standings	Of which: Perfor-ming	Of which: Non-Perfor-ming	% of total portfolio
Wholesale Banking	4,632	2,699	1,932	1.7%	5,130	3,100	2,029	1.8%
Retail Banking	4,861	2,686	2,175	1.1%	5,010	2,858	2,152	1.2%
Total	**9,492**	**5,385**	**4,107**	**1.3%**	**10,140**	**5,959**	**4,181**	**1.4%**

2018 amount includes EUR 46 million of non-IFRS eligible items (i.e. undrawn commitments and guarantees).

Summary Forborne portfolio by forbearance type

	2019				2018			
Forbearance type	Out-standings	Of which: Perfor-ming	Of which: Non-Perfor-ming	% of total portfolio	Out standings	Of which: Perfor-ming	Of which: Non-Perfor-ming	% of total portfolio
Loan modification	8,285	4,800	3,485	1.1%	8,456	4,837	3,620	1.1%
Refinancing	1,208	585	622	0.2%	1,684	1,122	561	0.2%
Total	**9,492**	**5,385**	**4,107**	**1.3%**	**10,140**	**5,959**	**4,181**	**1.4%**

2018 amount includes EUR 46 million of non-IFRS eligible items (i.e. undrawn commitments and guarantees).

As per December 2019 ING's total forborne assets decreased by EUR 0.6 billion (6%) against December 2018 to EUR 9.5 billion, mainly driven by Wholesale Banking (-EUR 0.5 billion).

Wholesale Banking

As per December 2019, Wholesale Banking forborne assets amounted to EUR 4.6 billion, which represented 1.7% of the total Wholesale Banking portfolio.

Wholesale Banking: Forborne portfolio by geographical area

Region		2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
Europe	Netherlands	822	410	412	1,148	687	461
	Belgium	41	16	25	131	102	29
	Germany	246	182	63	127	94	33
	United Kingdom	332	251	81	287	246	41
	Italy	197	115	83	388	113	275
	Ukraine	169	77	93	297	108	189
	Norway	151	124	27	258	236	22
	Poland	134	31	103	190	78	113
	Rest of Europe	502	322	180	477	301	175
America		1,315	759	556	1,173	695	478
Asia		316	206	109	378	300	78
Australia		214	85	129	128	86	42
Africa		192	122	71	148	55	93
Total		**4,632**	**2,699**	**1,932**	**5,130**	**3,100**	**2,029**

Wholesale Banking: Forborne assets by economic sector

Industry	2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
Natural Resources	1,587	909	678	1,474	943	532
Transportation & Logistics	674	362	313	868	445	423
General Industries	427	286	142	405	193	212
Food, Beverages & Personal Care	375	227	148	244	161	83
Real Estate	374	207	167	999	601	398
Chemicals, Health & Pharmaceuticals	212	209	3	189	171	19
Builders & Contractors	195	79	116	146	37	109
Utilities	188	55	133	181	30	152
Services	129	69	60	138	85	53
Retail	114	92	22	118	84	34
Automotive	108	72	36	134	131	3
Other	248	134	114	233	220	13
Total	**4,632**	**2,699**	**1,932**	**5,130**	**3,100**	**2,029**

The main concentration of forborne assets in a single country was in the Netherlands with 18% (2018: 22%) of the total Wholesale Banking forborne assets and 21% (2018: 23%) of the total non-performing forborne assets.

Wholesale Banking forborne assets decreased by EUR 0.5 billion compared to 2018, of which the performing forborne assets decreased by EUR 0.4 billion. The decrease of the performing forborne assets was attributed mostly to a few cured large entities which exited forborne status.

Wholesale Banking forborne assets were mainly concentrated in Natural Resources, Transportation & Logistics and General Industries. Together they accounted for 58% of the total Wholesale Banking forborne assets and 59% of the total Wholesale Banking non-performing forborne assets. Back in 2018, the main concentration was witnessed in Natural Resources, Real Estate and

Transportation & Logistics, with 65% of the total WB forborne. A significant decrease in forborne assets was visible in the Real Estate industry (EUR 0.6 billion) during 2019, followed by the Transportation & Logistics (-EUR 0.2 billion), partly offset by the Food, Beverages & Personal Care and the Natural Resources (+EUR 0.1 billion each).

Retail Banking

As per end of December 2019, Retail Banking forborne assets amounted to a total of EUR 4.9 billion, which represented 1.1% of the total Retail Banking portfolio.

Retail Banking: Forborne assets by geographical area

Region		2019 Outstandings	2019 Of which: Performing	2019 Of which: Non-Performing	2018 Outstandings	2018 Of which: Performing	2018 Of which: Non-Performing
Europe	Netherlands	2,212	1,367	845	2,461	1,514	946
	Belgium	1,149	435	714	1,046	383	663
	Germany	425	294	131	462	337	126
	Turkey	314	184	130	273	197	77
	Poland	209	101	109	216	115	101
	Romania	101	55	46	69	36	33
	Italy	25	13	12	25	13	12
	Spain	25	13	12	39	23	16
	Rest of Europe	43	22	22	34	14	20
America		2	1	1	1		1
Asia		1	0	1	3	2	1
Australia		354	201	153	381	225	156
Africa		0	0	0			
Total		**4,861**	**2,686**	**2,175**	**5,010**	**2,858**	**2,152**

The main concentration of forborne assets in a single country was in the Netherlands with 46% (2018: 49%) of the total Retail Banking forborne assets and 39% (2018: 44%) of the non-performing forborne assets.

Loan Loss Provisioning

Since 1 January 2018, ING has recognised loss allowances based on the expected credit loss model (ECL) of IFRS 9, which is designed to be forward-looking. The IFRS 9 impairment requirements are applicable to on-balance sheet financial assets measured at amortised cost or fair value through other comprehensive income (FVOCI), such as loans, debt securities and lease receivables, as well as off-balance sheet items such as undrawn loan commitments, certain financial guarantees, and undrawn committed revolving credit facilities. These financial instruments are divided into three groups, depending on the stage of credit quality deterioration.

IFRS 9 models

The IFRS 9 models leverage the advanced internal rating-based (AIRB) models (PD, LGD, EAD), which include certain required conservatism. In order to include IFRS 9 requirements, such regulatory conservatism is removed from the ECL parameters (PD, LGD and EAD). The IFRS9 models apply two types of adjustments to the ECL parameters: (1) to economic outlook and (2) for stage 2 and stage 3 assets only, to the lifetime horizon. The IFRS9 model parameters are estimated based on statistical techniques and supported by expert judgement.

Portfolio quality

As shown in the table below, 94.0% of the total gross carrying amounts is classified as stage 1, mainly composed of investment grade, while stage 2 and 3 make up 4.7% and 1.3% of total amounts, respectively.

Gross Carrying amount per IFRS 9 stage and rating class[1,2,3,4]

2019		Stage 1		Stage 2		Stage 3		Total	
Rating class		**Gross Carrying Amount**	**Provisions**	**Gross Carrying Amount**	**Provisions**	**Gross Carrying Amount**	**Provisions**	**Gross Carrying Amount**	**Provisions**
Investment grade	1 (AAA)	75,144	1					75,144	1
	2-4 (AA)	82,992	3	28				83,020	3
	5-7 (A)	131,931	11	273				132,204	11
	8-10 (BBB)	295,130	55	4,905	6			300,035	61
Non-Investment grade	11-13 (BB)	194,643	209	7,925	54			202,568	263
	14-16 (B)	36,683	202	18,416	367			55,099	569
	17 (CCC)	405	7	4,067	146			4,472	153
Substandard grade	18 (CC)			3,253	160			3,253	160
	19 (C)			2,216	148			2,216	148
NPL grade	20-22 (D)					10,955	3,275	10,955	3,275
Total		**816,928**	**490**	**41,082**	**881**	**10,955**	**3,275**	**868,965**	**4,646**

1 Compared to the credit risk portfolio, the differences are mainly undrawn committed amounts (EUR 115 billion) not included in Credit outstandings and non-IFRS 9 eligible assets (EUR 100 billion, mainly guarantees, letters of credit and pre-settlement exposures) 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', page 67.
3 IAS 37 Off-Balance provisions (EUR 93.3 million) are excluded.
4 The table is generated in 2019 for the first time, no comparable schedule for 2018 available.

Changes in loan loss provisions and gross carrying amounts

Changes in gross carrying amounts and loan loss provisions[1,2,3,4]

2019	Stage 1		Stage 2		Stage 3		Total	
	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions	Gross carrying amount	Provisions
Opening balance	**788,173**	**501**	**46,949**	**925**	**10,758**	**3,141**	**845,880**	**4,568**
Transfer into 12-month ECL (Stage 1)	12,856	30	-12,579	-253	-277	-23		-246
Transfer into lifetime ECL not credit impaired (Stage 2)	-21,577	-73	22,382	474	-805	-81		320
Transfer into lifetime ECL credit impaired (Stage 3)	-2,210	-6	-1,753	-135	3,964	1,113		972
Net remeasurement of loan loss provisions		-77		36		283		242
New financial assets originated or purchased	180,605	205					180,605	205
Financial assets that have been derecognised	-126,082	-103	-9,108	-162	-1,659	-137	-136,849	-402
Net drawdowns and repayments	-14,834		-4,807		1		-19,640	
Changes in models/risk parameters		15		2		-8		9
Increase in loan loss provisions		**-9**		**-39**		**1,147**		**1,099**
Write-offs	-1	-1	-2	-2	-1,027	-1,028	-1,030	-1,031
Recoveries of amounts previously written off						55		55
Foreign exchange and other movements		-1		-3		-41		-45
Closing balance	**816,928**	**490**	**41,082**	**881**	**10,955**	**3,275**	**868,965**	**4,646**

1 At the end of December 2019, the Gross carrying amounts included loans and advances to central banks (EUR 51.2 billion), loans and advances to banks (EUR 35.1 billion), financial assets at FVOCI (EUR 32.2 billion), securities at amortised cost (EUR 46.1 billion), loans and advances to customers (EUR 616.5 billion) and contingent liabilities (credit replacements) in scope of IFRS 9 (EUR 115.7 billion) and excludes receivables related to securities in reverse repurchase transaction (EUR -9.9 billion), cash collateral in respect of derivatives (EUR -10.2 billion), the value adjustment hedged items in respect of portfolio hedges (EUR -3.9 billion), a receivable that is offsetted by a liquidity facility (EUR -1.3 billion), de-netting of cash pool balances (EUR -1.8 billion) and other differences amounting to EUR -0.4 billion.
2 Stage 3 Lifetime credit impaired includes EUR 1 million Purchased or Originated Credit Impaired (2018: EUR 2 million).
3 At the end of December 2019, the stock of provisions included provisions for loans and advances to central banks (EUR 1 million), loans and advances to banks (EUR 9 million), financial assets at FVOCI (EUR 10 million), securities at amortised cost (EUR 10 million), provisions for loans and advances to customers (EUR 4,590 million) and provisions for contingent liabilities (credit replacements) recorded under Provisions (EUR 25 million).
4 The table is generated in 2019 for the first time, no comparable schedule for 2018 available.

The table above provides a reconciliation by stage of the gross carrying/nominal amount and allowances for loans and advances to banks and customers, including loan commitments and financial guarantees. The transfers of financial instruments represents the impact of stage transfers upon the gross carrying/nominal amount and associated allowance for ECL. This includes the net remeasurement of ECL arising from stage transfers, for example, moving from a 12-month (stage 1) to a lifetime (stage 2) ECL measurement basis.

The net remeasurement line represents the changes in provisions for facilities that remain in the same stage.

The following table shows the reconciliations from the opening to the closing balance of the loan loss provisions in 2018.

Changes in loan loss provisions

2018	Stage 1	Stage 2	Stage 3	Total
	Provisions	Provisions	Provisions	Provisions
Opening balance	**438**	**955**	**3,923**	**5,316**
Transfer into 12-month ECL (Stage 1)	19	-206	-23	-209
Transfer into lifetime ECL not credit impaired (Stage 2)	-62	501	-56	383
Transfer into lifetime ECL credit impaired (Stage 3)	-7	-86	707	615
Net remeasurement of loan loss provisions	17	-55	312	274
Changes in models/risk parameters				
New financial assets originated or purchased	213			212
Financial assets that have been derecognised	-101	-145	-341	-588
Increase in loan loss provisions	**80**	**9**	**599**	**688**
Write-offs			-1,043	-1,044
Recoveries of amounts previously written off			53	53
Foreign exchange and other movements	-18	-38	-390	-446
Closing balance	**501**	**925**	**3,141**	**4,568**

The following table provides the following information:

- Information on financial assets that were modified during the year (i.e. qualified as forborne) while they had a loss allowance measured at an amount equal to lifetime ECL (i.e. stage 2).
- Financial assets that were reclassified to stage 1 during the period.

Financial assets modified

	2019	2018
Financial assets modified during the period		
Amortised cost before modification	2,662	2,503
Net modification results	164	-50
Financial assets modified since initial recognition		
Gross carrying amount at 31 December of financial assets for which loss allowance has changed to 12-month measurement during the period	689	908

Sensitivity analysis of key sources of estimation uncertainty

The introduction of IFRS 9, with its inherent complexities and potential impact on the carrying amounts of our assets and liabilities, represents a key source of estimation uncertainty. In particular, the Bank's reportable ECL numbers are most sensitive to the forward-looking macroeconomic forecasts used as model inputs, the probability-weights applied to each of the three scenarios, and the criteria for identifying a significant increase in credit risk. As such, these crucial components require consultation and management judgement, and are subject to extensive governance.

Forward-looking macroeconomics used as model inputs

As a baseline for IFRS 9, ING Bank uses the consensus outlook for economic variables. The Oxford Economics' Global Economic Model (OEGEM) is then used to complement the consensus with consistent projections for variables for which there are no consensus estimates available (most notably House Price Index (HPI) and unemployment), and to ensure general consistency of the scenarios.

The Group's consensus view of the baseline scenario suggests economic growth will level off over the initial (three year) forecast period, as the pace of expansion in the main advanced economies and emerging markets is expected to wane. For the eurozone, as output gaps close and monetary policy begins to normalise, growth is expected to decline. For the US, the near-term outlook is still positive. The Group continues to monitor the potential escalation of an international trade conflict, and the likely outcome of any Brexit deal, which, at present remains unclear.

The downside scenario sees a relatively synchronised global downturn with economic growth in advanced economies falling close to zero, and emerging markets suffering a pronounced slowdown. The upside scenario sees economic growth returning to rates not seen since the financial crisis and a return to pre-crisis unemployment rates.

The relevance and selection of macro-economic variables is defined by the ECL models under credit risk model governance. The scenarios are reviewed and challenged by two panels. The first panel consists of economic experts from Global Markets Research and Risk and Modelling specialists, while the second panel consists of relevant senior managers.

Probability weights applied to each of the three scenarios

The alternative scenarios are technically based on the forecast errors of the OEGEM. To understand the baseline level of uncertainty around any forecast, Oxford Economics keeps track of all its forecast errors of the past 20 years. The distribution of forecast errors for GDP, unemployment, house prices and share prices is applied to the baseline forecast creating a broad range of alternative outcomes. In addition, to understand the balance of risks facing the economy in an unbiased way, Oxford Economics runs a survey with respondents from around the world and across a broad range of industries. In this survey the respondents put forward their views of key risks. Following the survey results, the distribution of forecast errors (that is being used for determining the scenarios) may be skewed.

For the downside scenario, ING has chosen for the 90th percentile of that distribution because this corresponds with how within risk management earnings at risk is defined within the Group. The upside scenario is represented by the 10th percentile of the distribution. The distribution of the scenarios, taking into account the applicable percentile of the distribution, results in the upside and downside scenario being weighted at 20% each. Consequently, the base case scenario has a 60% probability weighting. Please note that, given their technical nature, the downside scenario and upside scenario are not explicitly based on a specific narrative.

Based on the above two sources of estimation uncertainty, analysis on the sensitivity of key forward-looking macroeconomic inputs used in the ECL collective-assessment modelling process and the probability-weights applied to each of the three scenarios is presented below. The countries included in the analysis are the Group's most significant geographic regions, in terms of both gross contribution to reportable ECL, and sensitivity of ECL to forward-looking macroeconomics. Accordingly, the Group considers these portfolios to present the most significant risk of resulting in a material adjustment to the carrying amount of financial assets within the next financial year. The Group also observes that, in general, the Wholesale business is more sensitive to the impact of forward-looking macroeconomic scenarios.

Real GPD, unemployment rate and HPI (in that order) are considered the variables with the largest impact on the LLP. Exposure class based the largest impact is observed in Corporates, followed by Retail Mortgages, SMEs and Retail non-SMEs. This is supported by statistical analysis. These forward-looking macroeconomics (among others) are used in the calculation of the Group's un-weighted ECLs, to which are applied the probability-weightings as disclosed, to arrive at the reportable ECL for collectively-assessed assets. While the table does give a high-level indication of the sensitivity of the outputs to the different scenarios, it does not provide insight on the interdependencies and correlations between different macroeconomic variable inputs. Furthermore, in addition to forward-looking macroeconomics, there are a number of other model inputs and processes which contribute to the calculation of un-weighted ECLs. Any sensitivity analysis which relies on this data should consider these complexities.

Sensitivity analysis[1,2,3]

		2020	2021	2022	Un-weighted ECL (Eur mln)	Probability-weighting	Reportable ECL (Eur mln)[4]
Netherlands							
Upside scenario	Real GDP	2.3	3.5	3.2			
	Unemployment	2.8	2.4	2.3	370	20%	
	HPI	14.1	11.3	2.9			
Baseline Scenario	Real GDP	1.4	1.5	1.6			
	Unemployment	3.6	3.9	4.2	416	60%	428
	HPI	3.3	2.9	2.8			
Downside scenario	Real GDP	-0.7	-0.9	0.5			
	Unemployment	5.0	6.3	7.1	520	20%	
	HPI	-7.5	-7.0	2.7			
Germany							
Upside scenario	Real GDP	2.6	2.8	1.8			
	Unemployment	2.4	1.7	1.4	458	20%	
	HPI	9.7	7.0	6.4			
Baseline Scenario	Real GDP	0.8	1.1	1.3			
	Unemployment	3.2	3.2	3.3	495	60%	502
	HPI	6.1	3.5	2.9			
Downside scenario	Real GDP	-1.2	-1.7	0.5			
	Unemployment	4.3	4.8	5.2	567	20%	
	HPI	2.5	-0.3	-1.1			
Belgium							
Upside scenario	Real GDP	2.3	2.6	2.0			
	Unemployment	5.5	5.4	5.3	323	20%	
	HPI	5.1	4.2	4.3			
Baseline Scenario	Real GDP	1.1	1.2	1.3			
	Unemployment	5.8	5.9	6.1	350	60%	357
	HPI	3.5	3.4	3.4			
Downside scenario	Real GDP	-0.4	-0.2	1.0			
	Unemployment	7.5	8.4	8.4	411	20%	
	HPI	1.5	2.6	2.4			
United States							
Upside scenario	Real GDP	2.6	4.1	3.8			
	Unemployment	2.6	1.7	1.5	74	20%	144
	HPI	5.0	8.0	8.1			
Baseline Scenario	Real GDP	1.8	1.8	1.9			
	Unemployment	3.7	3.7	3.8	127	60%	
	HPI	2.6	2.6	2.8			
Downside scenario	Real GDP	-0.6	-0.5	0.3			
	Unemployment	5.2	6.5	7.1	267	20%	
	HPI	0.1	-3.1	-3.4			

1 Real GDP, in % year-on-year change
2 Unemployment in % of total labour force
3 House price index (HPI) in % year-on-year
4 Sensitivity does not include the effect of manual adjustments, which are not material

Criteria for identifying a significant increase in credit risk

All assets and off-balance sheet items are in scope of IFRS 9 impairment and which are subject to collective ECL assessment are allocated a 12-month ECL if deemed to belong in Stage 1, or a lifetime ECL if deemed to belong in Stages 2 and 3. An asset belongs in Stage 2 if it is considered to have experienced a significant increase in credit risk since initial origination or purchase. The stage allocation process involves an asset's derived scenario weighted average PD being assessed against a set of PD threshold bandings, which determines the appropriate staging and ECL. Stage 2 is triggered when either a threshold for absolute change in lifetime PD or relative change in lifetime PD is hit. The thresholds for the absolute change in lifetime PD vary between 75bps for Retail portfolios, 100bp for Wholesale and 250bps for SMEs, based on the characteristics of the specific portfolio. The threshold for the relative change in LT PD are inversely correlated with the PD at origination; the higher the PD at origination, the lower the threshold. Despite this, the relative threshold is punitive for Investment grade assets while the absolute threshold primarily affects Speculative grade assets. The Group reports total ECL collective-assessment of EUR 1,291 million (2018: EUR 1,391 million).

The setting of PD threshold bandings requires management judgement, and is a key source of estimation uncertainty. To demonstrate the sensitivity of the ECL to these PD thresholds bandings, analysis was run on all collectively-assessed assets, which assumed all assets were below the threshold, and apportioned a 12 month ECL. On the same asset base, analysis was run which assumed all performing assets were above the threshold, and apportioned a lifetime ECL. This gave rise to a hypothetical collective-assessment ECLs of EUR 866 million (2018: EUR 888 million) and EUR 2,665 million (2018: EUR 3,333 million) respectively. Please note that in this analysis all other ECL risk parameters (except for the stage) were kept equal.

It should be noted that the lifetime PD thresholds are not the only drivers of stage allocation. An asset can change stages by virtue of being in arrears, on a Watch List, being forborne etc. Refer to section 1.6.8 of Note 1 'Accounting Policies' for an exhaustive list. Furthermore, this analysis is rudimentary in that other parameters would change when an asset changes stages.

Market risk

Introduction

Market risk is the risk that movements in market variables, such as interest rates, equity prices, foreign exchange rates, credit spreads and real estate prices negatively impact the bank's earnings, capital, market value or liquidity position. Market risk either arises through positions in banking books or trading books. The banking book positions are intended to be held for the long-term (or until maturity) or for the purpose of hedging other banking book positions. The trading book positions are typically held with the intention of short-term trading or in order to hedge other positions in the trading book. This means that financial instruments in the trading books should be free of trade restrictions. Policies and processes are in place to monitor the inclusion of positions in either the trading or banking book as well as to monitor the transfer of risk between the trading and banking books.

ING recognises the importance of sound market risk management and bases its market risk management framework on the approach to identify, assess, control and manage market risks. The approach consists of a cycle of five recurring activities: risk identification, risk assessment, risk control, risk monitoring and risk reporting.

- Risk identification is a joint effort of the first and second lines of defence out of the three lines of the defence. The goal of risk identification is to detect potential new risks and any changes in known risks. See the Risk Governance paragraph under the Group risk Management section for more on our "three lines of defence" governance model;
- Identified risks are assessed and measured by means of various risk metrics to determine the importance of the risk to ING and subsequently to identify the control measures needed;
- Risk control measures used by ING include policies, procedures, minimum standards, limit frameworks, buffers and stress tests;
- Risk monitoring occurs to check if the implemented risk controls are executed, complied with across the organisation, and are effective; and
- Market risk management results and findings are reported to the necessary governing departments and approval bodies.

Governance

A governance framework has been established defining specific roles and responsibilities of business management units, market risk management units, and internal approval bodies per activity.

Supervision of market risk falls under the responsibility of the MBB and is delegated to the ALCO function, where ALCO Bank is the highest approval authority and sets the market risk appetite. ALCO Bank monitors ING's adherence to the risk appetite for market risk and sets additional limits where appropriate. These limits are cascaded through the organisation through lower level ALCOs. This ALCO structure facilitates top-down risk management, limit setting, and the monitoring and control of market risk.

The monitoring and control of market risk is the responsibility of the Financial Risk (FR) department and Financial Institutions – Financial Markets (FI-FM) Risk. FR and FI-FM Risk are the designated departments of the second line of defence that report to the CRO function and are responsible for the design and execution of the bank's market risk and counterparty credit risk management functions in support of the ALCO function. FR focuses on the market risks in the banking books, whereas FI-FM Risk is responsible for counterparty credit risk and market risks resulting from the Financial Markets trading books. FR and FI-FM Risk are responsible for determining adequate policies and procedures for actively managing market risk in the banking and trading books and for monitoring ING's compliance with these guidelines.

FR and FI-FM Risk also maintain a limit framework in line with ING's Risk Appetite Framework. The businesses are responsible for adhering to limits that are ultimately approved by the ALCO Bank.

Limit excesses are reported to senior management on a timely basis and the business is required to take appropriate actions to reduce the risk position. To adhere to the established limit framework, ING implements hedging and risk mitigation strategies that range from the use of traditional market instruments, such as interest rate swaps, to more sophisticated hedging strategies to address a combination of risk factors arising at the portfolio level.

The organisational structure facilitates top-down risk management by recognising that risk taking and risk management to a large extent occur at the regional/local level. Bottom-up reporting from regional/local units to head office units allows each management level to fully assess the market risks relevant at the respective levels.

Several committees govern communication between the parties involved in market risk management. These committees have a functional reporting line to ALCO Bank, which derives its global discretion from the ING Group Decision Structure and as such is the highest level ING Bank body with the exception of the Management Board Banking (MBB). The Market Risk Model Committee (MRMC) is the dedicated authority within ING for the approval of all trading and banking risk models, methodologies and parameters related to market risk. The Trading Pricing Model Committee (TPMC) approves pricing models for trading and banking books. Financial Risk and FI-FM Risk departments provide systematic risk reporting to the EB and MBB, the senior executive management of the CRO function and the senior executive management of related business functions.

The FI-FM Risk Management Framework governs the boundary between trading books and banking books. It defines the activities ING considers to be trading according to a regulatory definition and for own funds requirement purposes. The trading activity is systematically reviewed and positions are assessed against the mandates jointly by the first and second lines of defence. As specified in the framework, the transfer of risk or the transfer of positions between banking and trading books is in principle not allowed but in exceptional cases when a re-designation is deemed necessary, the re-designation should be approved by senior management.

The following market risk paragraphs elaborate on the various elements of the risk management framework for:

- Market risk economic capital (trading and banking books);
- Market risks in banking books; and
- Market risks in trading books.

Market risk economic capital (trading and banking books)

Economic capital for market risk is the economic capital necessary to withstand unexpected value movements due to changes in market variables and model risk.

Economic capital for market risk is calculated for exposures both in trading portfolios and banking portfolios and includes interest rate risk, credit spread risk, equity price risk, foreign exchange rate risk, real estate risk, model risks and pension risk. Economic capital for market risk is calculated using internally developed methodologies with a 99.9% confidence level and a horizon of one year.

For the trading books and the linear interest rate risk and equity investments in the banking books, the Value at Risk (VaR) is taken as a starting point for the economic capital calculations for market risk. The VaR is measured at a 99% confidence level, a one day holding period.

To arrive at the economic capital for market risk, a simulation based model is used which includes scaling to the required confidence level and holding period. In determining this scaling factor, other factors are also taken into account like the occurrence of large market movements (events).

Embedded options, e.g. the prepayment option and offered rate option in mortgages in the banking books, result in non-linear interest rate risk in the banking books. The embedded options are economically hedged using a delta-hedging methodology, leaving the mortgage portfolio exposed to convexity risk, volatility risk and model risk. For the calculation of economic capital for this non-linear interest rate risk, ING performs a Monte Carlo simulation.

Real estate price risk includes the market risks in both the real estate investment and the development portfolio of the ING Wholesale Banking business line. The economic capital for real estate price risk is calculated by stressing the underlying market variables.

While aggregating the different economic capital market risk figures for the different portfolios, diversification benefits (based on stressed correlations) are taken into account as it is not expected that all extreme market movements will appear at the same moment.

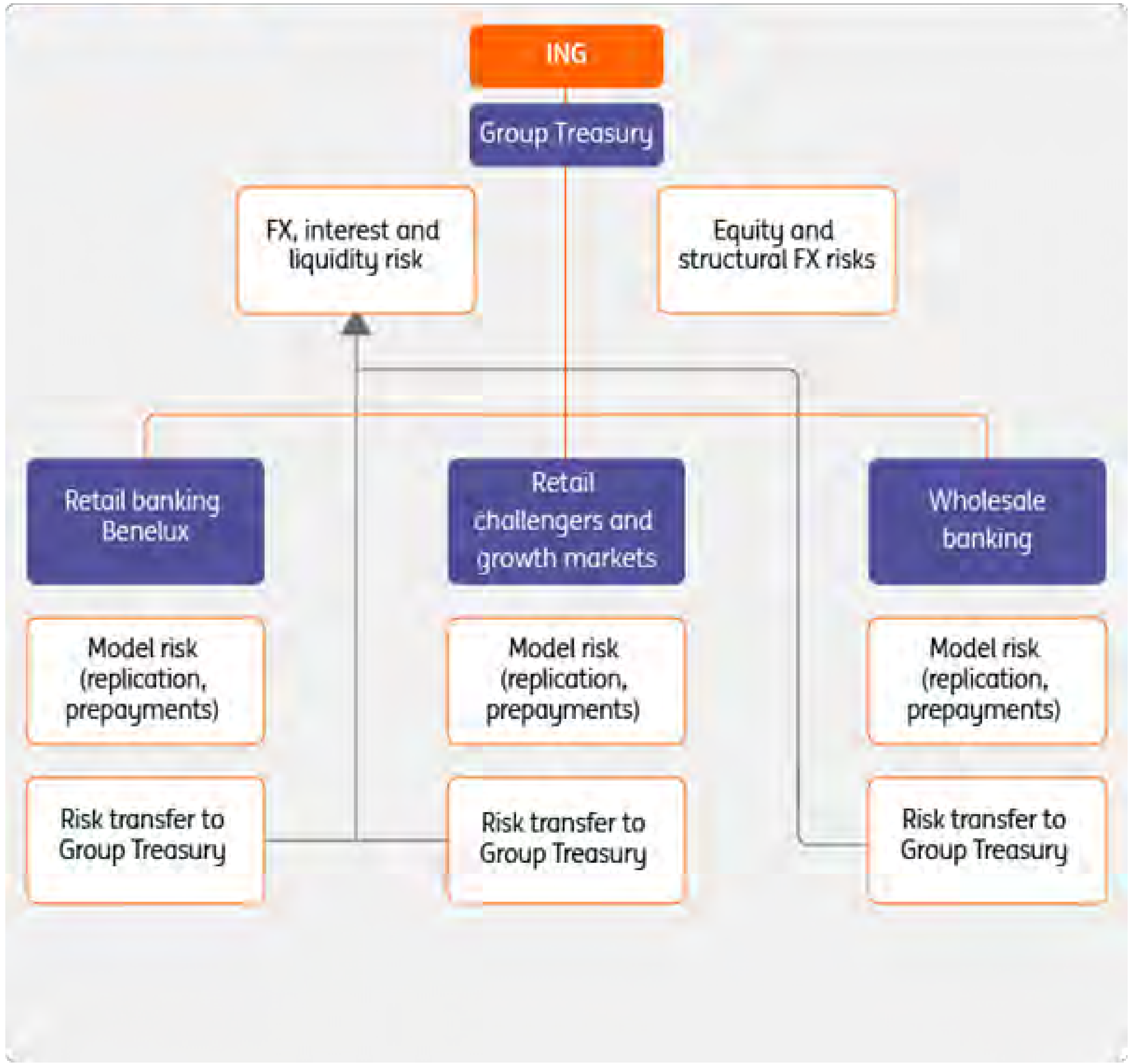
Market risk in banking books

ING makes a distinction between the trading and banking (non-trading) books. Positions in banking books originate from the market risks inherent in commercial products that are sold to clients, Group Treasury exposures, and from the investment of our own funds (core capital). Both the commercial products and the products used to hedge market risk exposures in these products are intended to be held until maturity, or at least for the long-term.

Risk transfer

An important element of the management of market risks in the banking book is the risk transfer process. In this process the interest rate, FX, funding and liquidity risks are transferred from the commercial books through matched funding to Group Treasury, where it is centrally managed. The scheme below presents the transfer and management process of market risks in the banking books:

Risk transfer



Risk measurement

The main concepts and metrics used for measuring market risk in the banking book are described below per risk type.

Interest rate risk in banking book

Interest rate risk in the banking book is defined as the exposure of a bank's earnings, capital, and market value to adverse movements in interest rates originated from positions in the banking book.

Governance

The management of interest rate risk follows the Interest Rate Risk in the Banking Book (IRRBB) framework as approved by ALCO Bank. This framework describes roles, responsibilities, risk metrics, the policies and procedures related to interest rate risk management. Furthermore ALCO Bank sets the risk appetite for interest rate risk, which is then translated into limits for the interest rate risk metrics.

ING's approach to interest rate risk management, as set forth in this framework, is the centralisation of risks from commercial books (that capture the products sold to clients) to globally managed interest rate risk books. This enables a clear demarcation between commercial business results and results on unhedged interest rate positions.

ING distinguishes between three types of activities that generate interest rate risk in the banking book:

- Investment of own funds (by Group Treasury);
- Commercial business (e.g. Retail business); and
- The strategic interest rate position (Group Treasury).

Below the three activities are described in more detail:

Group Treasury is responsible for managing the investment of own funds (core capital), more information can be found in the Capital Management section. Capital is invested for longer periods to keep earnings stable.

The commercial activities can result in linear interest rate risk, for example, when re-pricing tenors of assets differ from those of liabilities. Also, interest rate risk can arise from customer behaviour depending on the nature of the underlying product characteristics. Customer behaviour risk is defined as the potential future value loss due to deviations in the actual behaviour of clients versus the modelled behaviour towards the embedded options in commercial products. General sources of customer behaviour risk include the state of the economy, competition, changes in regulation, legislation and tax regime, and developments in the housing market. Since these risk factors cannot be (fully) mitigated, ING holds capital to be able to absorb possible losses as a result of changed customer behaviour.

From an interest rate risk perspective, commercial activities can typically be divided into three main product types: savings and demand deposits, mortgages, and loans.

- Savings and demand deposits are generally invested with the goal to hedge their value and minimize the sensitivity of the margin to market interest rates. Interest rate risk can arise when there is a lag between savings rate adjustments and the adjustments experienced through market rates or when market rate changes cannot be passed on to clients. Interest rate risk is modelled based on the stability of the deposit and the pass through rate. This takes into account different elements, such as pricing strategies, volume developments and the level and shape of the yield curve. Savings volumes are typically assumed not to be sensitive to interest rate shocks;
- Interest rate risk for mortgages arises through prepayment behaviour. In modelling this risk, interest rate dependent pre-payments are considered. Next to the dependence on interest rates, modelled prepayment may include other effects such as loan to value, seasonality and the reset date of the loan. In addition, the interest sensitivity of embedded offered rate options is considered; and

- Wholesale Banking loans typically do not experience interest rate prepayment behavior as they are hedged from an interest rate risk perspective and therefore do not contain significant fixed rate convexity risk.

Customer behaviour in relation to mortgages, loans, savings and demand deposits is modelled, based on extensive research. Per business unit and product type, exposures are typically segmented into different portfolios based on expected client behaviour. For each of the segments, model parameters for example for the pass through rate and customer behaviour are determined based on historical data and expert opinion. Models are back tested and updated when deemed necessary. Model parameters and the resulting risk measures are approved by (local) ALCO.

Linear interest rate risk is transferred from the commercial business to the treasury book (Group Treasury), if necessary, using estimations of customer behaviour. The originating commercial business is ultimately responsible for estimating customer behaviour, leaving convexity risk and (unexpected) customer behaviour risk with the commercial business. Risk measurement and the risk transfer process take place on a monthly basis, but more often if deemed necessary, for instance in volatile markets.

The commercial business manages the convexity risk that is the result of products that contain embedded options, like mortgages. Here the convexity risk is defined as the optionality effects in the value due to interest rate changes, excluding the first-order effects. In some cases, convexity risk is transferred from the commercial books to treasury books using cap/floor contracts.

Group Treasury manages the strategic interest rate position including capital investments. The main objective is to maximise the economic value of the book and to generate adequate and stable annual earnings within the risk appetite boundaries set by ALCO Bank.

In the following sections, the interest rate risk exposures in the banking books are presented. ING uses risk measures based on both an earnings and a value perspective. Net Interest Income (NII)-at-Risk is used to provide the earnings perspective and the Net Present Value (NPV)-at-Risk and Basis Point Value (BPV) figures provide the value perspective. Please note that corrective management actions are not taken into account in these figures although price adjustments are included in the earnings risk measure.

During 2019, the following refinements to the risk measurement for Interest Rate Risk in the Banking Book were made:

- Review of the risk appetite for Interest Rate Risk for the Banking Book;
- Annual review of the interest rates scenarios used for calculating NII-a-Risk and NPV-at-Risk; and
- Savings model updates for market developments.

Net Interest Income (NII) at Risk

NII-at-Risk measures the impact of changing interest rates on (before tax) net interest income of the banking book with a time horizon of one year. This excludes credit spread sensitivity and longer term earnings impact. The NII-at-Risk figures in the tables below reflect a parallel interest rate shock with a time horizon of one year. Next to parallel scenarios, IRRBB monitoring and management includes the impact of non-parallel scenarios and the impact over a longer horizon. The NII-at-Risk asymmetry between the downward and upward ramped scenarios (gradual shock ≈ +/-100bps) is primarily caused by the convexity risk in the mortgage and savings portfolio due to the embedded options and pricing constraints.

NII-at-Risk banking books per business - year 1

	2019		2018	
	Ramped, unfloored		Ramped, unfloored	
	parallel ▼	parallel ▲	parallel ▼	parallel ▲
By business				
Wholesale Banking	–12	12	–204	239
Retail Banking Benelux	–91	40	–49	22
Retail Challengers & Growth Markets	–3	–3	165	–186
Corporate Line Banking	–30	30	–30	30
Total	**–136**	**79**	**–119**	**106**

The NII-at-Risk is mainly influenced by the sensitivity of savings to interest rate movements due to pass through rate differences between savings rates and investment yields, but is partially offset by the sensitivity of mortgages. The investment of own funds only impacts the earnings sensitivity marginally, as only a relatively small part has to be (re)invested within the 1-year horizon.

NII-at-Risk banking book per currency - year 1

	2019		2018	
	Ramped, unfloored		Ramped, unfloored	
	parallel ▼	parallel ▲	parallel ▼	parallel ▲
By currency				
Euro	-134	65	-81	60
US Dollar	25	-24	20	-20
Other	-27	39	-57	65
Total	**-136**	**79**	**-119**	**106**

Year-on-year variance analysis

The change in NII-at-Risk is mainly visible for Retail Banking Benelux and Retail Challengers & Growth Markets. This is driven by the savings model updates for market developments in ING Belgium, ING Germany, ING Netherlands, ING Spain and ING Poland. The annual update of the interest rate scenarios also led to a limited increase in the NII-a-Risk for year 1.

Net Present Value (NPV) at Risk

NPV-at-Risk measures the impact of changing interest rates on value. The NPV-at-Risk is defined as the outcome of an instantaneous increase and decrease in interest rates from applying currency specific scenarios. The NPV-at-Risk asymmetry between the downward and upward shock is primarily caused by convexity risk in the mortgage and savings portfolio. The NPV-at-Risk figures are also calculated using the updated interest rate scenarios.

The full value impact cannot be directly linked to the financial position or profit or loss account, as fair value movements in banking books are not necessarily reported through the profit or loss account or through Other Comprehensive Income (OCI). The value mutations are expected to materialise over time in the profit and loss account if interest rates develop according to forward rates throughout the remaining maturity of the portfolio.

NPV-at-Risk banking books per business line

	2019		2018	
	unfloored		unfloored	
	parallel ▼	parallel ▲	parallel ▼	parallel ▲
By business				
Wholesale Banking	182	400	-55	134
Retail Banking Benelux	–1,431	268	–1,344	-269
Retail Challengers & Growth Markets	-259	-452	-521	-54
Corporate Line Banking	-	-	-38	35
Total	**–1,508**	**216**	**–1,958**	**–153**

The asymmetry between the NPV-at-Risk for a downward and an upward shock scenario is primarily caused by the convexity risk, which arises from (embedded) optionality in the savings and mortgage portfolio.

Year-on-year variance analysis

The change in NPV-at-Risk for Retail Banking Benelux was driven by updates in the savings model to reflect the most recent market developments in The Netherlands and Belgium. The internal view on capital replication of the own funds long-term investments is included in the NPV-at-Risk figures. Only a mismatch from the target investment profile results in NPV-at-Risk.

IBOR Transition

Interbank offered rates, such as Euribor and Libor, are widely used as benchmarks to set interest rates across a broad range of financial products and contracts. The financial markets are going through a significant reform and financial institutions are obligated to implement a replacement of these major interest rate reference rates. In line with recommendations from the Financial Stability Board, a fundamental review and reform of the major interest rates benchmarks has been undertaken. For the Eurozone, this led to a reform of the EURIBOR benchmark rate and development of €STR as the recommended new nearly risk free rate to replace EONIA. For LIBOR benchmarks the reform will include replacing interest rate benchmarks with alternative, nearly risk-free rates. This process is at different stages, and is progressing at different speeds, across several major currencies.

ING is currently making the necessary preparations for the potential cessation and transition of IBORs in the years to come, where we take 2022 as the potential first date that this could materialise. Due to the many uncertainties the overall IBOR transition still faces, at this stage the potential impact of this major event on ING's credit risk profile, business model and funding profiles is not entirely clear. We would like to underline however that ING is aware of the significant impact of this transition and is therefore putting all efforts into making sure that it is properly prepared for this transition in a timely manner. For this purpose, ING has established a global program across all areas of the bank to coordinate ING's transition activities and to assess the potential risks and impacts of any transition. It is a multi-year global program that encompasses various workstreams and departments including the client facing teams, Legal, Finance, Operations and IT.
The following interest rate benchmarks are in scope of ING's IBOR transition program: GBP LIBOR, USD LIBOR, EUR LIBOR, EURIBOR, EONIA, CHF LIBOR and JPY LIBOR.

ING is pro-actively reaching out to industry participants, counterparties and clients to create awareness and support on the upcoming transition.

Given that IBOR reform may have various accounting implications, the International Accounting Standards Board (IASB) has commenced a two phase project. Phase 1 addresses those issues that affect financial reporting before the replacement of an existing benchmark and Phase 2 focuses on issues that may affect financial reporting when the existing benchmark rate is reformed or replaced. In 2019, ING early adopted the amendments to IFRS issued by the IASB as part of Phase 1 (refer to section 1.6.5 of Note 1 of the financial statements). Refer to Note 39 'Derivatives and hedge accounting' for the disclosure requirements relating to the application of the amendments as part of Phase 1. Phase 2 of the project is still ongoing and focusses on, amongst others, accounting for changes to contracts due to the IBOR reform and impact on hedge accounting. ING continues to monitor the progress of Phase 2 of the project and will assess the impact as more information becomes available.

Foreign exchange (FX) risk in banking books

FX exposures in banking books result from core banking business activities (business units doing business in currencies other than their base currency), foreign currency investments in subsidiaries (including realised net profit and loss), and strategic equity stakes in foreign currencies. The policy regarding these exposures is briefly explained below.

Governance – Core banking business

Every business unit hedges the FX risk resulting from core banking business activities into its base currency. Consequently, assets and liabilities are matched in terms of currency.

Governance – FX translation result

ING's strategy is to keep the target CET1 ratio within a certain range when FX rates fluctuate, whilst limiting the volatility in the profit and loss account. Therefore, hedge accounting is applied to the largest extent possible. Taking this into account, the CET1 ratio hedge can be achieved by deliberately taking foreign currency positions equal to certain target positions, such that the target CET1 capital and risk-weighted assets are equally sensitive in relative terms to changing FX rates. For a selection of emerging market currencies ING decided not to enter into foreign currency hedges as allowed under the policy.

Risk profile – FX translation result

The following table presents the currency exposures in the banking books for the most important currencies for the FX translation result. Positive figures indicate long positions in the respective currency. As a result of the strategy to hedge the CET1 ratio a net foreign currency exposure exists.

In order to measure the sensitivity of the target CET1 ratio against FX rate fluctuations, the Historical Value at Risk is used based on historical series of last year's FX rates. It measures the drop in the CET1 ratio from the target based on historical FX rates. Based on these time series and with a probability of 10%, the drop in the CET1 ratio would be 0.09%.

Net banking currency exposures banking books

	Foreign Investments		Hedges		Net exposures	
	2019	2018	2019	2018	2019	2018
US Dollar	**8,031**	5,794	**–11**	–1	**8,020**	5,793
Pound Sterling	**–22**	614			**–22**	614
Polish Zloty	**2,522**	2,563	**–278**	–526	**2,244**	2,036
Australian Dollar	**3,565**	3,569	**–2,033**	–2,398	**1,532**	1,171
Turkish Lira	**1,337**	1,219			**1,337**	1,219
Chinese Yuan	**2,255**	2,208			**2,255**	2,208
Indian Rupee		917				917
Russian Rouble	**540**	460	**–85**	–101	**455**	359
Other currency	**4,742**	4,462	**–1,834**	–2,057	**2,907**	2,405
Total	**22,969**	21,806	**–4,242**	–5,084	**18,727**	16,722

The USD net exposure increased due to optimization of the capitalization and funding of the NY entity. In 2019, we reviewed and updated our methodology for specific CET1 deductibles. This drives the move in GBP net exposure and applies to the calculation of the FX Translation figures in the above table hence has no impact on the reported CET1 figure itself. ING sold its stake in Kotak Mahindra in February 2019 and therefore no longer has exposure on Indian Rupee.

Equity price risk in banking books

Governance

ING maintains a strategic portfolio with substantial equity exposure in its banking books. Local offices are responsible for the management of the equity investment positions. Financial Risk is responsible for monitoring the regulatory capital for equity investments on a monthly basis and acts independently from ING's Local management when monitoring these positions.

Risk Profile

Equity price risk arises from the possibility that an equity security's price will fluctuate, affecting the value of the equity security itself as well as other instruments whose value react similarly to the particular security, a defined basket of securities, or a securities index. ING's equity exposure mainly consists of the investments in associates and joint ventures of EUR 1,790 million (2018: EUR 1,044 million) and equity securities held at fair value through other comprehensive income (FVOCI) of EUR 2,306 million (2018: EUR 3,228 million). The value of equity securities held at FVOCI is directly linked to equity security prices with increases/decreases being recognized in the revaluation reserve. Investments in associates and joint ventures are measured in accordance with the equity method of accounting and the balance sheet value is therefore not directly linked to equity security prices.

Year-on-year variance analysis

The revaluation reserve relating to equity securities at FVOCI moved from EUR 1,914 million per year end 2018 to EUR 1,580 million per year end 2019. In 2019, the securities at FVOCI decreased by EUR 334 million following the full disposal of Kotak in the same year.

Revaluation reserve equity securities at fair value through other comprehensive income

	2019	2018
Positive re-measurement	1,582	1,923
Negative re-measurement	–2	–8
Total	**1,580**	**1,914**

Real Estate price risk in banking books

Real Estate price risk arises from the possibility that Real Estate prices fluctuate. This affects both the value of Real Estate assets and the earnings related to Real Estate activities.

Governance

Real Estate is a run-off business consisting of Real Estate Development and Real Estate Investment Management activities which are being wound down by sale of assets, strict execution of contract maturity, or through portfolio sales.

Market risk in trading books

Within the trading portfolios, positions are maintained in the financial markets. These positions are often a result of transactions with clients and may benefit from short-term price movements. In 2019, ING continued its strategy of undertaking trading activities to develop its client-driven franchise and deliver a differentiating experience by offering multiple market and trading products.

Governance

The Financial Markets Risk Committee (FMRC) is the market risk committee that, within the risk appetite set by ALCO Bank, sets market risk limits both on an aggregated level and on a desk level, and approves new products. FI-FM Risk advises both FMRC and ALCO Bank on the market risk appetite of trading activities.

With respect to the trading portfolios, FI-FM Risk focuses on the management of market risks of Wholesale Banking (mainly Financial Markets) as this is the only business line within ING where trading activities take place. Trading activities include facilitation of client business and market making. FI-FM Risk is responsible for the development and implementation of trading risk policies and risk measurement methodologies, and for reporting and monitoring risk exposures against approved trading limits. FI-FM Risk also reviews trading mandates and limits, and performs the gatekeeper role in the product review process. The management of market risk in trading portfolios is performed at various organisational levels. The FI-FM Risk Management Framework defines policies and procedures for the overall management of trading books. Trading activity is systematically reviewed and positions against the mandates are assessed jointly by the first and second lines of defence.

Risk measurement

ING uses a comprehensive set of methodologies and techniques to measure market risk in trading books: Value at Risk (VaR) and Stressed Value at Risk (SVaR), Incremental Risk Charge (IRC), and Event Risk (stress testing). Systematic validation processes are in place to validate the accuracy and internal consistency of data and parameters used for the internal models and modelling processes.

Value at Risk

FI-FM Risk uses the historical simulation VaR methodology (Hvar) as its primary risk measure. The HVaR for market risk quantifies, with a one-sided confidence level of 99%, the maximum overnight loss that could occur in the trading portfolio of ING due to changes in risk factors (e.g. interest rates, equity prices, foreign exchange rates, credit spreads, implied volatilities) if positions remain unchanged for a time period of one day. Next to general market movements in these risk factors, HVaR also takes into account market data movements for specific moves in e.g. the underlying issuer of securities. A single model that diversifies general and specific risk is used. In general, a full revaluation approach is applied, and for a limited number of linear trading positions and risk factors in commodity and equity risk classes a sensitivity-based approach is applied. The potential impact of historical market movements on today's portfolio is estimated, based on equally weighted observed market movements of the previous year (260 days). When simulating potential movements in risk factors, depending on the risk factor type, either an absolute or a relative shift is used. The data used in the computations is updated daily. ING uses HVaR with a one-day horizon for internal risk measurement, management control, and backtesting, and HVaR with a ten-day horizon for determining regulatory capital. To compute HVaR with a ten-day horizon the one day risk factor shifts are scaled by the square root of ten and then used as an input for the revaluation. The same model is used for all legal entities within ING with market risk exposure in the trading portfolio.

Limitations

HVaR has some limitations: HVaR uses historical data to forecast future price behaviour, but future price behaviour could differ substantially from past behaviour. Moreover, the use of a one-day holding period (or ten days for regulatory capital calculations) assumes that all positions in the portfolio can be liquidated or hedged in one day. In periods of illiquidity or market events, this assumption may not hold. Also, the use of a 99% confidence level means that HVaR does not take into account any losses that occur beyond this confidence level.

Backtesting

Backtesting is a technique for the ongoing monitoring of the plausibility of the HVaR model in use. Although HVaR models estimate potential future trading results, estimates are based on historical market data. In a backtest, the actual daily trading result (excluding fees and commissions) is compared with the one-day HVaR. In addition to using actual results for backtesting, ING also uses hypothetical results, which exclude the effects of intraday trading, fees, and commissions. When an actual or a hypothetical loss exceeds the HVaR, an 'outlier' occurs. Based on ING's one-sided confidence level of 99%, an outlier is expected once in every 100 business days. In 2019, there were five actual outliers i.e. occurrences of actual loss and four hypothetical outliers i.e. occurrences of hypothetical loss, when the daily trading loss exceeded the daily consolidated HVaR of ING. The outliers were driven by interest rates market moves mainly related to quantitative easing. ING reports the backtesting results on a quarterly basis to the ECB.

Stressed HVaR

The Stressed HVaR (SVaR) is intended to replicate the HVaR calculation that would be generated on the bank's current portfolio with inputs calibrated to the historical data from a continuous 12-month period of significant financial stress relevant to the bank's portfolio. To calculate SVaR, ING uses the same model that is used for 1DHVaR, with a ten-day horizon. The data for historical stress period used currently includes the height of the credit crisis around the fall of Lehman Brothers, and this choice is reviewed regularly. The historical data period is chosen so that it gives the worst scenario loss estimates for the current portfolio. The same SVaR model is used for management purposes and for regulatory purposes. The same SVaR model is used for all legal entities within ING with market risk exposure in the trading portfolio.

Incremental Risk Charge

The IRC for ING is an estimate of the default and migration risks for unsecuritised credit products in the trading book, over a one-year capital horizon, with a 99.9% confidence level. The same IRC model is used for all legal entities within ING with market risk exposure in the trading portfolio. Unsecuritised trading positions of ING, which are subject to specific interest rate risk included in the internal model approach for market risk regulatory capital, are in scope of the IRC model. By model choice, equity is excluded from the model. For the calculation of IRC, ING performs a Monte-Carlo simulation based on a Gaussian copula model. The asset correlations used in the Gaussian copula model are determined using the IRB correlation formula. The rating change is simulated for all issuers over the different liquidity horizons (i.e. time required to liquidate the position or hedge all significant risks) within one year. Movements across different rating categories and probabilities of default are governed by a credit-rating transition matrix. An external transition matrix is obtained from Standard & Poor's (S&P). The financial impact is then determined for the simulated migration to default, or for the simulated migration to a different rating category, based on LGD or credit spread changes, respectively.

The liquidity horizon has been set to the regulatory minimum of three months for all positions in scope. ING reviews the liquidity horizons regularly based on a structured assessment of the time it takes to liquidate the positions in the trading portfolio.

ING periodically assesses the compliance of the IRC model with regulatory requirements by performing gap analyses, substantiating the modelling choices, and quantifying the impact of alternative approaches.

Stress Testing and Event Risk

Stress Testing and Event Risk are valuable risk management tools. In addition to the bank-wide stress test framework as described in the stress testing section, FI-FM Risk performs structured stressed scenario tests under the Event Risk framework to monitor market risks under extreme market conditions. Event Risk is calculated because HVaR in general does not produce an estimate of the potential losses that can occur as a result of extreme market movements, i.e. beyond the confidence level. Event Risk evaluates the bank's financial stability under severe but plausible stress scenarios and assists in decision-making aimed at maintaining a financially healthy going-concern institution after a severe event occurs. Event Risk is based on historical as well as hypothetical extreme scenarios. The result is an estimate of the profit and loss caused by a potential event and its world-wide impact for ING. The Event Risk number for ING trading activity is generated on a weekly basis. Like for HVaR, risk appetite for Event Risk is limited by ALCO Bank.

ING's Event Risk policy is based on a large set of possible stress scenarios per risk type. In stress scenarios, shocks are applied to prices (credit spreads, interest rates, equity, commodities, and fx rates) and volatilities. Depending on the type of the stress test, additional scenario assumptions can be made, for example on correlations, dividends, or recovery rates. For example, for equity products both a crisis scenario (prices decrease) as well as a bull scenario (prices increase) are assumed. Scenarios are calculated based on events happening independently, jointly by region, or in all countries simultaneously. This way, for each risk type, a large set of scenarios is calculated. The worst scenarios per market are combined across markets by assessing both independent events per market, and the worst events happening in all markets at the same time.

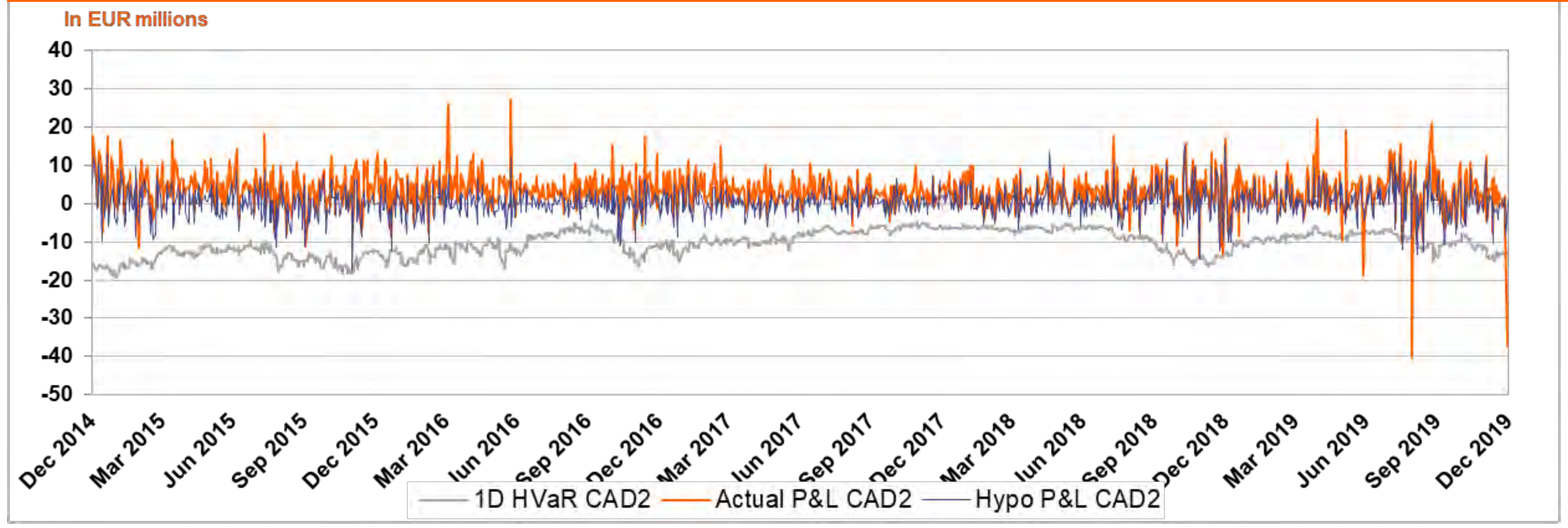
Other trading controls

HVaR and Event Risk limits are the most important limits to control the trading portfolios. Additionally, limits have been set on SVaR and IRC. Furthermore, ING uses a variety of other controls to supplement these limits. Position and sensitivity limits are used to prevent large concentrations in specific issuers, sectors, or countries. Moreover, other risk limits are set with respect to the activities in complex derivatives trading. The market risk of these products is controlled by product specific limits and constraints.

Risk profile

The following chart shows the development of the overnight HVaR under a 99% confidence level and a one-day horizon versus actual and hypothetical daily trading profits and losses. In calculation of the hypothetical daily profit and loss, the trading position is kept constant and only the market movement is taken into account. The overnight HVaR is presented for the ING trading portfolio from 2014 to 2019.

EU MR4: Consolidated trading HVaR[1]



1 CVA risk is not included in VaR.

The risk figures in the backtesting graph above and in the table below relate to all trading books for which the internal model approach is applied, i.e. all trading books, including Credit Exposure Management books.

1d VaR for Internal Model Approach trading portfolios[3]

	Minimum		Maximum		Average		Year end	
amounts in millions of euros	2019	2018	2019	2018	2019	2018	2019	2018
Interest rate [1]	3	3	13	7	6	5	12	4
Equity and commodity	1	1	7	10	2	3	1	7
Foreign exchange	1	1	11	10	2	4	1	9
Credit spread	4	3	7	6	6	4	5	6
Diversification [2]					–6	–8	–6	–13
Total VaR	**6**	**5**	**15**	**16**	**10**	**9**	**13**	**13**

1 For calculation of HVaR per risk class the full valuation is performed according to HVaR methodology using a set of scenario changes for the risk factors for the particular risk class, while risk factors for all other risk classes are kept unchanged.
2 The total HVaR for the columns Minimum and Maximum cannot be calculated by taking the sum of the individual components since the minimum/maximum observations for both the individual markets as well as for total HVaR may occur on different dates. Therefore, diversification is not calculated for the minimum and maximum categories.
3 CVA risk is not included in VaR.

Average 1D/10D HVaR, 10D SVaR and IRC over 2019 are in line with the average over 2018. The average for foreign exchange decreased compared to 2018 while credit spread increased compared to 2018, both driven by portfolio changes. The VaR at the period end of 2019 and 2018 was EUR 13 million, however the asset class decomposition changed significantly. The risk moved from foreign exchange and equity and commodity towards interest rate asset class.

EU MR3: Internal Model Approach values for trading portfolios

amounts in millions of euros		2019	2018
VaR (10 day 99%)			
1	Maximum value	42	46
2	Average value	27	25
3	Minimum value	16	15
4	Period end	33	40
Stressed VaR (10 day 99%)			
5	Maximum value	126	139
6	Average value	72	73
7	Minimum value	47	41
8	Period end	76	124
Incremental Risk Charge (99.9%)			
9	Maximum value	169	107
10	Average value	76	62
11	Minimum value	42	40
12	Period end	64	58
Comprehensive Risk capital charge (99.9%)			
13	Maximum value	n/a	n/a
14	Average value	n/a	n/a
15	Minimum value	n/a	n/a
16	Period end	n/a	n/a

Regulatory Capital

According to the Capital Requirements Regulation (CRR/CRD IV), regulatory capital (own funds requirements) for market risk can be calculated using the standardised approach or an internal model approach. ING received regulatory approval to use an internal model to determine the regulatory capital for the market risk in all trading books of ING. Market risk capital of trading books is calculated according to the CRR, using internal HVaR, SVaR, and IRC models, where diversification is taken into account. Capital for foreign exchange risk from the banking books and for Collective Investment Undertakings (CIUs) exposures in trading books are calculated using Standardised Approach with fixed risk weights. ING does not have a correlation trading portfolio or any other securitisations in the trading book.

Standardised Approach

EU MR1: Market risk under Standardised Approach

amounts in EUR millions		2019 RWA	2019 Capital requirements	2018 RWA	2018 Capital requirements
Outright products					
1	Interest rate risk (general and specific)	14	1		
2	Equity risk (general and specific)				
3	Foreign exchange risk			1,131	90
4	Commodity risk				
Options					
5	Simplified approach				
6	Delta-plus method				
7	Scenario approach				
8	Securitization (specific risk)				
9	**Total**	14	1	1,131	90

The MRWA under Standardised Approach decreased significantly compared to 4Q2018. At the beginning of 2019 an important FX position in the banking book was closed causing the FX exposure to decrease below the 2% own funds threshold. According to Art. 351 CRR, in such a case, the calculation of Market Risk regulatory capital is not required. As of 3Q2019, CIU exposures in trading books are capitalised in Market risk under Standardised Approach under interest rate specific risk and foreign exchange risk categories.

Internal Model Approach

Market risk Regulatory Capital increased during the 2019 compared to 2018. The increase is driven by an increase in IRC, while VaR and SVaR slightly decreased. IRC capital increased as a result of changes in the portfolio in combination with credit spread movements.

EU MR2-A: Market risk under Internal Model Approach

amounts in EUR millions		2019 RWA	2019 Capital requirements	2018 RWA	2018 Capital requirements
1	**VaR (higher of values a and b)**	**1,261**	**101**	**1,394**	**112**
(a)	Previous day's VaR (Article 365(1) (VaRt-1))	404	32	529	42
(b)	Average of the daily VaR (Article 365(1)) on each of the preceding sixty business days (VaRavg) x multiplication factor ((mc) in accordance with Article 366)	1,261	101	1,394	112
2	**SVaR (higher of values a and b)**	**3,011**	**241**	**3,217**	**257**
(a)	Latest SVaR (Article 365(2) (sVaRt-1))	902	72	1,486	119
(b)	Average of the SVaR (Article 365(2) during the preceding sixty business days (sVaRavg) x multiplication factor (ms) (Article 366)	3,011	241	3,217	257
3	**Incremental risk charge -IRC (higher of values a and b)**	**1,278**	**102**	**767**	**61**
(a)	Most recent IRC value (incremental default and migration risks section 3 calculated in accordance with Section 3 articles 370/371)	799	64	727	58
(b)	Average of the IRC number over the preceding 12 weeks	1,278	102	767	61
4	**Comprehensive Risk Measure – CRM** (higher of values a, b and c)				
(a)	Most recent risk number for the correlation trading portfolio (article 377)				
(b)	Average of the risk number for the correlation trading portfolio over the preceding 12-weeks				
(c)	8 % of the own funds requirement in SA on most recent risk number for the correlation trading portfolio (Article 338(4))				
5	**Total**	**5,550**	**444**	**5,378**	**430**

Sensitivities

As part of the risk monitoring framework, FI-FM Risk actively monitors the daily changes of sensitivities of the trading portfolios. Sensitivities measure the impact of movements in individual market risk factors (foreign exchange rates, interest rates, credit spreads, equity, and commodity prices) on profit and loss results of the trading positions and portfolios.

The following tables show the five largest trading positions in terms of sensitivities to foreign exchange, interest rate and credit spread risk factor movements. These largest exposures also reflect concentrations of risk in FX risk per currency, IR risk per currency, and Credit Spread risk per country and rating and sector. Due to the nature of the trading portfolios, positions in the portfolios can change significantly from day to day, and sensitivities of the portfolios can change daily accordingly.

Most important foreign exchange year-end trading positions

amounts in EUR millions	2019		2018
Foreign exchange		Foreign exchange	
US Dollar	116	US Dollar	–957
Chinese Yuan Renminbi	–21	Chinese Yuan Renminbi	–18
South Korean Won	20	Swiss Franc	–14
Brazilian Real	–15	Polish Zloty	14
Japanese Yen	–10	South Korean Won	14

Most important interest rate and credit spread sensitivities at year-end

amounts in EUR thousands	2019		2018
Interest Rate (BPV) 1		**Interest Rate (BPV)** 1	
Euro	–740	Euro	–214
US Dollar	–325	US Dollar	189
Russian Ruble	–105	Great-Britain Pound	–112
Great-Britain Pound	–68	Taiwan New Dollar	96
Australian Dollar	–31	Polish Zloty	54
Credit Spread (CSO1) 2		**Credit Spread (CSO1)** 2	
United States	360	Germany	345
Germany	163	United States	330
France	117	Russian Federation	177
Russian Federation	73	Netherlands	164
United Kingdom	72	France	151

1 Basis Point Value (BPV) measures the impact on value of a portfolio due to a 1 basis point increase in interest rates. The figures include commodity risk in banking books.
2 Credit Spread Sensitivity (CS01) measures the impact on value of a portfolio due to 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

amounts in EUR thousands	2019 Corporate	2019 Financial Institutions	2018 Corporate	2018 Financial Institutions
Credit Spread (CS01) [1]				
Risk classes				
1 (AAA)	1	–1	–6	90
2–4 (AA)	–15	–63	3	–24
5–7 (A)	143	32	117	78
8–10 (BBB)	273	1	245	–2
11–13 (BB)	148	9	85	6
14–16 (B)	51	1	37	13
17–22 (CCC and NPL)	26	–	18	
Not rated	–	–	1	
Total	**626**	**–21**	**500**	**161**

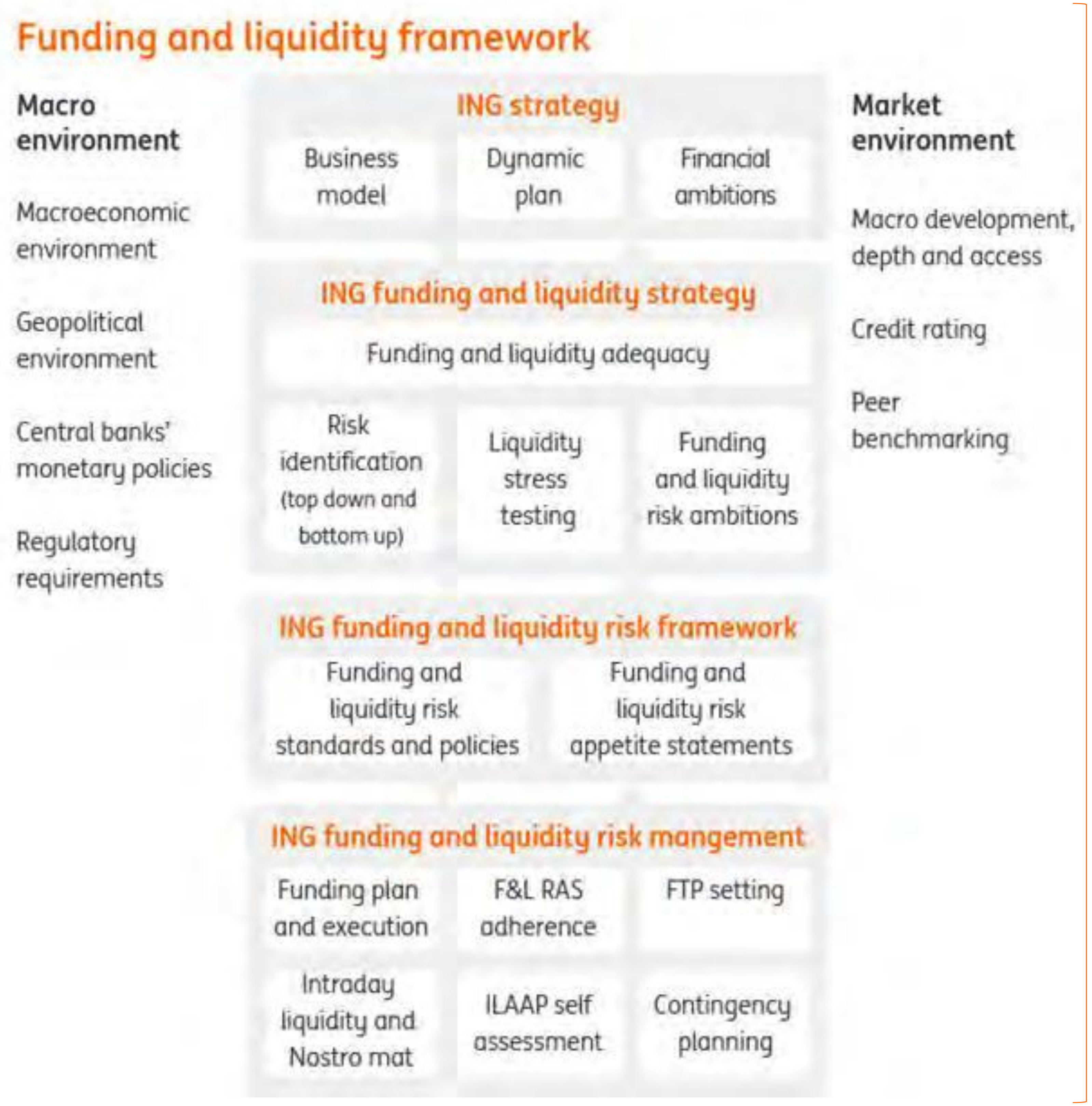
1 Credit Spread Sensitivity (CS01) measures the impact on value of a 1 basis point increase in credit spreads.

Funding and liquidity risk

Introduction

Funding and liquidity (F&L) risk is the risk that ING Bank or one of its subsidiaries cannot meet its financial liabilities when they are due at reasonable cost and in a timely manner. ING incorporates funding and liquidity management in its business strategy and applies a funding and liquidity risk framework in order to manage such risks within pre-defined boundaries.

A high-level overview of the F&L framework is provided in the next figure.



Governance

Funding & liquidity risk management within ING falls under the supervision of the ALCO Bank function which approves the funding and liquidity risk appetite that is subsequently cascaded throughout the organisation. In addition, ALCO Bank has delegated responsibilities concerning the ICLAAP processes and documents as per the ICLAAP Framework of ING Bank towards the Internal Capital & Liquidity Adequacy Assessment Process (ICLAAP) Committee. Therefore, it focuses on technical liquidity documents and oversees business processes and deliverables concerning ILAAP. The EB and MBB, staff departments from the CRO and CFO domain as well as Group Treasury have oversight of and are responsible for managing funding and liquidity risk.

ING's liquidity risk framework is based on the three lines of defence concept whereby risk principles are implemented, monitored and controlled in conjunction with both first and second line of defence functions.

Group Treasury and the business lines are the first line of defence functions. Group Treasury's main responsibility is to manage ING's (regulatory) liquidity and funding position by executing ING's funding plan, maintaining access to both the short and the long term professional funding markets and managing the liquidity buffer. Business lines are responsible for managing the funding and liquidity positions from the originated business. A large part of this is replicated with Group Treasury.

The second line of defence Financial Risk function is responsible for developing and maintaining ING's policies, standards and guidelines on F&L risk management as well as for setting the F&L risk appetite. Furthermore, the Financial Risk function measures funding & liquidity risks, executes stress testing, provides management information and controls the liquidity and funding requirements on commercial products. The Finance function is responsible for management and regulatory reporting related to funding and liquidity risk management.

Funding and liquidity management strategy and objectives

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

ING's funding consists mainly of retail and corporate deposits contributing 51% and 24% of the total funding respectively. These funding sources provide a relatively stable funding base. The remainder of the required funding is attracted primarily through a combination of long-term and short-term professional funding. Group Treasury manages the professional funding in line with the F&L risk appetite to ensure a sufficiently diversified and stable funding base.

ING Bank Funding Mix[1]

	2019	2018
Funding type		
Customer deposits (retail)	**51%**	49%
Customer deposits (corporate)	**24%**	24%
Interbank	**4%**	5%
Lending/repurchase agreement	**5%**	7%
CD/CP	**5%**	6%
long-term debt	**8%**	8%
Subordinated debt	**2%**	2%
Total	**100%**	100%

1 Liabilities excluding trading securities and IFRS equity

The Loan-to-deposit ratio remained stable at the level of 1.01.

ING's long-term professional funding is well diversified across maturities and currencies. The main part of it is EUR and USD denominated which is in line with the currency composition of customer lending.

Funding and liquidity adequacy and risk appetite

ING distinguishes several key drivers of future liquidity and funding needs:
- Refinancing needs resulting from maturing debt and asset growth;
- Current and future regulatory requirements;
- Risk appetite statements set by ING's funding and liquidity risk function;
- The outcomes of various stress tests;
- Ability to distribute and transfer liquidity.

Taking into consideration the abovementioned factors, ING Bank assesses its current and future liquidity adequacy and, if deemed necessary, takes steps to further improve ING's liquidity position and to ensure sufficient counterbalancing capacity. That is achieved through the quarterly update of the Liquidity adequacy statement and the execution of the ILAAP process.

ING's Funding and Liquidity framework aims to ensure sufficient liquidity under normal, adverse and stressed market circumstances. ING assesses its F&L adequacy through three lenses: (i) Stress, (ii) Sustainability and (iii) Regulatory.

(i) Through the Stress lens ING evaluates its ability to withstand a period of prolonged F&L stress (idiosyncratic, market-wide or a combination of the two) which is characterised by customer deposit outflows and/or deterioration of funding markets access;
ii) Through the Sustainability lens ING assesses the extent to which its customers, professional counterparties and investors are comfortable extending funding in tenors, currencies and instruments necessary to sustainably fund ING under a going-concern situation;
(iii) Through the Regulatory lens ING ascertains that it is in a position to meet both current and future regulatory requirements.

For each lens, ING has established a related set of risk appetite statements which define ING's risk appetite commensurate with the principles of liquidity adequacy. These risk appetite statements are summarised in the next graph.

The F&L risk appetite statements are translated into a number of metrics with appropriate boundaries and instruments which are used to measure and manage ING's funding and liquidity risk.

The risk appetite with respect to the stress lens is set to ensure there is sufficient counterbalancing capacity under various internally defined stress scenarios. Regarding the sustainability perspective, an internally defined Stable funding to loans (SFL) ratio (supplemented by other metrics) is used to ensure a diversified funding base and to prevent overreliance on professional funding. Finally, the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR) regulatory metrics are monitored in terms of both ING's risk appetite and regulatory requirements.

The LCR compares the volume of available high quality liquid assets (HQLA) to net outflows (outflows- inflows) over a 30-day stress scenario defined by the regulator. ING's liquidity buffer is part of the counterbalancing capacity which serves as a liquidity cushion under normal and stressed conditions.

The liquidity buffer consists mainly of Level 1 assets which are represented by government and central bank assets and are of the highest liquidity quality. Only assets that are freely available (not pledged under existing contracts) for liquidity purposes are included in the buffer. The size and composition of the Liquidity buffer are driven by ING's risk appetite as well as by regulatory requirements.

The macroeconomic and market environment are also important considerations in ING's funding and liquidity framework.
The macroeconomic environment comprises various exogenous factors over which ING has no control but which may have a material impact on ING's F&L position. The main macroeconomic factors analysed on a regular basis include:

- Global and local economic performance: e.g. shifts in GDP, inflation rate, unemployment rates and public deficit/surplus;
- Changing geopolitical trends;
- Monetary policy with special focus on the impact of the eventual reversal of unconventional monetary measures employed by central banks in recent years; and
- Regulatory requirements: e.g. understanding the changing regulatory landscape as well as the impact of ING's actions on existing regulatory boundaries.

The strategic ambitions of ING, together with the design and execution of the funding plan, are assessed under both current and projected market conditions. Key emphasis is placed on understanding overall market trends and developments, credit rating changes and peer comparison.

Liquidity stress testing

Funding and liquidity stress testing forms part of the overall F&L framework. It allows ING to examine the effects of exceptional but plausible future events on ING's liquidity position and provides insight into which entities, business lines or portfolios are vulnerable to which types of risk and under which scenarios.

The stress testing framework encompasses the funding and liquidity risks of the consolidated balance sheet of ING Bank including all entities, business lines as well as on and off-balance sheet positions. The Net liquidity position and Time-to-survive are the two main stress testing output metrics. Both metrics are impacted differently under specific F&L stress scenarios with related parameterisation.

The stress testing framework considers idiosyncratic, market-wide and combined (idiosyncratic and market-wide) stress scenarios. Moreover, it differentiates between stress events that develop in a gradual and in a fast manner. The generic design of the framework, which is based on empirical evidence supplemented by expert judgment, can easily be applied to a specific scenario. For example, it can be used as input for firm-wide stress testing and reverse stress testing.

The outcomes of the stress testing are taken into account in all the key aspects of ING's F&L risk framework and F&L risk management:
- risk appetite framework (through risk appetite statements);
- risk identification and assessment;
- monitoring of the liquidity position;
- contingency funding plan;
- early warning indicators.

The Funding and liquidity stress testing framework is also subject to regular internal validation.

In line with ECB regulation, ING's liquidity position is stress tested on a monthly basis using particular scenarios that form part of the F&L risk appetite statement. In addition, the results of all internal stress scenarios are monitored and assessed on a regular basis. They also serve as input in the decision on additional contingency measures.

Contingent F&L risks are addressed in the contingency funding plan whose focus is on early warning indicators as well as organisation and planning of liquidity management in times of stress. The contingency funding measures are developed in conjunction with the ING recovery plan and are tested on a regular basis.

Non-financial risk

Introduction

Non-financial risk is defined as the risk of financial loss, legal or regulatory sanctions, or reputational damage due to inadequate or failing internal processes, people and systems; a failure to comply with laws, regulations and standards; or external events. The Non-Financial Risk (NFR) function encompasses Operational Risk Management (ORM), Information Risk Management (IRM), the Independent Validation Unit (IVU) and Corporate Security & Investigations (CSI).

Governance

The head of Corporate ORM, Corporate IRM, IVU, CSI, Professional Practice Unit and Strategy, Central Services & Digitalisation Unit report to the global head of NFR, who directly reports to the bank CRO.. The global head of Non-Financial Risk is responsible for developing the framework of non-financial risk policies and standards within ING, and for monitoring the quality of non-financial risk management in the ING entities.

Non-Financial risk measurement

In line with the Advanced Measurement Approach (AMA), the bank has in place a model to define the required level of own funds for operational risk (operational risk capital). This model predicts potential operational risk losses (annually aggregated) by combining a forward-looking and a backward-looking view on operational risk events. The business has a leading role in assessing scenario severities, with the ORM function validating and challenging the results.

ING uses its AMA model for regulatory capital calculation purposes and reports the regulatory capital numbers on a quarterly basis. The bank is currently not using any insurance or risk transfer mechanisms for the mitigation of risk in the context of the AMA capital calculation.

Risk categories

ING categorises NFR risks in a number of areas:

- *Information (Technology) risk* is the risk of financial loss, regulatory sanctions or reputational damage due to breaches of confidentiality, integrity or availability within business processes or information or lack of information quality;
- *Continuity risk* is the risk of financial loss, regulatory sanctions or reputational damage due to business disruptions (loss of people, processes, systems, data, premises);
- *Control and processing risk* are the risks of financial loss, regulatory sanctions or reputational damage due to ineffective organisational structures and governance procedures (including unclear roles and responsibilities and inadequate reporting structure), failed (transaction) processing (input, execution, output) or failing process management; monitoring and enforcement of risk mitigating measures; and risk culture;
- *Internal fraud risk* is the risk of financial loss, regulatory sanctions or reputational damage due to deliberate abuse of procedures, systems, assets, products and/or services of ING by employees (incl. temporary workers, third party contractors, internships and consultants) who intend to deceitfully or unlawfully benefit themselves or others;
- *External fraud risk* is the risk of financial loss, regulatory sanctions or reputational damage due to deliberate abuse of procedures, systems, assets, products and/or services of ING by external parties (clients, potential clients or other third parties, including vendors and outside agencies) who intend to deceitfully or unlawfully benefit themselves or others;
- *Unauthorised activity risk* is the risk of financial loss, regulatory sanctions or reputational damage due to employees performing outside the normal course of their business, intentionally giving unauthorised approvals or overstepping their authority;

- *Personal and physical security risk* is the risk of financial loss, regulatory sanctions or reputational damage due to criminal and environmental threats that might endanger the security or safety of ING personnel at work, people in ING locations, ING assets or assets entrusted to ING, people at ING event locations, or might have an impact on ING organisation's confidentiality, integrity or availability; and
- *Employment practice risk* is the risk of financial loss, regulatory sanctions or reputational damage due to acts that are inconsistent with employment, health and/or safety laws, regulations or agreements, from payment of personal injury claims, or from diversity/discrimination events.

Data Governance and Data Quality

ING recognises that information and underlying data are assets that are key (together with people, processes and IT systems) to further develop its digital profile. Cooperation and mutual agreement on global data management roles and responsibilities in ING are critical success factors to meet this objective. As such ING has embraced multiple data management and governance initiatives triggered by internal and external stakeholders (e.g. Principles for Effective Risk Data Aggregation and Risk Reporting). These principles are embedded in risk data management and enshrined within the Data Governance framework. The framework outlines roles and responsibilities relevant for the risk lifecycle and data quality assurance.

Main developments in 2019

Cybercrime and Fraud

Controls and monitoring continue to be embedded in the organisation as part of the overall internal control framework and are continuously re-assessed against existing and new threats. The identification and monitoring of new threat actors and campaigns relevant to ING also informs this process as does the closer alignment between IT security and fraud teams. In addition, ING continues to strengthen its global cybercrime and fraud resilience through extensive collaboration with financial industry peers, law enforcement authorities, government (e.g. National Cyber Security Centre) and internet service providers (ISPs).

Concerns over the potential impact of insider threats continues to increase with specific information relating to external instances or trends in the financial industry remaining limited, albeit collaboration within the financial sector is improving.

The increasing use of third party vendors for services and the implementation of PSD2 are likely to present ongoing fraud management and IT security challenges; both in the short- and medium-term as criminal actors target financial and broader PII data outside the traditional banking environment.

Dealing with current and emerging fraud threats effectively requires continuous improvement of fraud management capabilities such as real-time transaction and response capabilities and better alignment and standardisation of cross border fraud management across ING and related platforms as well as exchanging data cross border. With legislation such as EBA PSDII and the continuing emphasis on duty of care, financial institutions are becoming more and more responsible for losses incurred by clients, and taking on more of the burden of reclaiming those losses.

Enterprise Risk Management

In 2019, a professional practice unit (PPU) has been set up to establish an Enterprise Risk Management (“ERM”) Framework gatekeeper for policy design. ERM is designed to be an overarching risk management framework (RMF) pulling together common design principles and roles & responsibilities for all risk types (Financial, Non-financial, and Strategic). The purpose and benefits of the ERM Framework facilitates clear and easy communication and improving the visible and transparent link to ING’s Strategy, business activities and processes. The ERM Framework is being implemented to ensure standardisation of all risk frameworks and, once finalised, it will apply to all businesses lines and entities on global and local level.

User Access Management (UAM)

UAM is one of the focus areas of ING and an important element in our control framework to mitigate the risk of unauthorized and / or inappropriate access to systems, processes and the data and information contained therein. Consequently, the UAM processes, controls and practices are periodically reviewed, tested, adapted and improved by a dedicated UAM team to address ongoing developments in and outside ING. In 2019, ING continued to mature, with attention to standardization, harmonisation of processes via standardized workflows and further automation of UAM controls, which will continue in 2020.

GDPR

As per 25 May 2018, the European General Data Protection Regulation (GDPR) became effective. GDPR affords greater protection to individuals and requires more control on data and transparency regarding the use of data by companies. In 2019, ING continued its central programme, initiated in 2016, in a continuing effort to mature our data protection standards in line with GDPR standards.

Outsourcing Risk

In 2019, a renewed Sourcing Policy became effective, outlining the inherent critical and high risks that can materialise during the sourcing life-cycle. In addition, a Sourcing Guideline was issued to support updated requirements, issued by EBA in 1Q 2019. Support Control Framework (SCF) Sourcing defines the controls that have to be implemented and tested to effectively mitigate the risks. The scope of sourcing encompasses outsourcing to external providers as well as intra-group sourcing..

BCBS239

In January 2013 the Basel Committee on Banking Supervision published the principles for effective risk data aggregation and risk reporting (BCBS 239), which is adopted by the ECB and became effective for all G-Sib's as of January 2016. ING initiated a central program which is continued in 2019 to improve the risk data aggregation and reporting capabilities.

Compliance risk

Introduction

Compliance risk is defined as the risk of impairment of ING's integrity, leading to damage to ING's reputation, legal or regulatory sanctions, or financial loss, due to a failure (or perceived failure) to comply with applicable laws, regulations and standards and the ING Orange Code.

Governance

The Compliance Risk Management function is organised via countries and business lines. The heads of Financial Crime Compliance, Regulatory & Conduct Compliance, Strategy & Transformation Office at the head office, as well as the heads of compliance in the Netherlands and Belux and the business lines Challenge & Growth and Wholesale Banking report to the chief compliance officer (CCO), who is the global head of Compliance Risk Management. This is an independent function that is amongst others responsible for developing and establishing bank-wide policies and minimum standards for managing compliance risks. The CCO assists the Supervisory Board, Executive Board and Management Board Banking in managing ING's compliance risks and control framework. The CCO is a permanent participant of the Risk Committee of the Supervisory Board. The CCO regularly meets the chairman of the Risk Committee of the SB.

Risk categories

ING categorises compliance risk into four conduct-related integrity risk areas:

- Client/third party conduct refers to the compliance risks arising from the relationship with or generated by the conduct of our customers and/or business partners, like money laundering or terrorist financing. Those risks are generally defined within ING as financial economic crimes. Furthermore, client conduct refers to the compliance risks relating to FATCA, CRS, CTI and US withholding tax and information reporting regulations;
- Personal conduct refers to the compliance risks arising from the conduct of ING employees. The scope includes amongst others personal conduct related conflicts of interest, bribery and corruption, protection of personal data;
- Financial services conduct refers to the compliance risks arising from or generated by the conduct of ING when developing product offerings, marketing and/or selling products and services to its clients as well as customer interest and protection; and
- Organisational conduct refers to the compliance risks arising from the way the bank is organising itself to develop its activities. This category covers among others the licences required to perform its regulated banking activities, the operating effectiveness of its information barriers, organisation conduct conflicts of interest, anti-competitive conduct, record retention.

Controls aiming to mitigate the compliance risks associated with the above-mentioned risk areas are designed and applied to the day-to-day processes in the bank. The effectiveness of the controls is tested and monitored periodically, and senior management is responsible for ensuring that processes are compliant with applicable laws and regulations, ING's internal policies, and the Orange Code.

In cases where an employee of ING suspects an actual or potential irregularity or misconduct within ING that leads or could lead to a violation of the Orange Code, any ING policy and/or any applicable law, regulation or code, this can be reported anonymously in line with the Whistle-blower Policy, via internal or external channels as well as through normal reporting channels.

Strengthening the global compliance function

ING has introduced measures to strengthen the Compliance Risk Management function. These measures are being implemented as part of a multi-year, global compliance strategy and transformation programme The programme encompasses the whole compliance function and aims at enhancing global steering and oversight by the compliance function.

Know your customer (KYC)

ING is committed to the preservation of its reputation and integrity through compliance with applicable laws, regulations and ethical standards in each of the markets in which it operates. All employees are expected to adhere to these laws, regulations and ethical standards, and management is responsible for ensuring such compliance. Compliance is therefore an essential ingredient of good corporate governance. As gatekeepers of the financial system we have obligations to safeguard trust in that system and prevent misuse. For example a recent study found almost €13 billion worth of criminal money is laundered in the Netherlands each year – around 1.6 percent of the GDP. However, money laundering is not contained within a single country or jurisdiction, it is a global challenge that impacts the entire financial system. ING, like all other participants in the financial services industry, has an important role to play in helping to combat financial economic crime. We contribute knowledge and capacity to various public-private partnerships fighting financial crime. We believe we can be even more effective in safeguarding the financial system if we join forces and work with other banks and with national and European authorities and law enforcement to identify and manage the financial economic crime risks better, taking all relevant laws and regulations into account. Improving the way we manage compliance risk, especially when it comes to preventing criminals from misusing the financial system, is a key priority for ING.

KYC policy framework

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

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

In addition to addressing financial economic crime-related requirements, the KYC policy framework also reflects KYC-related requirements of the FATCA/CRS policy, as well as certain elements of the Environmental Social Risk policy.

KYC enhancement programme

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

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

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

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

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

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

- **Tooling**: This pillar aims to improve processes and tooling around customer due diligence, screening and monitoring. This entails rolling out a bank-wide KYC digital service and fulfilling client acceptance and maintenance life cycle on one global digital platform. In addition, all required screening components (name screening, pre-transaction screening, adverse media screening) are incorporated into the client acceptance due diligence process. Once a customer is onboarded, ongoing screening and monitoring of transactions can then be activated. Steps taken in 2019 included:
  - Developed new customer due diligence case management modules for Private Banking clients in Luxembourg, and mid-corporates in Poland, which is to be rolled out in other countries with similar client segments.
  - The target adverse media screening tool was rolled out in most locations
  - Innovating to automate and improve KYC processes. In 2019, we developed a 'smurfing' tool, which uses artificial intelligence to detect instances of smurfing when large fraudulent transactions are broken up into smaller transactions that will not be flagged by conventional monitoring systems. And we are developing a virtual alerts handler that uses artificial intelligence to reduce the number of false positives, freeing up KYC staff to concentrate on those alerts that do require attention.

  - In September 2019, an anomaly detection tool went live to monitor the payment flow of ING's correspondent banking clients. Developed by ING, the tool uses advanced analytics to detect changes in behaviour that could indicate money laundering or other financial economic crime. The approach for innovations is per country and business line and based on success will be scaled up and rolled out in other locations.

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

- **Governance**: Under this pillar we are setting up a global KYC governance to ensure decision making on standards, operations, customer acceptance and continuous improvements. This started with the appointment of a global head of KYC at the end of 2018 and a global Centre of Expertise, as well as a Delivery Tribe, who together with the business lines and the second line of defence (Risk and Compliance functions) are responsible for implementing KYC across the organisation.
  - In 2019, local KYC Committees were established in the countries/regions and business lines to manage and steer all KYC-related activities. These committees are overseen by the global KYC Committee, which drives improvements and ensures alignment between KYC-related projects and activities. It also monitors all KYC-related costs, helps prioritise activities and steers decisions on KYC-related issues and developments.
  - Client Integrity Risk Committees (CIRCs) were set up in the retail business lines and Wholesale Banking to steer decisions around client acceptance and exits, based on compliance criteria and risk appetite. The committee members represent both the first and second lines of defence to ensure proper decision-making is adhered to.

- **Knowledge and behaviour**: This pillar focuses on increasing knowledge about KYC, providing training and carrying out behavioural risk assessments to detect high-risk behaviours, intervening where necessary.
  - Internal communication in 2019 reiterated the importance of non-financial risk and compliance.
  - We set up a global KYC Academy to coordinate a global learning curriculum and provide expert training for specialist KYC staff and new joiners as well as awareness training for all ING employees.
  - The first behavioural risk assessments in KYC were carried out in the Netherlands, the Philippines and the US by ING's team of behavioural experts. The outcomes were discussed by senior management at ING's leadership days in March, as well as with the management teams of the countries involved and in Wholesale Banking with the intention of changing behaviours to enhance KYC, starting from the top.

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

Regulatory developments

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

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

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

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

5th AML Directive

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

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

Financial Account Tax Compliance Act (FATCA)

Under provisions of US tax law commonly referred to as FATCA, non-US financial institutions are required to provide certain information on their US account holders and/or certain US investors to the US Internal Revenue Service (IRS). A 30 percent withholding tax will be imposed on 'withholdable payments' made to non-compliant non-US financial institutions. As part of the actions taken to comply with FATCA and other US withholding tax regulations, ING is for example updating and strengthening its withholding compliance programme and reviewing, amending and filing the necessary tax returns and information reports.

Many countries, including the Netherlands, have entered into agreements (intergovernmental agreements or IGAs) with the US to facilitate the type of information reporting required under FATCA. While the existence of IGAs will not eliminate the risk of the withholding tax described above, these agreements are expected to reduce that risk for financial institutions and investors in countries that have entered into IGAs. IGAs often require financial institutions in those countries to report information on their US account holders to the taxing authorities of those countries, who then pass the information to the IRS.

If the Bank cannot rely on IGA or satisfy the requirements, certain payments to the Bank may be subject to withholding under FATCA. Certain payments may also be subject to other US withholding tax regulations. The possibility of such withholding and the need for account holders and investors to provide certain information may adversely affect the sales of certain of the Group's products. In addition, compliance with the terms of such IGAs and with FATCA, any regulations or other guidance promulgated thereunder, or any legislation promulgated under an IGA, and offering products that generate 'withholdable payments', may substantially increase the Group's compliance costs.

Common Reporting Standard (CRS)

Similarly, the Organisation for Economic Cooperation and Development ('OECD') has developed a Common Reporting Standard ('CRS') and model competent authority agreement to enable the multilateral and automatic exchange of financial account information. CRS requires financial institutions to identify and report the tax residency and account details of non-resident customers to the relevant authorities in CRS-compliant jurisdictions. As of 19 September 2019, 109 jurisdictions ('signatory countries'), including the Netherlands, have signed a multilateral competent authority agreement to automatically exchange information pursuant to CRS. The majority of countries where ING has a presence have committed to CRS. The EU has made CRS mandatory for all its member states. The first information exchange by the Netherlands (as for approximately half of the signatory countries) was executed in 2017. Most other signatory countries commenced their information exchange in 2018 and some in 2019.

The OECD has also introduced two additional new measures to tackle global tax avoidance/evasion:
- Mandatory Disclosure Rules for Addressing CRS Avoidance Arrangements and Opaque Offshore Structures
- Preventing Abuse of Residence by Investment (RBI) and Citizenship by Investment (CBI) Schemes to Circumvent the CRS.

These measures are in the process of being implemented in local laws. With regard to the mandatory disclosure rules for EU jurisdictions, this was done via the amendment to Directive 2011/16 (DAC6). See below.

DAC6 (EU2018/822, an amendment to EU Directive 2011/16)

DAC6 imposes mandatory disclosure requirements for taxpayers and intermediaries involving the reporting of cross-border arrangements affecting at least one EU member state that fall within one of a number of 'hallmarks'. These hallmarks are broad categories setting out particular characteristics identified as potentially indicative of aggressive tax avoidance. The reporting obligations apply to 'intermediaries' (financial institutions like ING may fall under this term) or, in some circumstances, the taxpayer itself. There will be a mandatory automatic exchange of information on such reportable cross-border schemes via the Common Communication Network (CCN) between the member states which will be set-up by the EU. Although DAC6 is not effective until 1 July 2020, taxpayers and intermediaries have been required to monitor cross-border arrangements since 25 June 2018.

MiFID II

Integrity and transparency in financial markets are essential for public and investor confidence. The revised Markets in Financial Instruments Directive European legislation (MiFID II/MiFIR) came into effect in January 2018 and had a major impact on ING and the markets in which it operates. A central programme continued in 2019 to support ING's commitment to further embed the revised legislation throughout the organisation.

The requirements set out in MiFID II/MiFIR are manifold and impact a large part of our organisation and day-to-day business. In order to ensure compliance with these rules, standard controls were rolled out throughout the ING EU entities. In addition, a framework measuring MiFID compliance risk was implemented in order to stay abreast of any compliance issues that need addressing.

Regulatory guidance around MiFID II/MiFIR continues to evolve and key requirements are currently under review. As a result, ING will ensure that the organisation has continuous access to central guidance giving a clear steer on expected conduct and processes. A network of experts has been set up to ensure timely implementation of any regulatory changes.

Learning

In 2019 we continued to develop our approach to learning on compliance and risk culture (and e.g. established the KYC Academy). Supporting staff to deliver a sound and consistent risk culture is a focus for our learning. We emphasise a standard and streamlined approach that facilitates consistent messaging and learning across the bank, as appropriate. More focus is being given to role of specific training in ensuring staff continue to extend knowledge, skills and behaviours for their particular roles and responsibilities.

Model Risk

Introduction

Model risk is the risk that the financial or reputational position of ING is negatively impacted as a consequence of the use of models. Model risk can arise from errors in the development, implementation, use or interpretation of models, or from incomplete or wrong data etc., leading to inaccurate, noncompliant or misinterpreted model outputs.

A model is defined as a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data into quantitative estimates.

A candidate model is considered a model when:

- the outcome is used for a decision: by the customer, community, business / colleagues, and / or other internal or external stakeholders, such as regulators or shareholders, and
- the model is repeatedly used without a manual change of the design, and
- the outcome is an estimation, not the 100 percent measured truth; and
- it processes the data input with a quantitative method or approach that applies statistical, economic, financial, or mathematical theories, techniques and / or assumptions.

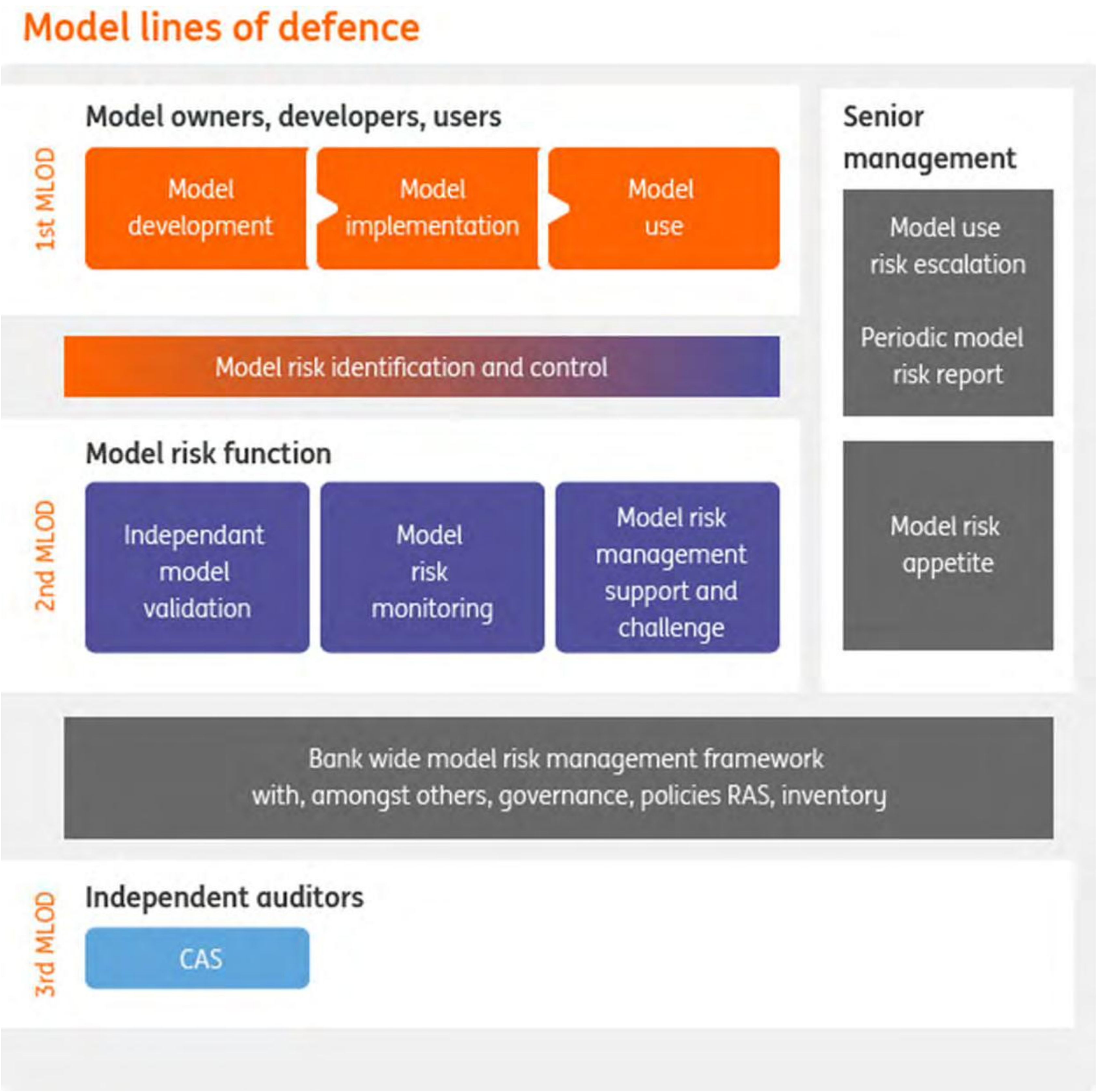
Models governance

The growing complexity and number of models created and utilised every year for decision-making makes it important to manage and control the associated model risk accordingly. Within ING this overarching responsibility for this risk type lies within Model Risk Management. The department, in addition to its traditional function of model validation, is also responsible for global model risk oversight. It sets and maintains a model risk management framework containing: (1) the governance, (2) the model risk appetite, (3) model risk management policies and standards and (4) the global model inventory tool. It is also responsible for monitoring and reporting the global model risk exposures of ING.

The Model Risk Management Committee (MoRMC) has been established to align the overall model strategy and the model risk appetite, and approve model policies, procedures and methodologies. Mandated by the MBB and chaired by the CRO of ING, the MoRMC meets monthly.

Model lines of defence

ING's model risk and control structure is based on the three model lines of defence (MLoD) approach. This approach aims to provide a sound governance framework for model risk management by defining and implementing three different management layers with distinct roles and oversight responsibilities.



In terms of composition and main activities:

- The 1st LoD is composed of the model owners (mainly the business), data management and model development, accountable for, among others, the development, implementation and use of the models as well as monitoring the effectiveness of the models;
- The 2nd LoD is composed of model validation and model risk management, which owns the model risk management framework and the risk appetite; and
- The 3rd LoD is the internal audit, reviewing the quality of execution in all lines of defence and providing independent assurance.

An important difference with the financial and non-financial risk lines of defence is that models can also be owned by risk (normally a 2nd LoD), e.g. for bank-wide stress testing, or by the audit service (normally a 3rd LoD), e.g. to support their audits. In that case, both domains (risk or audit service) become 1st model line of defence.

Model Risk Appetite (MoRAS)

The model risk appetite is designed to control the level of model risk ING is willing to accept in pursuit of its strategic objectives. It is derived from the concepts of boundaries and instruments as described in the Risk Appetite Framework. Model RAS and related boundaries and instruments will be set in 2020 and going forward will be reviewed on an annual basis. RAS requires approval from the MBB/EB and ratification from SB.

Model risk management

Since models are by definition simplifications of reality, model risk is inherent in the use of models and therefore model risk must be identified and managed. Model risk management includes the identification, assessment, control (acceptance or mitigation) and monitoring (and reporting) of the risks caused by applying models.

Model management is executed through the model life cycle with two types of components, which are (i) the stages that each individual model goes through, from initiation to final decommissioning and (ii) the overarching components to manage ING's model risk of all models: continuous model inventory and reporting.

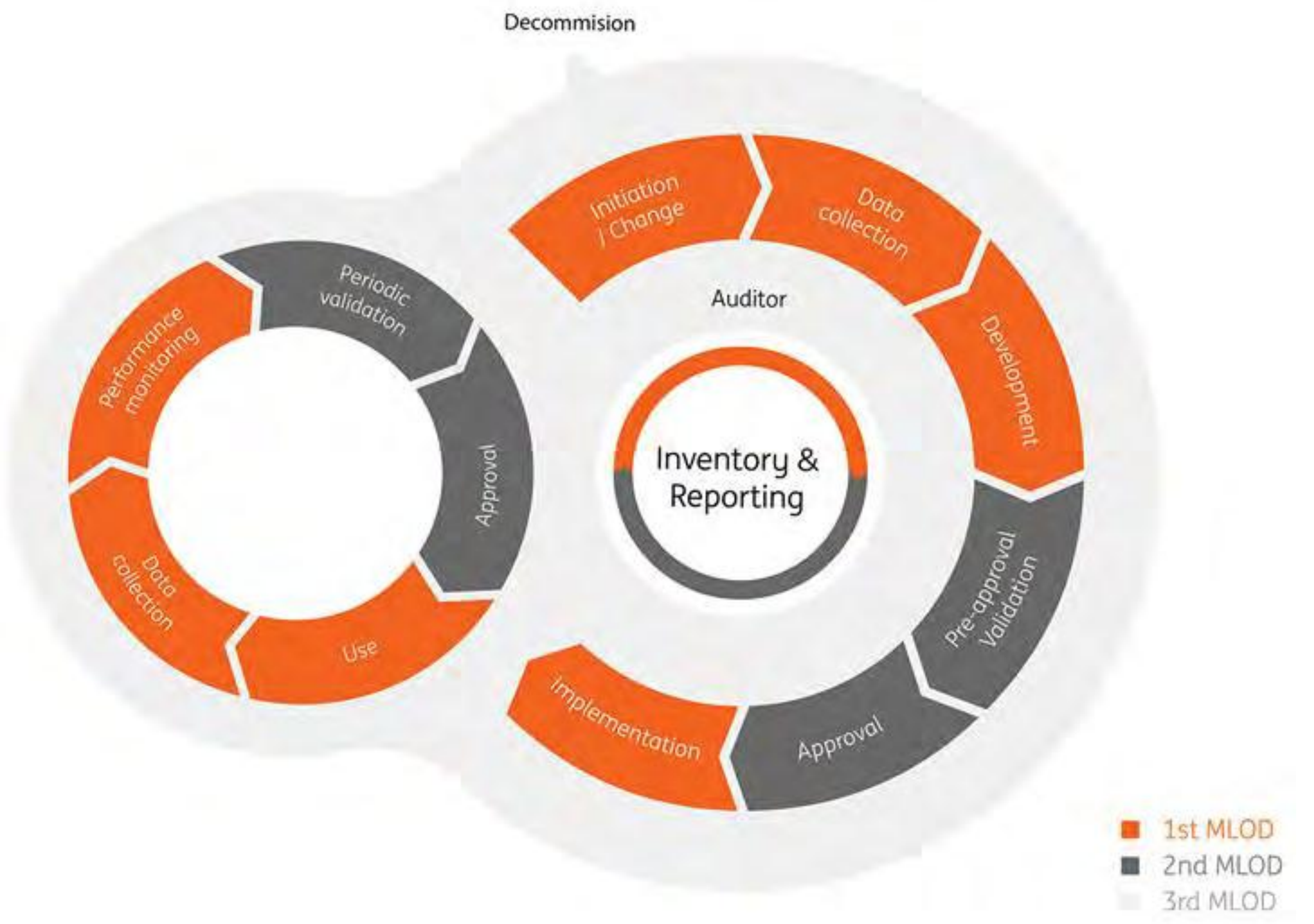
Model lifecycle

The next figure provides a schematic overview of the model lifecycle, where orange represents the 1st model LoD, blue the 2nd and grey the 3rd. It is composed of a set of processes starting after a model is identified. The objectives of the different processes are outlined below.

Initiation or change: The initiation of the development of a new model or change of an existing model can be triggered by different factors. These may be (i) internal, such as the introduction of a new product that cannot be handled by the existing models, a change in ING's organisation, financial or commercial strategy or findings and issues by an auditor, validator or based on monitoring; or (ii) external, such as innovation/new technology that becomes available (for example the Fintech models), new or upcoming supervisory regulations or ongoing technical developments.

Data collection is the process of defining and collecting data that meets the defined data quality requirements for model development. The process includes the definition of the data needed, assessment of data availability and quality, assumptions and limitations, as well as the gathering of the data needed for the analyses, impact study and testing during the model development process.

Model development is a structured process that leads to a model that is ready for validation and subsequent use.



Depending on the development approach these first stages can be separate or integrated. An example of the latter is data science based application development.
Pre-approval validation is the independent confirmation that the model is valid for its intended use, before the new or changed model is submitted for use approval. To ensure objectivity and effective challenge, the model validator is independent from other model parties such as the model

developer, model owner or model approver. Model validation applies equally to in-house developed and third-party models.

The objective of the **model approval** stage is approval for use. The model owner submits the model for formal consent by the internal approver before being deployed and used. The recommendations and validation report prepared by the model validator are key inputs for approval for use.

During the **implementation** stage, the model is realised, tested and made available in a production environment.

In the **model use** stage the model is applied by the users for the specific purpose it was designed for. The model can only be used after formal validation and approval for use of the model.

The objective of model **performance monitoring** is to regularly check if the model is performing as intended, also after possible changes in the commercial, organisational or legal environment. Model performance monitoring begins when model use has started and continues until the model has officially been decommissioned.

Periodic validation: During the life time of a model the ongoing validity of the models must be safeguarded. This is done by periodical independent (re)validation that assesses whether the model is still valid for its intended use. There are two types of validation: (1) periodic, such as annual, which is mandatory for regulatory models, or (2) ad hoc, for example triggered by changes in the model, the business or financial instruments etc. The actual frequency of periodic validation depends on the model risk, model type and applicable regulation.

A model that is / will no longer be used must be decommissioned. **Decommissioning** disables the model. It can, for example, be triggered because (1) the product, organisation or risk the model is made for has changed considerably or no longer exists, (2) the model is outdated, underperforming or better alternatives are available, (3i) the model became obsolete due to standardisation or (4) the external approver withdraws its approval for the model.

Continuous model inventory and reporting: Keeping an inventory of all models and their status during their lifecycle is a continuous process. It supports management and control of the models in scope, both per individual model and the overarching management of all ING's models. Periodic model risk reporting provides the relevant internal and external stakeholders with an overview of the models in use and the associated model risk given the defined model risk appetite.

Business Risk

Introduction

Business Risk for ING has been defined as the exposure to value loss due to fluctuations in volumes/margins as well as expenses. It is the risk inherent to strategy decisions and internal efficiency. Business risk capital is calculated via the variance-covariance methodology for expense risk, covering the risk that expenses will deviate from the expected expenses over the horizon of the relevant activities. This risk primarily relates to inability of adjusting expenses when that is needed. Expense risk only concerns non-financial expenses (e.g. staff and IT expenses); financial expenses are not in scope.

Governance and risk management

ING applies an explicit Risk Appetite Statement regarding business risk, focusing on earnings stability and diversification of the business mix. Avoiding putting all eggs in one basket reduces the risk that volumes and/or margins will suddenly drop due to unexpected changes in the business environment for certain markets and products. Furthermore, the underlying risk types (expense risk and volume-margin risk) are mitigated and managed differently. Expense risk is monitored and managed via the financial performance of the bank and the local units, whereby the reported expense numbers are compared on a quarterly basis with the projected cost/income ratio. Deviations from this ambition are monitored as part of the financial projections that are discussed continuously within different parts of the organisation.

Contents

Consolidated financial statements

Consolidated statement of financial position

As at 31 December

in EUR million	2019[1]	2018
Assets		
Cash and balances with central banks 2	53,202	49,987
Loans and advances to banks 3	35,133	30,420
Financial assets at fair value through profit or loss 4		
– Trading assets	49,264	50,163
– Non-trading derivatives	2,278	2,672
– Designated as at fair value through profit or loss	3,076	2,887
– Mandatorily at fair value through profit or loss	41,600	64,783
Financial assets at fair value through other comprehensive income 5	34,468	31,223
Securities at amortised cost 6	46,108	47,276
Loans and advances to customers 7	611,907	592,328
Investments in associates and joint ventures 8	1,790	1,044
Property and equipment 9	3,172	1,659
Intangible assets 10	1,916	1,839
Current tax assets	251	201
Deferred tax assets 35	730	841
Other assets 11	7,014	8,426
Assets held for Sale 12		1,262
Total assets	**891,910**	**887,012**

	2019[1]	2018
Liabilities		
Deposits from banks 13	34,826	37,330
Customer deposits 14	606,410	580,294
Financial liabilities at fair value through profit or loss 15		
– Trading liabilities	28,042	31,215
– Non-trading derivatives	2,217	2,313
– Designated as at fair value through profit or loss	47,685	59,179
Current tax liabilities	499	856
Deferred tax liabilities 35	695	640
Provisions 16	688	1,011
Other liabilities 17	12,796	13,396
Debt securities in issue 18	93,721	102,159
Subordinated loans 19	16,515	13,643
Total liabilities	**844,093**	**842,036**
Equity 20		
Share capital and share premium	17,067	17,067
Other reserves	4,000	3,504
Retained earnings	25,857	23,602
Shareholders' equity (parent)	**46,924**	**44,173**
Non-controlling interests	893	803
Total equity	**47,817**	**44,976**
Total liabilities and equity	**891,910**	**887,012**

1 The amounts for the period ended December 2019 have been prepared in accordance with IFRS 16. The right-of-use-assets are presented under line-item 'Property and Equipment' and the lease liability is included in line-item 'Other liabilities'. Prior period amounts have not been restated.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

Consolidated statement of profit or loss

for the years ended 31 December

in EUR million	2019[1]	2018[1]	2017[1]
Continuing Operations			
Interest income using effective interest rate method	25,355	25,288	n/a
Other interest income	3,110	2,886	n/a
Total interest income	**28,465**	**28,174**	**44,094**
Interest expense using effective interest rate method	-11,305	-11,222	n/a
Other interest expense	-3,085	-3,002	n/a
Total interest expense	**-14,391**	**-14,224**	**-30,312**
Net interest income 21	**14,074**	**13,949**	**13,782**
Fee and commission income	4,439	4,240	3,864
Fee and commission expense	-1,571	-1,437	-1,150
Net fee and commission income 22	**2,868**	**2,803**	**2,714**
Valuation results and net trading income 23	765	1,031	672
Investment income 24	188	183	192
Share of result from associates and joint ventures 8	30	124	166
Result on disposal of group companies 25	117	-123	1
Other income 26	251	136	349
Total income	**18,295**	**18,102**	**17,876**

	2019[1]	2018[1]	2017[1]
Addition to loan loss provisions 7	1,120	656	676
Staff expenses 27	5,753	5,430	5,198
Other operating expenses 28	4,590	5,265	4,598
Total expenses	**11,463**	**11,351**	**10,472**
Result before tax	**6,831**	**6,751**	**7,404**
Taxation 35	1,889	2,036	2,303
Net result (before non-controlling interest)	**4,942**	**4,715**	**5,101**
Net result attributable to Non-controlling interests	99	108	82
Net result attributable to shareholder of the parent	**4,843**	**4,607**	**5,019**
Dividend per ordinary share (in euros)	6.06	5.41	6.83
Total amount of dividend paid (in million euros)	2,819	2,517	3,176

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated. 2018 amounts in other interest income and other interest expense have been updated to improve consistency and comparability.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

Consolidated statement of comprehensive income

for the years ended 31 December

in EUR million	2019[1]	2018[1]	2017[1]
Net result (before non-controlling interests)	4,942	4,715	5,101
Other comprehensive income			
Items that will not be reclassified to the statement of profit or loss:			
Realised and unrealised revaluations property in own use	60	1	26
Remeasurement of the net defined benefit asset/liability 34	58	6	–29
Net change in fair value of equity instruments at FVOCI	139	–461	n/a
Change in fair value of own credit risk of financial liabilities at FVPL	–116	198	n/a
Items that may subsequently be reclassified to the statement of profit or loss:			
Unrealised revaluations AFS investments and other revaluations	n/a	n/a	–284
Realised gains/losses on AFS investments reclassified to the statement of profit or loss	n/a	n/a	–92
Net change in fair value of debt instruments at FVOCI	–32	–163	n/a
Realised gains/losses on debt instruments at FVOCI reclassified to the statement of profit or loss	–34	–55	n/a
Changes in cash flow hedge reserve	640	382	–526
Exchange rate differences	–5	–402	–861
Share of other comprehensive income of associates and joint ventures and other income		13	3
Total comprehensive income	**5,651**	**4,234**	**3,338**
Comprehensive income attributable to:			
Non-controlling interests	142	132	109
Shareholders of the parent	5,509	4,102	3,229
	5,651	**4,234**	**3,338**

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated.

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.

For the disclosure on the income tax effects on each component of the other comprehensive income reference is made to Note 35 'Taxation'.

Consolidated statement of changes in equity

For the years ended 31 December

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2018	17,067	3,504	23,602	44,173	803	44,976
Net change in fair value of equity instruments at fair value through other comprehensive income		–335	472	137	1	139
Net change in fair value of debt instruments at fair value through other comprehensive income		–33		–33	1	–32
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		–33		–33	–1	–34
Changes in cash flow hedge reserve		604		604	36	640
Realised and unrealised revaluations property in own use		51	9	60	–0	60
Remeasurement of the net defined benefit asset/liability 34		58		58		58
Exchange rate differences and other		–11		–11	7	–5
Share of other comprehensive income of associates and joint ventures and other income		137	–137			
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		–123	6	–116		–116
Total amount recognised directly in other comprehensive income net of tax		**316**	**350**	**666**	**44**	**709**
Net result		180	4,663	4,843	99	4,942
Total comprehensive income net of tax		**496**	**5,013**	**5,509**	**142**	**5,651**
Dividends			–2,819	–2,819	–29	–2,848
Employee stock option and share plans			39	39	0	39
Changes in the composition of the group and other changes			22	22	–23	–1
Balance as at 31 December 2019	**17,067**	**4,000**	**25,857**	**46,924**	**893**	**47,817**

References relate to the accompanying notes. These are an integral part of the Consolidated financial statements.
Changes in individual reserve components are presented in Note 20 ‘Equity’.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 31 December 2017	17,067	4,304	22,291	43,662	715	44,377
Effect of change in accounting policy due to the implementation of IFRS 9		–648	–391	–1,038	–14	–1,053
Balance as at 1 January 2018	17,067	3,656	21,901	42,624	700	43,325
Net change in fair value of equity instruments at fair value through other comprehensive income		–518	56	–461	0	–461
Net change in fair value of debt instruments at fair value through other comprehensive income		–163		–163	0	–163
Realised gains/losses on debt instruments at fair value through other comprehensive income reclassified to the statement of profit or loss		–54		–54	–2	–55
Changes in cash flow hedge reserve		342		342	41	382
Realised and unrealised revaluations property in own use		–2	3	1	–0	1
Remeasurement of the net defined benefit asset/liability 34		6		6		6
Exchange rate differences and other		–386		–386	–16	–402
Share of other comprehensive income of associates and joint ventures and other income		264	–251	13		13
Change in fair value of own credit risk of financial liabilities at fair value through profit or loss		198		198		198
Total amount recognised directly in other comprehensive income net of tax		**–312**	**–192**	**–505**	**24**	**–481**
Net result		160	4,447	4,607	108	4,715
Total comprehensive income net of tax		**–152**	**4,255**	**4,102**	**132**	**4,234**
Dividends			–2,517	–2,517	–61	–2,578
Employee stock option and share plans			59	59	0	59
Changes in the composition of the group and other changes[1]			–96	–96	31	–65
Balance as at 31 December 2018	**17,067**	**3,504**	**23,602**	**44,173**	**803**	**44,976**

1 Includes an amount for the initial recognition of the redemption liability related to the acquisition of Payvision Holding B.V. and Makelaarsland B.V. that reduces the Retained earnings of the Group. Future remeasurements of the redemption liability are recognised in the statement of profit or loss.

Consolidated statement of changes in equity - continued

in EUR million	Share capital and share premium	Other reserves	Retained earnings	Share-holders' equity (parent)	Non-controlling interests	Total equity
Balance as at 1 January 2017	17,067	5,835	20,638	43,540	606	44,146
Unrealised revaluations available-for sale investments and other revaluations		–294		–294	10	–284
Realised gains/losses transferred to the statement of profit or loss		–90		–90	–2	–92
Changes in cash flow hedge reserve		–515		–515	–11	–526
Unrealised revaluations property in own use			26	26		26
Remeasurement of the net defined benefit asset/liability 34		–29		–29		–29
Exchange rate differences		–891		–891	30	–861
Share of other comprehensive income of associates and joint ventures and other income		135	–132	3		3
Total amount recognised directly in other comprehensive income		**–1,684**	**–106**	**–1,790**	**27**	**–1,763**
Net result from continuing and discontinued operations		153	4,866	5,019	82	5,101
Total comprehensive income net of tax		**–1,531**	**4,760**	**3,229**	**109**	**3,338**
Dividends			–3,176	–3,176		–3,176
Employee stock option and share plans			69	69		69
Balance as at 31 December 2017	**17,067**	**4,304**	**22,291**	**43,662**	**715**	**44,377**

Consolidated statement of cash flows

for the years ended 31 December

in EUR million		2019[1]	2018[1]	2017[1]
Cash flows from operating activities 29				
Result before tax		6,831	6,751	7,404
Adjusted for:	– Depreciation and amortisation	789	520	520
	– Addition to loan loss provisions	1,120	656	676
	– Other non cash items included in Result before tax	64	–1,646	708
Taxation paid		–2,369	–1,600	–1,753
Changes in:	– Net change in Loans and advances to/from banks, not available/payable on demand	–3,909	–212	3,014
	– Net change in Trading assets and Trading liabilities	–2,567	9,820	–11,180
	– Loans and advances to customers	–16,696	–31,016	–21,397
	– Customer deposits	24,828	31,241	22,960
	– Other 29	11,463	3,622	–2,337
Net cash flow from/(used in) operating activities		**19,553**	**18,136**	**–1,385**
Cash flows from investing activities				
Investments and advances:				
	– Acquisition of subsidiaries, net of cash acquired	–17	–111	
	– Associates and joint ventures	–686	–97	–79
	– Available-for-sale investments	n/a	n/a	–21,601
	– Held-to-maturity investments	n/a	n/a	–3,609
	– Financial assets at FVOCI	–16,270	-10,517	n/a
	– Securities at amortised cost	–12,268	-17,985	n/a
	– Property and equipment	–355	–286	–304
	– Other investments	–395	–258	–264

		2019[1]	2018[1]	2017[1]
Disposals and redemptions:				
	– Associates and joint ventures	60	116	245
	– Available-for-sale investments	n/a	n/a	32,788
	– Held-to-maturity investments	n/a	n/a	2,675
	– Financial assets at FVOCI	13,390	15,657	n/a
	– Securities at amortised cost	13,001	18,709	n/a
	– Property and equipment	81	17	79
	– Loans sold	744	206	1,815
	– Other investments	34		9
Net cash flow from/(used in) investing activities		**–2,681**	**5,451**	**11,754**
Cash flows from financing activities				
	Proceeds from debt securities	84,641	141,214	89,369
	Repayments of debt securities	–94,497	–131,170	–95,077
	Proceeds from issuance of subordinated loans	3,440	1,828	2,314
	Repayments of subordinated loans	–931	–4,594	–1,246
	Repayments of principal portion of lease liabilities [2]	–271	n/a	n/a
	Purchase/sale of treasury shares			
	Dividends paid	–2,848	–2,517	–3,176
	Other financing			
Net cash flow from/(used in) financing activities		**–10,465**	**4,761**	**–7,816**
Net cash flow		**6,406**	**28,348**	**2,553**
Cash and cash equivalents at beginning of year 31		47,528	18,976	16,163
Effect of exchange rate changes on cash and cash equivalents		95	205	260
Cash and cash equivalents at end of year 31		**54,029**	**47,528**	**18,976**

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9. The adoption of IFRS 9 led to new presentation requirements. 2017 period amounts have not been restated.

2 The amount for the period ended 31 December 2019 has been prepared in accordance with IFRS 16. Previous period amounts have not been restated.

Consolidated statement of cash flows - continued

As at 31 December 2019, Cash and cash equivalents includes cash and balances with central banks of EUR 53,202 million (2018: EUR 49,987 million; 2017: EUR 21,989 million). The increase in cash and balances with central banks reflects ING's liquidity management. Reference is made to Note 31 '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	2019[1]	2018[1]	2017[1]
Interest received	28,968	28,751	45,039
Interest paid	-14,594	-14,937	-30,978
	14,374	**13,814**	**14,061**
Dividend received[2]	212	180	208
Dividend paid	-2,848	-2,517	-3,176

1 The amounts for the period ended 31 December 2019 and 2018 have been prepared in accordance with IFRS 9, the adoption of IFRS 9 led to new presentation requirements; 2017 period amounts have not been restated, refer also to note 21 'Net interest income'.
2 Includes dividends received as recognized within Investment Income, from equity securities included in the Financial assets at fair value through profit or loss, Financial assets at fair value through OCI, and from Investments in associates and joint ventures. Dividend paid and received from trading positions have been included.

Interest received, interest paid and dividends received are included in operating activities in the Consolidated statement of cash flow. Dividend paid is included in financing activities in the Consolidated statement of cash flow.

Notes to the Consolidated financial statements

1 Basis of preparation and accounting policies

1.1 Reporting entity

ING Bank N.V. is a company domiciled in Amsterdam, the Netherlands. Commercial Register of Amsterdam, number 33031431. These Consolidated financial statements, as at and for the year ended 31 December 2019, comprise ING Bank N.V. (the Parent company) and its subsidiaries, together referred to as ING Bank. ING Bank is a global financial institution with a strong European base, offering a wide range of retail and wholesale banking services to customers in over 40 countries.

1.2 Authorisation of the Consolidated financial statements

The ING Bank Consolidated financial statements, as at and for the year ended 31 December 2019, were authorised for issue in accordance with a resolution of the Management Board Banking on 2 March 2020. The Management Board Banking may decide to amend the financial statements as long as these are not adopted by the General Meeting of Shareholders. The General Meeting of Shareholders may decide not to adopt the financial statements, but may not amend these.

1.3 Basis of preparation of the Consolidated financial statements

The ING Bank Consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and the relevant articles of Part 9 of Book 2 of the Dutch Civil Code.

IFRS as adopted by the EU are IFRS Standards and IFRS Interpretations as issued by the International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRIC) with some limited modifications such as the temporary 'carve-out' from IAS 39 'Financial Instruments: Recognition and Measurement' (herein, referred to as IFRS).

Under the EU carve-out, ING Bank applies fair value hedge accounting to portfolio hedges of interest rate risk (macro hedging). For further information, reference is made to paragraph 1.6.5 'Derivatives and hedge accounting' of Note 1 and Note 37 'Derivatives and hedge accounting'.

The ING Bank Consolidated financial statements have been prepared on a going concern basis.

The consolidated financial statements are presented in euros and rounded to the nearest million, unless stated otherwise. Amounts may not add up due to rounding.

1.3.1 Presentation of Risk management disclosures

To improve transparency, reduce duplication and present related information in one place, certain disclosures of the nature and extent of risks related to financial instruments required by IFRS 7 are now included in the 'Risk management' section of the Annual Report.

These disclosures are an integral part of ING Bank Consolidated financial statements and are indicated in the 'Risk management' section by orange brackets.

1.4 Changes to accounting policies

ING Bank has consistently applied its accounting policies to all periods presented in these Consolidated financial statements, except for changes due to the introduction of IFRS 16 in 2019 and IFRS 9 in 2018. Comparatives were not restated when applying these Standards.

1.4.1 Changes in IFRS effective in 2019

ING Bank changed its accounting policies in 2019 as a result of adopting IFRS 16 'Leases'. The impact of the adoption of IFRS 16 is disclosed in paragraph 1.4.3 'Changes to accounting policies in 2019' of Note 1.

ING Bank early adopted the amendments to IAS 39 'Financial Instruments: Recognition and Measurement' and IFRS 7 'Financial Instruments: Disclosures' in relation to the Interest Rate Benchmark Reform as issued by the IASB in September 2019 (endorsed by the EU in January 2020). These amendments are early adopted retrospectively to hedging relationships that existed at the start of the reporting period or were designated thereafter. The amendments provide temporary relief from applying specific hedge accounting requirements to hedging relationships directly affected by IBOR reform. The amendments require certain additional disclosures and have no further impact. Refer to paragraph 1.6.5 of Note 1 and to Note 37 'Derivatives and hedge accounting' for more information on the adoption of these amendments.

The other changes in IFRS that became effective in 2019 did not have a significant impact on ING Bank's accounting policies, ING Bank's results or financial position:

- Annual Improvements to IFRS Standards 2015-2017 Cycle: Amendments to IFRS 3 'Business Combinations', IFRS 11 'Joint Arrangements', IAS 12 'Income Taxes', IAS 23 'Borrowing Costs' (issued on 12 December 2017);
- Amendments to IAS 19 'Employee Benefits': Plan Amendment, Curtailment or Settlement (issued on 7 February 2018);
- Amendments to IAS 28 'Investments in Associates and Joint Ventures': Long-term Interests in Associates and Joint Ventures (issued on 12 October 2017); and
- IFRIC 23 'Uncertainty over Income Tax Treatments' (issued on 7 June 2017).

The amendments to IFRS 9 'Financial Instruments': Prepayment Features with Negative Compensation and Modifications of Financial Liabilities (issued on 12 October 2017) were early adopted by ING Bank in 2018.

Apart from the amendments to IAS 39 and IFRS 7 in relation to Interest Rate Benchmark Reform, ING Bank has not early adopted any other standard, interpretation or amendment in 2019 which has been issued, but is not yet effective.

1.4.2 Upcoming changes in IFRS after 2019

The following published amendments are not mandatory for 2019 and have not been early adopted by ING Bank. ING Bank is still currently assessing the detailed impact of these amendments, however the implementation of these amendments is expected to have no significant impact on ING Bank's Consolidated financial statements.

The list of upcoming changes to IFRS, which are applicable for ING Bank:

<u>Effective in 2020 (* - endorsed by the EU, the rest not yet endorsed by the EU):</u>

- Amendments to IFRS 3 'Business Combinations': Definition of a Business (issued on 22 October 2018);
- Amendments to IAS 1 and IAS 8: 'Definition of Material' (issued on 31 October 2018)*; and
- Amendments to References to the Conceptual Framework in IFRS Standards (issued on 29 March 2018)*.

<u>Effective in 2022 (not yet endorsed by the EU):</u>

- Amendments to IAS 1 'Presentation of Financial Statements': Classification of Liabilities as Current or Non-current (issued on 23 January 2020).

The IASB has also issued IFRS 17 'Insurance Contracts'. The original effective date of IFRS 17 was 1 January 2021, but in June 2019 the IASB has published an Exposure Draft proposing 1 January 2022 as the new effective date. ING Bank is currently assessing the detailed impact of IFRS 17.

1.4.3 Changes to accounting policies in 2019

IFRS 16 'Leases'

IFRS 16 'Leases' was issued by the IASB in January 2016 and endorsed by the EU in October 2017. IFRS 16 replaces IAS 17 'Leases', IFRIC 4 'Determining whether an Arrangement contains a Lease', SIC-15 'Operating Leases- Incentives' and SIC-27 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease'. ING Bank has adopted IFRS 16 retrospectively from 1 January 2019, but has not restated comparatives for the 2018 and 2017 reporting periods, as permitted under the specific transitional provisions in the Standard, the so-called 'modified retrospective approach'. The reclassifications and the adjustments arising from the new leasing rules are therefore recognised in the opening statement of financial position on 1 January 2019.

IFRS 16 'Leases' – Impact of adoption

Transition

For lessee accounting, the new Standard removes the distinction between operating and finance leases. All leases are recognised on the statement of financial position with exemptions for short-term leases with a lease term of less than 12 months and leases of low-value assets (for example mobile phones or laptops).

There is no significant impact of the adoption of IFRS 16 on ING Bank's Net Result, Comprehensive income and Shareholders' equity on transition. This follows ING Bank's implementation decision where the value of the right-of-use asset is based on the value of the lease liability, adjusted for any previously recognised prepaid and/or accrued lease payments on that lease contract, as is permitted under the Standard.

On transition to IFRS 16, ING Bank recognised lease liabilities of EUR 1,301 million and right-of-use assets of EUR 1,279 million equal to the lease liability adjusted for any previously recognised prepaid or accrued lease payments on that lease.

The weighted average incremental borrowing rate applied to lease liabilities recognised in the statement of financial position at the date of initial application is 2.47%.

The following table reconciles the future rental commitments for operating lease contracts under IAS 17 to the lease liability under IFRS 16 on transition to IFRS 16 as of 1 January 2019:

	1 January 2019
Future rental commitments for operating lease contract disclosed under IAS 17 as at 31 December 2018	1,378
(Less) discounting effect using ING's incremental borrowing rate at 1-1-2019	-108
(Less) recognition exemption for short-term leases	-16
(Less) recognition exemption for low value assets	-3
(Less) non-lease components of a contract	-78
Add extension and termination options reasonably certain to be exercised	143
(Less) variable lease payments based on an index or a rate	-15
Lease liability recognised under IFRS 16 at 1 January 2019	**1,301**

In applying IFRS 16 for the first time, ING Bank has used the following practical expedients permitted by the Standard:

- Reliance on previous assessments whether a contract is, or contains a lease at the date of initial application;
- The use of a single discount rate to a portfolio of leases with reasonably similar characteristics;
- Reliance on previous assessments on whether leases are onerous;
- The accounting for operating leases with a remaining lease term of less than 12 months as at 1 January 2019 as short-term leases;
- The exclusion of initial direct costs for the measurement of the right-of-use asset at the date of initial application; and
- The use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

IFRS 16 'Leases' - Accounting policies applied from 1 January 2019

ING Bank 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 Bank. 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 Bank business and treasury departments. It is determined by either ING Bank or Local Asset and Liability Committee (ALCO).

Right-of-use assets are measured at cost comprising the amount of the initial measurement of the lease liability, any lease payments made at or before the commencement date less any lease incentives received and any initial direct costs and restoration costs.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise mainly IT-equipment (for example mobile phones or laptops) and small items of office furniture.

The right-of-use asset is included in the statement of financial position line-item 'Property and equipment', the lease liability is included in the statement of financial position line-item 'Other liabilities'. Refer to Note 9 'Property and equipment' and Note 17 'Other liabilities'.

Subsequently, the right-of-use asset will amortise using a straight-line method to the income statement over the life of the lease. The lease liability will subsequently increase for the accrual of interest and decrease when payments are made. Any remeasurement of the lease liability due to a lease modification or other reassessment result in a corresponding adjustment to the carrying amount of the right-of-use asset.

ING Bank as the lessor

When ING Bank acts as a lessor, a distinction should be made between finance leases and operating leases. For ING Bank as a lessor these are mainly finance leases. The present value of the lease payments is recognised as a receivable under Loans and advances to customers or Loans and advances to banks. The difference between the gross receivable and the present value of the receivable is unearned finance lease income. Lease income is recognised over the term of the lease using the net investment method (before tax), which reflects a constant periodic rate of return.

Operating leases for lessees prior to 1 January 2019 under IAS 17

The comparative figures presented are accounted for using the previous Standard, IAS 17 'Leases'. Under this Standard a distinction was made between finance leases and operating leases. A lease was considered a finance lease if it transfers substantially all risks and rewards of the ownership of the asset. All other leases are operating leases.

Leases entered into by ING Bank as a lessee were primarily operating leases. The total payments under operating leases were recognised in the statement of profit or loss on a straight-line basis over the period of the lease.

1.5 Significant judgements and critical accounting estimates and assumptions

The preparation of the consolidated financial statements requires management to make judgements in the process of applying its accounting policies and to use estimates and assumptions. The estimates and assumptions affect the reported amounts of the assets and liabilities and the amounts of the contingent assets and contingent liabilities at the balance sheet date, as well as reported income and expenses for the year. The actual outcome may differ from these estimates. The process of setting assumptions is subject to internal control procedures and approvals.

ING Bank has identified areas that require management to make significant judgements and use critical accounting estimates and assumptions based on the information and financial data that may change in future periods. These areas are:

- The determination of the fair values of financial assets and liabilities;
- Loan loss provisions; and
- Provisions.

For further discussion of the significant judgements and critical accounting estimates and assumptions in these areas, reference is made to the relevant parts in paragraph 1.6 'Financial instruments', 1.17 'Provisions, contingent liabilities and contingent assets' of Note 1 and the applicable notes to the Consolidated financial statements.

1.6 Financial instruments

1.6.1 Recognition and derecognition of financial instruments

Recognition of financial assets

Financial assets are recognised in the balance sheet when ING becomes a party to the contractual provisions of the instrument. For a regular way purchase or sale of a financial asset, trade date and settlement date accounting is applied depending on the classification of the financial asset.

Derecognition of financial assets

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or where ING Bank has transferred substantially all risks and rewards of ownership. If ING Bank neither transfers nor retains substantially all the risks and rewards of ownership of a financial asset, it derecognises the financial asset if it no longer has control over the asset. The difference between the carrying amount of a financial asset that has been extinguished and the consideration received is recognised in profit or loss.

Recognition of financial liabilities

Financial liabilities are recognised on the date that the entity becomes a party to the contractual provisions of the instrument.

Derecognition of financial liabilities

Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled or expired. The difference between the carrying amount of a financial liability that has been extinguished and the consideration paid is recognised in profit or loss.

1.6.2 Classification and measurement of financial instruments

Financial assets

ING Bank 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 Bank 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 Bank's business models are based on the existing management structure of the bank, and refined based on an analysis of how businesses are evaluated and reported, how their specific business risks are managed and on historic and expected future sales. Sales are permissible in a HtC business model when these are due to an increase in credit risk, take place close to the maturity date (where the proceeds from the sales approximate the collection of the remaining contractual cash flows), are insignificant in value (both individually and in aggregate) or are infrequent.

Contractual cash flows Solely Payments of Principal and Interest (SPPI)

The contractual cash flows of a financial asset are assessed to determine whether they represent SPPI. Interest includes consideration for the time value of money, credit risk and also consideration for liquidity risk and costs associated with holding the financial asset for a particular period of time. In addition, interest can include a profit margin that is consistent with a basic lending arrangement. Financial assets with embedded derivatives are considered in their entirety when determining whether their cash flows are SPPI.

In assessing whether the contractual cash flows are SPPI, ING Bank considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making the assessment, terms such as the following are considered, with an example of an SPPI failure for each consideration:

- prepayment terms. For example a prepayment of an outstanding principal amount plus a penalty which is not capped to three or six months of interest;
- leverage features, which increase the variability of the contractual cash flows with the result that they do not have the economic characteristics of interest. An example is a Libor contract with a multiplier;
- terms that limit ING Bank's claim to cash flows from specified assets - e.g. non-recourse asset arrangements. This could be the case if payments of principal and interest are met solely by the cash flows generated by the underlying asset, for example instances in real estate, shipping and aviation financing; and
- features that modify consideration of the time value of money. These are contracts with for example an interest rate which is reset every month to a one-year rate. ING Bank performs either a qualitative or quantitative benchmark test on a financial asset with a modified time value of money element. A qualitative test is performed when it is clear with little or no analysis whether the contractual cash flows solely represent SPPI.

Based on the entity's business model for managing the financial assets and the contractual terms of the cash flows, there are three measurement categories into which ING Bank classifies its debt instruments:

- *Amortised Cost (AC):*
  Debt instruments that are held for collection of contractual cash flows under a HtC business model where those cash flows represent SPPI are measured at AC. Interest income from these financial assets is included in Interest income using the EIR method. Any gain or loss arising on derecognition is recognised directly in profit or loss. Impairment losses are presented as a separate line item in the Consolidated statement of profit or loss.
- *FVOCI:*
  Debt instruments that are held for collection of contractual cash flows and for selling the financial assets under a HtC&S business model, where the assets' cash flows represent SPPI, are

measured at FVOCI. Movements in the carrying amount are recognised in OCI, except for the recognition of impairment gains or losses, interest revenue and foreign exchange gains and losses which are recognised in profit or loss. When the financial asset is derecognised, the cumulative gain or loss previously recognised in OCI is reclassified from equity to profit or loss and presented in Investment income or Other income, based on the specific characteristics of the business model. Interest income from these financial assets is included in Interest income using the EIR method. Impairment losses are presented as a separate line item in the Consolidated statement of profit or loss.

- *FVPL:*
  Debt instruments that do not meet the criteria for AC or FVOCI are measured at FVPL. This includes debt instruments that are held-for-trading (presented separately as Trading assets) and all other debt instruments that do not meet the criteria for AC or FVOCI (presented separately as Mandatorily at FVPL). ING Bank 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 Bank reclassifies debt investments when, and only when, its business model for managing those assets changes. Such changes in business models are expected to be very infrequent. There have been no reclassifications during the reporting period.

Financial assets - Equity instruments
All equity investments are measured at fair value. ING Bank applies the fair value through OCI option to investments which are considered strategic, consisting of investments that add value to ING Bank's core banking activities.

There is no subsequent recycling of fair value gains and losses to profit or loss following the derecognition of investments if elected to be classified and measured as FVOCI. Dividends from such investments continue to be recognised in profit or loss as Investment income when ING Bank's right to receive payments is established. Impairment requirements are not applicable to equity investments classified and measured as FVOCI.

Other remaining equity investments are measured at FVPL. All changes in the fair value are recognised in Valuation result and Net trading income in the Consolidated statement of profit or loss.

Financial liabilities
Financial liabilities are classified and subsequently measured at AC, except for financial guarantee contracts, derivatives and liabilities designated at FVPL. Financial liabilities classified and measured at FVPL are presented as follows:

- the amount of change in the fair value that is attributable to changes in own credit risk of the liability designated at FVPL is presented in OCI. Upon derecognition this Debit Valuation Adjustment (DVA) impact does not recycle from OCI to profit or loss; and
- the remaining amount of change in the fair value is presented in profit or loss in 'Valuation results and net trading income'. Interest on financial liabilities at FVPL is also recognised in the valuation result, except for items voluntarily designated as FVPL for which interest is presented within 'Other interest income (expense).

A financial guarantee contract is a contract that requires ING Bank to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument. Such a contract is initially recognised at fair value and is subsequently measured at the higher of (a) the amount determined in accordance with impairment provisions of IFRS 9 (see section "Impairment of financial assets") and (b) the amount initially recognised less, when appropriate, cumulative amortisation recognised in accordance with the revenue recognition principle of IFRS 15.

1.6.3 Fair values of financial assets and liabilities

All financial assets and liabilities are recognised initially at fair value. Subsequently, except for financial assets and financial liabilities measured at amortised cost, all the other financial assets and liabilities are measured at fair value.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It assumes that market participants would use and take into account the characteristics of the asset or liability when pricing the asset or liability. Fair values of financial assets and liabilities are based on unadjusted quoted market prices where available. Such quoted market prices are primarily obtained from exchange prices for listed financial instruments. Where an exchange price is not available, quoted prices in an active market may be obtained from independent market vendors, brokers, or market makers. In general, positions are valued at the bid price for a long position and at the offer price for a short position or are valued at the price within the bid-offer spread that is most representative of fair value in the circumstances. In some cases where positions are marked at mid-market prices, a fair value adjustment is calculated.

For certain financial assets and liabilities, quoted market prices are not available. For such instruments, fair value is determined using valuation techniques. These range from discounting of cash flows to various valuation models, where relevant pricing factors including the market price of underlying reference instruments, market parameters (volatilities, correlations and credit ratings), and customer behaviour are taken into account. ING maximises the use of market observable inputs and minimises the use of unobservable inputs in determining the fair value. It can be subjective dependent on the significance of the unobservable input to the overall valuation. All valuation techniques used are subject to internal review and approval. Most data used in these valuation techniques are validated on a daily basis when possible.

When a group of financial assets and liabilities are managed on the basis of their net risk exposures, the fair value of a group of financial assets and liabilities are measured on a net portfolio level.

To include credit risk in fair value, ING applies both Credit and Debit Valuation Adjustments (CVA, DVA). Own issued debt and structured notes that are designated as measured at FVPL are adjusted for credit risk by means of a DVA. Additionally, derivatives valued at fair value are adjusted for credit risk by a CVA. The CVA is of a bilateral nature as both the credit risk on the counterparty as well as the credit risk on ING are included in the adjustment. All input data that is used in the determination of the CVA is based on market implied data. Additionally, wrong-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty deteriorates) and right-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty improves) are taken into account in the measurement of the valuation adjustment. ING applies an additional 'Funding Valuation Adjustment' (FVA) to the uncollateralised derivatives based on the market price of funding liquidity.

Significant judgements and critical accounting estimates and assumptions:
Even if market prices are available, when markets are less liquid there may be a range of prices for the same security from different price sources. Selecting the most appropriate price requires judgement and could result in different estimates of fair value.

Valuation techniques are subjective in nature and significant judgement is involved in establishing fair values for certain financial assets and liabilities. Valuation techniques involve various assumptions regarding pricing factors. The use of different valuation techniques and assumptions could produce significantly different estimates of fair value.

Price testing is performed to assess whether the process of valuation has led to an appropriate fair value of the position and to an appropriate reflection of these valuations in the statement of profit or loss. Price testing is performed to minimise the potential risks for economic losses due to incorrect or misused models.

Reference is made to Note 36 'Fair value of assets and liabilities' and Market risk paragraph in the 'Risk management' section of the Annual Report for the basis of the determination of the fair value of financial instruments and related sensitivities.

1.6.4 Credit risk management classification and maximum credit risk exposure

Credit risk management disclosures are provided in the Credit risk paragraph 'Credit risk categories' of the 'Risk management' section in the Annual Report.

The maximum credit risk exposure for items in the statement of financial position is generally the carrying value for the relevant financial assets. For the off-balance sheet items the maximum credit exposure is the maximum amount that could be required to be paid. Reference is made to Note 43 '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 Bank manages credit risk' and determines credit risk exposures for that purpose is explained in the Credit risk paragraph 'Credit Risk Appetite and Concentration Risk Framework' of the 'Risk management' section in the Annual Report.

1.6.5 Derivatives and hedge accounting

Derivatives are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently measured at fair value. Fair values are obtained from quoted market prices in active markets, including market transactions and valuation techniques (such as discounted cash flow models and option pricing models), as appropriate. All derivatives are carried as assets when their fair value is positive and as liabilities when their fair value is negative. Fair value movements on derivatives are presented in profit or loss in Valuation result and net trading income, except for derivatives in either a formal hedge relationship and so-called economic hedges that are not in a formal hedge accounting relationship where a component is presented separately in interest result in line with ING's risk management strategy.

Embedded derivatives are separated from financial liabilities and other non-financial contracts and accounted for as a derivative if, and only if:
a) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract;
b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
c) the combined instrument is not measured at fair value with changes in fair value reported in profit or loss.

If an embedded derivative is separated, the host contract is accounted for as a similar free-standing contract.

The method of recognising the resulting fair value gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Bank 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 Bank documents the relationship between hedging instruments and hedged items, its risk management objective, together with the methods selected to assess hedge effectiveness. The Bank also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of the hedged items.

ING Bank applies fair value hedge accounting to portfolio hedges of interest rate risk (macro hedging) under the EU carve-out. The EU carve-out macro hedging enables a group of derivatives (or proportions) to be viewed in combination and jointly designated as the hedging instrument and removes some of the limitations in fair value hedge accounting. ING Bank applies fair value hedge accounting for portfolio hedges of interest rate risk (macro hedging) under the EU carve-out to its retail operations. The net exposures of retail funding (savings and current accounts) and retail lending (mortgages) are hedged. The hedging activities are designated under a portfolio fair value hedge on the mortgages. Changes in the fair value of the derivatives are recognised in the statement of profit or loss, together with the fair value adjustment on the mortgages (hedged items) insofar as attributable to interest rate risk (the hedged risk).

ING Bank also applies macro cash flow hedge accounting to hedge the variability in future cash flows of non-trading assets and liabilities due to the interest rate risk and foreign currency exchange rate risk. The designated hedged items are floating rated assets or liabilities, such as floating rate mortgages and corporate loans. The effective portion of changes in the fair value of the derivatives are recognised in the Other Comprehensive Income.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in the statement of profit or loss, together with fair value adjustments to the hedged item attributable to the hedged risk. If the hedge relationship no longer meets the criteria for hedge accounting, the cumulative adjustment of the hedged item is, in the case of interest bearing instruments, amortised through the statement of profit or loss over the remaining term of the original hedge or recognised directly when the hedged item is derecognised. For non-interest bearing instruments, the cumulative adjustment of the hedged item is recognised in the statement of profit or loss only when the hedged item is derecognised.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognised in the Other Comprehensive Income. The gain or loss relating to the ineffective portion is recognised immediately in the statement of profit or loss. Amounts accumulated in the Other Comprehensive Income are recycled to the statement of profit or loss in the periods in which the hedged item affects net result. When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the Other Comprehensive Income at that time remains in the Other Comprehensive Income and is recognised when the forecast transaction is ultimately recognised in the statement of profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in the Other Comprehensive Income is transferred immediately to the statement of profit or loss.

Net investment hedges

Hedges of net investments in foreign operations are accounted for in a similar way to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in the Other Comprehensive Income and the gain or loss relating to the ineffective portion is recognised immediately in the statement of profit or loss. Gains and losses accumulated in the Other Comprehensive Income are included in the statement of profit or loss when the foreign operation is disposed.

Specific policies applicable from 1 January 2019 for hedges directly affected by IBOR reform

ING Bank early adopts the amendments as described in paragraph 1.4.1 'Changes in IFRS effective in 2019' of Note 1. The amendments provide temporary reliefs which enable hedge accounting to continue during the period of uncertainty before the replacement of an existing interest rate benchmark with an alternative nearly risk-free interest rate (an "RFR"). The following temporary reliefs are part of the amendment:

- Highly probable requirement for cash flow hedges
  When determining whether a forecast transaction is highly probable, it is assumed that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the reform.
- Prospective assessment of hedge effectiveness

When performing the prospective assessment it is assumed that the interest rate benchmark on which the hedged cash flows are based is not altered as a result of the reform.

- Retrospective assessment of hedge effectiveness
  When performing the retrospective assessment hedges are allowed to pass the assessment even if actual results are outside the 80-125% range, during the period of uncertainty arising from the IBOR reform.
- Designation of a component of an item as a hedged item
  For hedges of the benchmark component of interest rate risk affected by the reform, the separately identifiable requirement only needs to be demonstrated at the inception of such hedging relationships (including macro hedges).

The amendments are relevant given that ING Bank hedges and applies hedge accounting to benchmark interest rate exposure part of IBOR reform. Hedging instruments and hedged items continue to be indexed by the IBOR benchmark rates. Therefore, there is uncertainty over the timing and the amount of the replacement rate cash flows. ING Group will cease to apply the amendments when this uncertainty is no longer present or when the hedging relationship is discontinued.

Non-trading derivatives that do not qualify for hedge accounting

Derivative instruments that are used by the Bank as part of its risk management strategies, but which do not qualify for hedge accounting under ING Bank's accounting policies, are presented as non-trading derivatives. Non-trading derivatives are measured at fair value with changes in the fair value taken to the statement of profit or loss.

1.6.6 Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset, and the net amount reported, in the statement of financial position when the Bank has a current legally enforceable right to set off the recognised amounts and intends to either settle on a net basis or to realise the asset and settle the liability simultaneously. Offsetting is applied to certain interest rate swaps for which the services of a central clearing house are used.

1.6.7 Repurchase transactions and reverse repurchase transactions

Securities sold subject to repurchase agreements (repos), securities lending and similar agreements continue to be recognised in the consolidated statement of financial position. The counterparty liability is measured at FVPL (designated) and included in Other financial liabilities at FVPL if the asset is measured at FVPL. Otherwise, the counterparty liability is included in Deposits from banks, Customer deposits, or Trading, as appropriate.

Securities purchased under agreements to resell (reverse repos), securities borrowings and similar agreements are not recognised in the consolidated statement of financial position. The consideration paid to purchase securities is recognised as Loans and advances to customers, Loans and advances to banks, Other financial assets at FVPL or Trading assets, as appropriate. The difference between the sale and repurchase price is treated as interest and amortised over the life of the agreement using the effective interest method for instruments that are not measured at FVPL.

1.6.8 Impairment of financial assets (IFRS 9)

An ECL model is applied to on-balance sheet financial assets accounted for at AC and FVOCI such as loans, debt securities and lease receivables, as well as off-balance sheet items such as undrawn loan commitments, certain financial guarantees, and undrawn committed revolving credit facilities. Under the ECL model ING Bank calculates the allowance for credit losses (loan loss provision, LLP) by considering on a discounted basis the cash shortfalls it would incur in various default scenarios for prescribed future periods and multiplying the shortfalls by the probability of each scenario occurring. The LLP is the sum of these probability-weighted outcomes and the ECL estimates are unbiased and include supportable information about past events, current conditions, and forecasts of future economic conditions. ING Bank's approach leverages the existing regulatory capital models that use the Advanced Internal Ratings Based (AIRB) models for regulatory purposes.

Three stage approach

Financial assets are classified in any of the below 3 Stages at each reporting date. A financial asset can move between Stages during its lifetime. The Stages are based on changes in credit quality since initial recognition and defined as follows:

- Stage 1: 12 month ECL
  Financial assets that have not had a significant increase in credit risk since initial recognition (i.e. no Stage 2 or 3 triggers apply). Assets are classified as stage 1 upon initial recognition (with the exception of purchased or originated credit impaired (POCI) assets) and have a provision for ECL associated with the probability of default (PD) events occurring with the next 12 months (12 months ECL). For those financial assets with a remaining maturity of less than 12 months, a PD is used that corresponds to the remaining maturity;
- Stage 2: Lifetime ECL not credit impaired
  Financial assets showing a significant increase in credit risk since initial recognition. A provision is made for the life time ECL representing losses over the life of the financial instrument (lifetime ECL); or
- Stage 3: Lifetime ECL credit impaired
  Financial instruments that are credit impaired require a life time provision.

Significant increase in credit risk

ING Bank established a framework, incorporating quantitative and qualitative indicators, to identify and assess significant increases in credit risk (SICR). This is used to determine the appropriate ECL Staging for each financial asset.

The main determinate of SICR is a quantitative test, whereby the lifetime PD of an asset at each reporting date is compared against its lifetime PD at the date of origination or purchase. If the delta is above pre-defined absolute or relative PD thresholds, then an asset is considered to have experienced a SICR, which is a trigger for movement between Stage 1 and Stage 2. In these instances, assets will cease reporting a 12 month ECL, and instead report a lifetime ECL. Assets can also return to Stage 1 if there is sufficient evidence that there has been a significant reduction in credit risk.

ING Bank relies on a number of qualitative indicators to identify and assess SICR. These include:

- Forbearance status;
- Watch List status. Loans on the Watch List are individually assessed for Stage 2 classification;
- Intensive care management;
- Substandard Internal rating; and
- Arrears status.

Credit impaired financial assets (Stage 3)

Financial assets are assessed for credit-impairment at each reporting date and more frequently when circumstances warrant further assessment. Evidence of credit-impairment includes arrears of over 90 days on any material credit obligation, indications that the borrower is experiencing significant financial difficulty, a breach of contract, bankruptcy or distressed restructuring.

An asset that is in stage 3 will move back to stage 2 when, as at the reporting date, it is no longer considered to be credit-impaired. The asset will migrate back to stage 1 when its credit risk at the reporting date is no longer considered to have increased significantly since initial recognition.

Definition of default

ING Bank has aligned the definition of credit impaired under IFRS 9 (Stage 3) with the definition of default for prudential purposes. This is also the definition used for internal risk management purposes.

Macroeconomic scenarios

ING has established a quarterly process whereby forward-looking macroeconomics scenarios and probability weightings are developed for ECL calculation purposes. ING Bank applies data predominantly from a leading service provider enriched with the internal ING Bank 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 Bank 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 Bank applies a collective assessment method to measure ECL for performing (Stage 1), under-performing (Stage 2), and certain non-performing (Stage 3) assets. Other non-performing assets subject to ECL measurement apply the individual assessment method, and are all in Stage 3.

Collectively assessed assets (Stages 1 to 3)

This is a model-based approach that calculates ECL in a formula that is expressed simplistically as PD x EAD x LGD, adjusted for the time value of money. Assets that are collectively assessed are grouped on the basis of similar credit risk characteristics, taking into account loan type, industry, geographic location, collateral type, past due status and other relevant factors. These characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated.

For Stage 3 assets the PD equals 100% and the LGD and EAD represent a lifetime view of the losses based on characteristics of defaulted facilities.

To build the IFRS 9 models, ING Bank's expected loss models (PD, LGD, EAD) used for regulatory and capital purposes have been adjusted by removing embedded prudential conservatism (such as floors) and converted through-the-cycle estimates to point-in-time estimates to support the calculation of collective-assessment ECL under IFRS 9. The models assess ECL on the basis of forward-looking macroeconomic forecasts and other inputs. For most financial assets, the expected life is limited to the remaining maturity. For overdrafts and certain revolving credit facilities, such as credit cards, the maturity is estimated based on historical data as these do not have a fixed term or repayment schedule.

Individually assessed assets (Stage 3)

ING Bank estimates individual impairment provisions for individually significant credit impaired financial assets within Stage 3. Individual provisions are calculated using the discounted expected future cash flow method. To determine expected future cash flows, one or more scenarios are used. Each scenario is analysed based on the probability of occurrence and including forward looking information.

In determining the scenarios, all relevant factors impacting the future cash flows are taken into account. These include expected developments in credit quality, business and economic forecasts, and estimates of if/when recoveries will occur and taking into account ING's restructuring/recovery strategy.

The best estimate of ECL is calculated as the weighted-average of the shortfall (gross carrying amount minus discounted expected future cash flow using the original EIR) per scenario, based on best estimates of expected future cash flows. Recoveries can be from different sources including repayment of the loan, collateral recovery, asset sale etc. Cash flows from collateral and other credit enhancements are included in the measurement of the expected credit losses of the related financial asset when it is part of or integral to the contractual terms of the financial asset and the credit enhancement is not recognised separately. For the individual assessment, with granular (company or deal-specific) scenarios, specific factors can have a larger impact on the future cash flows than macroeconomic factors.

When a financial asset is credit-impaired, interest ceases to be recognised on the regular accrual basis, which accrues income based on the gross carrying amount of the asset. Rather, interest income is calculated by applying the original EIR to the AC of the asset, which is the gross carrying amount less the related loan loss provision.

Purchased or Originated Credit Impaired (POCI) assets
POCI assets are financial assets that are credit-impaired on initial recognition. Impairment on a POCI asset is determined based on lifetime ECL from initial recognition. POCI assets are recognised initially at an amount net of impairments and are measured at AC using a credit-adjusted effective interest rate. In subsequent periods any changes to the estimated lifetime ECL are recognised in profit or loss. Favourable changes are recognised as an impairment gain even if the lifetime ECL at the reporting date is lower than the estimated lifetime ECL at origination.

Modifications
In certain circumstances ING grants borrowers postponement and/or reduction of loan principal and/or interest payments for a temporary period of time to maximise collection opportunities, and if possible, avoid default, foreclosure, or repossession. When such postponement and/or reduction of loan principal and/or interest payments is executed based on credit concerns it is also referred to as forbearance (refer to the 'Risk Management' section of the Annual Report for more details). In such cases, the net present value of the postponement and/or reduction of loan and/or interest payments is taken into account in the determination of the appropriate level of impairment loss. If the forbearance results in a substantial modification of the terms of the loan, the original loan is derecognised and a new loan is recognised at its fair value at the modification date. ING Bank determines whether there has been a substantial modification using both quantitative and qualitative factors.

Write-off and debt forgiveness
If there is no reasonable expectation of recovery and/or collectability of amounts due a write-off can occur. The following events can lead to a write-off:
- After a restructuring has been completed and there is a high improbability of recovery of part of the remaining loan exposure (including partial debt forgiveness);
- In a bankruptcy liquidation scenario;
- After divestment or sale of a credit facility at a discount;
- Upon conversion of a credit facility into equity; or
- ING Bank releases a legal (monetary) claim it has on its customer.

When a loan is uncollectable, it is written off against the related loan loss provision. Subsequent recoveries of amounts previously written off are recognised in the statement of profit or loss.

Debt forgiveness (or debt settlement) involves write-off but additionally involves the forgiveness of a legal obligation, in whole or in part. This means that ING forfeits the legal right to recover the debt. As a result, the financial asset needs to be derecognised. Distinction is made in situations where ING ends the relationship with the client and situations where ING (partially) continues the financing of the client.

Presentation of ECL
Loss allowances for financial assets measured at AC are deducted from the gross carrying amount of the assets. For debt instruments at FVOCI, the loss allowance is recognised in OCI, instead of deducting the carrying amount of the asset. For impaired financial assets with drawn and undrawn components, ECL also reflects any credit losses related to the portion of the loan commitment that is expected to be drawn down over the remaining life of the instrument. The loss allowance on issued financial guarantee contracts, in scope of IFRS 9 and not measured at FVPL, are recognised as liabilities and presented in Other provisions. ECL are presented in profit or loss in Addition to loan loss provision.

Significant judgements and critical accounting estimates and assumptions:
Considerable management judgement is exercised in determining the amount of LLP for financial assets assessed on both a collective and an individual impairment basis. In particular, this judgement requires ING Bank to make various assumptions about the risk of default, the subsequent expected loss rates in the event of default, and expected future cash flows. These assumptions are based on a combination of the Bank's past history, existing market conditions and forward-looking estimates at the end of each reporting period. Changes in these assumptions may lead to changes in the LLP over time. Given they are subjective and complex in nature, and because the LLP and the underlying exposures subject to impairment assessment are material, these assumptions are considered critical accounting assumptions. The sensitivity of these assumptions is assessed in the credit risk section of the 'Risk Management' section in the Annual Report.

The critical accounting estimates and assumptions are:
The use of forward-looking macroeconomic scenarios in both collective and individual impairment assessments. Forward-looking macroeconomic scenarios are subjective and uncertain in nature. The process the Bank follows involves using inputs from third party provider Oxford Economics (OE), and subjecting these to internal expert review and challenge to ensure the inputs used in the models reflect ING's view on the macro economy. Two internal groups, the Macroeconomics Scenarios Team and the Macroeconomics Scenarios Expert Panel, were established for this purpose. The latter team consists of senior management representatives from the Business, Risk and Finance. The use of alternate forward-looking macroeconomic scenarios can produce significantly different estimates of ECL. This is demonstrated in the sensitivity analysis in the 'Risk Management' section of the Annual Report, where the un-weighted ECL under each of the three scenarios for some significant portfolios is disclosed.

The probability weights applied to each of the three scenarios. This is a management judgement that ultimately requires estimation and consideration of the range of possibilities. This ensures consensus view on the likelihood of each scenario materializing is appropriately reflected in the weights applied by the Bank for collective assessment ECL calculations. The sensitivity analysis in the 'Risk Management' section of the Annual Report discloses these weights used.

The significant judgements are:
The criteria for identifying a significant increase in credit risk. When determining whether the credit risk on a financial asset has increased significantly, ING Bank considers reasonable and supportable information available to compare the risk of default occurring at reporting date with the risk of a default occurring at initial recognition of the financial asset. Whilst judgement is required in applying each financial asset with a PD rating, there is significant judgement used in determining the stage allocation PD banding thresholds. The process of comparing a financial asset's PD with the PD banding thresholds determines its ECL stage. Assets in Stage 1 are allocated a 12 month ECL, and those in Stage 2 are allocated a lifetime ECL, and the difference is often significant. As such, the judgement made both in assigning financial asset PDs and in setting PD banding thresholds constitute a significant judgement. Analysis of the sensitivity associated with the assessment of significant increase in credit risk is presented in the 'Risk Management' section of the Annual Report.

The definition of default. Judgement is exercised in management's evaluation of whether there is objective evidence of impairment loss has been incurred for larger exposures. Management judgement is required in assessing evidence of credit-impairment.

1.7 Financial instruments prior to 1 January 2018 under IAS 39

The following is applicable to periods prior to 1 January 2018 for financial instruments accounted for under IAS 39, to the extent not already discussed earlier in this section. The 2017 comparative period was not restated for the adoption of IFRS 9.

1.7.1 Classification and measurement of financial assets and financial liabilities (IAS 39)

Financial assets and liabilities designated at fair value through profit or loss

Management will designate a financial asset or a financial liability as such only if this eliminates a measurement inconsistency, if the related assets and liabilities are managed on a fair value basis or classified as an embedded derivative as described below.

Interest income and expense from financial instruments classified at fair value through profit or loss is recognised in Interest income using the effective interest method (where applicable). The remaining changes in fair value of such instruments are recognised in Valuation results and net trading income in the statement of profit or loss. Dividend income from equity instruments classified at fair value through profit or loss is generally recognised in 'Valuation results and net trading income' in the statement of profit or loss when the dividend has been declared.

Embedded derivatives

Certain derivatives embedded in other contracts are measured as separate derivatives when their economic characteristics and risks are not closely related to those of the host contract, the host contract is not carried at fair value through profit or loss, and if a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative. These embedded derivatives are measured at fair value with changes in fair value recognised in the statement of profit or loss. An assessment is carried out when ING Group first becomes party to the contract. A reassessment is carried out only when there is a change in the terms of the contract that significantly modifies the expected cash flows.

Investments
Investments (including loans quoted in active markets) are classified either as held-to-maturity or available-for-sale. Investment debt securities and loans quoted in active markets with fixed maturity where management has both the intent and the ability to hold to maturity are classified as held-to-maturity. Investment securities and quoted loans intended to be held for an indefinite period of time, which may be sold in response to needs for liquidity or changes in interest rates, exchange rates or equity prices, are classified as available-for-sale financial assets.

Available-for-sale financial assets
Available-for-sale financial assets include available-for-sale debt securities and available-for-sale equity securities. Available-for-sale financial assets are initially recognised at fair value plus transaction costs. For available-for-sale debt securities, the difference between cost and redemption value is amortised. Interest income is recognised using the effective interest method. Available-for-sale financial assets are subsequently measured at fair value. Interest income from debt securities classified as available-for-sale is recognised in Interest income in the statement of profit or loss. Dividend income from equity instruments classified as available-for-sale is recognised in Investment income in the statement of profit or loss when the dividend has been declared. Unrealised gains and losses arising from changes in the fair value are recognised in equity and are recycled to the statement of profit or loss as Investment income when the asset is disposed.

Investments in prepayment sensitive securities such as Interest-Only and Principal-Only strips are generally classified as available-for-sale.

Held-to-maturity investments
Non-derivative financial assets with fixed or determinable payments and fixed maturity for which ING Group has the positive intent and ability to hold to maturity and which are designated by management as held-to-maturity assets are initially recognised at fair value plus transaction costs. Subsequently, they are carried at AC using the effective interest method less any impairment losses. Interest income from debt securities classified as held-to-maturity is recognised in Interest income in the statement of profit or loss using the effective interest method. Held-to-maturity investments include only debt securities.

Loans and receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially recognised at fair value plus transaction costs. Subsequently, they are carried at AC using the effective interest method less any impairment losses. Loans and receivables include Cash and balances with central banks, Loans and advances to banks, Loans and advances to customers, and some categories of Other assets and are reflected in these line items in the statement of financial position. Interest income from loans and receivables is recognised in Interest income in the statement of profit or loss using the effective interest method.

Impairments of financial assets at amortised cost (loan loss provisions) (IAS 39)
ING Group assesses periodically and at each balance sheet date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset, but before the balance sheet date, (a loss event) and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated. The following circumstances, among others, are considered objective evidence that a financial asset or group of assets is impaired:

- The borrower has sought or has been placed in bankruptcy or similar protection and this leads to the avoidance of or delays in repayment of the financial asset;
- The borrower has failed in the repayment of principal, interest, or fees and the payment failure has remained unsolved for a certain period;

- The borrower has demonstrated significant financial difficulty, to the extent that it will have a negative impact on the expected future cash flows of the financial asset;
- The credit obligation has been restructured for non-commercial reasons. ING Group has granted concessions, for economic or legal reasons relating to the borrower's financial difficulty, the effect of which is a reduction in the expected future cash flows of the financial asset; and
- Historical experience, updated for current events where necessary, provides evidence that a proportion of a group of assets is impaired although the related events that represent impairment triggers are not yet captured by ING Group's credit risk systems.

Losses expected as a result of future events, no matter how likely, are not recognised. ING Group first assesses whether objective evidence of impairment (a loss event/trigger) exists individually for financial assets that are individually significant, and then individually or collectively for financial assets that are not individually significant. If ING Group determines that no objective evidence of impairment (a loss event/trigger) exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss on an asset carried at AC has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account (loan loss provision) and the amount of the loss is recognised in the statement of profit or loss under Addition to loan loss provision. If the asset has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised (such as an improvement in the debtor's credit rating), the previously recognised impairment loss is reversed by adjusting the provision. The amount of the reversal is recognised in the statement of profit or loss.

Impairments on other debt instruments (Loans and held-to-maturity investments) are part of the loan loss provision as described above.

Impairment of AFS assets
At each balance sheet date, ING Group assesses whether there is objective evidence that a financial asset or a group of financial assets is impaired. In the specific case of equity investments classified as available-for-sale, a significant or prolonged decline in the fair value of the security below its cost is considered in determining whether the assets are impaired. Significant and prolonged are interpreted on a case-by-case basis for specific equity securities; generally 25% and six months are used as triggers. If any objective evidence exists for available-for-sale debt and equity investments, the cumulative loss, measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in net result, is removed from equity and recognised in the statement of profit or loss. Impairment losses recognised on equity instruments can never be reversed. If, in a subsequent period, the fair value of a debt instrument classified as available-for-sale increases and the increase can be objectively related to an event occurring after the impairment loss was recognised in the statement of profit or loss, the impairment loss is reversed through the statement of profit or loss.

1.8 Consolidation

ING Bank comprises ING Bank N.V. (the Parent Company) and all other subsidiaries.
Subsidiaries are entities controlled by ING Bank N.V. Control exists if ING Bank N.V. is exposed or has rights to variable returns and has the ability to affect those returns through the power over the investee. Control is usually achieved through situations including, but not limited to:

- Ownership, directly or indirectly, of more than half of the voting power;
- Ability to appoint or remove the majority of the board of directors;
- Power to govern operating and financial policies under statute or agreement; and

- Power over more than half of the voting rights through an agreement with other investors.

The existence and effect of potential voting rights that are currently exercisable or convertible are considered in assessing whether Bank 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 46 'Principal subsidiaries'.

A list containing the information referred to in Section 379 (1), Book 2 of the Dutch Civil Code has been filed with the office of the Commercial Register of Amsterdam, in accordance with Section 379 (5), Book 2 of the Dutch Civil Code.

The results of the operations and the net assets of subsidiaries are included in the statement of profit or loss and the statement of financial position from the date control is obtained until the date control is lost. On disposal, the difference between the sales proceeds, net of directly attributable transaction costs, and the net assets is included in net result.

A subsidiary which ING Bank has agreed to sell but is still legally owned by ING Bank may still be controlled by Bank 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 Bank N.V.

ING Bank N.V. and its Dutch group companies are subject to legal restrictions regarding the amount of dividends they can pay to their shareholders. The Dutch Civil Code contains the restriction that dividends can only be paid up to an amount equal to the excess of the company's own funds over the sum of the paid-up capital and reserves required by law. Additionally, certain Bank companies are subject to restrictions on the amount of funds they may transfer in the form of dividends, or otherwise, to the parent company.

Furthermore, in addition to the restrictions in respect of minimum capital requirements that are imposed by industry regulators in the countries in which the subsidiaries operate, other limitations exist in certain countries.

1.9 Segment reporting

An operating segment is a distinguishable component of the Bank, engaged in providing products or services, whose operating results are regularly reviewed by the Executive Board of ING Bank and the Management Board Banking (together the Chief Operating Decision Maker (CODM)) to make decisions about resources to be allocated to the segments and assess its performance. A geographical area is a distinguishable component of the Bank engaged in providing products or services within a particular economic environment that is subject to risks and returns that are different from those of segments operating in other economic environments.

The CODM examines ING Bank's performance both by line of business and geographic perspective and has identified five reportable segments by line of business and six by geographical area. The geographical analyses are based on the location of the office from which the transactions are originated.

1.10 Foreign currency translation

Functional and presentation currency

Items included in the financial statements of each of the Bank'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 Bank's presentation currency.

Transactions and balances
Foreign currency transactions are translated into the functional currency using the exchange rate prevailing at the date of the transactions. Exchange rate differences resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of profit or loss, except when deferred in equity as part of qualifying cash flow hedges or qualifying net investment hedges.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

Exchange rate differences on non-monetary items, measured at fair value through profit or loss, are reported as part of the fair value gain or loss. Non-monetary items are retranslated at the date fair value is determined. Exchange rate differences on non-monetary items measured at fair value through the revaluation reserve are included in the revaluation reserve in equity.

Exchange rate differences in the statement of profit or loss are generally included in 'Valuation results and net trading income'. Reference is made to Note 23 'Valuation results and net trading income', which discloses the amounts included in the statement of profit or loss. Exchange rate differences relating to the disposal of debt and FVPL equity securities are considered to be an inherent part of the capital gains and losses recognised in Investment income. As mentioned below, in Bank companies relating to the disposals of group companies, any exchange rate difference deferred in equity is recognised in the statement of profit or loss in 'Result on disposal of group companies'. Reference is also made to Note 20 'Equity', which discloses the amounts included in the statement of profit or loss.

Group companies
The results and financial positions of all group companies that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities included in each statement of financial position are translated at the closing rate at the date of that statement of financial position;
- Income and expenses included in each statement of profit or loss are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
- All resulting exchange rate differences are recognised in a separate component of equity.

On consolidation, exchange rate differences arising from the translation of a monetary item that forms part of the net investment in a foreign operation, and of borrowings and other instruments designated as hedges of such investments, are taken to shareholders' equity. When a foreign operation is sold, the corresponding exchange rate differences are recognised in the statement of profit or loss as part of the gain or loss on sale.

Goodwill and fair value adjustments arising from the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated at the exchange rate prevailing at the balance sheet date.

1.11 Investments in associates and joint ventures

Associates are all entities over which the Bank has significant influence but not control. Significant influence is the ability to participate in the financial and operating policies of the investee. It generally results from a shareholding of between 20% and 50% of the voting rights or through situations including, but not limited to one or more of the following:

- Representation on the board of directors;
- Participation in the policymaking process; and
- Interchange of managerial personnel.

Joint ventures are entities over which the Bank has joint control. Joint control is the contractually agreed sharing of control over an arrangement or entity, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Joint control means that no party to the agreement is able to act unilaterally to control the activity of the entity. The parties to the agreement must act together to control the entity and therefore exercise the joint control.

Investments in associates and joint ventures are initially recognised at cost and subsequently accounted for using the equity method of accounting.

The Bank's investment in associates and joint ventures (net of any accumulated impairment loss) includes goodwill identified on acquisition. The Bank's share of its associates and joint ventures post-acquisition profits or losses is recognised in the statement of profit or loss, and its share of post-acquisition changes in reserves is recognised in equity. The cumulative post-acquisition changes are adjusted against the carrying amount of the investment. When the Bank's share of losses in an associate or joint venture equals or exceeds its interest in the associate or joint venture, including any long-term interests in the associate like uncollateralised loans that are neither planned nor likely to be settled in the foreseeable future, the Bank does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the Bank and its associates and joint ventures are eliminated to the extent of the Bank's interest in the associates and joint ventures. Unrealised losses are also eliminated unless they provide evidence of an impairment of the asset transferred. Accounting policies of associates and joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Bank. The reporting dates of all significant associates and joint ventures are consistent with the reporting date of the Bank.

1.12 Property and equipment

Property in own use
Land and buildings held for own use are stated at fair value at the balance sheet date. Increases in the carrying amount arising on revaluation of land and buildings held for own use are credited to the revaluation reserve in shareholders' equity. Decreases in the carrying amount that offset previous increases of the same asset are charged against the revaluation reserve directly in equity; all other decreases are charged to the statement of profit or loss. Increases that reverse a revaluation decrease on the same asset previously recognised in net result are recognised in the statement of profit or loss. Depreciation is recognised based on the fair value and the estimated useful life (in general 20–50 years). Depreciation is calculated on a straight-line basis. On disposal, the related revaluation reserve is transferred to retained earnings.
The fair values of land and buildings are based on regular appraisals done by independent qualified valuers or by internal valuers, similar to appraisals of real estate investments. Subsequent expenditure is included in the asset's carrying amount when it is probable that future economic benefits associated with the item will flow to the Bank and the cost of the item can be measured reliably.

Equipment
Equipment is stated at cost less accumulated depreciation and any impairment losses. The cost of the assets is depreciated on a straight line basis over their estimated useful lives, which are generally as follows: for data processing equipment two to five years, and four to ten years for fixtures and fittings. Expenditure incurred on maintenance and repairs is recognised in the statement of profit or loss as incurred. Expenditure incurred on major improvements is capitalised and depreciated.

Disposals of property and equipment
The difference between the proceeds on disposal and net carrying value is recognised in the statement of profit or loss under Other income.

1.13 Acquisitions, goodwill and other intangible assets

Acquisitions and goodwill

ING Bank's acquisitions are accounted for using the acquisition method of accounting. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of exchange) of assets given, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree. Goodwill, being the difference between the cost of the acquisition (including assumed debt) and the Bank's interest in the fair value of the acquired assets, liabilities and contingent liabilities as at the date of acquisition, is capitalised as an intangible asset. Goodwill is only recognised separately on acquisitions. The results of the operations of the acquired companies are included in the statement of profit or loss from the date control is obtained.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value. Contingent consideration arrangements classified as an asset or a liability, are subsequently measured at fair value and the changes in fair value will be recognised in the statement of profit or loss. Changes in the fair value of the contingent consideration classified as equity, are not recognised.

Where a business combination is achieved in stages, ING Bank'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 Bank obtains control) and the resulting gain or loss, if any, is recognised in the statement of profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to the statement of profit or loss, where such treatment would be appropriate if that interest were disposed of. Acquisition related costs are recognised in the statement of profit or loss as incurred and presented in the statement of profit or loss as Other operating expenses.

The initial accounting for the fair value of the net assets of the companies acquired during the year may be determined only provisionally as the determination of the fair value can be complex and the time between the acquisition and the preparation of the Financial statements can be limited.

The initial accounting shall be completed within a year after acquisition. Adjustments to the fair value as at the date of acquisition of acquired assets and liabilities, that are identified within one year after acquisition are recognised as an adjustment to goodwill; any subsequent adjustment is recognised as income or expense. On disposal of group companies where control is lost, the difference between the sale proceeds and carrying value (including goodwill) and the unrealised results (including the currency translation reserve in equity) is included in the statement of profit or loss.

Goodwill impairment

ING assesses at each reporting period, whether there is an indication that an intangible asset may be impaired. Irrespective of whether there is an indication of impairment, intangible assets with an indefinite useful life, including goodwill acquired in a business combination, and intangible assets not yet available for use, are tested annually for impairment. Goodwill is allocated to groups of CGUs (that is, the group of cash generating units or CGUs) for the purpose of impairment testing. These groups of CGUs represent the lowest level at which goodwill is monitored for internal management purposes. Goodwill is tested for impairment by comparing the carrying value of the group of CGUs to the recoverable amount of that group of CGUs. The carrying value is determined as the IFRS net asset value including goodwill. In compliance with IAS 36 'Impairment of assets', the carrying value is determined on a basis that is consistent with the way in which the recoverable amount of the CGU is determined. When the carrying values need to be allocated between Retail and Wholesale, solvency (risk-weighted assets) are used as a basis. The recoverable amount is estimated as the higher of fair value less costs of disposal and value in use. Several methodologies are applied to arrive at the best estimate of the recoverable amount. Impairment of goodwill, if applicable, is included in the statement of profit or loss in Other operating expenses.

Computer software

Computer software that has been purchased or generated internally for own use is stated at cost less amortisation and any impairment losses. Amortisation is calculated on a straight-line basis over its useful life. This period will generally not exceed five years. Amortisation is included in Other operating expenses.

Other intangible assets
Other intangible assets are capitalised and amortised over their expected economic life, which is generally between three and ten years. Intangible assets with an indefinite life are not amortised.

1.14 Taxation

Income tax on the result for the year comprises current and deferred tax. Income tax is recognised in the statement of profit or loss but it is recognised directly in equity if the tax relates to items that are recognised directly in equity.

Deferred income tax
Deferred income tax is provided in full, using the liability method, on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled. Deferred tax assets and liabilities are not discounted.

Deferred tax assets are recognised where it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred income tax is provided on temporary differences arising from investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Bank and it is probable that the difference will not reverse in the foreseeable future. The tax effects of income tax losses available for carry forward are recognised as an asset where it is probable that future taxable profits will be available against which these losses can be utilised.

Fair value remeasurement of debt and equity instruments measured at FVOCI and cash flow hedges, are recognised directly in equity. Deferred tax related to this fair value remeasurement is also recognised directly in equity and is subsequently recognised in the statement of profit or loss together with the deferred gain or loss.

Uncertain tax positions are assessed continually by ING Bank and in case it is probable that there will be a cash outflow; a current tax liability is recognised.

1.15 Other assets

Investment property
Investment properties are recognised at fair value at the balance sheet date. Changes in the carrying amount resulting from revaluations are recognised in the statement of profit or loss. On disposal, the difference between the sale proceeds and carrying value is recognised in the statement of profit or loss.

Property obtained from foreclosures
Property obtained from foreclosures is stated at the lower of cost and net realisable value. Net realisable value is the estimated selling price, less applicable variable selling expenses. Property obtained from foreclosures is included in Other assets - Property development and obtained from foreclosures.

Property development
Property developed and under development is included in Other assets – Property development and obtained from foreclosures. Depending on the intention of ING Bank after completion of the development, the property is measured as follows:
- Intention to sell: at the lower of cost and net realisable value;
- Intention to use as a real estate investment: at fair value.

1.16 Disposal groups held for sale and discontinued operations

Disposal groups (and groups of non-current assets) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This is only the case when the sale is highly probable and the disposal group (or group of assets) is available for immediate sale in its present condition; management must be committed to the sale, which is expected to occur within one year from the date of classification as held for sale.

Upon classification as held for sale, the disposal group is measured at the lower of its carrying amount and fair value less costs to sell, except where specifically exempt from IFRS 5. An impairment loss is recognised for any initial or subsequent write-down of the disposal group to fair value less costs to sell. A gain is recognised for any subsequent increases in fair value less costs to sell of the disposal group, but not in excess of any cumulative impairment loss previously recognised. A gain or loss not previously recognised by the date of the sale of the disposal group is recognised at the date of derecognition. Assets within the disposal group are not depreciated or amortised while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognised. The assets of the disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

When a group of assets that is classified as held for sale represents a major line of business or geographical area the disposal group is classified as discontinued operations. Upon classification of a business as held for sale and discontinued operations the individual income and expenses are presented within the Total net result from discontinued operations instead of being presented in the usual line items in the Consolidated statement of profit or loss. All comparative years in the Consolidated statement of profit or loss are restated and presented as discontinued operations for all periods presented. Furthermore, the individual assets and liabilities are presented in the Consolidated statement of financial position as Assets and liabilities held for sale and are no longer included in the usual line items in the Consolidated statement of financial position. Changes in assets and liabilities as a result of classification as held for sale are included in the notes in the line 'Changes in composition of the group and other changes'.

1.17 Provisions, contingent liabilities and contingent assets

A provision is a present obligation arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits, however the timing or the amount is uncertain. Provisions are discounted when the effect of the time value of money is significant using a pre-tax discount rate.

Reorganisation provisions include employee termination benefits when the Bank is demonstrably committed to either terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal, or providing termination benefits as a result of an offer made to encourage voluntary redundancy.

A liability is recognised for a levy when the activity that triggers payment, as identified by the relevant legislation, occurs. For a levy that is triggered upon reaching a minimum threshold, the liability is recognised only upon reaching the specified minimum threshold.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of ING Bank; 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 Bank. 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 Bank may become involved in legal proceedings. The degree of uncertainty and the method of making the accounting estimate depends on the individual case, its nature and complexity. Legal cases are usually one of a kind. Judgement is required to estimate the probability of an unfavourable outcome and the amount of potential loss. For the assessment of litigation provisions ING Bank consults with legal experts. Even taking into consideration legal experts' advice, the probability of an outflow of economic benefits can still be uncertain and the amount provisioned can remain sensitive to the assumptions used which may have a broad range of outcomes. Reference is made to Note 16 'Provisions'.

For legal proceedings where it is not possible to make a reliable estimate of the expected financial effect, that could result from the ultimate resolution of the proceedings, no provision is recognised, however disclosure is included in the financial statements. Reference is made to Note 44 'Legal proceedings'.

Critical accounting estimates and assumptions for the reorganisation provision are in estimating the amounts and timing of cash flows as the announced transformation initiatives are implemented over a period of several years. Reference is made to Note 16 'Provisions'.

1.18 Other liabilities

Defined benefit plans
The net defined benefit asset or liability recognised in the statement of financial position in respect of defined benefit pension plans is the fair value of the plan assets less the present value of the defined benefit obligation at the balance sheet date.

Plan assets are measured at fair value at the balance sheet date. For determining the pension expense, the return on plan assets is determined using a high quality corporate bond rate identical to the discount rate used in determining the defined benefit obligation.

Changes in plan assets that effect Shareholders' equity and/or Net result, include mainly:
- Return on plan assets using a high quality corporate bond rate at the start of the reporting period which are recognised as staff costs in the statement of profit or loss; and
- Remeasurements which are recognised in Other comprehensive income (equity).

The defined benefit obligation is calculated by internal and external actuaries through actuarial models and calculations using the projected unit credit method. This method considers expected future payments required to settle the obligation resulting from employee service in the current and prior periods, discounted using a high quality corporate bond rate. Inherent in these actuarial models are assumptions including discount rates, rates of increase in future salary and benefit levels, mortality rates, consumer price index and the expected level of indexation. The assumptions are based on available market data as well as management expectations and are updated regularly. The actuarial assumptions may differ significantly from the actual results due to changes in market conditions, economic and mortality trends, and other assumptions. Any changes in these assumptions could have a significant impact on the defined benefit plan obligation and future pension costs.

Changes in the defined benefit obligation that effects Shareholders' equity and/or Net result, include mainly:
- Service cost which are recognised as staff costs in the statement of profit or loss;
- Interest expenses using a high quality corporate bond rate at the start of the period which are recognised as staff costs in the Statement of profit or loss; and
- Remeasurements which are recognised in Other comprehensive income (equity).

Remeasurements recognised in other comprehensive income are not recycled to profit or loss. Any past service cost relating to a plan amendment is recognised in profit or loss in the period of the plan amendment. Gains and losses on curtailments and settlements are recognised in the statement of profit or loss when the curtailment or settlement occurs.

The recognition of a net defined benefit asset in the Consolidated statement of financial position is limited to the present value of any economic benefits available in the form of refunds from the plans or reductions in future contributions to the plans.

Defined contribution plans
For defined contribution plans, the Bank pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Bank has no further payment obligations once the contributions have been paid. The contributions are recognised as staff expenses in the profit or loss when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Other post-employment obligations
Some group companies provide other post-employment benefits to certain employees and former employees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using an accounting methodology similar to that for defined benefit pension plans.

1.19 Income recognition

Interest
Interest income and expense are recognised in the statement of profit or loss using the effective interest method. The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability.

When calculating the effective interest rate, the Bank estimates cash flows considering all contractual terms of the financial instrument (for example, prepayment options) but does not consider future credit losses.

The calculation includes all fees and points paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts. Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Interest results on instruments classified at Amortised Cost, assets measured at FVOCI and derivatives in a formal hedge accounting relationship is presented in ‘Interest income (expense) using effective interest rate method’. Interest result on financial assets and liabilities voluntarily designated as at FVPL and derivatives in so called economic hedges and instruments designated at fair value are presented in ‘Other interest income (expense)’. Interest result on all other financial assets and liabilities at FVTPL is recognised in ‘Valuation results and net trading income’.

Fees and commissions
Fees and commissions are generally recognised as the service is provided. Loan commitment fees for loans that are likely to be drawn down are deferred (together with related direct costs) and recognised as an adjustment to the effective interest rate on the loan. Loan syndication fees are recognised as income when the syndication has been completed and the Bank 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 Bank is the lessor are divided into an interest component (recognised as interest income) and a repayment component.

1.20 Expense recognition

Expenses are recognised in the statement of profit or loss as incurred or when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability has arisen that can be measured reliably.

Fee and commission expenses are generally a result from a contract with ING service providers in order to perform the service for ING Bank's customers. Costs are generally presented as 'Commission expenses' if they are specific, incremental, directly attributable and identifiable to generate commission income.

Share-based payments
Share-based payment expenses are recognised as a staff expense over the vesting period. A corresponding increase in equity is recognised for equity-settled share-based payment transactions. The fair value of equity-settled share-based payment transactions are measured at the grant date. Rights granted will remain valid until the expiry date, even if the share based payment scheme is discontinued. The rights are subject to certain conditions, including a pre-determined continuous period of service.

1.21 Statement of cash flows

The statement of cash flows is prepared in accordance with the indirect method, classifying cash flows as cash flows from operating, investing and financing activities. In the net cash flow from operating activities, the result before tax is adjusted for those items in the statement of profit or loss and changes in items per the statement of financial position, which do not result in actual cash flows during the year.

For the purposes of the statement of cash flows, Cash and cash equivalents comprise balances with less than three months' maturity from the date of acquisition, including cash and balances with central banks, treasury bills and other eligible bills, amounts due from other banks, and deposits from banks. Investments qualify as a cash equivalent if they are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Cash flows arising from foreign currency transactions are translated into the functional currency using the exchange rates at the date of the cash flows.

The net cash flow shown in respect of Loans and advances to customers relates only to transactions involving actual payments or receipts. The Addition to loan loss provision which is deducted from the item Loans and advances to customers in the statement of financial position has been adjusted accordingly from the result before tax and is shown separately in the statement of cash flows.

The difference between the Net cash flow in accordance with the statement of cash flows and the change between the opening and closing balance of Cash and cash equivalents in the statement of financial position is due to exchange rate differences and is presented separately in the cash flow statement.

Liabilities arising from financing activities are debt securities and subordinated loans.

1.22 Parent company accounts

The parent company accounts of ING Bank N.V. are prepared in accordance with the financial reporting requirements included in Part 9 of Book 2 of the Dutch Civil Code. In accordance with subsection 8 of section 362, Book 2 of the Dutch Civil Code, the recognition and measurement principles applied in the Parent company accounts are the same 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	2019	2018
Amounts held at central banks	51,178	47,655
Cash and bank balances	2,024	2,333
	53,202	**49,987**

The movement in Cash and balances with central banks reflects ING's active liquidity management. Amounts held at central banks reflect on demand balances.

Reference is made to Note 40 'Assets not freely disposable' for restrictions on Cash balances with central banks.

3 Loans and advances to banks

Loans and advances to banks	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Loans	13,638	7,966	21,499	22,460	35,137	30,427
Cash advances, overdrafts and other balances	0	1	4	3	5	3
	13,638	**7,967**	**21,504**	**22,463**	**35,142**	**30,430**
Loan loss provisions	-6	-5	-3	-5	-9	-9
	13,632	**7,962**	**21,501**	**22,458**	**35,133**	**30,420**

Reference is made to Note 40 'Assets not freely disposable' for restrictions on Loans and advances to banks.

Loans include balances (mainly short-term deposits) with central banks amounting to EUR 3,185 million (2018: EUR 4,713 million).

As at 31 December 2019, Loans include receivables related to securities in reverse repurchase transactions amounting to EUR 8,943 million (2018: EUR 6,686 million) and receivables related to finance lease contracts amounting to EUR 24 million (2018: EUR 51 million). Reference is made to Note 7 'Loans and advances to customers' for information on finance lease receivables.

As at 31 December 2019, all loans and advances to banks are non-subordinated.

4 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss	2019	2018
Trading assets	49,264	50,163
Non-trading derivatives	2,278	2,672
Designated at fair value through profit or loss	3,076	2,887
Mandatorily measured at fair value through profit or loss	41,600	64,783
	96,217	**120,505**

Financial assets at fair value through profit or loss includes securities lending and sales and repurchase transactions which were not derecognised, because ING Bank continues to be exposed to substantially all risks and rewards of the transferred financial asset. These assets are included in Trading assets and Financial assets mandatorily measured at fair value through profit or loss. Reference is made to Note 41 'Transfer of financial assets' for information on transferred assets which were not derecognised.

Trading assets

Trading assets by type

	2019	2018
Equity securities	8,509	8,909
Debt securities	6,256	5,213
Derivatives	21,694	22,110
Loans and receivables	12,806	13,931
	49,264	**50,163**

Trading assets include assets that are classified under IFRS as Trading, but are closely related to servicing the needs of the clients of ING Bank. ING offers institutional clients, corporate clients, and governments, products that are traded on the financial markets.
A significant part of the derivatives in the trading portfolio is related to servicing corporate clients in their risk management to hedge for example currency or interest rate exposures. In addition, ING provides its customers access to equity and debt markets for issuing their own equity or debt securities (securities underwriting). Although these are presented as Trading under IFRS, these are directly related to services to ING's customers.

Part of the trading assets are sold subject to repurchase agreements, securities lending and similar agreements comparable to collateralised lending, and continue to be recognised in the consolidated statement of financial position.
From a risk perspective, the gross amount of trading assets must be considered together with the gross amount of trading liabilities, which are presented separately on the statement of financial position since IFRS does not always allow netting of these positions in the statement of financial position.

As at 31 December 2019, Trading Assets - Loans and receivables include receivables of EUR 11,969 million (2018: EUR 12,939 million) with regard to reverse repurchase transactions.

Reference is made to Note 15 'Financial liabilities at fair value through profit or loss' for information on trading liabilities.

Non-trading derivatives

Non-trading derivatives by type

	2019	2018
Derivatives used in		
- fair value hedges	524	638
- cash flow hedges	677	1,012
- hedges of net investments in foreign operations	23	41
Other non-trading derivatives	1,053	982
	2,278	**2,672**

Reference is made to Note 37 'Derivatives and hedge accounting' for information on derivatives used in hedge accounting.

Other non-trading derivatives mainly includes interest rate swaps and foreign exchange currency swaps for which no hedge accounting is applied.

Designated at fair value through profit or loss

Designated at fair value through profit or loss by type

	2019	2018
Debt securities	2,334	2,114
Loans and receivables	742	772
	3,076	**2,887**

'Financial assets designated at fair value through profit or loss' includes a portfolio of loans and receivables which is economically hedged by credit derivatives. The hedges do not meet the criteria for hedge accounting and the loans are recorded at fair value to avoid an accounting mismatch. The maximum credit exposure of the loans and receivables included in 'Financial assets designated at fair value through profit or loss' approximates its carrying value. The cumulative change in fair value of the loans attributable to changes in credit risk is not significant.

The notional value of the related credit derivatives is EUR 1,672 million (2018: EUR 1,364 million). The change in fair value of the credit derivatives attributable to changes in credit risk since the loans were first designated, amounts to EUR 29 million (2018: EUR -23 million) and the change for the current year amounts to EUR -52 million (2018: EUR 17 million).

The changes in fair value of the (designated) loans attributable to changes in credit risk have been calculated by determining the changes in credit spread implicit in the fair value of bonds issued by entities with similar credit characteristics.

Mandatorily at fair value through profit or loss

Mandatorily at fair value through profit or loss by type

	2019	2018
Equity securities	159	210
Debt securities	733	1,103
Loans and receivables	40,708	63,469
	41,600	**64,783**

None of the equity securities are individually significant for ING Bank.

For details on ING Bank's total exposure to debt securities reference is made to Note 6 'Securities at amortised cost'.

As at 31 December 2019, Loans and receivables mandatorily measured at fair value through profit or loss includes EUR 38,985 million (2018: EUR 63,022 million) with regard to reverse repurchase transactions.

5 Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income by type

	2019	2018
Equity securities	2,306	3,228
Debt securities[1]	30,483	25,616
Loans and advances[1]	1,680	2,379
	34,468	**31,223**

1 Debt securities include an amount of EUR -7 million (2018: EUR -6 million) and the Loans and advances includes EUR -3 million (2018: EUR -5 million) of Loan loss provisions.

Exposure to equity securities

Equity securities designated as at fair value through other comprehensive income

	Carrying value 2019	Dividend income 2019	Carrying value 2018	Dividend income 2018
Investment in Bank of Beijing	2,001	93	1,967	83
Investment in Kotak Mahindra Bank			919	1
Other Investments	305	18	342	8
	2,306	**111**	**3,228**	**92**

For strategic equity securities, ING decided to apply the option to irrevocably designate these investments at fair value through other comprehensive income, instead of the IFRS 9 default measurement of fair value through profit or loss.

As at 31 December 2019 ING holds approximately 13% (2018: 13%) of the shares of Bank of Beijing, a bank listed on the stock exchange of Shanghai. Following a change in regulatory requirements set by China Banking and Insurance Regulatory Commission, ING, as a shareholder holding more than 5% or more of the shares, is required to supply additional capital when necessary. No request for additional capital was received in 2019 (2018: not applicable).

The following table presents changes in financial assets at fair value through other comprehensive income.

Changes in fair value through other comprehensive income financial assets

	FVOCI equity securities		FVOCI debt instruments[1]		Total	
	2019	2018	2019	2018	2019	2018
Opening balance as at 1 January	3,228	3,983	27,995	65,747	31,223	69,730
Effect of change in accounting policy due to the implementation of IFRS 9		–184		–31,945		–32,129
Additions	11	33	16,259	10,486	16,270	10,518
Amortisation			–12	–12	–12	–12
Transfers and reclassifications	3	1	–0	1	3	2
Changes in unrealised revaluations[2]	139	–463	258	–660	397	–1,123
Impairments			–2		–2	
Reversals of impairments			1	16	1	16
Disposals and redemptions	–1,091	–178	–12,298	–15,478	–13,389	–15,656
Exchange rate differences	15	35	–40	–159	–25	–124
Changes in the composition of the group and other changes			2	1	3	1
Closing balance	**2,306**	**3,228**	**32,163**	**27,995**	**34,468**	**31,223**

1 Fair value through other comprehensive income debt instruments includes both debt securities and loans and advances.
2 Changes in unrealised revaluations include changes on hedged items which are recognised in the statement of profit or loss.

Following a partial divestment in the fourth quarter of 2018, ING sold its last tranche of shares in India's Kotak Mahindra Bank (Kotak) in the first quarter of 2019 for EUR 880 million. The transaction, for a stake of 3.07%, concluded the divestment process and was the main driver for the increase in the 'disposal' line.
Reference is made to Note 6 'Securities at amortised cost' for details on ING Bank's total exposure to debt securities.

6 Securities at amortised cost

Securities at amortised cost fully consists of debt securities.

ING Bank's total exposure to debt securities is included in the following lines in the statement of financial position:

Exposure to debt securities

	2019	2018
Debt securities at fair value through other comprehensive income	30,483	25,616
Debt securities at amortised cost	46,108	47,276
Debt securities at fair value through other comprehensive income and amortised cost	**76,592**	**72,893**
Trading assets	6,256	5,213
Debt securities at fair value through profit or loss	3,067	3,218
Total debt securities at fair value through profit or loss	**9,323**	**8,431**
	85,914	**81,323**

ING Bank's total exposure to debt securities (excluding debt securities held in the trading portfolio) of EUR 79,659 million (31 December 2018: EUR 76,111 million) is specified as follows:

Debt securities by type of exposure

	Debt Securities at FVPL		Debt securities at FVOCI		Debt securities at AC		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Government bonds	408	142	20,300	15,580	25,627	24,659	46,334	40,381
Sub-sovereign, Supranationals and Agencies	505	467	6,606	5,928	10,689	11,244	17,801	17,639
Covered bonds			1,734	2,245	6,960	6,722	8,693	8,967
Corporate bonds		23	476	485	143	765	619	1,273
Financial institutions' bonds	1,440	1,527	332	460	1,536	2,415	3,308	4,402
ABS portfolio	714	1,059	1,043	924	1,163	1,483	2,920	3,466
	3,067	**3,218**	**30,491**	**25,622**	**46,118**	**47,288**	**79,676**	**76,128**
Loan loss provisions			–7	–6	–10	–11	–17	–17
Bond portfolio	**3,067**	**3,218**	**30,483**	**25,616**	**46,108**	**47,276**	**79,659**	**76,111**

Approximately 90% (2018: 99%) of the exposure in the ABS portfolio is externally rated AAA, AA or A. There are no borrowed debt securities recognised in the statement of financial position.

7 Loans and advances to customers

Loans and advances to customers by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Loans to, or guaranteed by, public authorities	25,340	24,547	16,849	17,257	42,190	41,803
Loans secured by mortgages	119,679	119,939	232,583	219,983	352,262	339,922
Loans guaranteed by credit institutions	206	209	3,569	2,901	3,775	3,110
Personal lending	3,482	3,304	24,768	21,563	28,250	24,867
Corporate loans	39,787	37,331	150,233	149,787	190,019	187,117
	188,494	**185,329**	**428,003**	**411,490**	**616,497**	**596,819**
Loan loss provisions	–1,193	–1,480	–3,398	–3,011	–4,590	–4,491
	187,301	**183,849**	**424,605**	**408,479**	**611,907**	**592,328**

As at 31 December 2019, Loans and advances to customers – corporate loans include receivables with regard to securities which have been acquired in reverse repurchase transactions amounting to EUR 180 million (2018: EUR 266 million).

Loans and advances to customers by subordination

	2019	2018
Non-subordinated	611,786	592,208
Subordinated	121	120
	611,907	**592,328**

No individual loan or advance has terms and conditions that significantly affect the amount, timing or certainty of the consolidated cash flows of the Bank.

Loans and advances to customers and Loans and advances to banks include finance lease receivables and are detailed as follows:

Finance lease receivables	2019	2018
Maturities of gross investment in finance lease receivables		
- within 1 year	3,116	2,374
- between 1-2 years	3,811	n/a
- between 2-3 years	2,145	n/a
- between 3-4 years	717	n/a
- between 4-5 years	367	n/a
- more than 1 year but less than 5 years	n/a	5,959
- more than 5 years	434	1,646
	10,591	**9,979**
Unearned future finance income on finance leases	–580	–673
Net investment in finance leases	**10,011**	**9,306**
Included in Loans and advances to banks	24	51
Included in Loans and advances to customers	9,987	9,256
	10,011	**9,306**

The finance lease receivables mainly relate to the financing of equipment and to a lesser extent real estate for third parties, where ING is the lessor. The finance lease receivables are part of corporate loans. Interest income in 2019 on Finance lease receivables amounts to EUR 251 million (2018: EUR 269 million).
Expected credit losses for uncollectable finance lease receivables of EUR 136 million as at 31 December 2019 (2018: EUR 150 million) is included in the loan loss provision. The loan loss provision for finance lease receivables is classified into the following loan loss provision stages; stage 1: EUR 2 million (2018: EUR 5 million), stage 2: EUR 6 million (2018: EUR 11 million), and stage 3: EUR 128 million (2018: EUR 134 million).

No individual finance lease receivable has terms and conditions that significantly affect the amount, timing or certainty of the consolidated cash flows of the Bank.

8 Investments in associates and joint ventures

Investments in associates and joint ventures

2019	Interest held (%)	Fair value of listed investments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMB Public Company Limited	23	1,109	1,509	55,804	49,974	1,145	891
Other investments in associates and joint ventures			281				
			1,790				

Investments in associates and joint ventures

2018	Interest held (%)	Fair value of listed investments	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
TMB Public Company Limited	25	649	832	23,494	20,884	1,055	722
Other investments in associates and joint ventures			212				
			1,044				

TMB is a financial institution providing products and services to Wholesale, Small and Medium Enterprise (SME), and Retail customers. TMB is domiciled in Bangkok, Thailand and is listed on the Stock Exchange of Thailand (SET). In December 2019 TMB merged with Thanachart Bank and became Thailand's sixth-largest bank. Prior to this merger ING paid a capital contribution to TMB of EUR 319 million and ING Bank acquired 5% of the shares in TMB from ING Support Holding B.V. for EUR 242 million. As a result of the merger transaction ING recognized a gain of EUR 6 million mainly to partial release of the related foreign currency reserves.

Other investments in associates and joint ventures are mainly financial services and financial technology funds or vehicles operating predominantly in Europe.

ING Bank does not hold any interests in Investments in associates and joint ventures that are individually significant to ING Bank. Other investments in associates and joint ventures represents a large number of associates and joint ventures with an individual carrying value of less than EUR 50 million.

Significant influence for associates in which the interest held is below 20%, is based on the combination of ING Bank's financial interest and other arrangements, such as participation in the Board of Directors.

The reporting dates of certain associates and joint ventures can differ from the reporting date of the Bank, but by no more than three months.

Accumulated impairments of EUR 49 million (2018: EUR 15 million) have been recognised. The values presented in the tables above could differ from the values presented in the individual financial statements of the associates and joint ventures, due to the fact that the individual values have been brought in line with ING Bank's accounting principles. When the fair value of the investment is below cost for a significant amount or prolonged period of time, an impairment test is performed.

The associates and joint ventures of ING are subject to legal and regulatory restrictions regarding the amount of dividends it can pay to ING. These restrictions are for example dependent on the laws in the country of incorporation for declaring dividends or as a result of minimum capital requirements that are imposed by industry regulators in the countries in which the associates and joint ventures operate. In addition, the associates and joint ventures also consider other factors in determining the appropriate levels of equity needed. These factors and limitations include, but are not limited to, rating agency and regulatory views, which can change over time.

Changes in Investments in associates and joint ventures

	2019	2018
Opening balance	1,044	947
Effect of change in accounting policy due to the implementation of IFRS 9		–23
Additions	686	97
Transfers to and from Investments/Other assets and liabilities	4	5
Revaluations	–10	–2
Share of results	64	127
Dividends received	–50	–27
Disposals	–10	–116
Impairments	–34	–3
Exchange rate differences	96	39
Closing balance	**1,790**	**1,044**

Share of results from associates and joint ventures of EUR 64 million (2018: EUR 127 million) as included in the table above, is mainly attributable to results of TMB of EUR 59 million (2018: EUR 98 million).
Share of results from associates and joint ventures as presented in the statement of profit or loss includes, besides above mentioned share of results, also impairments.

9 Property and equipment

Property and equipment by type

	2019	2018
Property in own use	757	780
Equipment	940	879
Right-of-use assets	1,476	n/a
	3,172	**1,659**

As ING has implemented IFRS 16 Leases without restating comparatives, no Right-of-use assets were recognised in 2018. Reference is made to Note 1 'Accounting policies', 1.4.3. IFRS 16 'leases' – Impact of adoption.

ING considers valuations from third party experts in determining the fair values of the property in own use.

Changes in property in own use

	2019	2018
Opening balance	780	774
Additions	5	5
Reclassifications		
– Transfers to and from Other Assets	–1	11
Amounts recognised in the statement of profit or loss for the year		
– Depreciation	–11	–14
– Impairments	–2	–4
– Reversal of impairments	6	17
	–7	**–1**
Revaluations recognised in equity during the year	58	23
Disposals	–72	–12
Exchange rate differences	–7	–20
Closing balance	**757**	**780**
Gross carrying amount as at 31 December	1,279	1,320
Accumulated depreciation as at 31 December	–385	–387
Accumulated impairments as at 31 December	–137	–153
Net carrying value as at 31 December	**757**	**780**
Revaluation surplus		
Opening balance	280	279
Revaluation in the year	59	1
Closing balance	**339**	**280**

The cost or the purchase price amounted to EUR 940 million (2018: EUR 1,040 million). Cost or the purchase price less accumulated depreciation and impairments would have been EUR 417 million (2018: EUR 500 million) had property in own use been valued at cost instead of at fair value.

Changes in equipment

	Data processing equipment		Fixtures and fittings and other equipment		Total	
	2019	2018	2019	2018	2019	2018
Opening balance	290	291	589	626	879	917
Additions	149	148	200	136	349	284
Disposals	–1	–1	–8	–4	–9	–5
Depreciation	–136	–133	–142	–164	–278	–298
Impairments	–0	–4	–1	–1	–1	–5
Exchange rate differences	1	–8	1	–5	2	–13
Changes in the composition of the group and other changes	3	–4	–5	1	–3	–2
Closing balance	**307**	**290**	**633**	**589**	**940**	**879**
Gross carrying amount as at 31 December	1,479	1,346	2,408	2,305	3,886	3,651
Accumulated depreciation as at 31 December	–1,171	–1,055	–1,774	–1,716	–2,946	–2,771
Accumulated impairments as at 31 December	–1	–1	–1	–0	–1	–1
Net carrying value as at 31 December	**307**	**290**	**633**	**589**	**940**	**879**

Right-of-use assets relates to leased land and buildings, cars and other assets.

Changes in Right-of-use assets

	Property 2019	Cars 2019	Other leases 2019	Total 2019
Opening balance	n/a	n/a	n/a	n/a
Effect of changes in accounting policy due to the implementation of IFRS 16	1,138	70	72	1,280
Additions	381	65	–2	444
Depreciation	–211	–40	–12	–262
Impairments	–0			–0
Remeasurements	29	1	0	30
Disposals	–18	–0	–0	–19
Exchange rate differences	8	–0	–1	7
Changes in the composition of the group and other changes	–4	0		–4
Closing balance	**1,323**	**96**	**57**	**1,476**
Gross carrying amount as at 31 December	1,503	135	69	1,707
Accumulated depreciation as at 31 December	–213	–40	–12	–265
Accumulated impairments as at 31 December	–0			–0
Accumulated remeasurement as at 31 December	33	1	0	34
Net carrying value as at 31 December	**1,323**	**96**	**57**	**1,476**

10 Intangible assets

Changes in intangible assets

	Goodwill		Software		Other		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	918	816	868	648	53	5	1,839	1,469
Additions	17	202	94	95			111	297
Capitalised expenses			285	286			285	286
Amortisation			–235	–204	–2	–5	–237	–209
Impairments			–61	–12			–61	–12
Exchange rate differences	–28	–99		–5			–28	–104
Disposals			–1				–1	
Changes in the composition of the group and other changes			8	59	1	52	9	111
Closing balance	**907**	**918**	**958**	**868**	**52**	**53**	**1,916**	**1,839**
Gross carrying amount as at 31 December	907	918	2,608	2,359	61	60	3,575	3,338
Accumulated amortisation as at 31 December			–1,641	–1,487	–7	–5	–1,648	–1,492
Accumulated impairments as at 31 December			–9	–4	–2	–2	–11	–6
Net carrying value as at 31 December	**907**	**918**	**958**	**868**	**52**	**53**	**1,916**	**1,839**

Goodwill

Goodwill is allocated to groups of cash generating units (CGUs) as follows:

Goodwill allocation to group of CGUs

Group of CGU's	Method used for recoverable amount	Discount rate	Long term growth rate	Goodwill 2019	Goodwill 2018
Retail Netherlands	Values in use	6.10%	0.00%	30	14
Retail Belgium	Values in use	6.94%	0.00%	50	50
Retail Germany	Values in use	6.10%	0.00%	349	349
Retail Growth Markets [1]	Values in use	10.47%	3.34%	209	231
Wholesale Banking [1]	Values in use	7.29%	0.69%	268	274
				907	**918**

1 Goodwill related to Growth Countries is allocated across two groups of CGUs, EUR 209 million to Retail Growth Markets and EUR 61 million to Wholesale Banking (2018: EUR 230 million to Retail Growth Markets and EUR 67 million to Wholesale Banking).

Changes in the goodwill in 2019 mainly relate to the acquisition of 80% of the shares of Intersoftware Group B.V. The transaction resulted in recognition of EUR 17 million of goodwill which is fully allocated to Retail Netherland CGU.

In 2018 changes in the goodwill relate to the acquisition of 75% of the shares of Payvision Holding B.V. and 90% of the shares of Makelaarsland B.V. The acquisition of Payvision and Makelaarsland resulted in a recognition of goodwill of respectively EUR 188 million, allocated to Wholesale Banking, and EUR 14 million, allocated to Retail Netherland.

Other changes in goodwill of the CGU's Wholesale Banking and Retail Growth Markets relate to changes in currency exchange rates. Reference is made to Note 45 'Consolidated companies and businesses acquired and divested' for further information on the acquisitions that took place in 2018, 2019 and the goodwill recognised.

Methodology

Several methodologies are applied to arrive at the best estimate of the recoverable amount. In line with IFRS, the recoverable amount is determined as the higher of the fair value less costs of disposal and Value in Use (VIU). Fair value less costs of disposal is based on observable share prices (Level 1 inputs in the fair value hierarchy), observable Price-to-Book multiples of relevant peer banks (Level 2), or based on a discounted free cash flow model (Level 3). The VIU calculation is based on a Dividend Discount model using four year management approved plans. When estimating the VIU of a CGU, local conditions and requirements determine the capital requirements, discount rates, and terminal growth rates. These local conditions and requirements determine the ability to upstream excess capital and profits to ING Bank. The discount rate calculation includes other inputs such as equity market premium, country risk premium, and long term inflation which are based on market sources and management's judgement. The long term growth rate for EU-countries is based on long-term risk-free rate by reference to the yield of a composite index consisting of Euro generic government bonds, with a maturity of 30 years. For other countries, the growth rate includes long term inflation rate obtained from market sources.

The recoverable amount exceeds the carrying value of the CGUs for 2019 and 2018 and therefore no impairment is required.

Sensitivity of key assumptions

Key assumptions in the goodwill impairment test model are the Price-to-Book ratios, level 1 inputs (e.g. share price of a listed subsidiary), and the local parameters for CET1, discount rate and long term growth rates. The model was tested for sensitivity by changing the key parameters in the model to more conservative values. The sensitivity analysis did not trigger additional impairment considerations.

Software and Other intangible assets

Software, includes internally developed software amounting to EUR 741 million (2018: EUR 624 million).

In 2018, Changes in the composition of the group and other changes mainly relates to the recognition of intangible assets following the acquisition of Payvision. Reference is made to Note 45 'Consolidated companies and businesses acquired and divested' for further information on the acquisitions that took place in 2018 and the assets and liabilities recognised.

The carrying value of CGU Wholesale Banking includes EUR 20 million of intangibles with indefinite life which relates to acquired trade names in the payments and cash management business. The asset is deemed to have indefinite life because there is no foreseeable limit to the cash flows generated by those intangible assets.

No impairment of indefinite useful life asset was recognised in 2019 (2018: nil).

11 Other assets

Other assets by type

	2019	2018
Net defined benefit assets	709	527
Investment properties	46	54
Property development and obtained from foreclosures	98	124
Accrued assets	783	784
Amounts to be settled	2,835	4,248
Other	2,543	2,688
	7,014	**8,426**

Disclosures in respect of Net defined benefit assets are provided in Note 34 'Pension and other post-employment benefits'.

Accrued assets

Accrued assets relate to income to be received attributable to 2019 and amounts paid in advance in respect of costs chargeable to subsequent periods.

Amounts to be settled

Amounts to be settled include primarily transactions not settled at the balance sheet date. The nature of these transaction is short term and are expected to settle shortly after the closing date of the balance sheet.

Other

Other relates to various receivables in the normal course of business, amongst others, short term receivables relating to mortgage issuance and other amounts receivable from customers.

12 Assets and liabilities held for sale

Assets and liabilities held for sale includes disposal groups whose carrying amount will be recovered principally through a sale transaction rather than through continuing operations.

In December 2018, ING reached an agreement to sell part of the ING Lease Italy business and classified the this Italian lease business as Assets held for Sale (EUR 1.261 million). In the first 6 months of 2019 customers repaid EUR 100 million on outstanding. The sale of this Italian lease business was completed per 1 July 2019. The settlement price amounted to EUR 1.162 million, consisted of a EUR 368 million cash settlement, a EUR 20 million Deferred Purchase Price and a EUR 774 million Senior Loan facility for the portfolio of lease receivables. The deferred purchase price is linked to the performance of the sold portfolio and is reported under the financial assets mandatorily measured at fair value through profit and loss. The additional loss in 2019 amounted to EUR -2 million (2018: EUR -123 million).

Reference is made to Note 25 'Result on disposal of group companies' and to Note 45 'Consolidated companies and businesses acquired and divested'.

13 Deposits from banks

Deposits from banks include non-subordinated debt from banks, except for amounts in the form of debt securities.

Deposits from banks by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Non-interest bearing	107	22	73	412	180	434
Interest bearing	17,544	17,211	17,101	19,686	34,646	36,896
	17,651	**17,233**	**17,175**	**20,097**	**34,826**	**37,330**

Deposits from banks includes ING's participation in the targeted longer-term refinancing operations (TLTRO) of EUR 17.7 billion (2018: EUR 17.7 billion). The TLTRO aims to stimulate lending to the real economy in the Eurozone. The interest rate on the TLTRO's is fixed over the life of each operation at the benchmark rate of the European Central Bank.

14 Customer deposits

Customer deposits

	2019	2018[1]
Savings accounts	326,942	322,795
Credit balances on customer accounts	224,276	205,257
Corporate deposits	29,284	33,645
Other	25,908	18,597
	606,410	**580,294**

1 The prior periods have been updated to improve consistency and comparability.

Customer deposits by type

	Netherlands		International		Total	
	2019	2018	2019	2018	2019	2018
Non-interest bearing	19,030	16,901	24,782	25,342	43,812	42,242
Interest bearing	191,577	180,446	371,021	357,607	562,598	538,053
	210,606	**197,346**	**395,803**	**382,949**	**606,410**	**580,294**

Savings accounts relate to the balances on savings accounts, savings books, savings deposits, and time deposits of private individuals.
In 2019, Customer deposits includes EUR 30,853 million (2018: EUR 24,119 million) of deposits received from ING Group.

15 Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss

	2019	2018
Trading liabilities	28,042	31,215
Non-trading derivatives	2,217	2,313
Designated at fair value through profit or loss	47,685	59,179
	77,943	**92,707**

Reference is made to Note 41 'Transfer of financial assets' for information on securities lending as well as sale and repurchase transactions included in Trading liabilities and Financial liabilities designated at fair value through profit or loss.

Trading liabilities

Trading liabilities by type

	2019	2018
Equity securities	193	355
Debt securities	1,201	5,363
Funds on deposit	5,322	3,968
Derivatives	21,325	21,528
	28,042	**31,215**

As at 31 December 2019, Trading liabilities include funds on deposit of EUR 4,556 million (2018: EUR 3,227 million) with regard to repurchase transactions.

Non-trading derivatives

Non-trading derivatives by type

	2019	2018
Derivatives used in:		
– Fair value hedges	873	1,029
– Cash flow hedges	339	458
– Hedges of net investments in foreign operations	51	17
Other non-trading derivatives	954	809
	2,217	**2,313**

Reference is made to Note 37 ‘Derivatives and hedge accounting’ for information on derivatives used for hedge accounting.

Other non-trading derivatives mainly includes interest rate swaps and foreign currency swaps for hedging purposes, but for which no hedge accounting is applied.

Designated at fair value through profit or loss

Designated at fair value through profit or loss by type

	2019	2018
Debt securities	7,700	7,944
Funds entrusted	39,739	50,921
Subordinated liabilities	246	313
	47,685	**59,179**

As at 31 December 2019, financial liabilities designated at fair value through profit or loss include funds entrusted of EUR 38,492 million (2018: EUR 49,010 million) with regard to repurchase transactions.

As at 31 December 2019, the change in the fair value of financial liabilities designated at fair value through profit or loss attributable to changes in credit risk is EUR 139 million (2018: EUR 18 million) on a cumulative basis. This change has been determined as the amount of change in fair value of the financial liability that is not attributable to changes in market conditions that gave rise to market risk (i.e. mainly interest rate risk based on yield curves).

The amount that ING Bank is contractually required to pay at maturity to the holders of financial liabilities designated at fair value through profit or loss excluding repurchase agreements is EUR 8,660 million (2018: EUR 9,640 million).

16 Provisions

Provisions by type

	2019	2018
Reorganisation provisions	385	613
Other provisions	303	399
	688	**1,011**

Reorganisation provisions

Changes in reorganisation provisions

	2019	2018
Opening balance	613	1,097
Additions	56	53
Unused amounts reversed	–49	–49
Utilised	–234	–487
Other changes	–0	–2
Closing balance	**385**	**613**

In 2019 the addition to the reorganisation provision is mainly related to ING's Agile transformation in Germany and updates in existing reorganization provisions.

In 2018, changes in the reorganisation provisions were mainly attributable to existing initiatives following the digital transformation programmes of ING Bank. These initiatives are implemented over a period of several years and the estimate of the reorganisation provisions is inherently uncertain. The provision at the balance sheet date represents the best estimate of the expected redundancy costs and are expected to be sufficient to cover these costs.

Other provisions

Changes in other provisions

	Litigation		Other		Total	
	2019	2018	2019	2018	2019	2018
Opening balance	165	365	234	251	399	616
Effect of change in accounting policies			7	11	7	11
Additions	74	59	46	35	120	95
Interest			–5	1	–5	1
Unused amounts reversed	–31	–76	–38	–37	–68	–113
Utilised	–104	–186	–12	–28	–116	–214
Exchange rate differences	–1	–4	–0	1	–1	–3
Other changes	–0	6	–31	–0	–31	6
Closing balance	**102**	**165**	**200**	**234**	**303**	**399**

Reference is made to Note 44 'Legal proceedings' for developments in litigation provisions.

In 2019, Other provisions – other includes provisions of EUR 25 million (2018: EUR 42 million) that relate to credit replacement facilities and EUR 93 million (2018: EUR 80 million) that relate to non-credit replacement, off-balance facilities.

As at 31 December 2019 amounts expected to be settled within twelve months, amount to EUR 145 million. The amounts included in Other provisions are based on best estimates with regard to amounts and timing of cash flows required to settle the obligation.

Further reference is made to Note 28 'Other operating expenses'.

17 Other liabilities

Other liabilities by type

	2019	2018
Net defined benefit liability	483	421
Other post-employment benefits	84	76
Other staff-related liabilities	526	473
Other taxation and social security contributions	442	403
Rents received in advance	9	61
Costs payable	2,111	2,272
Amounts to be settled	4,741	6,026
Lease liabilities	1,507	n/a
Other	2,894	3,664
	12,796	**13,396**

Disclosures in respect of Net defined benefit liabilities are provided in Note 34 ‘Pension and other post-employment benefits’.

Other staff-related liabilities

Other staff-related liabilities includes vacation leave provisions, variable compensation provisions, jubilee provisions, and disability/illness provisions.

Costs payable

Costs payable relate to costs attributable to 2019, which will be paid in subsequent periods.

Amounts to be settled

Amounts to be settled include primarily transactions not settled at the balance sheet date. The nature of these transaction is short term and are expected to settle shortly after the closing date of the balance sheet.

Lease liabilities

As ING has implemented IFRS 16 Leases without restating comparatives, no Lease Liabilities were recognised in 2018. Reference is made to Note 1 ‘Accounting policies’, 1.4.3. IFRS 16 ’leases’ – Impact of adoption.

The total cash outflow for leases in 2019 was EUR 271 million.

Other

Other relates mainly to balances on margin accounts or amounts payable to customers.

18 Debt securities in issue

Debt securities in issue relate to debentures and other issued debt securities with either fixed interest rates or interest rates based on floating interest rate levels, such as certificates of deposit and accepted bills issued by ING Bank, except for subordinated items. Debt securities in issue do not include debt securities presented as Financial liabilities at fair value through profit or loss. ING Bank does not have debt securities that are issued on terms other than those available in the normal course of business. The maturities of the debt securities are as follows:

Debt securities in issue – maturities

	2019	2018
Fixed rate debt securities		
Within 1 year	26,871	32,626
More than 1 year but less than 2 years	10,358	7,766
More than 2 years but less than 3 years	6,742	10,267
More than 3 years but less than 4 years	3,142	5,488
More than 4 years but less than 5 years	1,226	3,123
More than 5 years	14,305	11,137
Total fixed rate debt securities	**62,644**	**70,406**
Floating rate debt securities		
Within 1 year	24,938	22,684
More than 1 year but less than 2 years	3,126	4,134
More than 2 years but less than 3 years	1,917	1,587
More than 3 years but less than 4 years	134	130
More than 4 years but less than 5 years	144	165
More than 5 years	816	3,054
Total floating rate debt securities	**31,077**	**31,753**
Total debt securities	**93,721**	**102,159**

In 2019, the decrease in Debt securities in issue of EUR 8.4 billion is mainly attributable to a decrease in commercial paper of EUR 6.1 billion, long term bonds of EUR 4.4 billion, the redemption of RMBS (residential mortgage backed securities) of EUR 2.3 billion, matured savings certificates of EUR 1.2 billion, partly offset by an increase in certificates of deposit of EUR 1.9 billion and covered bonds of EUR 2.9 billion, and an increase in other Debt securities in issue of EUR 0.8 billion.

19 Subordinated loans

Subordinated loans relate to subordinated capital debentures and private loans which may be included in the calculation of the capital ratio.

Subordinated loans include loans that qualify as Tier 1 and lower Tier 2 (CRD IV eligible) capital. Subordinated loans of EUR 13 billion have been placed with ING Bank N.V. by ING Groep N.V.

Changes in subordinated loans

	2019	2018
Opening balance	13,643	15,831
Effect of change in accounting policy due to the implementation of IFRS 9		170
New issuances	3,440	1,828
Repayments	–931	–4,594
Exchange rate differences and other	362	408
Closing balance	**16,515**	**13,643**

In 2019 ING Groep N.V. issued two Perpetual additional Tier 1 Contingent Convertible Capital Securities. In February 2019 securities of USD 1.25 billion have been issued with a coupon interest rate 6.75% and first call date on 16 April 2024. In September 2019 securities of USD 1.5 billion have been issued with a coupon interest rate 5.75% and first call date on 16 November 2026.

In November 2019 ING Groep N.V. issued subordinated Tier 2 notes of EUR 1 billion until 13 November 2030.

All three issuances are placed with ING Bank N.V. under the same conditions.

In June 2019 ING redeemed USD 1 billion 6.375% Tier 1 ING Perpetual Hybrid Capital Securities.

The average interest rate on subordinated loans is 4.36% (2018: 4.40%). The interest expense during the year 2019 was EUR 654 million (2018: EUR 700 million).

For additional information, reference is made to the Parent company financial statements, Note 16 ‘Subordinated loans’.

Equity

20 Equity

Total equity

	2019	2018	2017
Share capital and share premium			
- Share capital	525	525	525
- Share premium	16,542	16,542	16,542
	17,067	**17,067**	**17,067**
Other reserves			
- Revaluation reserve: Available-for-sale and other	n/a	n/a	3,449
- Revaluation reserve: Equity securities at FVOCI	1,580	1,914	n/a
- Revaluation reserve: Debt instruments at FVOCI	299	365	n/a
- Revaluation reserve: Cash flow hedge	1,208	604	263
- Revaluation reserve: Credit liability	–114	8	n/a
- Revaluation reserve: Property in own use	253	202	201
- Net defined benefit asset/liability remeasurement reserve	–336	–394	–400
- Currency translation reserve	–2,079	–2,068	–1,682
- Share of associates and joint ventures and other reserves	3,189	2,872	2,473
	4,000	**3,504**	**4,304**
Retained earnings	**25,857**	**23,602**	**22,291**
Shareholders' equity (parent)	**46,924**	**44,173**	**43,662**
Non-controlling interests	893	803	715
Total equity	**47,817**	**44,976**	**44,377**

The following components of equity, as included in Other reserves, cannot be freely distributed: Revaluation reserve, 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.

Share capital and share premium

Share capital

Share capital

	Ordinary shares (par value EUR 1.13)					
	Number x 1,000			Amount		
	2019	2018	2017	2019	2018	2017
Authorised share capital	1,600,000	1,600,000	1,600,000	1,808	1,808	1,808
Unissued share capital	1,134,965	1,134,965	1,134,965	1,283	1,283	1,283
Issued share capital	**465,035**	**465,035**	**465,035**	**525**	**525**	**525**

No change occurred in the issued share capital and share premium in 2019, 2018 and 2017.

All ordinary shares are in registered form. No share certificates have been issued. Ordinary shares may be transferred by means of a deed of transfer, subject to the approval of the general meeting of ING Bank. The par value of ordinary shares is EUR 1.13.

The authorised ordinary share capital of ING Bank N.V. consists of 1,600 million shares of which as at 31 December 2019, 465 million ordinary shares were issued and fully paid.

ING Bank has 50 authorised preference shares with par value of EUR 1.13 per preference share. As at 31 December 2019, 7 preference shares were issued and fully paid (2018: 7 preference shares; 2017: 7 preference shares) amounting to EUR 8 (2018: EUR 8 and 2017: EUR 8).

Dividend restrictions

ING Bank N.V. and its Dutch group companies are subject to legal restrictions regarding the amount of dividends they can pay to their shareholders. The Dutch Civil Code contains the restriction that dividends can only be paid up to an amount equal to the excess of the company's own funds over the sum of the paid-up capital and reserves required by law. Additionally, certain Bank companies

are subject to restrictions on the amount of funds they may transfer in the form of dividends or otherwise to the parent company.
Furthermore, in addition to the restrictions in respect of minimum capital requirements that are imposed by industry regulators in the countries in which subsidiaries operate, other limitations exist in certain countries.

Other reserves

Revaluation reserves

Changes in revaluation reserves

	Equity securities at FVOCI			Debt instruments at FVOCI			AFS and other			Cash flow hedge			Credit liability			Property in own use		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Opening balance	1,914	n/a	n/a	365	n/a	n/a	n/a	3,449	3,832	604	263	777	8	n/a	n/a	202	201	201
Effect of change in accounting policy due to the implementation of IFRS 9		2,432			581			–3,449						–190				
Changes in credit liability reserve													–116	198				
Unrealised revaluations	137	–461		–33	–163				–293	604	342	–514				60	3	26
Realised gains/losses transferred to the statement of profit or loss				–33	–54				–90									
Realised revaluations transferred to retained earnings	–472	–56											–6			–9	–2	–26
Closing balance	**1,580**	**1,914**	**n/a**	**299**	**365**	**n/a**	**n/a**	**n/a**	**3,449**	**1,208**	**604**	**263**	**–114**	**8**	**n/a**	**253**	**202**	**201**

Equity securities at FVOCI
In 2019, the unrealised revaluations of EUR 137 million are due to the revaluation of shares in Bank of Beijing EUR 35 million and shares in EquensWorldLine EUR 101 million. The EUR -472 million transfer of revaluation reserve to retained earnings is mainly related to the sale of shares in Kotak Mahindra Bank EUR -320 million and EquensWorldLine EUR -149 million.

In 2018, the Equity securities at FVOCI revaluation reserve decreased by EUR 517 million, mainly due to the revaluation of shares in Bank of Beijing EUR –549 million, partly offset by revaluation of shares in Kotak Mahindra Bank EUR 71 million.

Available-for-sale and other
As from 2018, due to implementation of IFRS 9, the revaluation results of Available-for-sale and other are reported in the FVOCI reserve.

In 2017, the Available-for-sale revaluation reserve decreased by EUR 383 million mainly due to the revaluation of shares in Bank of Beijing EUR –479 million, partly offset by revaluation of shares in Kotak Mahindra Bank EUR 302 million.

Cash flow hedge

ING mainly hedges floating rate lending with interest rate swaps. Due to decrease in interest rate yield curve in 2019 the interest rate swaps had a positive revaluation of EUR 604 million which is recognised in cash flow hedge reserve.

Net defined benefit asset/liability remeasurement reserve

Reference is made to Note 34 'Pension and other post-employment benefits'.

Currency translation reserve

Changes in Currency translation reserve

	2019	2018	2017
Opening balance	–2,068	–1,682	–791
Unrealised revaluations	–134	71	192
Realised gains/losses transferred to the statement of profit or loss	–128		
Exchange rate differences	251	–457	–1,083
Closing balance	**–2,079**	**–2,068**	**–1,682**

Realised gains/losses transferred to the statement of profit or loss is related to the sale of shares in Kotak Mahindra Bank (EUR -119 million) and the effect of the merger transaction of TMB (EUR -9 million).

Unrealised revaluations relates to changes in the value of hedging instruments that are designated as net investment hedges. The hedging strategy is to hedge the CET1 ratio. The net increase of unrealized revaluations and Exchange rate differences of EUR 117 million is related to several currencies.

Share of associates, joint ventures and other reserves

Changes in share of associates, joint ventures and other reserves

	2019	2018	2017
Opening balance	2,872	2,473	2,187
Effect of change in accounting policy due to the implementation of IFRS 9		–23	
Result for the year	180	160	153
Transfer to/from retained earnings	137	261	133
Closing balance	**3,189**	**2,872**	**2,473**

Retained earnings

Changes in retained earnings

	2019	2018	2017
Opening balance	23,602	22,291	20,638
Effect of change in accounting policy due to the implementation of IFRS 9	–	–391	
Transfer to/from other reserves	350	–192	–
Result for the year	4,663	4,447	4,866
Dividend	–2,819	–2,517	–3,176
Employee stock options and share plans	39	59	69
Changes in composition of the group and other changes	22	–96	–106
Closing balance	**25,857**	**23,602**	**22,291**

Changes in the composition of the group

In 2019 ING acquired the additional 23% of shares in Payvsion. Given that ING already had control over Payvision, the acquisition of the shares in 2019 represents a shareholder transaction and resulted in a transfer between Non-controlling interest and Retained earnings within Shareholders equity of EUR 24 million. Reference is made to Note 47, 'Consolidated companies and businesses acquired and divested', 'Acquisitions'.

Dividend

In 2019, a cash dividend of EUR 2,819 million (2018: EUR 2,517 million and 2017: EUR 3,176 million) was paid to the shareholder of ING Bank.

Notes to the Consolidated statement of profit or loss

21 Net interest income

Net interest income

	2019	2018	2017
Interest income on loans	19,322	18,988 [1]	18,405
Interest income on financial assets at fair value through OCI	615	554	n/a
Interest income on financial assets at amortised cost	673	780 [1]	n/a
Interest income on non-trading derivatives (hedge accounting)	4,318	4,491	n/a
Negative interest on liabilities	428	475	526
Total interest income using effective interest rate method	**25,355**	**25,288**	**n/a**
Interest income on financial assets at fair value through profit or loss	1,897	1,795	n/a
Interest income on investments	n/a	n/a	1,494
Interest income on trading derivatives	n/a	n/a	16,109
Interest income on other trading portfolio	n/a	n/a	1,028
Interest income on non-trading derivatives (no hedge accounting)	1,183	1,065 [1]	735 [1]
Interest income on non-trading derivatives (hedge accounting)	n/a	n/a	5,660
Interest income other	29	25	137
Total other interest income	**3,110**	**2,886**	**n/a**
Total interest income	**28,465**	**28,174**	**44,094**

	2019	2018	2017
Interest expense on deposits from banks	361	362	301
Interest expense on customer deposits	3,559	2,890	2,766
Interest expense on debt securities in issue	1,767	2,033	1,910
Interest expense on subordinated loans	654	700	756
Negative interest on assets	349	412	407
Interest expense on non-trading derivatives (hedge accounting)	4,615	4,826	5,946
Total interest expense using effective interest rate method	**11,305**	**11,222**	**n/a**
Interest expense on financial liabilities at fair value through profit or loss	1,695	1,577	n/a
Interest expense on trading derivatives	n/a	n/a	16,118
Interest expense on other trading liabilities	n/a	n/a	744
Interest expense on non-trading derivatives (no hedge accounting)	1,312	1,393 [1]	1,035 [1]
Interest expense on lease liabilities	25	n/a	n/a
Interest expense other	53	33	329
Total other interest expense	**3,085**	**3,002**	**n/a**
Total interest expense	**14,391**	**14,224**	**30,312**
Net interest income	**14,074**	**13,949**	**13,782**

1 The prior periods have been updated to improve consistency and comparability.

Total Net interest income of EUR 14,074 million (2018: EUR 13,949 million) includes interest income and expense for instruments calculated using the effective interest rate method and other interest income and interest expense. IFRS 9 resulted in changes to IAS 1 for the presentation of Interest income for instruments calculated using the effective interest rate method, which ING reports as a separate line item in the consolidated statement of profit or loss as from 2018.

To further enhance the relevance of the interest disclosures, ING Bank changed its separate presentation since 2018 of interest (income and expenses) for trading derivatives, trading securities and trading loans / deposits (mainly repo's) to presenting the full fair value movements in 'Valuation results and net trading income'. The change in presentation is in line with the changed presentation of accrued interest in the balance sheet that is no longer separately presented, but included in the corresponding balance sheet item of the host contract.

The new interest presentation was applied prospectively together with the other presentation requirements of IFRS 9 as from 2018.

22 Net fee and commission income

Fee and commission income

	2019	2018	2017
Funds transfer	1,513	1,394	1,171
Securities business	603	618	532
Insurance broking	191	173	176
Asset management fees	205	170	116
Brokerage and advisory fees	611	584	548
Other	1,317	1,302	1,321
	4,439	**4,240**	**3,864**

Other, mainly consists of commission fees in respect of bank guarantees of EUR 202 million (2018: EUR 207 million; 2017: EUR 209 million), in respect of underwriting syndication loans of EUR 10 million (2018: EUR 4 million; 2017: EUR 52 million), in respect of structured finance fees of EUR 141 million (2018: EUR 129 million; 2017: EUR 136 million), and in respect of collective instruments distributed but not managed by ING of EUR 167 million (2018: EUR 165 million; 2017: EUR 165 million).

Fee and commission expenses

	2019	2018	2017
Funds transfer	659	597	436
Securities business	140	170	150
Insurance broking	2	2	4
Asset management fees	8	4	5
Brokerage and advisory fees	282	220	192
Other	481	443	363
	1,571	**1,437**	**1,150**

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 32 'Segments' which includes net fee and commission income, as reported to the Executive Board and the Management Board Banking, disaggregated by line of business and by geographical segment.

23 Valuation results and net trading income

Valuation results and net trading income

	2019	2018	2017
Securities trading results	974	–722	656
Derivatives trading results	–998	540	59
Other trading results	117	–111	62
Change in fair value of derivatives relating to			
– fair value hedges	–305	62	729
– cash flow hedges (ineffective portion)	47	–19	44
– other non-trading derivatives	105	896	–1,147
Change in fair value of assets and liabilities (hedged items)	382	–54	–824
Valuation results on assets and liabilities designated at FVPL (excluding trading)	–359	366	–109
Foreign exchange transactions results	801	72	1,202
	765	**1,031**	**672**

Securities trading results includes the results of market making in instruments such as government securities, equity securities, corporate debt securities, money-market instruments, and interest rate derivatives such as swaps, options, futures, and forward contracts. Foreign exchange transactions results include gains and losses from spot and forward contracts, options, futures, and translated foreign currency assets and liabilities. As from current year the other trading results are presented separately in this disclosure. Prior year figures are updated accordingly. Other trading results include the results of trading loans and funds entrusted.

The portion of trading gains and losses relating to trading securities still held as at 31 December 2019 amounts to EUR -82 million (2018: EUR 396 million; 2017: EUR -68 million).

Net trading income relates to trading assets and trading liabilities which include assets and liabilities that are classified under IFRS as Trading but are closely related to servicing the needs of the clients of ING. ING offers products that are traded on the financial markets to institutional clients, corporate clients, and governments. ING Group's trading books are managed based on internal limits and comprise a mix of products with results which could be offset. A significant part of the derivatives in the trading portfolio are related to servicing corporate clients in their risk management to hedge for example currency or interest rate exposures. From a risk perspective, the gross amount of trading assets must be considered together with the gross amount of trading liabilities, which are presented separately on the statement of financial position. However, IFRS does not always allow netting of these positions in the statement of financial position. Reference is made to Note 4 'Financial assets at fair value through profit or loss' and Note 15 'Financial liabilities at fair value through profit or loss' for information on trading liabilities.

The majority of the risks involved in security and currency trading is economically hedged with derivatives. The securities trading results are partly offset by results on these derivatives. The result of these derivatives is included in Derivatives trading results. The result on currency trading is included in foreign exchange transactions results.

In 2019, Derivatives trading results include EUR 39 million CVA/DVA adjustments on trading derivatives (2018: EUR -20 million; 2017: EUR 47 million).

'Valuation results and net trading income' include the fair value movements on derivatives (used for both hedge accounting and economically hedging exposures) as well as the changes in the fair value of assets and liabilities included in hedging relationships as hedged items. Reference is made to Note 37 'Derivatives and hedge accounting' for information on derivatives used for hedge accounting.
The fair value movements on the derivatives are influenced by changes in the market conditions, such as stock prices, interest rates and currency exchange rates. In addition, 'Valuation results and net trading income' include the results on assets and liabilities designated at fair value through profit or loss.

The Valuation results on assets and liabilities designated at fair value through profit or loss include fair value changes on certain issued debt securities. Valuation results on assets and liabilities designated at fair value through profit or loss were mainly due to changes in the fair value of financial liabilities driven by changes in market conditions as disclosed in Note 15 'Financial liabilities at fair value through profit or loss'.

In 2019, Valuation results on assets and liabilities designated at fair value through profit or loss (excluding trading) include fair value adjustments on own issued notes amounting to EUR -403 million (2018: EUR 301 million; 2017: EUR -105 million). In 2017, DVA adjustment on own issued notes amounting to EUR -79 million was included in Valuation results. Starting 2018, in accordance with IFRS 9, the DVA adjustment on own issued notes is recognised in Other Comprehensive Income 'Credit liability reserve'.
Interest income from trading assets in 2019 amounted to EUR 15,187 million (2018: EUR 13,924 million). Interest expense from trading liabilities in 2019 amounted to EUR 14,922 million (2018: EUR 13,976 million).

'Valuation results and net trading income' are reflected in the Consolidated statement of cash flows in the line Result before tax - Adjusted for: other.

24 Investment income

Investment income	2019[1]	2018[1]	2017[1]
Dividend income	**115**	**102**	**80**
Realised gains/losses on disposal of debt instruments measured at FVOCI	46	77	n/a
Realised gains/losses on disposal of Available-for-sale debt securities	n/a	n/a	64
Reversal of impairments of Available-for-sale debt securities	n/a	n/a	3
Realised gains/losses and impairments of debt instruments measured at FVOCI	**46**	**77**	**67**
Realised gains/losses on disposal of Available-for-sale equity securities	n/a	n/a	48
Impairments of Available-for-sale equity securities	n/a	n/a	–6
Realised gains/losses and impairments of Available-for-sale equity securities	**n/a**	**n/a**	**42**
Income from and fair value gains/losses on investment properties	27	4	3
Investment income	**188**	**183**	**192**

1 The adoption of IFRS 9 led to new presentation requirements for 2019 and 2018; 2017 period amounts have not been restated.

In 2019, 2018 and 2017, Dividend income mainly consists of dividend received from ING's equity stake in Bank of Beijing.

Impairments and reversals of impairments on investments are presented within Investment income, which is part of Total income.

25 Result on disposal of group companies

Result on disposal of group companies	2019	2018	2017
Baring Private Equity Partners			1
ING Lease Italy	–2	–123	
ING Mauritius	119		
	117	**–123**	**1**

In 2019 the Result on disposal of group companies is mainly impacted by the sale of ING's stake in Kotak Mahindra Bank by ING Mauritius during 1Q 2019. ING Mauritius is in the process of being liquidated and consequently the release of the currency translation reserve (CTA) and the release of the Net Investment Foreign Entities reserve resulted in a one-off gain of EUR 119 million.

The Result on disposal of group companies includes the result (fair value less cost to sell) on the sale of part of the ING Lease Italy business amounting to EUR -123 million, which was recognized in 2018 and a final result of EUR -2 million recognized in 2019.

In 2017 the Result on disposal of group companies included realised deferred profits on divestments in prior periods related to Baring Private Equity Partners.

26 Other income

In 2019 Other income of EUR 251 million (2018: EUR 136 million; 2017: EUR 349 million) includes the recognition of a EUR 79 million receivable related to the insolvency of a financial institution.

Furthermore, Other income includes income from subleasing right of use assets and gains or losses from sale and lease back transactions amounting to EUR 5 million as well as income from positive recovery of defaulted receivables of EUR 32 million. The remainder of the Other income is mainly impacted by positive results on the sale of loans and property and various other non-recurring results.

In 2017 an amount of EUR 121 million is included related to a tax charge at ING Australia Holdings Ltd, for which a full reimbursement is expected to be received from NN Group.

27 Staff expenses

Staff expenses

	2019	2018	2017
Salaries	3,572	3,287	3,273
Pension costs and other staff-related benefit costs	366	385	381
Social security costs	530	509	499
Share-based compensation arrangements	39	59	70
External employees	974	901	716
Education	64	87	76
Other staff costs	208	202	183
	5,753	**5,430**	**5,198**

Number of employees

	Netherlands			International			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Total average number of internal employees at full time equivalent basis	**14,415**	13,600	13,141	**39,016**	38,633	38,363	**53,431**	52,233	51,504

Remuneration of senior management, Management Board Banking and Supervisory Board

Reference is made to Note 48 'Related parties'.

Stock option and share plans

ING Bank N.V. has granted option rights on ING Groep N.V. shares and conditional rights on shares to a number of senior executives (members of the Management Board Banking, general managers and other officers nominated by the Management Board Banking), and to a considerable number of employees of ING Bank. The purpose of the option and share schemes, apart from promoting a lasting growth of ING Bank, is to attract, retain and motivate senior executives and staff.
ING grants four types of share awards, deferred shares, performance shares and upfront shares, which form part of the variable remuneration offering via the Long term Sustainable Performance Plan (LSPP), as well as fixed shares. The entitlement to the LSPP share awards is granted conditionally. If the participant remains in employment for an uninterrupted period between the grant date and the vesting date, the entitlement becomes unconditional, with the exception of the upfront shares which are immediately vested upon grant. Additionally, a condition before vesting was applied to performance shares until 2018. As of 2019, this performance condition is no longer applicable. Upfront and deferred shares awarded to the Management Board members of ING Bank as well as identified staff, have a retention obligation that must be adhered to upon vesting, a minimum retention of 12 months applies. ING has the authority to apply a hold back to awarded but unvested shares and a claw-back to vested shares.

In addition to the LSPP share awards, ING also pays a number of senior employees fixed shares. The number of shares are determined each month from a cash value that forms part of the employee fixed remuneration. The shares are immediately vested to the employee, but have a minimum holding requirement of two years before the employee can dispose of the shares. The fixed shares are not subject to holdback or clawback.

The shares granted in 2019 relate to performance year 2018. In 2019, 2,837 share awards (2018: 111,779; 2017: 159,217) were granted to the members of the Management Board Banking (relating to pre-board service period). To senior management and other employees 2,167,817 share awards (2018: 3,989,214; 2017: 4,846,903) were granted.

Every year, the ING Group Executive Board decides whether the option and share schemes are to be continued and, if so, to what extent. In 2010, the Group Executive Board decided not to continue the option scheme as from 2011. The existing option schemes will run off in the coming year as the option rights will expire in 2020.

The option rights are valid for a period of ten years. Option rights that are not exercised within this period, lapse. Option rights granted will remain valid until the expiry date, even if the option scheme is discontinued. The option rights are subject to certain conditions, including a pre-determined continuous period of service. The exercise prices of the options are the same as the quoted prices of ING Groep N.V. shares at the date on which the options are granted.

The obligations with regard to the existing stock option plan and the share plans will be funded either by cash or by newly issued shares at the discretion of ING Group.

Changes in option rights outstanding

	Options outstanding (in numbers)			Weighted average exercise price (in euros)		
	2019	2018	2017	2019	2018	2017
Opening balance	3,291,328	9,572,737	15,838,152	5.84	12.46	15.53
Exercised	–1,492,380	–475,650	–1,290,392	4.46	6.02	6.05
Forfeited	–21,608	–63,795	–97,188	7.19	8.89	14.13
Expired	–215,707	–5,741,964	–4,877,835	4.24	16.82	24.09
Closing balance	**1,561,633**	**3,291,328**	**9,572,737**	**7.35**	5.84	12.46

The weighted average share price at the date of exercise for options exercised during 2019 is EUR 10.89 (2018: EUR 13.65; 2017: 13.81). All option rights are vested.

Summary of stock options outstanding and exercisable

	Options outstanding and exercisable as at 31 December			Weighted average remaining contractual life			Weighted average exercise price		
Range of exercise price in euros	2019	2018	2017	2019	2018	2017	2019	2018	2017
0.00 – 5.00		1,130,907	1,342,436		0.21	1.21		2.87	2.87
5.00 – 10.00	1,561,633	2,160,421	2,496,862	0.22	1.21	2.21	7.35	7.39	7.39
10.00 – 15.00			75,399			0.71			14.35
15.00 – 20.00			5,658,040			0.21			16.94
	1,561,633	**3,291,328**	**9,572,737**						

All options outstanding are exercisable. As at 31 December 2019, the aggregate intrinsic value of options outstanding and exercisable is EUR 5 million (2018: EUR 12 million; 2017: EUR 37 million).

Changes in share awards

	Share awards (in numbers)			Weighted average grant date fair value (in euros)		
	2019	2018	2017	2019	2018	2017
Opening balance	5,852,986	7,220,642	8,362,851	11.62	11.46	10.44
Granted	2,170,654	4,100,993	5,006,120	10.04	12.50	13.20
Performance effect		341,623	379,805	11.12	11.65	10.47
Vested	–3,945,020	–5,565,093	–6,309,714	11.23	12.05	11.41
Forfeited	–223,585	–245,179	–218,420	11.39	11.38	10.83
Closing balance	**3,855,035**	**5,852,986**	**7,220,642**	11.14	11.62	11.46

The fair value of share awards granted is recognised as an expense under Staff expenses and is allocated over the vesting period of the share awards. The fair value calculation takes into account the current stock prices, expected volatilities and the dividend yield of ING shares.

As at 31 December 2019, total unrecognised compensation costs related to share awards amount to EUR 15 million (2018: EUR 29 million; 2017: EUR 37 million). These costs are expected to be recognised over a weighted average period of 1.4 years (2018: 1.4 years; 2017: 1.4 years).

28 Other operating expenses

Other operating expenses

	2019	2018	2017
Regulatory costs	1,021	947	901
Audit and non-audit services	30	26	22
IT related expenses	759	779	737
Advertising and public relations	391	402	455
External advisory fees	410	357	350
Office expenses	325	564	586
Travel and accommodation expenses	140	179	178
Contributions and subscriptions	108	91	87
Postal charges	46	54	50
Depreciation of property and equipment[1]	551	312	319
Amortisation of intangible assets	237	209	179
Impairments and reversals on property and equipment and intangibles	59	19	18
Addition/(unused amounts reversed) of provision for reorganisations	6	4	–5
Addition/(unused amounts reversed) of other provisions	29	–13	167
Other	477	1,336	554
	4,590	**5,265**	**4,598**

1 Includes depreciation expenses of right-of use assets as recognised under IFRS 16.

Regulatory costs

Regulatory costs represent contributions to the Deposit Guarantee Schemes (DGS), The Single Resolution Fund (SRF), local bank taxes and local resolution funds. Included in Regulatory costs for 2019, are contributions to DGS of EUR 362 million (2018: EUR 364 million; 2017: EUR 341 million) mainly related to the Netherlands, Germany, Belgium, Poland, and Spain and contributions to the SRF and local resolution funds of EUR 239 million (2018: EUR 208 million; 2017: EUR 179 million). In 2019 local bank taxes increased by EUR 45 million from EUR 375 million in 2018 to EUR 420 million (2017: EUR 381 million).

Audit and non-audit services

Audit and non-audit services include fees for services provided by the Bank's auditors. The increase in audit fees 2019 primarily relates to audit activities for the implementation of IFRS 16, new statutory audits and new IT systems in scope.

Tangible and Intangible impairments and reversals

Impairments and reversals of property and equipment and intangibles

	Impairment losses			Reversals of impairments			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Property and equipment	4	9	10	–6	–17	–24	–3	–8	–14
Property development	1	15	2				1	15	2
Software and other intangible assets	61	12	30	–0			61	12	30
(Reversals of) other impairments	**66**	**35**	**42**	**–7**	**–17**	**–24**	**59**	**19**	**18**

Impairment losses on software and intangible assets in 2019 relate to rescoping of IT transformation programs. 2018 and 2017 impairments include software that was impaired to its Value in Use, related to the acceleration of the Think Forward Strategy.

In 2018, impairment losses on property development mainly relate to impairments in Spain and Italy due to lower expected Net Realizable Values.

The reversals of impairments on property and equipment in both 2018 and 2017 relate to impairments previously recognised in the statement of profit or loss and mainly include impairments on property in own use that were reversed following the sale process of office buildings.

Addition/(unused amounts reversed) of provision for reorganisations

Included in Addition/(unused amounts reversed) provision for reorganisations in 2019, is an increase in relation to the reorganisation relating to ING's Agile transformation in Germany. Reference is made to Note 16 'Provisions'.

Addition/(unused amounts reversed) of other provisions

Included in Addition/(unused amounts reversed) of other provisions in 2019, are movements mainly in the litigation provision. Reference is made to Note 16 'Provisions' and Note 44 'Legal proceedings'.

Other

In 2018 Other operating expenses - Other included, amongst others, the settlement with the Dutch Public Prosecution Service of EUR 775 million. The settlement related to previously disclosed investigations regarding various requirements for client on-boarding and the prevention of money laundering and corrupt practices. Reference is made to Note 44 'Legal proceedings'.

29 Net cash flow from operating activities

The table below shows a detailed overview of the net cash flow from operating activities.

Cash flows from operating activities

in EUR million		2019	2018	2017
Cash flows from operating activities				
Result before tax		6,831	6,751	7,404
Adjusted for:	– Depreciation and amortisation	789	520	520
	– Addition to loan loss provisions	1,120	656	676
	– Other non-cash items included in Result before tax	64	–1,646	708
Taxation paid		–2,369	–1,600	–1,753
Changes in:	– Loans and advances to banks, not available on demand	–1,336	–778	–3,306
	– Deposits from banks, not payable on demand	–2,574	566	6,320
	Net change in loans and advances to/ from banks, not available/ payable on demand	**–3,909**	**–212**	**3,014**
	– Trading assets	606	16,838	–1,605
	– Trading liabilities	–3,173	–7,018	–9,575
	Net change in Trading assets and Trading liabilities	**–2,567**	**9,820**	**–11,180**
	Loans and advances to customers	-16,696	-31,016	-21,397
	Customer deposits	24,828	31,241	22,960
	– Non-trading derivatives	1,047	–270	–2,403
	– Assets designated at fair value through profit or loss	-7	–725	441
	– Assets mandatorily at fair value through profit or loss	23,343	-6,968	n/a
	– Other assets	1,359	418	–663
	– Other financial liabilities at fair value through profit or loss	–12,211	10,546	–566
	– Provisions and other liabilities	–2,068	621	854
	Other	**11,463**	**3,622**	**–2,337**
Net cash flow from/(used in) operating activities		**19,553**	**18,136**	**–1,385**

30 Changes in liabilities arising from financing activities

Changes in liabilities arising from financing activities

	Debt securities in issue		Subordinated Loans		Lease liabilities		Total Liabilities from financing activities	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	102,159	90,231	13,643	15,831	n/a	n/a	115,802	106,062
Effect of change in accounting policy due to the implementation of IFRS 9/16		702		170	1,301		1,301	872
Cashflows:								
Additions	84,641	141,214	3,440	1,828			88,081	143,042
Redemptions / Disposals	–94,497	–131,170	–931	–4,594	–271		–95,698	–135,764
Non cash changes:								
Amortisation	120	78	–14	4	25		131	83
Other	–76	–0	26		443		393	–0
Changes in FV	312	–247	214	37	–		526	–210
Foreign exchange movement	1,062	1,350	136	367	8		1,206	1,717
Closing balance	**93,721**	**102,159**	**16,515**	**13,643**	**1,507**	**n/a**	**111,742**	**115,802**

31 Cash and cash equivalents

Cash and cash equivalents

	2019	2018	2017
Treasury bills and other eligible bills	43	159	391
Deposits from banks/Loans and advances to banks	784	–2,618	–3,404
Cash and balances with central banks	53,202	49,987	21,989
Cash and cash equivalents at end of year	**54,029**	**47,528**	**18,976**

Treasury bills and other eligible bills included in cash and cash equivalents

	2019	2018	2017
Treasury bills and other eligible bills included in trading assets	0	17	5
Treasury bills and other eligible bills included in AFS investments	n/a	n/a	386
Treasury bills and other eligible bills included in FVOCI		-0	n/a
Treasury bills and other eligible bills included in securities at AC	43	142	n/a
	43	**159**	**391**

Deposits from banks/Loans and advances to banks

	2019	2018	2017
Included in cash and cash equivalents:			
– Deposits from banks	-8,519	-8,520	-8,563
– Loans and advances to banks	9,303	5,902	5,159
	784	**–2,618**	**–3,404**
Not included in cash and cash equivalents:			
– Deposits from banks	-26,307	-28,811	-28,258
– Loans and advances to banks	25,830	24,519	23,587
	–478	**–4,292**	**–4,671**
Total as included in the statement of financial position:			
– Deposits from banks	-34,826	-37,330	-36,821
– Loans and advances to banks	35,133	30,420	28,746
	307	**–6,910**	**–8,075**

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 40 'Assets not freely disposable' for restrictions on Cash and balances with central banks.

Segment reporting

32 Segments

ING Bank's segments are based on the internal reporting structures by lines of business.

The Management Board Banking of ING Bank 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 Management Board Banking of ING Bank.

Recognition and measurement of segment results are in line with the accounting policies as described in Note 1 'Accounting policies'. Corporate expenses are allocated to business lines based on time spent by head office personnel, the relative number of staff, or on the basis of income, expenses and/or assets of the segment.

The following table specifies the segments by line of business and the main sources of income of each of the segments:

Specification of the main sources of income of each of the segments by line of business

Segments of the Banking results by line of business	Main source of income
Retail Netherlands *(Market Leaders)*	Income from retail and private banking activities in the Netherlands, including the SME and mid-corporate segments, and the Real Estate Finance portfolio related to Dutch domestic mid-corporates. The main products offered are current and savings accounts, business lending, mortgages and other consumer lending in the Netherlands.
Retail Belgium *(Market Leaders)*	Income from retail and private banking activities in Belgium (including Luxembourg), including the SME and mid-corporate segments. The main products offered are similar to those in the Netherlands.
Retail Germany *(Challengers and Growth Markets)*	Income from retail and private banking activities in Germany (including Austria). The main products offered are current and savings accounts, mortgages and other customer lending.
Retail Other *(Challengers and Growth Markets)*	Income from retail banking activities in the rest of the world, including the SME and mid-corporate segments in specific countries. The main products offered are similar to those in the Netherlands.
Wholesale Banking	Income from wholesale banking activities. The main products are: lending, debt capital markets, working capital solutions, export finance, daily banking solutions, treasury and risk solutions, and corporate finance.

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

The geographical segments for the Banking results are presented on page 206.

Specification of geographical segments

Geographical segments	Main countries
The Netherlands	
Belgium	Including Luxembourg
Germany	Including Austria
Other Challengers	Australia, France, Italy, Spain, Portugal, Czech Republic, and UK Legacy and Other
Growth Markets	Poland, Romania, Turkey, Philippines and Asian bank stakes
Wholesale Banking Rest of World	UK, Americas, Asia and other countries in Central and Eastern Europe
Other	Corporate Line Banking and the run-off portfolio of Real Estate

ING Bank evaluates the results of its banking segments using a financial performance measure called underlying result. Underlying result is used to monitor the performance of ING Bank at a consolidated level and by segment. The management Board Banking consider this measure to be relevant to an understanding of the Bank's financial performance, because it allows investors to understand the primary method used by management to evaluate the Bank's operating performance and make decisions about allocating resources. In addition, ING Bank believes that the presentation of underlying net result helps investors compare its segment performance on a meaningful basis by highlighting result before tax attributable to ongoing operations and the underlying profitability of the segment businesses. Underlying result is derived by excluding from IFRS the following: special items, the impact of divestments.

Special items include items of income or expense that are significant and arise from events or transactions that are clearly distinct from the regular operating activities. Disclosures on comparative periods also reflect the impact of divestments.

ING Bank reconciles the total segment results to the total result of Banking using Corporate Line Banking. The Corporate Line Banking is a reflection of capital management activities and certain income and expenses that are not allocated to the banking businesses, including a higher VAT refund in 2019 as well as a EUR 119 million gain from the release of a currency translation reserve following the sale of ING's stake in Kotak Mahindra Bank and the recognition of a EUR 79 million receivable related to the insolvency of a financial institution (both recorded under income).

Furthermore, the Corporate Line Banking includes the isolated legacy costs (mainly negative interest results) caused by the replacement of short-term funding with long-term funding during 2013 and 2014. ING Bank applies a system of capital charging for its banking operations in order to create a comparable basis for the results of business units globally, irrespective of the business units' book equity and the currency they operate in.

Underlying result as presented below is a non-GAAP financial measure and is not a measure of financial performance under IFRS. Because underlying result is not determined in accordance with IFRS, underlying result as presented by ING may not be comparable to other similarly titled measures of performance of other companies. The underlying result of ING's segments is reconciled to the net result as reported in the IFRS Consolidated statement of profit or loss below. The information presented in this note is in line with the information presented to the Management Board Banking of ING Bank.

This note does not provide information on the revenue specified to each product or service as this is not reported internally and is therefore not readily available.

Reconciliation between IFRS and Underlying income, expenses and net result

	2019					2018					2017				
	Income	Expenses	Taxation	Non-controlling interests	Net result [1]	Income	Expenses	Taxation	Non-controlling interests	Net result [1]	Income	Expenses	Taxation	Non-controlling interests	Net result [1]
Net result IFRS attributable to equity holder of the parent	18,295	11,463	1,889	99	4,843	18,102	11,351	2,036	108	4,607	17,876	10,472	2,303	82	5,019
Remove impact of:															
Special items [2]							–775			775	–121		–121		0
Underlying [3]	**18,295**	**11,463**	**1,889**	**99**	**4,843**	**18,102**	**10,576**	**2,036**	**108**	**5,382**	**17,755**	**10,472**	**2,182**	**82**	**5,019**

1. Net result, after tax and non-controlling interests.
2. Special items in 2018 comprised a settlement agreement with the Dutch authorities on regulatory issues as announced on 4 September 2018.
   Special items in 2017 comprised a tax charge at ING Australia Holdings Ltd related to the years 2013-2017, for which a full reimbursement is expected to be received from NN Group.
3. Underlying figures are derived from figures according to IFRS by excluding the impact from special items.

Segments Banking by line of business

2019

	Retail Netherlands	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,541	1,907	1,579	2,787	3,794	466	14,074
– Net fee and commission income	674	374	268	423	1,135	–6	2,868
– Total investment and other income	290	161	138	298	369	95	1,352
Total underlying income	**4,505**	**2,442**	**1,985**	**3,509**	**5,298**	**556**	**18,295**
Underlying expenditure							
– Operating expenses	2,210	1,609	1,080	2,210	2,937	298	10,343
– Additions to loan loss provision	91	186	–53	364	532	–0	1,120
Total underlying expenses	**2,301**	**1,794**	**1,027**	**2,574**	**3,469**	**298**	**11,463**
Underlying result before taxation	**2,204**	**647**	**957**	**935**	**1,830**	**258**	**6,831**
Taxation	558	192	328	234	464	114	1,889
Non-controlling interests	–0	0	3	82	14	–0	99
Underlying net result	**1,646**	**455**	**627**	**619**	**1,352**	**145**	**4,843**
Special items							
Net result IFRS	**1,646**	**455**	**627**	**619**	**1,352**	**145**	**4,843**

2018

	Retail Netherlands[1]	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking[1]	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,749	1,830	1,671	2,690	3,686	324	13,949
– Net fee and commission income	664	371	225	395	1,152	–3	2,803
– Total investment and other income	335	169	76	230	673	–133	1,350
Total underlying income	**4,747**	**2,369**	**1,972**	**3,315**	**5,510**	**188**	**18,102**
Underlying expenditure							
– Operating expenses	2,220	1,610	1,027	2,033	2,771	260	9,920
– Additions to loan loss provision	–41	164	–27	350	210	–1	656
Total underlying expenses	**2,179**	**1,774**	**1,000**	**2,383**	**2,981**	**258**	**10,576**
Underlying result before taxation	**2,568**	**595**	**972**	**932**	**2,529**	**–70**	**7,526**
Taxation	626	199	324	200	633	55	2,036
Non-controlling interests	–0	6	3	80	19	–0	108
Underlying net result	**1,942**	**390**	**646**	**652**	**1,877**	**–125**	**5,382**
Special items						–775	–775
Net result IFRS	**1,942**	**390**	**646**	**652**	**1,877**	**–900**	**4,607**

2017

	Retail Netherlands[1]	Retail Belgium	Retail Germany	Retail Other	Wholesale Banking[1]	Corporate Line Banking	Total Banking
Underlying income							
– Net interest income	3,866	1,842	1,704	2,437	3,639	294	13,782
– Net fee and commission income	607	408	215	384	1,102	–3	2,714
– Total investment and other income	256	224	–28	207	919	–318	1,259
Total underlying income	**4,730**	**2,473**	**1,891**	**3,028**	**5,660**	**–27**	**17,755**
Underlying expenditure							
– Operating expenses	2,260	1,584	1,032	1,919	2,744	257	9,795
– Additions to loan loss provision	15	104	–10	284	282	1	676
Total underlying expenses	**2,275**	**1,688**	**1,022**	**2,203**	**3,026**	**258**	**10,472**
Underlying result before taxation	**2,455**	**785**	**869**	**825**	**2,634**	**–285**	**7,283**
Taxation	615	296	241	188	832	9	2,182
Non-controlling interests		–2	2	67	15		82
Underlying net result	**1,839**	**491**	**625**	**569**	**1,788**	**–293**	**5,019**
Special items						0	0
Net result IFRS	**1,839**	**491**	**625**	**569**	**1,788**	**–293**	**5,019**

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

Geographical segments Banking

2019

	Netherlands	Belgium	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World	Other	Total Banking
Underlying income								
– Net interest income	4,213	2,233	2,122	1,808	1,606	1,636	457	14,074
– Net fee and commission income	994	533	315	283	299	451	–6	2,868
– Total investment and other income	119	233	169	16	411	301	104	1,352
Total underlying income	**5,325**	**2,999**	**2,606**	**2,107**	**2,316**	**2,388**	**554**	**18,295**
Underlying expenditure								
– Operating expenses	2,994	1,925	1,237	1,318	1,261	1,309	299	10,343
– Additions to loan loss provision	146	268	–40	171	271	303	–0	1,120
Total underlying expenses	**3,140**	**2,194**	**1,197**	**1,489**	**1,533**	**1,612**	**299**	**11,463**
Underlying result before taxation	**2,185**	**805**	**1,409**	**618**	**784**	**776**	**255**	**6,831**
Taxation	549	247	476	207	166	137	107	1,889
Non-controlling interests	–0	0	3		96		–0	99
Underlying net result	**1,637**	**558**	**929**	**411**	**521**	**639**	**148**	**4,843**
Special items								
Net result IFRS	**1,637**	**558**	**929**	**411**	**521**	**639**	**148**	**4,843**

2018

	Netherlands	Belgium[1]	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World[1]	Other	Total Banking
Underlying income								
– Net interest income	4,374	2,137	2,200	1,732	1,639	1,548	319	13,949
– Net fee and commission income	980	520	273	254	297	482	–4	2,803
– Total investment and other income	509	379	99	–92	333	245	–123	1,350
Total underlying income	**5,863**	**3,037**	**2,572**	**1,895**	**2,269**	**2,274**	**192**	**18,102**
Underlying expenditure								
– Operating expenses	2,929	1,932	1,171	1,217	1,175	1,222	276	9,920
– Additions to loan loss provision	–65	153	6	163	274	126	–1	656
Total underlying expenses	**2,863**	**2,085**	**1,176**	**1,380**	**1,449**	**1,347**	**275**	**10,576**
Underlying result before taxation	**3,000**	**952**	**1,396**	**515**	**820**	**927**	**–83**	**7,526**
Taxation	741	291	459	178	143	174	52	2,036
Non-controlling interests	1	6	3		98		–0	108
Underlying net result	**2,258**	**655**	**935**	**337**	**580**	**753**	**–134**	**5,382**
Special items							–775	–775
Net result IFRS	**2,258**	**655**	**935**	**337**	**580**	**753**	**–909**	**4,607**

2017

	Netherlands	Belgium[1]	Germany	Other Challengers	Growth markets	Wholesale Banking Rest of World[1]	Other	Total Banking
Underlying income								
– Net interest income	4,537	2,110	2,172	1,527	1,515	1,625	295	13,782
– Net fee and commission income	871	521	269	232	316	507	–3	2,714
– Total investment and other income	445	480	–17	22	296	245	–211	1,259
Total underlying income	**5,853**	**3,111**	**2,424**	**1,781**	**2,127**	**2,377**	**82**	**17,755**
Underlying expenditure								
– Operating expenses	2,930	2,071	1,154	1,142	1,126	1,105	267	9,795
– Additions to loan loss provision	3	160	–15	201	241	85	1	676
Total underlying expenses	**2,933**	**2,231**	**1,140**	**1,344**	**1,367**	**1,190**	**268**	**10,472**
Underlying result before taxation	**2,920**	**880**	**1,285**	**437**	**760**	**1,188**	**–186**	**7,283**
Taxation	708	369	407	145	151	379	21	2,182
Non-controlling interests		–2	2		82			82
Underlying net result	**2,212**	**512**	**875**	**292**	**527**	**808**	**–207**	**5,019**
Special items							0	0
Net result IFRS	**2,212**	**512**	**875**	**292**	**527**	**808**	**–207**	**5,019**

1 As from 2019, financials of Nordics locations (which are managed from Brussels) transferred from 'Wholesale Banking Rest of World' to 'Belgium'. Comparative figures have been adjusted.

33 Information on geographical areas

ING Bank'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 Bank engaged in providing products or services within a particular economic environment that is subject to risks and returns that are different from those of geographical areas operating in other economic environments. The geographical analyses are based on the location of the office from which the transactions are originated. The Netherlands is ING Bank's country of domicile.

The tables below provide additional information, for the years 2019, 2018 and 2017 respectively, on names of principal subsidiaries and branches, nature of main activities and average number of employees on a full time equivalent basis by country/tax jurisdiction.

Additional information by country

Geographical area	Country/Tax jurisdiction	Name of principal subsidiary	Main (banking) activity	Average number of employees at full time equivalent basis			Total Income			Total assets			Result before tax			Taxation		
				2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
The Netherlands	Netherlands	ING Bank N.V.	Wholesale / Retail	14,415	13,600	13,141	5,552	5,837	5,860	269,730	261,449	241,481	1,771	1,673	2,437	466	634	661
Belgium	Belgium	ING België N.V.	Wholesale / Retail	7,694	8,248	8,893	2,721	2,807	2,957	122,546	120,589	119,400	735	866	1,009	236	275	408
	Luxemburg	ING Luxembourg S.A.	Wholesale / Retail	841	791	777	322	315	298	16,634	13,313	14,748	153	198	68	37	50	27
Rest of Europe	Poland	ING Bank Slaski S.A	Wholesale / Retail	8,968	8,829	8,664	1,344	1,229	1,119	37,220	33,040	29,976	533	525	444	141	128	112
	Germany	ING DiBa A.G.	Wholesale / Retail	4,639	4,625	4,587	2,484	2,421	2,312	147,924	144,911	138,153	1,374	1,309	1,240	465	431	396
	Romania	Branch of ING Bank N.V.	Wholesale / Retail	2,575	2,269	1,968	457	403	314	7,424	7,112	5,940	221	183	135	34	25	23
	Spain	Branch of ING Bank N.V.	Wholesale / Retail	1,233	1,201	1,135	706	600	509	26,118	23,757	23,858	249	195	97	72	71	25
	Italy	Branch of ING Bank N.V.	Wholesale / Retail	959	911	838	269	231	336	15,726	16,991	16,728	–39	–101	–4	4	–24	7
	UK	Branch of ING Bank N.V.	Wholesale	692	672	603	594	505	550	61,088	64,016	78,573	214	180	324	52	44	76
	France[1]	Branch of ING Bank N.V.	Wholesale / Retail	659	620	591	302	323	310	12,053	12,063	10,678	63	111	93	33	45	32
	Russia	ING Bank (Eurasia) Z.A.O.	Wholesale	293	277	270	93	82	136	1,499	1,449	1,607	68	25	78	22	3	20
	Czech Republic	Branch of ING Bank N.V.	Wholesale / Retail	339	306	245	94	104	66	4,486	6,272	5,641	16	37	16	3	9	3
	Hungary	Branch of ING Bank N.V.	Wholesale	138	141	146	24	40	32	1,299	1,227	1,003	–7	5		2	3	2
	Slovakia	Branch of ING Bank N.V.	Wholesale	703	571	497	14	14	14	587	487	677	2		2		1	1
	Ukraine	PJSC ING Bank Ukraine	Wholesale	111	109	106	43	36	30	481	368	321	31	22	9	9	3	2
	Austria	Branch of ING DiBa A.G.	Wholesale / Retail	279	235	225	80	85	80	1,441	753	682		18	25	1	6	–1
	Bulgaria	Branch of ING Bank N.V.	Wholesale	68	69	70	12	9	9	358	360	268	2		–2			
	Ireland	Branch of ING Bank N.V.	Wholesale	48	47	43	71	69	57	2,575	2,867	2,337	48	59	48	7	7	6
	Portugal	Branch of ING Bank N.V.	Wholesale	12	11	11	18	18	14	899	905	667	14	13	9	4	4	3
	Switzerland	Branch of ING België N.V.	Wholesale	257	244	204	234	257	224	8,577	8,266	9,737	126	169	145	–36	35	38

Additional information by country (continued)

Geographical area	Country/Tax jurisdiction	Name of principal subsidiary	Main (banking) activity	Average number of employees at full time equivalent basis			Total Income			Total assets			Result before tax			Taxation		
				2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
North America	Canada	Payvision Canada Services Ltd.	Wholesale	1	1		3	3		1	2	2						
	USA	ING Financial Holdings Corp.	Wholesale	626	617	564	813	736	724	45,521	61,440	42,873	366	343	371	118	61	134
Latin America	Brazil	Branch of ING Bank N.V.	Wholesale	89	88	78	43	35	47	2,921	1,974	1,184	27	16	16	6	9	4
	Colombia	ING Capital Colombia S.A.S.	Wholesale	3	3	2	1	1	1	2	2	2						
	Mexico	ING Consulting, S.A. de C.V.	Wholesale	8	8	8	1	1	1	2	2	2	–2	–2	–2			
Asia	China	Branch of ING Bank N.V.	Wholesale	89	86	81	35	37	35	2,031	2,107	2,298	7	3	7	–1	7	–2
	Japan	Branch of ING Bank N.V.	Wholesale	33	32	35	31	36	33	5,109	2,300	2,238	22	19	17	8	5	11
	Singapore	Branch of ING Bank N.V.	Wholesale	592	546	512	349	340	297	27,982	32,222	25,803	76	176	133	13	21	9
	Macau	Payvision Macau Ltd.	Wholesale			n/a			n/a			n/a			n/a			n/a
	Hong Kong	Branch of ING Bank N.V.	Wholesale	128	122	108	96	110	94	7,350	6,975	7,850	38	52	55	7	8	7
	Philippines	Branch of ING Bank N.V.	Wholesale/ Retail	1,420	878	604	25	17	18	412	395	322	–11		6	–5	3	2
	South Korea	Branch of ING Bank N.V.	Wholesale	79	80	82	60	55	55	5,457	4,299	4,602	25	14	21	7	3	6
	Taiwan	Branch of ING Bank N.V.	Wholesale	34	33	33	26	23	23	2,873	2,839	3,910	10	7	11			
	Indonesia	PT ING Securities Indonesia	Wholesale		3	5			1	6	6	6						
	Malaysia	Branch of ING Bank N.V.	Wholesale	5	5	5	1	1		166	139	29			–1			
	India	Branch of ING Bank N.V.	Wholesale						1		1	2			1			
	Turkey	ING Bank A.S.	Wholesale / Retail	4,074	4,709	5,221	677	678	741	9,927	11,521	13,798	304	245	267	66	50	54
	United Arabic Emirates	Branch of ING Bank N.V.	Wholesale	11	11	10	–1						–2	–1	–2			
Australia	Australia	ING Bank (Australia) Ltd.	Wholesale / Retail	1,319	1,234	1,143	701	647	577	43,482	39,673	37,982	400	389	330	121	118	235
Other	Mauritius	ING Mauritius Ltd.	Investment Management				0	1	1	1	920	939	–0	1				
Total				**53,431**	**52,233**	**51,504**	**18,295**	**18,102**	**17,876**	**891,910**	**887,012**	**846,318**	**6,831**	**6,751**	**7,404**	**1,889**	**2,036**	**2,303**

1 Public subsidies received, as defined in article 89 of the CRD IV, amounts to EUR 0.3 million (2018: EUR 0.5 million; 2017: EUR 0.5 million).

2019
The relatively low tax charge in Switzerland is caused by a deferred tax benefit following a tax rate reduction in 2019.

2018
The relatively high tax charge of 38% in the Netherlands (compared to statutory rate of 25%) is mainly caused by non-deductible expenses of EUR 775 million upon the settlement agreement reached with the Dutch authorities on regulatory issues.

2017
Australia has a very high tax charge due to a tax charge at ING Australia Holdings Ltd related to the years 2007-2013, for which a full reimbursement is expected to be received from NN Group. Although the impact on net result was nil, this special item affected both the tax and 'other income' line in the Consolidated statement of profit or loss.
Due to the tax reforms in the US and Belgium, which resulted in a tax charge to record a reduction in deferred tax assets, the tax charge is significantly higher.
Austria, China, Singapore and Taiwan all have lower tax charges due to prior year adjustments.

Additional notes to the Consolidated financial statements

34 Pension and other post-employment benefits

Most group companies sponsor defined contribution pension plans. The assets of all ING Bank's defined contribution plans are held in independently administered funds. Contributions are generally determined as a percentage of remuneration. For the defined contribution scheme in the Netherlands, the premium paid is also dependent on the interest rate developments and the methodology of the Dutch Central Bank for determining the ultimate forward rate. These plans do not give rise to provisions in the statement of financial position, other than relating to short-term timing differences included in other assets/liabilities.

ING Bank 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 Bank provides other post-employment benefits to certain employees and former employees. These are primarily post-employment healthcare benefits and discounts on ING products provided to employees and former employees.

Statement of financial position - Net defined benefit asset/liability

Plan assets and defined benefit obligation per country

	Plan assets		Defined benefit obligation		Funded Status	
	2019	2018	2019	2018	2019	2018
The Netherlands	454	394	634	540	–180	–146
United States	277	222	275	224	3	–3
United Kingdom	1,887	1,703	1,184	1,179	703	524
Belgium	590	547	676	636	–85	–88
Other countries	168	154	383	334	–214	–181
Funded status (Net defined benefit asset/liability)	**3,377**	**3,019**	**3,151**	**2,913**	**226**	**106**
Presented as:						
– Other assets					709	527
– Other liabilities					–483	–421
					226	**106**

The most recent (actuarial) valuations of the plan assets and the present value of the defined benefit obligation were carried out as at 31 December 2019. The present value of the defined benefit obligation, and the related current service cost and past service cost, were determined using the projected unit credit method.

Changes in the fair value of plan assets for the period were as follows:

Changes in fair value of plan assets

	2019	2018
Opening balance	3,019	3,206
Interest income	70	66
Remeasurements: Return on plan assets excluding amounts included in interest income	274	–143
Employer's contribution	34	66
Participants contributions	2	3
Benefits paid	–126	–176
Exchange rate differences	104	–3
Closing balance	**3,377**	**3,019**
Actual return on the plan assets	**344**	**–77**

As at 31 December 2019 the various defined benefit plans did not hold any direct investments in ING Bank N.V. (2018: nil). During 2019 and 2018 there were no purchases or sales of assets between ING and the pension funds.

ING does not manage the pension funds and thus receives no compensation for fund management. The pension fund has not engaged ING in any swap or derivative transactions to manage the risk of the pension funds.

No plan assets are expected to be returned to ING Bank during 2020.

Changes in the present value of the defined benefit obligation and other post-employment benefits for the period were as follows:

Changes in defined benefit obligation and other post-employment benefits

	Defined benefit obligation		Other post-employment benefits	
	2019	2018	2019	2018
Opening balance	2,913	3,140	76	87
Current service cost	28	39	–1	–4
Interest cost	65	61	3	2
Remeasurements: Actuarial gains and losses arising from changes in demographic assumptions	–6	2		
Remeasurements: Actuarial gains and losses arising from changes in financial assumptions	206	–153	7	–11
Participants' contributions	2	3	1	1
Benefits paid	–130	–179	–1	–1
Past service cost	–0	0		
Exchange rate differences	73	2	1	2
Changes in the composition of the group and other changes	0	–1		
Closing balance	**3,151**	**2,913**	**84**	**76**

Amounts recognised directly in Other comprehensive income (equity) were as follows:

Changes in the net defined benefit assets/liability remeasurement reserve

	2019	2018
Opening balance	–394	–400
Remeasurement of plan assets	274	–143
Actuarial gains and losses arising from changes in demographic assumptions	6	–2
Actuarial gains and losses arising from changes in financial assumptions	–206	153
Taxation and and Exchange rate differences	–15	–3
Total Other comprehensive income movement for the year	**58**	**6**
Closing balance	**–336**	**–394**

In 2019 EUR 274 million remeasurement of plan assets recognized as a gain in Other comprehensive income is driven by higher yields on investments. The EUR -206 million actuarial gains and losses arising from changes in financial assumptions in the calculation of the defined benefit obligation are mainly due to a decrease in discount rates.

The accumulated amount of remeasurements recognised directly in Other comprehensive income (equity) is EUR -378 million (EUR -336 million after tax) as at 31 December 2019 (2018: EUR -453 million, EUR -394 million after tax).

Amounts recognised in the statement of profit or loss related to pension and other staff related benefits are as follows:

Pension and other staff-related benefit costs

	Net defined benefit asset/liability			Other post-employment benefits			Other			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017	2019	2018	2017
Current service cost	28	39	34	–1	–4	–3	1	22	–2	29	57	29
Past service cost		0									0	
Net Interest cost	–5	–4	–4	3	2	3		0	1	–2	–2	
Effect of curtailment or settlement	0		–3					–1		0	–1	–3
Defined benefit plans	**23**	**35**	**27**	**2**	**–1**		**2**	**21**	**–1**	**26**	**54**	**26**
Defined contribution plans										340	331	355
										366	**385**	**381**

Determination of the net defined benefit asset/liability

The net defined benefit asset/liability is reviewed and adjusted annually. The assumptions used in the determination of the net defined benefit asset/liability and the Other post-employment benefits include discount rates, mortality rates, expected rates of salary increases (excluding promotion increases), and indexation. The rates used for salary developments, interest discount factors, and other adjustments reflect country-specific conditions.

The key assumption in the determination of the net defined benefit asset/liability is the discount rate. The discount rate is the weighted average of the discount rates that are applied in different regions where ING Bank has defined benefit pension plans (weighted by the defined benefit obligation). The discount rate is based on a methodology that uses market yields on high quality corporate bonds of the specific regions with durations matching the pension liabilities as key input. Market yields of high quality corporate bonds reflect the yield on corporate bonds with an AA rating for durations where such yields are available. An extrapolation is applied in order to determine the yield to the longer durations for which no AA-rated corporate bonds are available. As a result of the limited availability of long-duration AA-rated corporate bonds, extrapolation is an important element of the determination of the discount rate. The weighted average discount rate applied for net defined benefit asset/liability for 2019 was 1.5% (2018: 2.3%) based on the pension plan in the Netherlands, Germany, Belgium, The United States of America, and the United Kingdom. The average discount rate applied for Other post-employment benefits was 3.3% (2018: 3.9%).

Sensitivity analysis of key assumptions

ING performs sensitivity analysis on the most significant assumptions: discount rates, mortality, expected rate of salary increase, and indexation. The sensitivity analysis has been carried out under the assumption that the changes occurred at the end of the reporting period.

The sensitivity analysis calculates the financial impact on the defined benefit obligation of an increase or decrease of the weighted averages of each significant actuarial assumption, all other assumptions held constant. In practice, this is unlikely to occur, and some changes of the assumptions may be correlated. Changes to mortality, expected rate of salary increase, and indexation would have no material impact on the defined benefit obligation. The most significant impact would be from a change in the discount rate. An increase or decrease in the discount rate of 1% creates an impact on the defined benefit obligation of EUR -443 million and EUR 561 million, respectively.

Expected cash flows

Annual contributions are paid to the funds at a rate necessary to adequately finance the accrued liabilities of the plans calculated in accordance with local legal requirements. Plans in all countries are designed to comply with applicable local regulations governing investments and funding levels. ING Bank's subsidiaries should fund the cost of the entitlements expected to be earned on a yearly basis.

For 2020 the expected contributions to defined benefit pension plans are EUR 44 million.

The benefit payments for defined benefit and other post-employment benefits expected to be made by the plan between 2020-2024 are estimated to be between EUR 100 million and EUR 135 million per annum. From 2025 to 2029 the total payments made by the plan are expected to be EUR 882 million.

35 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 Bank is subject to taxation.

Changes in deferred tax

2019	Net liability (-) Net asset (+) 2018	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-) Net asset (+) 2019
Financial assets at FVOCI[1]	–106	18	–11	–1		–99
Investment properties	–6		–1			–7
Financial assets and liabilities at FVPL[1]	43		11	2	–2	54
Depreciation	–23		5			–19
Cash flow hedges	–140	–199		2		–337
Pension and post-employment benefits	59	–14	2	–5		42
Other provisions	10		–1	–3		6
Loans and advances[1]	474	–1	18			490
Unused tax losses carried forward	51		5	5		61
Other	–160	16	–13	1		–156
	201	**–181**	**15**	**2**	**–2**	**36**
Presented in the statement of financial position as:						
– Deferred tax liabilities	–640					–695
– Deferred tax assets	841					730
	201					**36**

1 The prior period has been updated to improve consistency and comparability.

IFRS 16 Leases (implemented per 1 January 2019) requires lessees to recognise right-of-use assets and lease liabilities on the balance sheet. The above table shows netted amounts which include in the row 'Other' a deferred tax amount for right-of-use assets of EUR 370 million (1 January 2019: EUR 320 million) and a deferred tax amount for lease liabilities of EUR -376 million (1 January 2019: EUR -323 million).

Changes in deferred tax

2018	Net liability (-) Net asset (+) 2017	Effect of changes in accounting policies due to the implementation of IFRS 9	Change through equity	Change through net result	Exchange rate differences	Changes in the composition of the group and other changes	Net liability (-) Net asset (+) 2018
Financial assets at FVOCI[1]	–630	142	109	273	4	–2	–106
Investment properties	–5			–1	0		–6
Financial assets and liabilities at FVPL[1]	375	16		–368	17	1	43
Depreciation	–24			1	–0		–23
Cash flow hedges	–72		–76		7	1	–140
Pension and post-employment benefits	76		–12	–8	2	0	59
Other provisions	198	4		–187	–7	1	10
Loans and advances[1]	338	137	2	–5	–0	2	474
Unused tax losses carried	–8			60	–2	–0	51
Other	–183	45	–53	60	1	–31	–160
	66	**344**	**–29**	**–175**	**23**	**–27**	**201**
Presented in the statement of financial position as:							
– Deferred tax liabilities	–752						–640
– Deferred tax assets	818						841
	66						**201**

1 The prior period has been updated to improve consistency and comparability.

The deferred tax balance recorded under 'Other provisions' declined in 2018 by EUR 187 million change through net result of which EUR 90 million relates to the decline of the Belgian reorganisation provision.

Changes in the Composition of the Group and other changes include the deferred tax liability (EUR -30 million) regarding the acquisition of Payvision.

Deferred tax in connection with unused tax losses carried forward

	2019	2018
Total unused tax losses carried forward	1,685	1,771
Unused tax losses carried forward not recognised as a deferred tax asset	922	1,010
Unused tax losses carried forward recognised as a deferred tax asset	**764**	**761**
Average tax rate	21.4%	20.5%
Deferred tax asset	163	156

Total unused tax losses carried forward analysed by expiry terms

	No deferred tax asset recognised		Deferred tax asset recognised	
	2019	2018	2019	2018
Within 1 year	1	1		0
More than 1 year but less than 5 years	4	2	17	2
More than 5 years but less than 10 years	92	83	0	1
Unlimited	824	923	746	758
	922	**1,010**	**764**	**761**

The above mentioned deferred tax of EUR 163 million (2018: EUR 156 million) and the related unused tax losses carried forward exclude the deferred tax liability recorded in the Netherlands with respect to the recapture of previously deducted UK tax losses in the Netherlands for the amount of EUR -102 million (2018: EUR -105 million).

Deferred tax assets are recognised for temporary deductible differences, for tax losses carried forward and unused tax credits only to the extent that realisation of the related tax benefit is probable.

Breakdown of certain net deferred tax asset positions by jurisdiction

	2019	2018
Italy	181	189
Philippines	7	
Slovakia	1	
	189	**189**

The table above include a breakdown of certain net deferred tax asset positions by jurisdiction for which the utilisation of the deferred tax asset is dependent on future taxable profits in excess of the profits arising from the reversal of existing taxable temporary differences whilst the related entities have incurred losses in either the current or the preceding year.

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.

As at 31 December 2019 and 31 December 2018, ING Bank N.V. 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			International			Total		
	2019	2018	2017	2019	2018	2017	2019	2018	2017
Current taxation	424	597	510	1,480	1,263	1,527	1,904	1,861	2,037
Deferred taxation	42	37	151	-57	139	115	-15	175	266
	466	**634**	**661**	**1,423**	**1,402**	**1,642**	**1,889**	**2,036**	**2,303**

Reconciliation of the weighted average statutory income tax rate to ING Bank's effective income tax rate	2019	2018	2017
Result before tax from continuing operations	6,831	6,751	7,404
Weighted average statutory tax rate	25.9%	25.9%	27.0%
Weighted average statutory tax amount	**1,770**	**1,751**	**2,002**
Participation exemption	–45	–77	–45
Other income not subject to tax	–76	–40	–84
Expenses not deductible for tax purposes	168	346	155
Impact on deferred tax from change in tax rates	–64	–8	55
Deferred tax benefit from previously unrecognised amounts			–4
Current tax from previously unrecognised amounts	48	28	66
Write-off/reversal of deferred tax assets	2	4	2
State and local taxes	72	25	47
Adjustment to prior periods	14	7	109
Effective tax amount	**1,889**	**2,036**	**2,303**
Effective tax rate	**27.7%**	**30.2%**	**31.1%**

The weighted average statutory tax rate in 2019 is equal to the rate of 25.9% in 2018. The weighted average statutory tax rate in 2018 is lower compared to 2017, due to a decrease in statutory income tax rates in the USA and Belgium in that year.

The effective tax rate of 27.7% in 2019 is higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes with respect non-deductible bank tax in the Netherlands and regulatory expenses non-deductible for tax purposes in some other European countries.

The effective tax rate of 30.2% in 2018 is significantly higher than the weighted average statutory tax rate. This is mainly caused by a high amount of expenses non-deductible for tax purposes (tax amount: EUR 346 million).

This relatively high amount of non-deductible expenses is caused by the EUR 775 million settlement agreement reached with the Dutch Public Prosecution Service (tax amount: EUR 194 million).

The effective tax rate in 2017 was with 31.1% significantly higher than the weighted average statutory tax rate. This was caused by the following items:

- A relatively high amount of prior period tax adjustments which ING, for the most part is reimbursed by NN Group (reimbursement is included in the result before tax), recognised under 'Adjustment to prior periods';
- Impact on deferred tax positions following changes in the income tax rate in the USA and Belgium, recognised under 'Impact on deferred tax from change in tax rates'; and
- The recapture of previously deducted UK tax losses in the Netherlands due to increased profitability in the United Kingdom, recognised under 'Current tax from previously unrecognised amounts'.

Equity – Other comprehensive income

Income tax related to components of other comprehensive income	2019	2018	2017
Unrealised revaluations financial assets at fair value through other comprehensive income and other revaluations	6	86	103
Realised gains/losses transferred to the statement of profit or loss (reclassifications from equity to profit or loss)	12	23	20
Changes in cash flow hedge reserve	–199	–76	167
Remeasurement of the net defined benefit asset/liability	–14	–12	–25
Changes in fair value of own credit risk of financial liabilities at fair value through profit or loss	7	–33	
Exchange rate differences and other	7	–18	–12
Total income tax related to components of other comprehensive income	**–181**	**–29**	**253**

Tax Contingency

The contingent liability (also disclosed in note 45 'Contingent liabilities') in connection with taxation in the Netherlands refers to a possible obligation arising from the deduction from Dutch taxable profit of losses incurred by ING Bank in the United Kingdom in previous years. The existence of this obligation will be confirmed only by the occurrence of future profits in the United Kingdom.

36 Fair value of assets and liabilities

a) Financial assets and liabilities

The following table presents the estimated fair values of ING Bank's financial assets and liabilities. Certain items per the statement of financial position are not included in the table, as they do not meet the definition of a financial asset or liability. The aggregation of the fair values presented below does not represent, and should not be construed as representing, the underlying value of ING Bank.

Fair value of financial assets and liabilities

	Estimated fair value		Statement of financial position value	
	2019	2018	2019	2018
Financial assets				
Cash and balances with central banks	53,202	49,987	53,202	49,987
Loans and advances to banks	35,130	30,548	35,133	30,420
Financial assets at fair value through profit or loss				
– Trading assets	49,264	50,163	49,264	50,163
– Non-trading derivatives	2,278	2,672	2,278	2,672
– Assets mandatorily as at fair value through profit or loss	41,600	64,783	41,600	64,783
– Assets designated as at fair value through profit or loss	3,076	2,887	3,076	2,887
Financial assets at fair value through other comprehensive income				
– Equity securities	2,306	3,228	2,306	3,228
– Debt securities	30,483	25,616	30,483	25,616
– Loans and advances	1,680	2,379	1,680	2,379
Securities at amortised cost	46,928	47,815	46,108	47,276
Loans and advances to customers	621,299	602,959	611,907	592,328
Other assets[1]	5,851	7,389	5,851	7,389
	893,095	**890,427**	**882,886**	**879,129**
Financial liabilities				
Deposits from banks	35,086	37,631	34,826	37,330
Customer deposits	607,860	580,404	606,410	580,294
Financial liabilities at fair value through profit or loss				
– Trading liabilities	28,042	31,215	28,042	31,215
– Non-trading derivatives	2,217	2,313	2,217	2,313
– Designated as at fair value through profit or loss	47,685	59,179	47,685	59,179
Other liabilities[2]	9,747	12,011	9,747	12,011
Debt securities in issue	93,358	102,207	93,721	102,159
Subordinated loans	17,183	13,872	16,515	13,643
	841,178	**838,832**	**839,162**	**838,144**

1 Other assets do not include, among others: (deferred) tax assets, net defined benefit asset, inventory, property development and property obtained from foreclosures.

2 Other liabilities do not include, among others: (deferred) tax liabilities, net defined benefit and related employee benefit liabilities, reorganisation and other provisions, other taxation, social security contributions and lease liabilities.

Valuation Methods

The estimated fair values represent the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is a market-based measurement, which is based on assumptions that market participants would use and takes into account the characteristics of the asset or liability that market participants would take into account when pricing the asset or liability. Fair values of financial assets and liabilities are based on quoted prices in active market where available. When such quoted prices are not available, the fair value is determined by using valuation techniques.

ING uses unadjusted quotes where available. Unadjusted quoted prices are primarily obtained from exchange prices for listed financial instruments. Where an exchange price is not available, quoted market prices in active markets may be obtained from independent market vendors, brokers, or market makers. In general, positions are valued at the bid price for a long position and at the offer price for a short position or are valued at the price within the bid-offer spread that is most representative of fair value at the date of valuation.

For certain financial assets and liabilities quoted market prices are not available. For these financial assets and liabilities, fair value is determined using valuation techniques. These valuation techniques range from discounting of cash flows to various valuation models, where relevant pricing factors including the market price of underlying reference instruments, market parameters (e.g. volatilities, correlations and credit ratings), and customer behaviour are taken into account. ING maximises the use of market observable inputs and minimises the use of unobservable input in determining the fair value. The fair value can be subjective dependent on the significance of the unobservable input to the overall valuation. All valuation techniques used are subject to internal review and approval. Data used in these valuation techniques are validated on a daily basis when possible.

When a group of financial assets and financial liabilities are managed on the basis of their net risk exposures, are measured the fair value of a group of financial assets or liabilities on net portfolio level.

Control framework

To determine whether the valuations based upon data inputs have led to an appropriate fair value, the process of independent price verification ('IPV') or price testing is applied. This is done to ensure the appropriate reflection of these valuations in balance sheet and the profit and loss accounts. IPV tests and confirms the reliability of the market data used in these valuations and can lead to adjustments in valuation. The IPV process is performed at least monthly or more frequently depending on the nature of the market or trading activity. Multiple data sources are used to the extent that such prices are available and taking into account cost-benefit ratio of retrieving such prices. Valuation differences between primary and secondary source data are assessed. When differences resulting from price testing exceed pre-approved thresholds, adjustments to the profit and loss shall be made. Differences and adjustments must be assessed individually, approved by the Local Parameter Committee, and reported back in the meeting minutes. In case a material difference in value is found through the IPV process, it must be fully understood what the underlying cause is for the difference, and if a systematic change is required (e.g. change of source). Pricing and price testing is applied at individual trade level and is organised at a desk level. Valuation processes are governed by various governance bodies, which include Local Parameter Committees (LPC), Global Price Testing and Impairment Committee (GP&IC), Market Data Committee (MDC), Trading Pricing Model Committee (TPMC). All relevant committees meet on a quarterly basis or more frequent as required. Key valuation controls including product approval process (PARP), IPV, valuation adjustments, and model use is monitored.

The Global Price Testing and Impairment Committee is responsible for the oversight and the approval of the outcome of impairments (other loan loss provisions) and valuation- (price-testing) processes. It oversees the quality and coherence of valuation methodologies and processes. The TMPC is responsible for validating the appropriate models. Local Parameter Committees monitor the appropriateness of (quoted) pricing, any other relevant market info, as well as that of pricing models themselves related to the fair valued positions to which they are applied. LPC executes valuation methodology and processes at a local level. The Market Data Committee approves and reviews all pricing inputs for the calculation of market parameters.

Valuation Adjustments

Valuation adjustments are an integral part of the fair value. They are included as part of the fair value to provide better estimation of market exit value on measurement date. ING considers various valuation adjustments to arrive at the fair value including Bid-Offer adjustments, Credit Valuation Adjustments (CVA), Debt Valuation Adjustments (DVA), Model Risk Adjustments, Collateral Valuation Adjustment (CollVA), Funding Valuation Adjustment (FVA) and Exceptional Valuation Adjustments. The combination of Credit Valuation adjustment and Debt Valuation adjustment for derivatives is called Bilateral Valuation Adjustment (BVA).

- Bid-Offer adjustments are required to adjust mid-market values to appropriate bid or offer value in order to best represent the exit value, and therefore fair value. It is applicable to financial assets and liabilities that are valued at mid-price initially. In practice this adjustment accounts for the difference in valuation from mid to bid and mid to offer for long and short exposures respectively. In principle assets are valued at the bid prices and liabilities are valued at the offer price. For certain assets or liabilities, where market quoted price is not available, the price within the bid-offer spread that is most representative of fair value is used.
- Bilateral Valuation Adjustment (BVA) is the valuation component for the counterparty credit risk of the derivative contracts. It has bilateral nature, where both counterparty's credit risk and ING's own credit risks is taken into account. The calculation is based on the estimation of the expected exposure, the counterparties' risk of default, and taking into account the collateral agreements as well as netting agreements. The counterparties' risk of default is measured by probability of default and expected loss given default, which is based on market information including credit default swap (CDS) spread. Where counterparty CDS spreads are not available, relevant proxy spreads are used. Additionally, wrong-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty deteriorates) and right-way risk (when exposure to a counterparty is increasing and the credit quality of that counterparty improves) are included in the adjustment.
- ING applies Debt Valuation Adjustment (DVA) to own issued financial liabilities that are measured at fair value through profit or loss, if the credit risk component has not been included in the prices. In the DVA calculation, the default probability of the institution are estimated based on the ING Funding spread.
- Model risk adjustments reduce the risk of possible financial losses resulting from the use of a mis-specified, misapplied, or incorrect implementation of a model.
- Collateral Valuation Adjustment (CollVA) is a derivative valuation adjustment capturing specific features of CSA (Credit Support Annex) with a counterparty that the regular valuation framework does not capture. Non-standard CSA features may include deviations in relation to the currency in which ING posts or receives collateral, deviations in remuneration rate on collateral which may pay lower or higher rate than overnight rate or even no interest at all. Other deviations can be posting securities rather than cash as collateral.
- ING applies an additional 'Funding Valuation Adjustment' (FVA) to address the funding costs associated with the collateral funding asymmetry on uncollateralized or partially collateralized derivatives in the portfolio. This adjustment is based on the expected exposure profiles of the uncollateralized or partially collateralized OTC derivatives and market-based funding spreads.
- Exceptional Valuation Adjustments – Exceptional valuation adjustments are valuation adjustments of temporary nature and are subject to approval of GP&IC.

The following methods and assumptions were used by ING Bank to estimate the fair value of the financial instruments:

a.1) Financial assets

Cash and balances with central banks

The carrying amount of cash approximates its fair value.

Loans and advances to banks

The fair values of receivables from banks are generally based on quoted market prices or, if unquoted, on estimates based on discounting future cash flows using available market interest rates including appropriate spreads offered for receivables with similar characteristics, similar to Loans and advances to customers described below.

Financial assets at fair value through profit or loss, Financial assets at fair value through other comprehensive income and Securities at amortised cost

Derivatives

Derivatives contracts can either be exchange-traded or over the counter (OTC). The fair value of exchange-traded derivatives is determined using quoted market prices in an active market and those derivatives are classified in Level 1 of the fair value hierarchy. For those instruments not actively traded, fair values are estimated based on valuation techniques. OTC derivatives and derivatives trading in an inactive market are valued using valuation techniques because quoted market prices in an active market are not available for such instruments. The valuation techniques and inputs depend on the type of derivative and the nature of the underlying instruments. The principal techniques used to value these instruments are based on (amongst others) discounted cash flows option pricing models and Monte Carlo simulation. These valuation models calculate the present value of expected future cash flows, based on 'no-arbitrage' principles. These models are commonly used in the financial industry. Inputs to valuation models are determined from observable market data where possible. Certain inputs may not be observable in the market, but can be determined from observable prices via valuation model calibration procedures. The inputs used include for example prices available from exchanges, dealers, brokers or providers of pricing, yield curves, credit spreads, default rates, recovery rates, dividend rates, volatility of underlying interest rates, equity prices, and foreign currency exchange rates. These inputs are determined with reference to quoted prices, recently executed trades, independent market quotes and consensus data, where available.

For uncollateralised OTC derivatives, ING applies Credit Valuation Adjustment to correctly reflect the counterparty credit risk in the valuation. See section CVA/DVA/BVA for more details regarding the calculation.

Equity securities

The fair values of publicly traded equity securities are based on quoted market prices when available. Where no quoted market prices are available, fair value is determined based on quoted prices for similar securities or other valuation techniques.

The fair value of private equity is based on quoted market prices, if available. In the absence of quoted prices in an active market, fair value is estimated on the basis of an analysis of the investee's financial position and results, risk profile, prospects, price, earnings comparisons and revenue multiples, and by reference to market valuations for similar entities quoted in an active market.

Debt securities

Fair values for debt securities are based on quoted market prices, where available. Quoted market prices may be obtained from an exchange, dealer, broker, industry group, pricing service, or regulatory service. The quoted prices from non-exchange sources are assessed to determine if they are tradable prices. This distinction determines where it falls in the fair value hierarchy.

If quoted prices in an active market are not available, fair value is based on an analysis of available market inputs, which may include consensus prices obtained from one or more pricing services or by a valuation technique that discounts expected future cash flows using a market interest rate curves, referenced credit spreads, maturity of the investment, and estimated prepayment rates where applicable.

Loans and advances to customers

For loans and advances that are repriced frequently and have had no significant changes in credit risk, carrying amounts represent a reasonable estimate of the fair value. The fair value of other loans is estimated by discounting expected future cash flows using a discount rate that reflects credit risk, liquidity, and other current market conditions. The fair value of mortgage loans is estimated by taking into account prepayment behaviour. Loans with similar characteristics are aggregated for calculation purposes.

Other assets
The other assets are stated at their carrying value which is not significantly different from their fair value.

a.2) Financial liabilities

Deposits from banks
The fair values of payables to banks are generally based on quoted market prices or, if not available, on estimates based on discounting future cash flows using available market interest rates and credit spreads for payables to banks with similar characteristics.

Customer deposits
The carrying values of customer deposits with an immediate on demand features approximate their fair values. The fair values of deposits with fixed contractual terms have been estimated based on discounting future cash flows using the interest rates currently applicable to deposits of similar maturities.

Financial liabilities at fair value through profit or loss
The fair values of securities in the trading portfolio and other liabilities at fair value through profit or loss are based on quoted market prices, where available. For those securities not actively traded, fair values are estimated based on internal discounted cash flow valuation techniques using interest rates and credit spreads that apply to similar instruments. Reference is made to Financial assets at fair value through profit or loss above.

Other liabilities
The other liabilities are stated at their carrying value which is not significantly different from their fair value.

Debt securities in issue
The fair value of debt securities in issue is generally based on quoted market prices, or if not available, on estimated prices by discounting expected future cash flows using a current market interest rate and credit spreads applicable to the yield, credit quality and maturity.

Subordinated loans
The fair value of publicly traded subordinated loans are based on quoted market prices when available. Where no quoted market prices are available, fair value of the subordinated loans is estimated using discounted cash flows based on interest rates and credit spreads that apply to similar instruments.

a.3) Fair value hierarchy
ING Bank has categorised its financial instruments that are either measured in the statement of financial position at fair value or of which the fair value is disclosed, into a three level hierarchy based on the priority of the inputs to the valuation. The fair value hierarchy gives the highest priority to (unadjusted) quoted prices in active markets for identical assets or liabilities and the lowest priority to valuation techniques supported by unobservable inputs. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide reliable pricing information on an ongoing basis. The fair value hierarchy consists of three levels, depending upon whether fair values were determined based on (unadjusted) quoted prices in an active market (Level 1), valuation techniques with observable inputs (Level 2) or valuation techniques that incorporate inputs which are unobservable and which have a more than insignificant impact on the fair value of the instrument (Level 3). Financial assets in Level 3 include for example illiquid debt securities, complex derivatives, certain complex loans (for which current market information about similar assets to use as observable, corroborated data for all significant inputs into a valuation model is not available), and asset backed securities for which there is no active market and a wide dispersion in quoted prices.

Observable inputs reflect market data obtained from independent sources. Unobservable inputs are inputs which are based on the Bank's own assumptions about the factors that market participants would use in pricing an asset or liability, developed based on the best information available in the market. Unobservable inputs may include volatility, correlation, spreads to discount rates, default rates and recovery rates, prepayment rates, and certain credit spreads. Transfers into and transfers out of fair value hierarchy levels are made on a quarterly basis.

Level 1 – (Unadjusted) quoted prices in active markets

This category includes financial instruments whose fair value is determined directly by reference to (unadjusted) quoted prices in an active market that ING Bank can access. A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer markets, brokered markets, or principal to principal markets. Those prices represent actual and regularly occurring market transactions with sufficient frequency and volume to provide pricing information on an ongoing basis. Transfers out of Level 1 into Level 2 or Level 3 occur when ING Bank establishes that markets are no longer active and therefore (unadjusted) quoted prices no longer provide reliable pricing information.

Level 2 – Valuation technique supported by observable inputs

This category includes financial instruments whose fair value is based on market observables other than (unadjusted) quoted prices. The fair value for financial instruments in this category can be determined by reference to quoted prices for similar instruments in active markets, but for which the prices are modified based on other market observable external data or reference to quoted prices for identical or similar instruments in markets that are not active. These prices can be obtained from a third party pricing service. ING analyses how the prices are derived and determines whether the prices are liquid tradable prices or model based consensus prices taking various data as inputs.

For financial instruments that do not have a reference price available, fair value is determined using a valuation technique (e.g. a model), where inputs in the model are taken from an active market or are observable, such as interest rates and yield curves observable at commonly quoted intervals, implied volatilities, and credit spreads.

If certain inputs in the model are unobservable, the instrument is still classified in this category, provided that the impact of those unobservable inputs on the overall valuation is insignificant. The notion of significant is particularly relevant for the distinction between Level 2 and Level 3 assets and liabilities. ING Bank has chosen to align the definition of significant with the 90% confidence range as captured in the prudent value definition by EBA. Unobservable parameters are shifted down and upwards to reach this 90% confidence range. The same 90% confidence range is applied to model uncertainty. If the combined change in asset value resulting from the shift of the unobservable parameters and the model uncertainty exceeds the threshold, the asset is classified as Level 3. A value change below the threshold results in a Level 2 classification.

Valuation techniques used for Level 2 assets and liabilities range from discounting of cash flows to various industry standard valuation models such as option pricing model and Monte Carlo simulation model, where relevant pricing factors including the market price of underlying reference instruments, market parameters (volatilities, correlations, and credit ratings), and customer behaviour are taken into account.

Level 3 – Valuation technique supported by unobservable inputs

This category includes financial instruments whose fair value is determined using a valuation technique (e.g. a model) for which more than an insignificant part of the inputs in terms of the overall valuation are not market observable. This category also includes financial assets and liabilities whose fair value is determined by reference to price quotes but for which the market is considered inactive. An instrument in its entirety is classified as Level 3 if a significant portion of the instrument's fair value is driven by unobservable inputs. Unobservable in this context means that there is little or no current market data available from which to derive a price that an unrelated, informed buyer would purchase the asset or liability at.

Financial instruments at fair value

The fair values of the financial instruments were determined as follows:

Methods applied in determining fair values of financial assets and liabilities (carried at fair value)

	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Financial Assets								
Financial assets at fair value through profit or loss								
- Trading assets	13,238	13,052	35,852	36,617	174	494	49,264	50,163
- Non-trading derivatives		0	2,270	2,645	8	27	2,278	2,672
- Assets mandatorily at fair value through profit or loss	22	141	40,196	63,601	1,381	1,042	41,600	64,783
- Assets designated as at fair value through profit or loss	203	147	1,628	1,665	1,244	1,075	3,076	2,887
Financial assets at fair value through other comprehensive income	32,165	27,218	343	1,256	1,961	2,749	34,468	31,223
	45,628	**40,558**	**80,289**	**105,783**	**4,768**	**5,387**	**130,685**	**151,728**
Financial liabilities								
Financial liabilities at fair value through profit or loss								
- Trading liabilities	1,446	5,706	26,401	25,387	195	122	28,042	31,215
- Non-trading derivatives		0	2,106	2,232	110	80	2,217	2,313
- Financial liabilities designated as at fair value through profit or loss	719	894	46,782	57,577	184	708	47,685	59,179
	2,165	**6,600**	**75,289**	**85,196**	**490**	**910**	**77,943**	**92,707**

In 2019, the decrease in financial assets mandatorily at fair value through profit or loss, mainly relates to reverse repurchase transactions for which the valuation technique is supported by observable inputs.

In 2019 there were no significant transfers between level 1 and 2 and no significant changes in valuation techniques.

Changes in Level 3 Financial assets

	Trading assets		Non-trading derivatives		Financial assets mandatorily at FVPL		Financial assets designated at FVPL		Financial assets at FVOCI		Total	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	494	1,104	27	30	1,042		1,075	365	2,749	480	5,387	1,980
Effect of change in accounting policy due to the implementation of IFRS 9						1,653		–1		3,446		5,097
Realised gain/loss recognised in the statement of profit or loss during the period [1]	40	–54	–21	–4	–63	10	–6	–20	–15	1	–66	–67
Revaluation recognised in other comprehensive income during the period [2]									155	–131	155	–131
Purchase of assets	28	359		2	1,494	1,154	360	731	11	85	1,893	2,331
Sale of assets[3]	–53	–120	–3		–832	–1,677	–212		–680	–557	–1,780	–2,355
Maturity/settlement[3]	–11	–42			–461	–78	–35		–212	–330	–719	–450
Reclassifications	–279				279				3	2	4	2
Transfers into Level 3	26	85	4		9		63			–0	103	85
Transfers out of Level 3	–72	–839			–88	–37			–53	–249	–214	–1,125
Exchange rate differences	1				–1	17			1	3	1	20
Changes in the composition of the group and other changes					2				1	–1	3	–1
Closing balance	**174**	**494**	**8**	**27**	**1,381**	**1,042**	**1,244**	**1,075**	**1,961**	**2,749**	**4,768**	**5,387**

1 Net gains/losses were recorded as 'Valuation results and net trading income' in the statement of profit or loss. The total amounts includes EUR 43 million of unrealised gains and losses recognised in the statement of profit or loss.
2 Revaluation recognised in other comprehensive income is included on the line 'Net change in fair value of debt instruments at fair value through other comprehensive income'.
3 Prior period of Financial assets at FVOCI has been updated to improve consistency and comparability.

In 2019 the amounts reported on the line reclassifications relate to syndicated loans reclassed From trading assets to financial assets mandatory at FVPL.

Changes in Level 3 Financial liabilities

	Trading liabilities		Non-trading derivatives		Financial liabilities designated as at fair value through profit or loss		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	122	1,073	80	68	708	101	910	1,242
Effect of change in accounting policy due to the implementation of IFRS 9				4		0		4
Realised gain/loss recognised in the statement of profit or loss during the period[1]	102	–67	–16	8	32	1	118	–58
Issue of liabilities	72	42	46		35	545	154	587
Early repayment of liabilities	–30	–87	–0		–10	–20	–40	–106
Maturity/settlement	–32	–37			–479	–11	–511	–49
Reclassifications		–						
Transfers into Level 3	13	39			49	92	62	131
Transfers out of Level 3	–52	–844			–150		–202	–844
Exchange rate differences		–0				–0		–0
Changes in the composition of the group and other changes	–	2						2
Closing balance	**195**	**122**	**110**	**80**	**184**	**708**	**490**	**910**

1 Net gains/losses were recorded as 'Valuation results and net trading income' in the statement of profit or loss. The total amount includes EUR 115 million of unrealised gains and losses recognised in the statement of profit or loss.

In 2019 and 2018, financial liabilities mainly repo's were transferred out of Level 3 mainly due to the valuation not being significantly impacted by unobservable inputs.

In 2018, financial liabilities transferred out of Level 3 mainly relate to swap positions revised to Level 2 based on the ability to demonstrate independent sourcing of observable inputs for swap pricing requirements.

Recognition of unrealised gains and losses in Level 3

Amounts recognised in the statement of profit or loss relating to unrealised gains and losses during the year that relates to Level 3 assets and liabilities are included in the line item 'Valuation results and net trading income' in the statement of profit or loss.

Unrealised gains and losses that relate to 'Financial assets at fair value through other comprehensive income' (2019 and 2018) are included in the Revaluation reserve – Equity securities at fair value through other comprehensive income or Debt Instruments at fair value through other comprehensive income (2019 and 2018).

Level 3 Financial assets and liabilities

Financial assets measured at fair value in the statement of financial position as at 31 December 2019 of EUR 131 billion includes an amount of EUR 4.8 billion (3.6%) which is classified as Level 3 (31 December 2018: EUR 5.4 billion, being 3.6%). Changes in Level 3 from 31 December 2018 to 31 December 2019 are detailed above in the table Changes in Level 3 Financial assets.

Financial liabilities measured at fair value in the statement of financial position as at 31 December 2019 of EUR 78 billion includes an amount of EUR 0.5 billion (0.6%) which is classified as Level 3 (31 December 2018: EUR 0.9 billion, being 1.0%). Changes in Level 3 from 31 December 2018 to 31 December 2019 are disclosed above in the table 'Changes in Level 3 Financial liabilities'.
Financial assets and liabilities in Level 3 include both assets and liabilities for which the fair value was determined using (i) valuation techniques that incorporate unobservable inputs as well as (ii) quoted prices, which have been adjusted to reflect that the market was not actively trading at or around the balance sheet date. Unobservable inputs are inputs which are based on ING's own assumptions about the factors that market participants would use in pricing an asset or liability, developed based on the best information available in the circumstances. Unobservable inputs may include volatility, correlation, spreads to discount rates, default rates and recovery rates, prepayment rates, and certain credit spreads. Valuation techniques that incorporate unobservable inputs are sensitive to the inputs used.

Of the total amount of financial assets classified as Level 3 as at 31 December 2019 of EUR 4.8 billion (31 December 2018: EUR 5.4 billion), an amount of EUR 2.5 billion (52.6%) (31 December 2018: EUR 3.4 billion, being 63.2%) is based on unadjusted quoted prices in inactive markets. As ING does not generally adjust quoted prices using its own inputs, there is no significant sensitivity to ING's own unobservable inputs.

Furthermore, Level 3 financial assets includes approximately EUR 1.3 billion (31 December 2018: EUR 1.1 billion) which relates to financial assets that are part of structures that are designed to be fully neutral in terms of market risk. Such structures include various financial assets and liabilities for which the overall sensitivity to market risk is insignificant. Whereas the fair value of individual components of these structures may be determined using different techniques and the fair value of each of the components of these structures may be sensitive to unobservable inputs, the overall sensitivity is by design not significant.

The remaining EUR 1.0 billion (31 December 2018: EUR 0.8 billion) of the fair value classified in Level 3 financial assets is established using valuation techniques that incorporates certain inputs that are unobservable.

Of the total amount of financial liabilities classified as Level 3 as at 31 December 2019 of EUR 0.5 billion (31 December 2018: EUR 0.9 billion), an amount of EUR 0.2 billion (39.3%) (31 December 2018: EUR 0.7 billion, being 82.0%) is based on unadjusted quoted prices in inactive markets. As ING does not generally adjust quoted prices using its own inputs, there is no significant sensitivity to ING's own unobservable inputs.

Furthermore, Level 3 financial liabilities includes approximately EUR 0.1 billion (31 December 2018: EUR 0.1 billion) which relates to financial liabilities that are part of structures that are designed to be fully neutral in terms of market risk. As explained above, the fair value of each of the components of these structures may be sensitive to unobservable inputs, but the overall sensitivity is by design not significant.

The remaining EUR 0.2 billion (31 December 2018: EUR 0.1 billion) of the fair value classified in Level 3 financial liabilities is established using valuation techniques that incorporates certain inputs that are unobservable.

The table below provides a summary of the valuation techniques, key unobservable inputs and the lower and upper range of such unobservable inputs, by type of Level 3 asset/liability. The lower and upper range mentioned in the overview represent the lowest and highest variance of the respective valuation input as actually used in the valuation of the different financial instruments. Amounts and percentages stated are unweighted. The range can vary from period to period subject to market movements and change in Level 3 position. Lower and upper bounds reflect the variability of Level 3 positions and their underlying valuation inputs in the portfolio, but do not adequately reflect their level of valuation uncertainty. For valuation uncertainty assessment, reference is made to section Sensitivity analysis of unobservable inputs (Level 3).

Valuation techniques and range of unobservable inputs (Level 3)

	Assets		Liabilities		Valuation techniques	Significant unobservable inputs	Lower range		Upper range	
	2019	2018	2019	2018			2019	2018	2019	2018
At fair value through profit or loss										
Debt securities	920	807		3	Price based	Price (%)	0%	0%	121%	105%
					Net asset value	Price (%)	n/a	0%	n/a	0%
					Present value techniques	Credit spread (bps)	n/a	131	n/a	131
					Loan pricing model	Credit spread (bps)	n/a	n/a	n/a	n/a
Equity securities	146	162	1		Price based	Price	0	0	5,475	5,475
Loans and advances	1,576	1,047		15	Price based	Price (%)	0%	1%	104%	102%
					Present value techniques	Price (%)	n/a	100%	n/a	100%
						Credit spread (bps)	1	19	250	550
(Reverse) repo's	3	481	1	424	Present value techniques	Price (%)	4%	3%	4%	4%
Structured notes			184	284	Price based	Price (%)	83%	77%	124%	108%
					Net asset value	Price (%)	n/a	n/a	n/a	n/a
					Option pricing model	Equity volatility (%)	13%	13%	20%	34%
						Equity/Equity correlation	0.6	0.6	0.8	0.9
						Equity/FX correlation	-0.5	-0.7	0.3	0.5
						Dividend yield (%)	2%	1%	4%	5%
						Interest rate volatility (bps)	n/a	49	n/a	86
						IR/IR correlation	n/a	0.8	n/a	0.8
					Present value techniques	Implied correlation	n/a	-0.7	n/a	0.7
Derivatives										
– Rates	13	57	68	39	Option pricing model	Interest rate volatility (bps)	17	23	137	300
						Interest rate correlation	n/a	0.8	n/a	0.8
						IR/INF correlation	n/a	n/a	n/a	n/a
					Present value techniques	Reset spread (%)	2%	2%	2%	2%
						Prepayment rate (%)	n/a	n/a	n/a	n/a
						Inflation rate (%)	n/a	n/a	n/a	n/a
						Credit spread (bps)	n/a	46	n/a	46
– FX	1				Present value techniques	Inflation rate (%)	n/a	n/a	n/a	n/a
					Option pricing model	FX volatility (bps)	5	0%	8	0%

Valuation techniques and range of unobservable inputs (Level 3) – continued

	Assets 2019	Assets 2018	Liabilities 2019	Liabilities 2018	Valuation techniques	Significant unobservable inputs	Lower range 2019	Lower range 2018	Upper range 2019	Upper range 2018
– Credit	102	67	183	86	Present value techniques	Credit spread (bps)	2	8	11054	364
						Implied correlation	n/a	0.7	n/a	0.7
						Jump rate (%)	12%	12%	12%	12%
					Price based	Price (%)	n/a	n/a	n/a	n/a
– Equity	42	68	50	54	Option pricing model	Equity volatility (%)	4%	4%	84%	94%
						Equity/Equity correlation	-	0.2	-	0.9
						Equity/FX correlation	–0.6	–0.8	0.6	0.5
						Dividend yield (%)	0%	0%	13%	13%
– Other	3	2	3	5	Option pricing model	Commodity volatility (%)	11%	12%	53%	79%
						Com/Com correlation	0.3	0.3	0.9	0.9
						Com/FX correlation	–0.5	–0.5	–0.3	–0.5
At fair value through other comprehensive income										
– Debt					Price based	Price (%)	n/a	n/a	n/a	n/a
– Loans and advances	1,680	2,379			Present value techniques	Prepayment rate (%)	6%	6%	6%	6%
– Equity	282	317			Present value techniques	Credit spread (%)	n/a	3.2	n/a	3.2
						Inflation rate (%)	3%	3%	3%	3%
						Price (%)	1		187	
						Other	n/a	63	n/a	80
Total	**4,768**	**5,387**	**490**	**910**						

Non-listed equity investments

Level 3 equity securities mainly include corporate investments, fund investments and other equity securities which are not traded in active markets. In the absence of an active market, fair values are estimated on the basis of the analysis of fund managers reports, company's financial position, future prospects, and other factors, considering valuations of similar positions or by the reference to acquisition cost of the position. For equity securities best market practice will be applied using the most relevant valuation method.

All non-listed equity investments, including investments in private equity funds, are subject to a standard review framework which ensures that valuations reflect fair values.

Price

For securities where market prices are not available fair value is measured by comparison with observable pricing data from similar instruments. Prices of 0% are distressed to the point that no recovery is expected, while prices significantly in excess of 100% or par are expected to pay a good yield.

Credit spreads

Credit spread is the premium above a benchmark interest rate, typically LIBOR or relevant Treasury instrument, required by the market participant to accept a lower credit quality. Higher credit spreads indicate lower credit quality and a lower value of an asset.

Volatility

Volatility is a measure for variation of the price of a financial instrument or other valuation input over time. Volatility is one of the key inputs in option pricing models. Typically, the higher the volatility, the higher value of the option. Volatility varies by the underlying reference (equity, commodity, foreign currency and interest rates), by strike, and maturity of the option. The minimum level of volatility is 0% and there is no theoretical maximum.

Correlation

Correlation is a measure of dependence between two underlying references which is relevant for valuing derivatives and other instruments which have more than one underlying reference. For example, correlation between underlying equity names may be a relevant input parameter for basket equity option pricing models. High positive correlation (close to 1) indicates strong positive (statistical) relationship between underlyings, implying they typically move in the same direction. High negative correlation, on the other hand, implies that underlyings typically move in opposite directions.

Interest rates

Examples of interest rate related unobservable inputs are prepayment rates, reset rates and inflation rates.
Prepayment rate and reset spread are key inputs to mortgage linked prepayment swaps valuation. Prepayment rate is the estimated rate at which mortgage borrowers will repay their mortgages early, e.g. 5% per year. Reset spread is the future spread at which mortgages will re-price at interest rate reset dates.

Inflation rate is a key input to inflation linked instruments. Inflation linked instruments protect against price inflation and are denominated and indexed to investment units. Interest payments would be based on the inflation index and nominal rate in order to receive/pay the real rate of return. A rise in nominal coupon payments is a result of an increase in inflation expectations, real rates, or both. As markets for these inflation linked derivatives are illiquid, the valuation parameters become unobservable.

Dividend yield

Dividend yield is an important input for equity option pricing models showing how much dividends a company is expected to pay out each year relative to its share price. Dividend yields are generally expressed as an annualised percentage of share price.

Sensitivity analysis of unobservable inputs (Level 3)

Where the fair value of a financial instrument is determined using inputs which are unobservable and which have a more than insignificant impact on the fair value of the instrument, the actual value of those inputs at the balance date may be drawn from a range of reasonably possible alternatives. In line with market practice the upper and lower bounds of the range of alternative input values reflect a 90% level of valuation certainty. The actual levels chosen for the unobservable inputs in preparing the financial statements are consistent with the valuation methodology used for fair valued financial instruments.

If ING had used input values from the upper and lower bound of this range of reasonably possible alternative input values when valuing these instruments as of 31 December 2019, then the impact would have been higher or lower as indicated below. The purpose of this disclosure is to present the possible impact of a change of unobservable inputs in the fair value of financial instruments where unobservable inputs are significant to the valuation.

As ING has chosen to apply a 90% confidence level for its IFRS valuation of fair valued financial instruments, the downward valuation uncertainty has become immaterial, whereas the potential upward valuation uncertainty, reflecting a potential profit, has increased.

In practice valuation uncertainty is measured and managed per exposure to individual valuation inputs (i.e. risk factors) at portfolio level across different product categories. Where the disclosure looks at individual Level 3 inputs the actual valuation adjustments may also reflect the benefits of portfolio offsets.

Because of the approach taken, the valuation uncertainty in the table below is broken down by related risk class rather than by product.

In reality some valuation inputs are interrelated and it would be unlikely that all unobservable inputs would ever be simultaneously at the limits of their respective ranges of reasonably possible alternatives. Therefore it can be assumed that the estimates in the table below show a greater fair value uncertainty than the realistic position at year end assuming normal circumstances/normal markets.

Also, this disclosure does not attempt to indicate or predict future fair value movement. The numbers in isolation give limited information as in most cases these Level 3 assets and liabilities should be seen in combination with other instruments (for example as a hedge) that are classified as Level 2.

The possible impact of a change of unobservable inputs in the fair value of financial instruments at fair value through other comprehensive income are estimated to be immaterial.

Sensitivity analysis of Level 3 instruments

	Positive fair value movements from using reasonable possible alternatives		Negative fair value movements from using reasonable possible alternatives	
	2019	2018	2019	2018
Fair value through profit or loss				
Equity (equity derivatives, structured notes)	35	60		4
Interest rates (Rates derivatives, FX derivatives)	40	43		
Credit (Debt securities, Loans, structured notes, credit derivatives)	10	39		
	85	**142**	**–**	**4**

Other financial instruments

The fair values of the financial instruments carried at amortised cost in the statement of financial position, but for which fair values are disclosed are determined as follows:

Methods applied in determining fair values of financial assets and liabilities (carried at amortised cost)

	Level 1		Level 2		Level 3		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Financial Assets								
Loans and advances to banks[1]	728	445	11,469	7,152	20,570	20,742	32,767	28,339
Loans and advances to customers[1]	165	138	12,713	14,745	588,063	567,045	600,941	581,928
Securities at amortised cost	43,784	43,550	2,304	3,024	840	1,242	46,928	47,815
	44,677	**44,132**	**26,486**	**24,921**	**609,473**	**589,029**	**680,636**	**658,082**
Financial liabilities								
Deposits from banks [1]	0	128	23,900	24,433	6,589	7,314	30,490	31,875
Customer deposits [1]	5,666	6,695	50,553	50,922	20,760	22,172	76,980	79,789
Debt securities in issue	36,688	33,419	38,028	49,075	18,642	19,713	93,358	102,207
Subordinated loans	1,929	3,437	15,254	10,435		0	17,183	13,872
	44,283	**43,678**	**127,735**	**134,865**	**45,992**	**49,199**	**218,010**	**227,743**

1 Financial assets and liabilities that are on demand are excluded from the fair value hierarchy as their fair value approximates the carrying value.

b) Non-financial assets and liabilities

ING Bank's non-financial assets comprise Investments in associates and joint ventures, Property in own use, Investment property as included in the statement of financial position in the line items Investments in associates and joint ventures, Property and equipment, and Other assets respectively.

Investments in associates and joint ventures are accounted for using the equity method. For further information, reference is made to Note 8 'Investments in associates and joint ventures'. Other non-financial assets (Property in own use, and Investment properties) are recognised at fair value at the balance sheet date.

As at 31 December 2019, the estimated fair value of Property in own use and Investment property amounts to EUR 757 million (2018: EUR 780 million) and EUR 46 million (2018: EUR 54 million) respectively and is categorised as Level 3 of the fair value hierarchy on the basis of methods applied in determining the fair values.

Amounts recognised in the statement of profit or loss relating to unrealised gains and losses during the year that relate to Level 3 non-financial assets are included in the statement of profit or loss as follows:

- Impairments on Property in own use are included in Other operating expenses - Impairments and reversals on property and equipment and intangibles ; and
- Changes in the fair value of Investment property are included in Investment income.

Unrealised gains and losses on Property in own use are included in the Revaluation reserve – Property in own use reserve.
For amounts recognised in the Statement of profit or loss and other changes in non-financial assets during the year, reference is made to Note 9 'Property and equipment' and Note 11 'Other assets'.

As at 31 December 2019, ING Bank has no non-financial liabilities measured at fair value (2018: none).

37 Derivatives and hedge accounting

Use of derivatives

ING Bank uses derivatives for economic hedging purposes to manage its asset and liability portfolios and structural risk positions. The primary objective of ING Bank'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 Bank uses credit derivatives to manage its economic exposure to credit risk, including total return swaps and credit default swaps, to sell or buy protection for credit risk exposures in the loan, investment, and trading portfolios. Hedge accounting is not applied in relation to these credit derivatives.

Hedge accounting

Derivatives that qualify for hedge accounting under IFRS are classified and accounted for in accordance with the nature of the instrument hedged and the type of IFRS hedge model that is applicable. The three models applicable under IFRS are: fair value hedge accounting, cash flow hedge accounting, and hedge accounting of a net investment in a foreign operation. How and to what extent these models are applied are described under the relevant headings below. The company's detailed accounting policies for these three hedge models are set out in paragraph 1.6 'Financial instruments' of Note 1 'Basis of preparation and accounting policies'.

IBOR transition

Following the decision by global regulators to seek alternatives for current critical benchmarks in use in various jurisdiction in order to comply with the EU Benchmarks Regulation, the IBOR transition program of ING was initiated in 2018 to prepare the Group for the reform.

Reference is made to note Risk management/ IBOR Transition for more information on to what rates ING is exposed and on how ING is managing the transition to alternative benchmark rates.

At the reporting date, ING Bank assessed the extent to which hedge relationships are subject to uncertainties driven by the IBOR reform.
ING applies fair value and cash flow hedge accounting in accordance with IAS 39, and interest rate and foreign currency risks are designated as hedged risks in various micro and macro models. Except for EONIA and EUR LIBOR all IBOR's in scope of ING's program are a component of either hedging instrument and/or hedged item where the interest rate and/or foreign currency risk are the designated hedged risk. The hedged exposures are mainly loan portfolio's, issued debt securities and purchased debt instruments.

ING Bank early adopted the amendments to IAS 39 issued in September 2019 to these hedging relationships directly affected by IBOR reform. This excludes EURIBOR hedges as EURIBOR is Benchmarks Regulation compliant.

LIBOR indexed fair value and cash flow hedges are expected to be directly affected by the uncertainties arising from the IBOR reform. In particular, uncertainties over the timing and amount of the replacement rate may impact the effectiveness and highly probable assessment.

For these affected fair value and cash flow hedge relationships ING Bank assumes that the LIBOR based cash flows from the hedging instrument and hedged item will remain unaffected.
The same assumption is used while assessing the likelihood of occurrence of the forecast transaction that are subject to cash flow hedges. The cash flow hedges directly impacted by the IBOR reform still meet the highly probable requirement assuming the respective LIBOR benchmark on which the hedged cash flows are based are not altered as a result of the reform.

The following table contains details of the gross notional amounts of hedging instruments as at 31 December 2019 that are used in the Group's hedge accounting relationships for which the amendments to IAS39 were applied:

Hedging instruments in EUR	
Benchmark	Notional Amount
USD LIBOR	45,496
GBP LIBOR	2,184
JPY LIBOR	2,922
CHF LIBOR	313

Approximately 68% of the above notional amounts have a maturity date beyond 2021.

The notional amounts of the derivative hedging instruments (in above table) provide a close approximation of the extent of the risk exposure ING manages through these hedging relationships.

Fair value hedge accounting

ING Bank'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 Bank's approach to manage market risk, including interest rate risk, is discussed in 'Risk management – Market risk'. ING Bank's exposure to interest rate risk is disclosed in paragraph 'Interest rate risk in banking book'.

By using derivative financial instruments to hedge exposures to changes in interest rates, ING Bank also exposes itself to credit risk of the derivative counterparty, which is not offset by the hedged item. ING Bank minimises counterparty credit risk in derivative instruments by clearing most of the derivatives through Central Clearing Counterparties. In addition ING Bank only enters into transactions with high-quality counterparties and requires posting collateral.

ING Bank applies fair value hedge accounting on micro level in which one hedged item is hedged with one or multiple hedging instruments as well as on macro level whereby a portfolio of items is hedged with multiple hedging instruments. For these macro hedges of interest rate risk ING applies the EU carve-out. The EU 'carve-out' for macro hedging enables a group of derivatives (or proportions) to be viewed in combination and jointly designated as the hedging instrument and removes some of the limitations in fair value hedge accounting relating to hedging core deposits and under-hedging strategies. In retail operations, exposure on retail funding (savings and current accounts) and retail lending (mortgages) is initially offset. The remaining exposure is hedged in a portfolio hedge, using the EU carve-out, in which a portion of the retail lending portfolio and core deposits are designated as a hedged item for hedge accounting purposes.

For portfolio hedges the fair value is projected based on contractual terms and other variables including prepayment expectations. These projected fair value of the portfolios form the basis for identifying the notional amount subject to interest rate risk that is designated under fair value hedge accounting.

Micro fair value hedge accounting is mainly applied on issued debt securities and purchased debt instruments for hedging interest rate risk.

Before fair value hedge accounting is applied by ING Bank, ING Bank 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 Bank considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING Bank 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.

For the macro hedge on the mortgage portfolio ING Bank follows a dynamic hedging strategy. This means that on monthly basis, based on the new portfolio projection, the hedging relationship is renewed. From an operational point of view, the existing hedging relationship is adjusted based on the new portfolio projection and additional hedging instruments are added to the hedging relationship.

ING Bank uses the following derivative financial instruments in a fair value hedge accounting relationship:

Gross carring value of derivatives designated under fair value hedge accounting

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December				
Hedging instrument on interest rate risk				
– Interest rate swaps	12,085	13,334	8,584	11,279
– Other interest derivatives	87	70	78	63

The derivatives used for fair value hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' for EUR 524 million (2018: EUR 638 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 873 million (2018: EUR 1,029 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For our main currencies the average fixed rate for interest rate swaps used in fair value hedge accounting are 0.93% (2018: 1.14%) for EUR and 3.55% (2018: 3.38%) for USD.

The following table shows the net notional amount of derivatives designated in fair value hedging split into the maturity of the instruments. The net notional amounts presented in the table are a combination of payer (-) and receiver (+) swaps.

Maturity derivatives designated in fair value hedging

As at 31 December 2019	Less than 1 month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
Hedging instrument on interest rate risk									
– Interest rate swaps	–59	52	8,574	9,791	6,169	8,727	3,161	1,832	38,247
– Other interest derivatives	–20	–22	58	–242	–404	–290	–44	1,075	110
As at 31 December 2018									
Hedging instrument on interest rate risk									
– Interest rate swaps	560	–14	–7,819	7,277	514	5,097	11,082	–11,067	5,630
– Other interest derivatives	–11	–53	–101	–55	–228	–325	–325	504	–593

Gains and losses on derivatives designated under fair value hedge accounting are recognised in the statement of profit or loss. The effective portion of the fair value change on the hedged item is also recognised in the statement of profit or loss. As a result, only the net accounting ineffectiveness has an impact on the net result.

Fair value hedging – impact on the statement of profit or loss and other comprehensive income

	Carrying amount of the hedged item		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 hedge instruments	Hedge ineffectiveness recognised in the statement of profit or loss, gain (+) / loss (-)
	Assets	Liabilities	Assets	Liabilities			
As at 31 December 2019							
Interest rate risk							
– Amounts due from banks					–0		
– Debt securities at fair value through other comprehensive income	23,281		n/a		357		
– Loans at FVOCI	410		n/a		–8		
– Loans and advances to customers	27,192		3,318		922		
– Debt instruments at amortised cost	6,133		429		356		
– Debt securities in issue		40,123		1,836	–312		
– Subordinated loans		14,980		261	–214		
– Amounts due to banks		8,783		38	1		
– Customer deposits and other funds on deposit		25,345		827	–720		
– Discontinued hedges			1,315	134			
Total	**57,016**	**89,232**	**5,062**	**3,097**	**383**	**–307**	**76**
As at 31 December 2018							
Interest rate risk							
– Amounts due from banks					–1		
– Debt securities at fair value through other comprehensive income	18,471		n/a		1		
– Loans at FVOCI	480		n/a				
– Loans and advances to customers	49,258		2,817		–204		
– Debt instruments at amortised cost	16,843		687		–91		
– Debt securities in issue		40,154		1,500	247		
– Subordinated loans		11,648		47	56		
– Amounts due to banks		17,717		55	–52		
– Customer deposits and other funds on deposit		18,505		278	–11		
– Discontinued hedges			272	–35			
Total	**85,052**	**88,024**	**3,776**	**1,844**	**–54**	**62**	**7**

The main sources of ineffectiveness are:
- differences in maturities of the hedged item(s) and hedging instrument(s);
- different interest rate curves applied to discount the hedged item(s) and hedging instrument(s);
- differences in timing of cash flows of the hedged item(s) and hedging instrument(s).

Additionally, for portfolio (macro) fair value hedges of ING Bank's fixed rate mortgage portfolio, ineffectiveness also arises from the disparity between expected and actual prepayments (prepayment risk).

There were no other sources of ineffectiveness in these hedging relationships.

As a result of interest rate developments in 2019 ING Bank de-designated fair value hedge accounting portfolios with a total notional value of approximately EUR 25 billion.

Cash flow hedge accounting

ING Bank'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 Bank'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 Bank 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 Bank 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 Bank 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 Bank considers whether the critical terms of the hedged item and hedging instrument closely align when assessing the presence of an economic relationship. ING Bank evaluates whether the cash flows of the hedged item and the hedging instrument respond similarly to the hedged risk, such as the benchmark interest rate of foreign currency. In addition (for macro FX hedging relationships) a regression analysis is performed to assess whether the hedging instrument is expected to be and has been highly effective in offsetting changes in the fair value of the hedged item.

ING Bank uses the following derivative financial instruments in a cash flow hedge accounting relationship:

Gross carrying value of derivatives used for cash flow hedge accounting

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December				
Hedging instrument on interest rate risk				
– Interest rate swaps	2,615	2,848	5,757	3,664
Hedging instrument on combined interest and FX rate risk				
– Cross currency interest rate derivatives	358	158	204	154

The derivatives used for cash flow hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' EUR 677 million (2018: EUR 1,012 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 339 million (2018: EUR 458 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For the main currencies the average fixed rate for interest rate swaps used in cash flow hedge accounting are 0.54% (2018: 1.21%) for EUR, 2.38% (2018: 2.53%) for PLN, 2.51% (2018: 2.49%) for USD and 1.50% (2018: 1.97%) for AUD.
The average currency exchange rate for cross currency swaps used in cash flow hedge accounting is for EUR/USD 1.11 (2018: 1.14) and for EUR/AUD 1.55 (2018: 1.52).

Maturity derivatives designated in cash flow hedging

As at 31 December 2019	Less than 1 month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
Hedging instrument on interest rate risk									
– Interest rate swaps	–401	580	–2,591	–6,512	–5,541	–5,788	–5,364	–23,009	–48,627
Hedging instrument on combined interest and FX rate risk									
– Cross currency interest rate derivatives		–1,098	–2,068	–5,044	–2,509	–1,473	3	104	–12,086
As at 31 December 2018									
Hedging instrument on interest rate risk									
– Interest rate swaps	–107	–2,546	–7,107	–5,591	–9,883	–7,928	–8,980	–29,629	–71,771
Hedging instrument on combined interest and FX rate risk									
– Cross currency interest rate derivatives	5	48	–601	–4,461	–5,622	–2,647	–793	–239	–14,311

The following table shows the cash flow hedge accounting impact on profit or loss and comprehensive income:

Cash flow hedge accounting – impact on the statement of profit or loss and other comprehensive income

	Change in value used for calculating hedge ineffectiveness for the period	Gross Carrying amount cash flow hedge reserve at the end of the reporting period	Amount reclassified from CFH reserve to profit or loss	Cash flow is no longer expected to occur	Change in value of hedging instrument recognised in OCI	Hedge ineffectiveness recognised in the statement of profit or loss, gain (+) / Loss (-)
As at 31 December 2019						
Interest rate risk on;						
– Floating rate lending	–940	1,395	357			
– Floating rate borrowing	133	–198	–201			
– Other	–211	169	53			
– Discontinued hedges		316	–112			
Total interest rate risk	**–1,018**	**1,682**	**97**	**–**	**851**	**44**
Combined interest and currency exchange rate risk on;						
– Floating rate lending	–22	–42	–498			
– Floating rate borrowing	12	15	–12	–1		
– Other	1	–1	–4			
– Discontinued hedges			–3			
Total combined interest and exchange rate risk	**–10**	**–28**	**–517**	**–1**	**475**	**3**
Total cash flow hedge	**–1,028**	**1,654**	**–420**	**–1**	**1,326**	**47**
As at 31 December 2018						
Interest rate risk on;						
– Floating rate lending	–540	730	280	2		
– Floating rate borrowing	51	5	–47			
– Other	–72	101	34			
– Discontinued hedges			–25	–2		
Total interest rate risk	**–561**	**836**	**242**	**1**	**231**	**–18**
Combined interest and currency exchange rate risk on;						
– Floating rate lending	53	–60	–377			
– Floating rate borrowing	–35	47	–1			
Total combined interest and exchange rate risk	**18**	**–13**	**–378**	**–**	**347**	**–1**
Total cash flow hedge	**–543**	**823**	**–137**	**1**	**578**	**–19**

The main sources of ineffectiveness for cash flow hedges are:
- differences in timing of cash flows of the hedged item(s) and hedging instrument(s);
- mismatches in reset frequency between hedged item and hedging instrument.

As a result of interest rate developments in 2019 ING Bank de-designated cash flow hedge accounting portfolios with a total notional value of approximately EUR 25 billion.

Hedges of net investments in foreign operations

A foreign currency exposure arises from a net investment in subsidiaries that have a different functional currency from that of ING Bank. The risk arises from the fluctuation in spot exchange rates between the functional currency of the subsidiaries and ING Bank's functional currency, which causes the amount of the net investment to vary in the consolidated financial statements of ING Group. This risk may have a significant impact on ING Bank's financial statements. ING Bank's policy is to hedge these exposures only when not doing so be expected to have a significant impact on the regulatory capital ratios of ING Group and its subsidiaries.

ING Bank'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 Bank assesses effectiveness by comparing past changes in the carrying amount of the debt that are attributable to a change in the spot rate with past changes in the investment in the foreign operation due to movement in the spot rate (the offset method).

Gains and losses on the effective portions of derivatives designated under net investment hedge accounting are recognised in Other Comprehensive Income. The balance in equity is recognised in the statement of profit or loss when the related foreign subsidiary is disposed. The gains and losses on ineffective portions are recognised immediately in the statement of profit or loss.

ING Bank has the following derivative financial instruments used for net investment hedging;

Gross carrying value of derivatives used for net investment hedging

	Assets 2019	Liabilities 2019	Assets 2018	Liabilities 2018
As at 31 December				
– FX forwards and futures	23	51	41	16
– Other FX derivatives	0	–	0	0

The derivatives used for net investment hedge accounting are included in the statement of financial position line-item 'Financial assets at fair value through profit or loss – Non-trading derivatives' EUR 23 million (2018: EUR 41 million) respectively 'Financial liabilities at fair value through profit or loss – Non-trading derivatives' EUR 51 million (2018: EUR 17 million). The remaining derivatives are offset with other derivatives and collaterals paid or received.

For ING Bank's main currencies the average exchange rates used in net investment hedge accounting for 2019 are EUR/USD 1.12 (2018: 1.18), EUR/PLN 4.30 (2018: 4.26), EUR/AUD 1.61 (2018: 1.58) and EUR/THB 34.79 (2018: 38.15)

The following table shows the notional amount of derivatives designated in net investment hedging split into the maturity of the instruments.

Maturity derivatives designated in net investment hedging

As at 31 December 2019	Less than 1month	1 to 3 months	3 to 12 months	1 to 2 year	2 to 3 years	3 to 4 years	4 to 5 years	>5 years	Total
– FX forwards and futures	–3,179	–999	–54						–4,232
As at 31 December 2018[1]									
– FX forwards and futures	–3,444	–853		–54					–4,351

1 The prior period has been updated to improve consistency and comparability.

The effect of the net investment hedge accounting in the statement of profit or loss and other comprehensive income is as follows:

Net investment hedge accounting – Impact on statement of profit or loss and other comprehensive income

	Change in value used for calculating hedge ineffectiveness for the period	Gross Carrying amount net investment hedge reserve at the end of the reporting period	Hedged item affected statement of profit or loss	Change in value of hedging instrument recognised in OCI	Hedge ineffectiveness recognised in the statement of profit or loss, gain(+) / Loss(-)
As at 31 December 2019					
Net investments hedge					
- Investments in foreign operations	134	440	44	–134	0
- Discontinued hedges		–210			
As at 31 December 2018					
Net investments hedge					
- Investments in foreign operations	–71	540		71	2
- Discontinued hedges		–210			

38 Assets by contractual maturity

Amounts presented in these tables by contractual maturity are the amounts as presented in the statement of financial position and are discounted cash flows. Reference is made to 'Risk Management – Funding and liquidity risk'.

Assets by contractual maturity

2019	Less 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	53,202						53,202
Loans and advances to banks	22,817	3,100	5,090	3,729	397		35,133
Financial assets at fair value through profit or loss							
– Trading assets	12,754	6,589	8,469	8,240	13,213		49,264
– Non-trading derivatives	112	161	215	998	792		2,278
– Mandatorily at fair value through profit or loss	22,645	13,784	2,357	1,010	1,645	159	41,600
– Designated as at fair value through profit or loss	259	126	1,004	442	1,245		3,076
Financial assets at fair value through other comprehensive income							
– Equity securities						2,306	2,306
– Debt securities	216	175	1,146	14,528	14,419		30,483
– Loans and advances	26	36	202	627	788		1,680
Securities at amortised cost	1,005	916	5,930	24,556	13,701		46,108
Loans and advances to customers	55,189	18,586	45,873	184,797	307,462	0	611,907
Intangible assets			127	506		1,283	1,916
Other assets[2]	4,619	369	1,044	665	1,251	46	7,995
Remaining assets (for which maturities are not applicable)[3]						4,962	4,962
Total assets	**172,843**	**43,842**	**71,457**	**240,097**	**354,913**	**8,756**	**891,910**
2018							
Cash and balances with central banks	49,987						49,987
Loans and advances to banks	15,862	3,693	4,830	5,599	437		30,420
Financial assets at fair value through profit or loss							
– Trading assets	15,815	6,032	8,123	9,276	10,917		50,163
– Non-trading derivatives	275	323	173	1,059	841		2,672
– Mandatorily at fair value through profit or loss	48,240	9,047	5,325	1,238	723	210	64,783
– Designated as at fair value through profit or loss	265	208	784	635	994		2,887
Financial assets at fair value through other comprehensive income							
– Equity securities						3,228	3,228
– Debt securities	272	234	1,597	13,409	10,103		25,616
– Loans and advances	42	97	254	1,023	962		2,379
Securities at amortised cost	1,126	2,537	2,737	22,169	18,708		47,276
Loans and advances to customers	55,778	17,689	39,443	177,387	302,031		592,328
Intangible assets			120	481		1,238	1,839
Other assets[2]	6,895	165	2,429	598	429	214	10,730
Remaining assets (for which maturities are not applicable)[3]						2,703	2,703
Total assets	**194,560**	**40,024**	**65,815**	**232,874**	**346,146**	**7,593**	**887,012**

1 Includes assets on demand.
2 Includes Other assets, Assets held for sale, and Current and Deferred tax assets as presented in the Consolidated statement of financial position.

3 Included in remaining assets for which maturities are not applicable are property and equipment, and investments in associates and joint ventures. Due to their nature remaining assets consist mainly of assets expected to be recovered after more than 12 months.

39 Liabilities by maturity

The tables below include all financial liabilities by maturity based on contractual, undiscounted cash flows. Perpetual liabilities are included in column 'Maturity not applicable'. Furthermore, the undiscounted future coupon interest on financial liabilities payable is included in a separate line and in the relevant maturity bucket. Derivative liabilities are included on a net basis if cash flows are settled net. For other derivative liabilities the contractual gross cash flow payable is included.

Non-financial liabilities are included based on a breakdown of the amounts per the statement of financial position, by expected maturity. Reference is made to the liquidity risk paragraph in 'Risk Management – Funding and liquidity risk' for a description on how liquidity risk is managed.

Liabilities by maturity

2019	Less than 1 month [1]	1-3 months	3-12 months	1-5 years	Over 5 years	Maturity not applicable	Adjustment [2]	Total
Deposits from banks	9,903	847	12,011	10,280	1,965		–180	34,826
Customer deposits	541,095	14,011	16,024	16,686	17,484		1,110	606,410
Financial liabilities at fair value through profit or loss								
– Other trading liabilities	4,666	646	436	568	333		68	6,717
– Trading derivatives	1,589	1,492	3,312	7,771	7,011		151	21,325
– Non-trading derivatives	381	91	152	616	440		539	2,217
– Designated at fair value through profit or loss	27,048	10,467	1,885	2,883	5,143	7	251	47,685
Debt securities in issue	2,616	13,278	35,915	26,790	12,918		2,203	93,721
Subordinated loans				1,780	7,445	6,862	427	16,515
Lease liabilities	16	39	161	668	643		–21	1,507
Financial liabilities	**587,315**	**40,872**	**69,896**	**68,041**	**53,382**	**6,869**	**4,548**	**830,922**
Other liabilities [3]	7,849	820	2,340	1,101	1,062			13,171
Non-financial liabilities	**7,849**	**820**	**2,340**	**1,101**	**1,062**			**13,171**
Total liabilities	**595,164**	**41,692**	**72,236**	**69,141**	**54,444**	**6,869**	**4,548**	**844,093**
Coupon interest due on financial liabilities	580	692	1,466	5,782	4,272	379		13,171
2018								
Deposits from banks	10,506	1,068	1,940	21,571	2,242		2	37,330
Customer deposits	516,367	18,273	16,623	15,973	13,059			580,294
Financial liabilities at fair value through profit or loss								
– Other trading liabilities	4,075	1,318	1,465	888	1,655		286	9,687
– Trading derivatives	1,711	1,873	3,680	6,855	6,035		1,374	21,528
– Non-trading derivatives	457	315	252	988	883		–583	2,313
– Designated at fair value through profit or loss	34,927	11,753	4,115	3,506	4,921		–43	59,179
Debt securities in issue	4,066	20,961	30,282	32,659	12,200		1,991	102,159
Subordinated loans	0		0	1,700	6,518	5,270	154	13,643
Lease liabilities	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Financial liabilities	**572,110**	**55,561**	**58,357**	**84,140**	**47,513**	**5,270**	**3,181**	**826,133**
Other liabilities [3]	10,556	898	2,422	1,198	831			15,904
Non-financial liabilities	**10,556**	**898**	**2,422**	**1,198**	**831**			**15,904**
Total liabilities	**582,665**	**56,459**	**60,778**	**85,338**	**48,345**	**5,270**	**3,181**	**842,036**
Coupon interest due on financial liabilities [4]	843	718	1,794	6,165	4,561	282		14,362

1 Includes liabilities on demand.
2 This column reconciles the contractual undiscounted cash flows on financial liabilities to the statement of financial position values. The adjustments mainly relate to the impact of discounting, and for derivatives, to the fact that the contractual cash flows are presented on a gross basis (unless the cash flows are actually settled net).
3 Includes Other Liabilities, Current and Deferred Tax Liabilities, and Provisions as presented in the Consolidated Statement of financial position.
4 Prior period amounts for coupon interest have been updated to improve consistency and comparability.

40 Assets not freely disposable

The assets not freely disposable consist primarily of Loans and advances to customers pledged to secure Debt securities in issue, deposits from the Dutch Central Bank and other banks. They serve to secure margin accounts and are used for other purposes required by law. The assets not freely disposable are as follows:

Assets not freely disposable

	2019	2018
Banks		
– Cash and balances with central banks	1,382	1,471
– Loans and advances to banks	6,337	4,373
Financial assets at fair value through profit or loss	614	449 [1]
Financial assets at fair value through OCI	240	253 [1]
Securities at amortised cost	189	627 [1]
Loans and advances to customers	75,755	74,352
Other assets	908	734
	85,425	**82,258**

1 The prior period amounts have been updated to improve consistency and comparability.

In addition, in some jurisdictions ING Bank N.V. has an obligation to maintain a reserve with central banks. As at 31 December 2019, the minimum mandatory reserve deposits with various central banks amount to EUR 9,975 million (2018: EUR 9,359 million).

Loans and advances to customers that have been pledged as collateral for Debt securities in issue and for liquidity purposes, amount in The Netherlands to EUR 45,530 million (2018: EUR 46,320 million), in Germany to EUR 13,222 million (2018: EUR 12,143 million), in Belgium EUR 11,298 million (2018: EUR 11,894 million), in Australia to EUR 4,150 million (2018: EUR 2,638 million) and in the United States to EUR 1,010 million (2018: EUR 1,183 million).
The table does not include assets relating to securities lending as well as sale and repurchase transactions. Reference is made to Note 41 'Transfer of financial assets'.

41 Transfer of financial assets

The majority of ING's financial assets that have been transferred, but do not qualify for derecognition are debt instruments used in securities lending or sale and repurchase transactions.

Transfer of financial assets not qualifying for derecognition

	Securities lending				Sale and repurchase			
	Equity		Debt		Equity		Debt	
	2019	2018	2019	2018	2019	2018	2019	2018
Transferred assets at carrying amount								
Financial assets at fair value through profit or loss	2,542	2,962	1,974	1,170	1,682	2,396	9,538	7,134 [2]
Financial assets at fair value through other comprehensive income			193	168			6	325
Loans and advances to customers								
Securities at amortised cost			195	142			734	910
Associated liabilities at carrying amount[1]								
Deposits from banks	n/a	n/a	n/a	n/a				
Customer deposits	n/a	n/a	n/a	n/a				
Financial liabilities at fair value through profit or loss	n/a	n/a	n/a	n/a	1,619	2,373	3,805	2,225

1 The table includes the associated liabilities which are reported after offsetting, compared to the gross positions of the encumbered assets.
2 The prior period amount has been updated to improve consistency and comparability.

Included in the table above are the carrying amounts of transferred assets under repurchase agreements, and securities lending that do not qualify for derecognition.

The table above does not include assets transferred to consolidated securitisation entities as the related assets remain recognised in the consolidated statement of financial position.

42 Offsetting financial assets and liabilities

The following tables include information about rights to offset and the related arrangements. The amounts included consist of all recognised financial instruments that are presented net in the statement of financial position under the IFRS offsetting requirements (legal right to offset and intention to net settle) and amounts presented gross in the statement of financial position but subject to enforceable master netting arrangements or similar arrangement.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

2019		Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities offset in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments received as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Loans and advances to banks	Reverse repurchase, securities borrowing and similar agreements	868		868	21	738	109
		868		**868**	**21**	**738**	**109**
Financial assets at fair value through profit or loss							
Trading assets	Derivatives	19,766	–3,851	15,914	13,725	3	2,186
Trading and Non-trading	Reverse repurchase, securities borrowing and similar agreements	57,328	–20,545	36,783	50	36,553	181
		77,094	**–24,396**	**52,698**	**13,774**	**36,556**	**2,368**
Non-trading derivatives	Derivatives	54,689	–53,321	1,368	1,167		201
		54,689	**–53,321**	**1,368**	**1,167**		**201**
Loans and advances to customers	Debit balances on customer accounts	169,313	–166,624	2,689	1,422	813	454
		169,313	**–166,624**	**2,689**	**1,422**	**813**	**454**
Other items where offsetting is applied in the statement of financial position		**9,787**	**–9,423**	**364**	**15**		**349**
Impact of enforceable master netting arrangements or similar arrangements[1]	Derivatives				–4,380	3,965	415
	Other				–3		3
					–4,383	**3,965**	**418**
Total financial assets		**311,750**	**–253,764**	**57,986**	**12,016**	**42,072**	**3,898**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements

2018		Gross amounts of recognised financial assets	Gross amounts of recognised financial liabilities offset in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments received as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Loans and advances to banks	Reverse repurchase, securities borrowing and similar agreements	1,947		1,947		1,838	109
		1,947		**1,947**		**1,838**	**109**
Financial assets at fair value through profit or loss							
Trading assets	Derivatives	17,181	–1,012	16,168	14,664	2	1,502
Trading and Non-trading	Reverse repurchase, securities borrowing and similar agreements	76,983	–18,337	58,647	1,102	57,304	240
		94,164	**–19,349**	**74,815**	**15,766**	**57,307**	**1,742**
Non-trading derivatives	Derivatives	41,263	–39,648	1,615	1,520		96
Loans and advances to customers	Reverse repurchase, securities borrowing and similar agreements	223	–223				
	Debit balances on customer accounts	161,730	–159,596	2,134	1,166	605	363
		161,953	**–159,819**	**2,134**	**1,166**	**605**	**363**
Other items where offsetting is applied in the statement of financial position		**5,705**	**–5,193**	**512**	**1**		**510**
Impact of enforceable master netting arrangements or similar arrangements[1]	Derivatives				–5,041	3,518	1,523
	Other						
					–5,041	**3,518**	**1,523**
Total financial assets		**305,032**	**–224,008**	**81,023**	**13,412**	**63,267**	**4,344**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

2019		Gross amounts of recognised financial liabilities	Gross amounts of recognised financial assets offset in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not offset in the statement of financial position: Financial instruments	Related amounts not offset in the statement of financial position: Cash and financial instruments pledged as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Deposits from banks	Repurchase, securities lending and similar agreements	26		26	26	21	–21
		26		**26**	**26**	**21**	**–21**
Customer deposits	Repurchase, securities lending and similar agreements						
	Corporate deposits	5,783	–5,432	351			351
	Credit balances on customer accounts	175,490	–161,193	14,297	1,419		12,878
		181,273	**–166,624**	**14,649**	**1,419**	**–**	**13,230**
Financial liabilities at fair value through profit or loss							
Trading liabilities	Derivatives	20,935	–3,842	17,093	16,073	6	1,014
Trading and Non-trading	Repurchase, securities lending and similar agreements	56,818	–20,545	36,273	50	35,787	436
		77,752	**–24,386**	**53,366**	**16,123**	**35,793**	**1,450**
Non-trading derivatives	Derivatives	**55,194**	**–53,823**	**1,371**	**1,177**	**191**	**3**
Other items where offsetting is applied in the statement of financial position		**9,200**	**–8,930**	**269**	**11**		**258**
Impact of enforceable master netting arrangements or similar arrangements[1]	Derivatives				–6,731	7,620	–889
	Other				–8		8
		–	**–**	**–**	**–6,739**	**7,620**	**–881**
Total financial liabilities		**323,445**	**–253,764**	**69,681**	**12,016**	**43,625**	**14,040**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements

2018		Gross amounts of recognised financial liabilities	Gross amounts of recognised financial assets offset in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not offset in the statement of financial position		
					Financial instruments	Cash and financial instruments pledged as collateral	Net amount
Statement of financial position line item	**Financial instrument**						
Deposits from banks	Repurchase, securities lending and similar agreements	36	–36	–0			–0
	Other	0		0	0		0
		37	**–36**	**0**	**0**	**0**	**–0**
Customer deposits	Repurchase, securities lending and similar agreements	224	–186	37		37	0
	Corporate deposits	9,567	–9,078	489			489
	Credit balances on customer accounts	161,552	–150,518	11,034	1,166	4	9,864
		171,343	**–159,782**	**11,561**	**1,166**	**42**	**10,353**
Trading liabilities	Derivatives	17,105	–1,021	16,084	15,301	2	781
Trading and Non-trading	Repurchase, securities lending and similar agreements	64,324	–18,337	45,987	1,102	44,801	85
		81,429	**–19,357**	**62,071**	**16,403**	**44,803**	**866**
Non-trading derivatives	Derivatives	**42,675**	**–41,198**	**1,477**	**1,312**	**178**	**–13**
Other items where offsetting is applied in the statement of financial position		**4,353**	**–3,634**	**718**	**–4**		**723**
Impact of enforceable master netting arrangements or similar arrangements[1]	Derivatives				-5,464	5,773	-309
					–5,464	**5,773**	**–309**
Total financial liabilities		**299,836**	**–224,008**	**75,827**	**13,412**	**50,796**	**11,619**

1 The line 'Impact of enforceable master netting agreements or similar arrangements' contains derivative positions under the same master netting arrangements being presented in different statement of financial position line items.

43 Contingent liabilities and commitments

In the normal course of business, ING Bank 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 Bank offers financial products related to loans. These products include traditional off-balance sheet credit-related financial instruments.

Contingent liabilities and commitments

	Less than 1 month		1–3 months		3–12 months		1–5 years		Over 5 years		Maturity not applicable		Total	
	2019	2018	2019	2018	2019	2018[2]	2019	2018	2019	2018	2019	2018	2019	2018[2]
Contingent liabilities in respect of														
– Guarantees [1]	11,441	12,644	1,187	891	3,373	3,475	6,355	3,536	5,146	5,711			27,503	26,256
– Irrevocable letters of credit	9,770	10,346	4,987	4,499	1,259	998	322	374	3	3			16,340	16,220
– Other	57	53					75	115		–			131	168
	21,268	**23,043**	**6,174**	**5,389**	**4,631**	**4,473**	**6,752**	**4,026**	**5,149**	**5,714**	**–**	**–**	**43,975**	**42,644**
Irrevocable facilities	64,036	63,499	2,289	2,699	16,766	13,731	30,152	32,717	6,760	6,876			120,002	119,522
	85,304	**86,541**	**8,462**	**8,088**	**21,397**	**18,204**	**36,905**	**36,743**	**11,909**	**12,590**	**–**	**–**	**163,977**	**162,166**

1 The prior period has been updated to improve consistency and comparability of the amounts per maturity of guarantees.
2 ING in the Netherlands offers credit facilities to clients, linked to ING current accounts. After a review of the product conditions in 2019, it has been concluded that these facilities are irrevocable and therefore reported as such above. The prior period has been updated to improve consistency and comparability.

Guarantees relate both to credit and non-credit substitute guarantees. Credit substitute guarantees are guarantees given by ING Bank in respect of credit granted to customers by a third party. Many of them are expected to expire without being drawn on and therefore do not necessarily represent future cash outflows. In addition to the items included in contingent liabilities, ING Bank has issued guarantees as a participant in collective arrangements of national industry bodies and as a participant in government required collective guarantee schemes which apply in different countries.

Irrevocable letters of credit mainly secure payments to third parties for a customer's foreign and domestic trade transactions in order to finance a shipment of goods. ING Bank's credit risk in these transactions is limited since these transactions are collateralised by the commodity shipped and are of a short duration.

Other contingent liabilities include acceptances of bills and are of a short-term nature. Other contingent liabilities also include contingent liabilities resulting from the operations of the Real

Estate business including obligations under development and construction contracts. Furthermore other contingent liabilities include a contingent liability in connection with a possible Dutch tax obligation that relates to the deduction from Dutch taxable profit for losses incurred by ING Bank in the United Kingdom in previous years. The existence of this obligation will be confirmed only by the occurrence of future profits in the United Kingdom.

Reference is made to Parent company financial statements – Notes to the parent company financial statements, Note 12 'Other' for further information on Guarantees issued by ING Bank N.V.

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 Bank's credit risk and interest rate risk in these transactions is limited. The unused portion of irrevocable credit facilities is partly secured by customers' assets or counter-guarantees by the central governments and exempted bodies under the regulatory requirements. Irrevocable facilities also include commitments made to purchase securities to be issued by governments and private issuers.

44 Legal proceedings

ING Bank and its consolidated subsidiaries are involved in governmental, regulatory, arbitration and legal proceedings and investigations in the Netherlands and in a number of foreign jurisdictions, including the U.S., involving claims by and against them which arise in the ordinary course of their businesses, including in connection with their activities as lenders, broker-dealers, underwriters, issuers of securities and investors and their position as employers and taxpayers. In certain of such proceedings, very large or indeterminate amounts are sought, including punitive and other damages. While it is not feasible to predict or determine the ultimate outcome of all pending or threatened governmental, regulatory, arbitration and legal proceedings and investigations, ING is of the opinion that some of the proceedings and investigations set out below may have or have in the recent past had a significant effect on the financial position, profitability or reputation of ING and/or ING and its consolidated subsidiaries.

Settlement Agreement: On 4 September 2018, ING announced that it had entered into a settlement agreement with the Dutch Public Prosecution Service relating to previously disclosed investigations regarding various requirements for client on-boarding and the prevention of money laundering and corrupt practices. Under the terms of the settlement agreement ING paid a fine of €675 million and €100 million for disgorgement. In connection with the investigations, ING had also received information requests from the US Securities and Exchange Commission (SEC). As ING announced on 5 September 2018, ING has received a formal notification from the SEC that it has concluded its investigation. In the letter dated 4 September 2018 the Division of Enforcement states that, based on information as of the date thereof, it does not intend to recommend an SEC enforcement action against ING. Following the entry into the settlement agreement, ING has experienced heightened scrutiny from authorities in various countries. ING is also aware, including as a result of media reports, that other parties may, among other things, seek to commence legal proceedings against ING in connection with the subject matter of the settlement, have filed or may file requests to reconsider the prosecutor's decision to enter into the settlement agreement with ING and not to prosecute ING or (former) ING employees in court, or have filed or may file requests for disciplinary proceedings against ING employees based on the Dutch "Banker's oath.

Findings regarding AML processes: As previously disclosed, after its September 2018 settlement with Dutch authorities concerning Anti-Money Laundering matters, and in the context of significantly increased attention on the prevention of financial economic crime, ING has experienced heightened scrutiny by authorities in various countries. The interactions with such regulatory and judicial authorities have included, and can be expected to continue to include, onsite visits, information requests, investigations and other enquiries. Such interactions, as well as ING's internal assessments in connection with its global enhancement programme, have in some cases resulted in satisfactory outcomes, and also have resulted in, and may continue to result in, findings, or other conclusions which may require appropriate remedial actions by ING, or may have other consequences. ING intends to continue to work in close cooperation with authorities as it seeks to improve its management of non-financial risks in terms of policies, tooling, monitoring, governance, knowledge and behaviour.

Also as previously disclosed in March 2019, ING Italy was informed by the Banca d'Italia of their report containing their conclusions regarding shortcomings in AML processes at ING Italy, which was prepared based on an inspection conducted from October 2018 until January 2019. ING Italy has been engaged in discussions with Banca d'Italia and Italian judiciary authorities. In February 2020 the Italian court confirmed and approved a plea bargain agreement with the Italian judiciary authorities As a consequence, ING Italy has paid an administrative fine and disgorgement of profit. In addition, in February 2020 the Banca d'Italia imposed an administrative fine on ING Italy. Both amounts were already provisioned for in 2019.

In line with the enhancement programme announced in 2018, ING Italy is taking steps intended to improve processes and management of compliance risks as required by the Banca d'Italia. In consultation and in agreement with the Banca d'Italia, ING Italy has agreed that it will refrain from taking on new customers during further discussions on the enhancement plans with the Banca d'Italia. ING Italy will continue to fully serve existing clients in Italy and is working hard to address the shortcomings and resolve the issues identified.
ING announced steps in September 2018 to enhance its management of compliance risks and embed stronger awareness across the whole organisation. This programme started in 2017 and includes enhancing KYC files and working on various structural improvements in compliance policies, tooling, monitoring, governance, knowledge and behaviour.

Tax cases: Because of the geographic spread of its business, ING may be subject to tax audits, investigations and procedures in numerous jurisdictions at any point in time. Although ING believes that it has adequately provided for all its tax positions, the ultimate resolution of these audits, investigations and procedures may result in liabilities which are different from the amounts recognised. ING has also identified issues in connection with its U.S. tax information reporting and withholding obligations in respect of prior periods. ING has agreed with the US Internal Revenue Service ("IRS") to resolve these issues by paying the tax owed. ING has made the payment out of the provision it had already recognised.

SIBOR – SOR litigation: In July 2016, investors in derivatives tied to the Singapore Interbank Offer Rate ("SIBOR") filed a U.S. class action complaint in the New York District Court alleging that several banks, including ING, conspired to rig the prices of derivatives tied to SIBOR and the Singapore Swap Offer Rate ("SOR"). The lawsuit refers to investigations by the Monetary Authority of Singapore ("MAS") and other regulators, including the U.S. Commodity Futures Trading Commission ("CFTC"), in relation to rigging prices of SIBOR- and SOR based derivatives. In October 2018, the New York District Court issued a decision dismissing all claims against ING Group and ING Capital Markets LLC, but leaving ING Bank, together with several other banks, in the case, and directing plaintiffs to file an amended complaint consistent with the Court's rulings. In October 2018, plaintiffs filed such amended complaint, which asserts claims against a number of defendants but none against ING Bank (or any other ING entity), effectively dismissing ING Bank from the case. In December 2018, plaintiffs sought permission from the Court to file a further amended complaint that names ING Bank as a defendant. In July 2019, the New York District Court granted the defendants' motion to dismiss and denied leave to further amend the complaint, effectively dismissing all remaining claims against ING Bank. In November 2019, plaintiffs filed an appeal against this judgment.

Claims regarding accounts with predecessors of ING Bank Turkey: ING Bank Turkey has received numerous claims from (former) customers of legal predecessors of ING Bank Turkey. The claims are based on offshore accounts held with these banks, which banks were seized by the Savings Deposit Insurance Fund (SDIF) prior to the acquisition of ING Bank Turkey in 2007 from OYAK. SDIF has also filed various lawsuits against ING Bank Turkey to claim compensation from ING Bank Turkey, with respect to amounts paid out to offshore account holders so far. At this moment it is not possible to assess the outcome of these procedures nor to provide an estimate of the (potential) financial effect of these claims.

Interest rate derivatives claims: ING is involved in several legal proceedings in the Netherlands with respect to interest rate derivatives that were sold to clients in connection with floating interest rate loans in order to hedge the interest rate risk of the loans. These proceedings are based on several legal grounds, depending on the facts and circumstances of each specific case, inter alia alleged breach of duty of care, insufficient information provided to the clients on the product and its risks and other elements related to the interest rate derivatives that were sold to clients. In some cases, the court has ruled in favour of the claimants and awarded damages, annulled the interest rate derivative or ordered repayment of certain amounts to the claimants. The total amounts that need to be repaid or compensated in some cases still need to be determined. ING may decide to appeal against adverse rulings. Although the outcome of the pending litigation and similar cases that may be brought in the future is uncertain, it is possible that the courts may ultimately rule in favour of the claimants in some or all of such cases. Where appropriate a provision has been taken. The aggregate financial impact of the current and future litigation could become material.

As requested by the AFM, ING has reviewed a significant part of the files of clients who bought interest rate derivatives. In December 2015, the AFM concluded that Dutch banks may have to re-assess certain client files, potentially including certain derivative contracts that were terminated prior to April 2014 or other client files. As advised by the AFM, the Minister of Finance appointed a Committee of independent experts (the “Committee”) which has established a uniform recovery framework for Dutch SME clients with interest rate derivatives. ING has adopted this recovery framework and has reassessed individual files against this framework. ING has taken an additional provision for the financial consequences of the recovery framework. In 2017, ING has informed the majority of the relevant clients whether they are in scope of the recovery framework, and thus eligible for compensation, or not. Because implementation by ING of the uniform recovery framework encountered delay, ING has previously offered advance payments to customers out of the existing provision. As of December 2018, all customers in scope of the uniform recovery framework have received an offer of compensation from ING (including offers of no compensation). As of 1 July 2019, the required process under the uniform recovery framework had been completed for approximately 99% of all customers in scope.

ING is awaiting feedback from the independent dispute committee on one file for which the relevant client opted for a 'binding advice' procedure. Hearings with the independent dispute committee took place in November and December 2019. It is not clear when the committee will present its verdict.

Interest surcharges claims: ING received complaints and was involved in litigation with natural persons (natuurlijke personen) in the Netherlands regarding increases in interest surcharges with respect to several credit products, including but not limited to commercial property (commercieel verhuurd onroerend goed). ING has reviewed the relevant product portfolio. The provision previously taken has been reversed for certain of these complaints. All claims are dealt with individually. Thus far, the courts have ruled in favour of ING in each case, ruling that ING was allowed to increase the interest surcharged based upon the essential obligations in the contract.

Criminal proceedings regarding cash company financing: In June 2017, a Belgian criminal Court ruled that ING Luxembourg assisted third parties in 2000 to commit a tax fraud in the context of the purchase of the shares of a cash company. The Court convicted ING Luxembourg, among others, and ordered ING to pay a penal fine of EUR 120,000 (suspended for half of the total amount). The court also ordered ING Luxembourg jointly and severally with other parties, to pay EUR 31.48 million (together with any interest payable under applicable law) to the bankruptcy trustee of the cash company. In July 2017, ING Luxembourg filed an appeal against this judgment. A settlement with all the civil parties involved was reached in mid-2018. However, this settlement does not apply to the criminal conviction of ING Luxembourg. In January 2020, the Court of Appeal of Antwerp reformed the first judgment: ING Luxemburg benefitted from an "opschorting van de uitspraak/suspension du prononcé" which means that the conviction has been upheld, but no penal sanction has been pronounced (penalties suspended). ING Luxembourg is analyzing the judgement.

Mortgage expenses claims: ING Spain has received claims and is involved in procedures with customers regarding reimbursement of expenses associated with the formalisation of mortgages. In most court proceedings in first instance the expense clause of the relevant mortgage contract has been declared null and ING Spain has been ordered to reimburse all or part of the applicable expenses. The courts in first instance have applied in their rulings different criteria regarding the reimbursement of expenses. ING Spain has filed an appeal against a number of these court decisions. ING Spain has also been included, together with other Spanish banks, in two class actions filed by a customer association. The outcome of the pending litigation and similar cases that may be brought in the future is uncertain. A provision has been taken. However, the aggregate financial impact of the current and future litigation could change. In February 2018, the Spanish Supreme Court ruled that Stamp Duty (Impuesto de Actos Jurídicos Documentados) expenses are chargeable to the customer, while in October 2018 it ruled that Stamp Duty is chargeable to the banks. In November 2018, the Spanish Supreme Court clarified the issue regarding Stamp Duty by stating that this tax should be borne by the customer. As for the remaining types of the expenses, in January 2019, the Spanish Supreme Court issued several decisions that stated that the client and the bank each have to bear half of the notary and management company costs and that registry costs have to be borne in full by the bank. Allocation of valuation costs between the bank and the customer were not addressed by the Spanish Supreme Court decisions and remain uncertain.

Imtech claim: In January 2018, ING Bank received a claim from Stichting ImtechClaim.nl and Imtech Shareholders Action Group B.V. on behalf of certain (former) shareholders of Imtech N.V. ("Imtech"). Furthermore, on 28 March 2018, ING Bank received another claim on the same subject matter from the Dutch Association of Stockholders (Vereniging Effectenbezitters, "VEB"). Each of the claimants allege inter alia that shareholders were misled by the prospectus of the rights issues of Imtech in July 2013 and October 2014. ING Bank, being one of the underwriters of the rights issues, is held liable by the claimants for the damages that investors in Imtech would have suffered. ING Bank responded to the claimants denying any and all responsibility in relation to the allegations made in the relevant letters. In September 2018, the trustees in the bankruptcy of Imtech claimed from various financing parties, including ING, payment of what the security agent has collected following bankruptcy or intends to collect, repayment of all that was repaid to the financing parties, as well as compensation for the repayment of the bridge financing. At this moment it is not possible to assess the outcome of these claims nor to provide an estimate of the (potential) effect of these claims.

Mexican Government Bond litigation: A class action complaint was filed adding ING Bank N.V., ING Groep N.V., ING Bank Mexico S.A. and ING Financial Markets LLC ("ING") as defendants to a complaint that had previously been filed against multiple other financial institutions. The complaint alleges that the defendants conspired to fix the prices of Mexican Government Bonds. ING is defending itself against the allegations. Currently, it is not possible to provide an estimate of the (potential) financial effect of this claim. On 30 September 2019, the relevant court dismissed the antitrust complaint, finding that the plaintiffs had failed to identify any facts that links each defendant to the alleged conspiracy. On 9 December 2019, the plaintiffs filed an amended complaint removing all ING entities as defendants on the condition that the ING entities enter into a tolling agreement for the duration of two years. The relevant ING entities subsequently entered into a tolling agreement, which provides that the statute of limitations will not be tolled for the two year duration of the agreement. Should the plaintiffs discover any evidence of potential involvement by ING in the activities alleged in the complaint, ING could be brought back into the litigation.

45 Consolidated companies and businesses acquired and divested

Acquisitions

In May 2019 ING acquired 80% of the shares of Intersoftware Group B.V., Findata Access B.V. and Unitrust B.V. (ISW Group) for a total consideration of EUR 18 million. The acquisition of ISW Group resulted in the recognition of goodwill of EUR 17 million.

In 2018 ING Bank obtained control over Payvision Holding B.V. (Payvision) by acquiring 75% of its shares. The share purchase agreement included a put option exercisable by the original shareholders and a call option exercisable by ING for the remaining 25% shares. The put and call option led to the recognition of a financial liability with initial recognition through shareholders' equity of EUR 87 million. In November 2019 ING Bank agreed to purchase the remaining 25% shares in three tranches between November 2019 and April 2020 for a total consideration of EUR 90 million. This resulted in the remeasurement of the financial liability to EUR 90 million. A stake of

23% was purchased in 2019 which reduced the outstanding financial liability. As at 31 December 2019 the ownership interest of ING Bank was 98% with an outstanding financial liability of EUR 7 million to acquire the remaining shares. Given that ING Bank already had control over Payvision, the acquisition of the shares in 2019 represents a shareholder transaction and resulted in a transfer between Non-controlling interest and Shareholders equity of EUR 24 million.

The purchase price of Payvision in 2018 included contingent consideration in the form of future milestone payments. A total of EUR 16 million was paid in 2019.

Divestments

In July 2019 ING completed the sale of part of the ING Lease Italy business. The settlement price amounted to EUR 1.162 million, consisted of a EUR 368 million cash settlement, a EUR 20 million Deferred Purchase Price and a EUR 774 million Senior Loan facility for the portfolio of lease receivables. The deferred purchase price is linked to the performance of the sold portfolio and is reported under the financial assets mandatorily measured at fair value through profit and loss. The additional loss in in 2019 amounted EUR -2 million (2018: EUR -123 million). The Italian lease business was reported as Assets Held for Sale as at 31 December 2018 and previously included in the business line segment Wholesale Banking and geographical segment Other Challengers.

Reference is made to Note 12 ‘Assets and liabilities held for sale’ and Note 25 ‘Result on the disposal of group companies’.

46 Principal subsidiaries, investments in associates and joint ventures

For the majority of ING’s principal subsidiaries, ING Bank 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 Bank 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 Bank N.V. and their statutory place of incorporation or primary place of business are as follows:

Principal subsidiaries, investments in associates and joint ventures

			Proportion of ownership and interest held by the group	
			2019	2018
Subsidiary	**Statutory place of Incorporation**	**Country of operation**		
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	Delaware	United States of	100%	100%
ING Bank A.S.	Istanbul	Turkey	100%	100%
ING Bank (Australia) Ltd	Sydney	Australia	100%	100%
ING Commercial Finance B.V.	Amsterdam	the Netherlands	100%	100%
ING Groenbank N.V.	Amsterdam	the Netherlands	100%	100%
Investments in associates and joint ventures				
TMB Bank Public Company Ltd[2]	Bangkok	Thailand	23%	25%

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 33 'Information on geographical areas.

2 Reference is made to Note 8 Investments in Associates and Joint Ventures.

47 Structured entities

ING Bank'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 Bank'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 Bank 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 Bank enters into liquidity management securitisation programmes in order to obtain funding and improve liquidity. Within the programme ING Bank sells ING originated assets to a structured entity. The underlying exposures include residential mortgages in the Netherlands, Belgium, Spain, Italy and Australia and SME Loans in Belgium.

The structured entity issues securitised notes (traditional securitisations) which are eligible collateral for central bank liquidity purposes. In most programmes ING Bank acts as investor of the securitised notes. ING Bank 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 Bank as collateral in the money market for secured borrowings.

ING Bank originated various securitisations, as at 31 December 2019 these consisted of approximately EUR 57 billion (2018: EUR 66 billion) of senior and subordinated notes, of which approximately EUR 4 billion (2018: EUR 5 billion) were issued externally. The underlying exposures are residential mortgages and SME loans. Apart from the third party funding, these securitisations did not impact ING Bank's Consolidated statement of financial position and profit or loss.

In 2019, there are no non-controlling interests as part of the securitisation structured entities that are significant to ING Bank. ING Bank for the majority of the securitisation vehicles provides the funding for the entity except for EUR 4 billion (2018: EUR 5 billion).

In addition ING Bank originated various securitisations for liquidity management optimisation purposes. As at 31 December 2019, these consisted of approximately EUR 2 billion (2018: EUR 4 billion) of senior secured portfolio loans, which have been issued to ING subsidiaries in Germany. The underlying exposures are senior loans to large corporations and financial institutions, and real estate finance loans, mainly in the Netherlands. These securitisations did not impact ING Bank's consolidated statement of financial position and profit or loss.

2. Consolidated ING originated Covered bond programme (CBC)

ING Bank 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 Bank.

Covered bond programme

	Fair value pledged mortgage loans	
	2019	2018
Dutch Covered Bond Companies	24,297	24,336
	24,297	**24,336**

In addition, subsidiaries of ING in Germany, Belgium and Australia also issued covered bonds with pledged mortgages loans of approximately EUR 15.8 billion (2018: EUR 14.0 billion) in total.

In general, the third-party investors in securities issued by the structured entity have recourse only to the assets of the entity and not to the assets of ING Bank.

3. Consolidated ING sponsored Securitisation programme (Mont Blanc)

In the normal course of business, ING Bank 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 Bank facilitates these transactions by acting as administrative agent, swap counterparty and liquidity provider to Mont Blanc Capital Corp. ING Bank also provides support facilities (liquidity) backing the transactions funded by the conduit. The types of asset currently in the Mont Blanc conduit include trade receivables, consumer finance receivables and lease receivables.

ING Bank supports the commercial paper programmes by providing Mont Blanc Capital Corp. with short-term liquidity facilities. Once drawn these facilities bear normal credit risk.

The liquidity facilities, provided to Mont Blanc are EUR 1,631 million (2018: EUR 1,173 million). The drawn liquidity amount is nil as at 31 December 2019 (2018: nil).

The standby liquidity facilities are reported under irrevocable facilities. All facilities, which vary in risk profile, are granted to Mont Blanc Capital Corp. subject to normal ING Bank credit and liquidity risk analysis procedures. The fees received for services provided and for facilities are charged subject to market conditions.

4. Unconsolidated Securitisation programme

In 2013 ING transferred financial assets (mortgage loans) for an amount of approximately EUR 2 billion to a newly established special purpose vehicle (SPV). The transaction resulted in full derecognition of the financial assets from ING's statement of financial position. The derecognition did not have a significant impact on net result. Following this transfer ING continues to have two types of on-going involvement in the transferred assets: as counterparty to the SPV of a non-standard interest rate swap and as servicer of the transferred assets. ING has an option to unwind the transaction by redeeming all notes at their principal outstanding amount, in the unlikely event of changes in accounting and/or regulatory requirements that significantly impact the transaction. The fair value of the swap held by ING at 31 December 2019 amounted to EUR –45 million (2018: EUR –33 million); fair value changes on this swap recognised in the statement of profit or loss in 2019 were EUR 12 million (2018: EUR 8 million). Service fee income recognised, for the role as administrative agent, in the statement of profit or loss in 2019 amounted to EUR 2 million (2018: EUR 2 million). The cumulative income recognised in profit or loss since derecognition amounts to EUR 15 million.

5. Other structured entities

In the normal course of business, ING Bank 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 Bank, as ING facilitates these transactions as administrative agent by providing structuring, accounting, funding, lending, and operation services.

ING Bank offers various investment fund products to its clients. ING Bank does not invest in these investment funds for its own account nor acts as the fund manager.

48 Related parties

In the normal course of business, ING Bank 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 Bank 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 34 'Pension and other postemployment benefits'. Transactions between related parties include rendering or receiving of services, leases, transfers under finance arrangements and provisions of guarantees or collateral. All transactions with related parties took place at conditions customary in the market. There are no significant provisions for doubtful debts or individually significant bad debt expenses recognised on outstanding balances with related parties.

ING Bank forms part of ING Group and also enters into transactions with ING Group. These transactions vary from financing activities to regular purchase and sales transactions. Disclosed in the table below, are the transactions with ING Groep N.V.

Parent Company

Transactions with ING Groep N.V.

	2019	2018
Assets	163	140
Liabilities	44,242	34,902
Income received	9	26
Expenses paid	1,103	629

Liabilities to ING Groep N.V. mainly comprise long-term funding.

Associates and joint ventures

Transactions with ING Bank's main associates and joint ventures

	Associates		Joint ventures	
	2019	2018	2019	2018
Assets	96	54		–0
Liabilities	97	98	6	1
Off-balance sheet commitments	29	120	0	
Income received	11	2		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

Transactions with key management personnel (Executive Board, Management Board Banking and Supervisory Board) are transactions with related parties. In 2019 and 2018, three members of the Executive Board of ING Groep N.V. were also members of the Management Board Banking. The members of the Management Board Banking are considered to be key management personnel and their compensation is therefore included in the tables below.

Key management personnel compensation (Executive Board and Management Board Banking)

2019 in EUR thousands	Executive Board of ING Groep N.V.[3]	Management Board Banking[1,4]	Total
Fixed Compensation			
– Base salary	4,587	3,847	8,434
– Collective fixed allowances[2]	1,167	937	2,104
– Pension costs	78	94	172
– Severance benefits			
Variable compensation			
– Upfront cash		361	361
– Upfront shares	247	378	625
– Deferred cash		541	541
– Deferred shares	371	566	937
– Other			
Total compensation	**6,450**	**6,724**	**13,174**

1 Excluding members that are also members of the Executive Board of ING Groep N.V. One Management Board Banking member was appointed to the Executive Board during the year.
2 The collective fixed allowances consist of two savings allowances applicable to employees in the Netherlands; an individual savings allowance of 3.5% and a collective savings allowance to compensate for loss of pension benefits with respect to salary in excess of EUR 107,539.
3 In 2019 one member of the Executive Board left and one member joined. The table includes their compensation earned in the capacity as board member and in addition an advisor fee for the period in which the activities were transferred to the successor.
4 One member left ING during the year. The table includes compensation earned in the capacity as board member.

In addition to above remuneration the members of the Executive Board and Management Board Banking receive other emoluments, such as Company Car, Travel and Accident Insurance, personnel discount on financial products, of EUR 0.4 million in total (2018: EUR 0.3 million).

Key management personnel compensation (Executive Board and Management Board Banking)

2018 in EUR thousands	Executive Board of ING Groep N.V.	Management Board Banking[1]	Total
Fixed Compensation			
– Base salary	4,157	3,672	7,829
– Collective fixed allowances [2]	1,191	990	2,181
– Pension costs	78	103	181
– Severance benefits[3]	602		602
Variable compensation[4]			
– Upfront cash			
– Upfront shares			
– Deferred cash			
– Deferred shares			
– Other			
Total compensation	**6,028**	**4,765**	**10,793**

1 Excluding members that are also members of the Executive Board of ING Groep N.V.
2 The collective fixed allowances consist of two savings allowances applicable to employees in the Netherlands; an individual savings allowance of 3.5% and a collective savings allowance to compensate for loss of pension benefits with respect to salary in excess of EUR 105,075.
3 Following the settlement agreement and in consultation with the Supervisory Board, the CFO stepped down from his position as member of the Executive Board of ING Group on 7 February 2019. In line with applicable regulations a severance payment was granted. The Supervisory Board has set the severance pay at a level of 50% of fixed annual pay.
4 No variable remuneration for 2018, as the members of the Executive Board and Management Board Banking volunteered to forfeit their entitlement to variable remuneration immediately, following the settlement agreement with the Dutch Public Prosecution Service as announced by ING on 4 September 2018.

Key management personnel compensation (Supervisory Board)

in EUR thousands	2019	2018
Total compensation	1,045	1,032

The table above shows the fixed remuneration, expense allowances and attendance fees for the Supervisory Board for 2019 and 2018.

Loans and advances to key management personnel

	Amount outstanding 31 December		Weighted average interest rate		Repayments	
in EUR thousands	2019	2018	2019	2018	2019	2018
Executive Board members	2,402	2,681	1.4%	1.8%	97	
Management Board Banking	350	550	2.6%	2.3%		
Supervisory Board members						
Total	**2,752**	**3,231**			**97**	**–**

Number of ING Groep N.V. shares and stock options to key management personnel

	ING Groep N.V. shares		Stock options on ING Groep N.V. shares	
in numbers	2019	2018	2019	2018
Executive Board members	172,523	226,639	46,198	68,467
Management Board Banking	147,713	159,393		27,240
Supervisory Board members	54,065	54,065		
Total number of shares and stock options	**374,301**	**440,097**	**46,198**	**95,707**

Key management personnel compensation is generally included in Staff expenses in the statement of profit or loss. The total remuneration of the Executive Board and Management Board Banking is disclosed in the table above. Under IFRS, certain components of variable remuneration are not recognised in the statement of profit or loss directly, but are allocated over the vesting period of the award. The comparable amount recognised in Staff expenses in 2019 and included in Total expenses in 2019, relating to the fixed expenses of 2019 and the vesting of variable remuneration of earlier performance years, is EUR 11 million in 2019 (2018: EUR 12 million).

49 Subsequent events

There are no subsequent events to report.

50 Capital management

Objectives

Group Treasury ("GT") Capital Management, part of Balance Sheet & Capital Management, is responsible for maintaining the adequate capitalisation of ING Group and ING Bank entities, to manage the risk associated with ING's business activities. This involves not only managing, planning and allocating capital within ING Group, ING Bank and its various entities, but also helping to execute necessary capital market transactions, term (capital) funding and risk management transactions. ING takes an integrated approach to assess the adequacy of its capital position in relation to its risk profile and operating environment. This means GT Capital Management takes into account both regulatory and internal, economic based metrics and requirements as well as the interests of key stakeholders such as shareholders and rating agencies.

ING applies the following main capital definitions:

- Common Equity Tier 1 capital (CET1) - is defined as shareholders' equity less regulatory adjustments. CET1 capital divided by risk-weighted assets equals the CET1 ratio.
- Tier 1 capital – is defined as CET1 capital, 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, subordinated Tier 2 liabilities and regulatory adjustments. Total capital divided by risk-weighted assets equals the Total capital ratio.
- Common Equity Tier 1 ratio ambition –is built on potential impact of a standardised and pre-determined 1-in-10-year stress event (i.e. at a 90% confidence level with a 1-year horizon) as described in the Risk Management section.
- Leverage ratio – is defined as Tier 1 capital divided by the total exposure amount.

Capital Developments

The CET1 ratio at the end of the year improved as risk-weighted assets increased due to volume growth and model impacts, effects that were offset by profit retention and positive risk migration.

ING Bank N.V. has a CET1 ratio of 13.1%, thereby complying with CRR/CRD IV solvency requirements. ING Bank N.V. paid €2,819 million of dividend to ING Group in 2019. The Tier 1 ratio (including grandfathered securities) increased from 14.5% to 15.1%, primarily reflecting developments in ING Bank's CET1 ratio. The Banks's total capital ratio (including grandfathered securities) increased from 17.2% to 17.9%.

ING Bank NV capital position according to CRR/CRD IV

	2019	2018
Shareholders' equity	46,924	44,173
Interim profit not included in CET1 capital[1]	-43	-174
Other adjustments	-4,309	-3,621
Regulatory adjustments	-4,352	-3,794
Available common equity Tier 1 capital	**42,572**	**40,379**
Additional Tier 1 securities[2]	6,752	5,179
Regulatory adjustments additional Tier 1	74	62
Available Tier 1 capital	**49,398**	**45,619**
Supplementary capital Tier 2 bonds[3]	8,942	8,248
Regulatory adjustments Tier 2	55	66
Available Total capital	**58,394**	**53,933**
Risk weighted assets	326,193	313,572
Common equity Tier 1 ratio	13.05%	12.88%
Tier 1 ratio	15.14%	14.55%
Total capital ratio	17.90%	17.20%

1 The interim profit not included in CET1 capital as per 31 December 2019 (EUR 43 million), of which EUR 42 million relates to the result of 4Q 2019. (Full Year 2019: EUR 2,689 million).
2 Including EUR 5,758 million which is CRR/CRD IV-compliant (2018: EUR 3,271 million) and EUR 994 million to be replaced as capital recognition is subject to CRR/CRD IV grandfathering rules (2018: EUR 1,907 million).
3 Including EUR 8,789 million which is CRR/CRD IV-compliant (2018: EUR 8,079 million), and EUR 153 million to be replaced as capital recognition is subject to CRR/CRD IV grandfathering rules (2018: EUR 168 million).

In accordance with the applicable regulation, credit and operational risk models used in the capital ratios calculations are not audited.

Processes for managing capital

Besides assessing capital adequacy, ING also ensures the availability of sufficient capital above the set targets and limits for ING Group and ING Bank. Additionally, GT Capital Management ensures adherence to the set limits and targets by planning and executing capital management transactions. The ongoing assessment and monitoring of capital adequacy is embedded in the capital planning process within the ICAAP framework. As part of the dynamic business planning process, ING prepares a capital and funding plan on a regular basis for all its material businesses and assesses continuously the timing, need and feasibility for capital management actions in scope of its execution strategy. Sufficient financial flexibility should be preserved to meet important financial objectives. ING's risk appetite statements set targets and are at the foundation of the capital plan. These limits are cascaded to the different businesses in line with our risk management framework.

Adverse planning and stress testing are integral components of ING's risk and capital management framework. It allows us to (i) identify and assess potential vulnerabilities in our businesses, business model, portfolios or operating environment; (ii) understand the sensitivities of the core assumptions used in our strategic and capital plans; and (iii) improve decision-making and business steering through balancing risk and return following a foresighted and prudent management approach. In addition to internal stress test scenarios reflecting the outcomes of the annual risk assessment, ING also participates in regulatory stress test exercises. ING participated in the 2018 EU-wide stress test conducted by EBA.

Regulatory requirements

Capital adequacy and the use of required regulatory capital are based on the guidelines developed by the Basel Committee on Banking Supervision (The Basel Committee) and the European Union Directives, as implemented by the Dutch Central Bank (Dutch Central Bank until 3 November 2014, the ECB thereafter) for supervisory purposes. In 2010, the Basel Committee issued new solvency and liquidity requirements that superseded Basel II. The minimum requirements, excluding buffers, for the CET 1 ratio is 4.5%, the minimum Tier 1 requirement is 6% and the Total capital ratio is 8% of risk-weighted assets.

Ratings

Main credit ratings of ING at 31 December 2019	Standard & Poor's		Moody's		Fitch	
	Rating	Outlook	Rating	Outlook	Rating	Outlook
ING Bank N.V.						
Long-term	A+	Stable	Aa3	Stable	AA-	Stable
Short-term	A-1		P-1		F1+	

ING's key credit ratings and outlook are shown in the table above. Each of these ratings reflects only the view of the applicable rating agency at the time the rating was issued, and any explanation of the significance of a rating may be obtained only from the rating agency.

A security rating is not a recommendation to buy, sell or hold securities and each rating should be evaluated independently of other ratings. There is no assurance that any credit rating will remain in effect for any given period of time or that a rating will not be lowered, suspended or withdrawn entirely by the rating agency if, in the rating agency's judgment, circumstances so warrant. ING accepts no responsibility for the accuracy or reliability of the ratings.

Authorisation of Consolidated Financial Statements

Amsterdam, 2 March 2020

The Supervisory Board

G.J. (Hans) Wijers, chairman
H.J.M. (Hermann-Josef) Lamberti, vice-chairman
J.P. (Jan Peter) Balkenende
E.F.C.B. (Eric) Boyer de la Giroday
M. (Mariana) Gheorghe
M. (Margarete) Haase
A.M.G. (Mike) Rees
H.W.P.M.A. (Herna) Verhagen

The Management Board Banking

R.A.J.G. (Ralph) Hamers, CEO and chairman of the Management Board Banking
T. (Tanate) Phutrakul, CFO
S.J.A. (Steven) van Rijswijk, CRO
A. (Aris) Bogdaneris, head of Challengers & Growth Markets
M. I. (Isabel) Fernandez Niemann, head of Wholesale Banking
R.M.M (Roel) Louwhoff, COO/CTO
P. (Pinar) Abay, head of Market Leaders

Parent company statement of financial position

as at 31 December before appropriation of result

in EUR million	2019	2018
Assets		
Cash and balances with central banks 1	30,142	30,508
Short-dated government paper 2	1,019	517
Loans and advances to banks 3	82,704	72,553
Loans and advances to customers 4	332,645	344,672
Debt securities 5	40,593	37,844
Equity securities 6	7,829	7,103
Investments in group companies 7	33,310	32,815
Investments in associates and joint ventures 8	1,646	932
Intangible assets 9	1,175	1,097
Equipment 10	1,130	431
Other assets 11	41,573	38,680
Total assets	**573,767**	**567,152**

in EUR million	2019	2018
Liabilities		
Deposits from banks 12	64,004	60,300
Customer deposits 13	322,443	315,012
Debt securities in issue	82,541	91,552
Other liabilities 14	40,291	41,361
General provisions 15	803	797
Subordinated loans 16	16,760	13,957
Total liabilities	**526,843**	**522,979**
Equity 17		
Share capital	525	525
Share premium	16,542	16,542
Revaluation reserves	2,467	2,187
Legal and statutory reserves	1,532	1,317
Other reserves	21,194	19,155
Unappropriated result	4,663	4,447
Total equity	**46,924**	**44,173**
Total liabilities and equity	**573,767**	**567,152**

References relate to the accompanying notes. These form an integral part of the Parent company financial statements.
Prior year figures have been restated to conform to current year presentation.

Parent company statement of profit or loss

for the years ended 31 December

in EUR million	2019	2018
Interest income	14,817	14,577
Interest expense	–8,454	–8,214
Net interest income 18	**6,363**	**6,363**
Investment income and results from participating interests 19	3,323	3,123
Commission income	1,939	1,948
Commission expense	–540	–532
Net commission income 20	**1,399**	**1,416**
Results from financial transactions 21	**326**	**655**
Other income	–7	–53
Total income	**11,403**	**11,505**
Staff expenses 22	3,211	3,030
Depreciation and amortisation 23	401	244
Other expenses 24	1,839	2,656
Addition to loan loss provisions	446	137
Total expenses	**5,897**	**6,066**
Result before tax	**5,506**	**5,439**
Taxation 25	663	832
Result after tax	**4,843**	**4,607**

References relate to the accompanying notes. These form an integral part of the Parent company financial statements.

Parent company statement of changes in equity

in EUR million	Share capital	Share premium	Revaluation reserves	Legal and statutory reserves	Other reserves	Unappropriated results	Total
Balance as at 31 December 2018	525	16,542	2,187	1,317	19,155	4,447	44,173
Realised and unrealised revaluations equity and debt instruments and other revaluations			–118	–405	472		–51
Realised gains/losses transferred to the statement of profit or loss							
Changes in cash flow hedge reserve			265	339			604
Unrealised revaluations property in own use			10	41	9		60
Remeasurement of the net defined benefit asset/liability			123	–65			58
Exchange rate differences and other				–11			–11
Total amount recognised directly in equity			**280**	**–102**	**481**		**659**
Net result				180		4,663	4,843
			280	**78**	**481**	**4,663**	**5,503**
Transfer from unappropriated results					4,447	–4,447	
Dividends					–2,819		–2,819
Employee stock options and share plans					39		39
Changes in the composition of the group and other changes				137	–109		28
Balance as at 31 December 2019	**525**	**16,542**	**2,467**	**1,532**	**21,194**	**4,663**	**46,924**

Changes in individual components are presented in Note 17 'Equity'.

in EUR million	Share capital	Share premium	Revaluation reserves	Legal and statutory reserves	Other reserves	Unappropriated results	Total
Balance as at 31 December 2017	525	16,542	2,898	1,415	17,416	4,866	43,662
Effect of change in accounting policy			–358	–287	–393		–1,038
Balance as at 1 January 2018	525	16,542	2,539	1,128	17,023	4,866	42,624
Realised and unrealised revaluations equity and debt instruments and other revaluations			–385	–100	56		–429
Realised gains/losses transferred to the statement of profit or loss			–25	–29			–54
Changes in cash flow hedge reserve			54	288			342
Unrealised revaluations property in own use			4	–6	3		1
Remeasurement of the net defined benefit asset/liability			1	5			6
Exchange rate differences and other				–386			–386
Total amount recognised directly in equity			**–352**	**–228**	**59**		**–521**
Net result				160		4,447	4,607
			–352	**–68**	**59**	**4,447**	**4,087**
Transfer from unappropriated results					4,866	–4,866	
Dividends					–2,517		–2,517
Employee stock options and share plans					59		59
Changes in the composition of the group and other changes				256	–336		–80
Balance as at 31 December 2018	**525**	**16,542**	**2,187**	**1,317**	**19,155**	**4,447**	**44,173**

Changes in individual components are presented in Note 17 'Equity'.

Notes to the parent company financial statements

Basis of presentation

ING Bank N.V. is a company domiciled in Amsterdam, the Netherlands and is registered at the Commercial Register of Amsterdam under number 33031431.

The Parent company financial statements of ING Bank N.V. are prepared in accordance with the financial reporting requirements included in Part 9 of Book 2, of the Dutch Civil Code. In accordance with subsection 8 of section 362, Book 2 of the Dutch Civil Code, the recognition and measurement principles applied in these Parent company financial statements are the same as those applied in the ING Bank Consolidated financial statements, reference is made to Note 1 'Accounting policies' of the Consolidated financial statements.
Investments in group companies are accounted in the Parent company accounts according to the equity method.

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 parent company financial statements are presented in euros, rounded to the nearest million, unless stated otherwise. Amounts may not add up due to rounding.

Parent company equity and related reserves

The total amount of equity in the Parent company financial statements equals Shareholders' equity (parent) in the Consolidated financial statements. Certain components within equity are different, as a result of the following presentation differences between the parent company accounts and consolidated accounts:

- Unrealised revaluations including those related to cash flow hedges within consolidated group companies, presented in Other reserves - Revaluation reserve in the consolidated accounts, are presented in the Share of associates and joint ventures reserve in the parent company accounts;
- Foreign currency translation on consolidated group companies, presented in Other reserves - Currency translation reserve in the consolidated accounts, is presented in the Share of associates and joint ventures reserve in the parent company accounts;
- Revaluations on investment property and certain participations recognised in income and consequently presented in Retained earnings in the consolidated accounts, is presented in the Share of associates and joint ventures reserve in the parent company accounts.

A legal reserve is carried at an amount equal to the share in the results of associates and joint ventures since their first inclusion at net asset value less the amount of profit distributions to which rights have accrued in the interim. Profit distributions which can be repatriated to the Netherlands without restriction are likewise deducted from the Share of associates and joint ventures reserve.

Notes to the Parent company statement of financial position

1 Cash and balances with central banks

Amounts held at central banks amount to EUR 29,191 million (2018: EUR 29,540 million). In 2019, the movement in Cash and balances with central banks reflects ING's liquidity management.

2 Short-dated government paper

Short-dated government paper includes Dutch and international government paper amounting to EUR 1,019 million (2018: EUR 517 million) for the company.

3 Loans and advances to banks

Loans and advances to banks

	2019	2018
Non-subordinated receivables from:		
Group companies	33,951	29,102
Third parties	46,953	41,910
	80,904	**71,012**
Subordinated receivables from:		
Group companies	1,800	1,540
	82,704	**72,553**

As at 31 December 2019, Loans and advances to banks includes receivables with regard to securities, which have been acquired in reverse repurchase transactions amounting to EUR 25,762 million (2018: EUR 26,858 million).

4 Loans and advances to customers

Loans and advances to customers

	2019	2018
Non-subordinated receivables from:		
ING Groep N.V.	142	132
Group companies	41,613	50,517
Third parties	289,487	292,622
	331,242	**343,272**
Subordinated receivables from:		
Group companies	1,403	1,401
	332,645	**344,672**

As at 31 December 2019, receivables included in Loans and advances to customers that are part of the trading portfolio amount to EUR 9,862 million (2018: EUR 12,081 million).

Loans and advances to customers includes receivables with regard to securities which have been acquired in reverse repurchase transactions amounting to EUR 15,527 million (2018: EUR 31,299 million) for the company.

5 Debt securities

Debt securities by issuer

	2019	2018
Public sector	27,772	23,919
Other	12,821	13,925
	40,593	**37,844**

Debt securities analysed by listing

	2019	2018
Listed	34,842	35,462
Unlisted	5,751	2,382
	40,593	**37,844**

Debt securities – subordinated and non subordinated

	2019	2018
Non-subordinated debt securities issued by:		
Third parties	39,708	37,197
	39,708	**37,197**

Changes in debt securities (amortised cost and FVOCI)

	2019	2018
Opening balance	30,240	22,336
Effect of change in accounting policy due to implementation IFRS 9	–	8,077
Additions	14,196	16,606
Amortisation	–159	–102
Changes in unrealised revaluations	322	–259
Disposals and redemptions	–11,124	–16,677
Exchange rate differences	33	302
Other changes	–1,103	–45
Closing balance	**32,405**	**30,240**

6 Equity securities

Equity securities analysed by listing

	2019	2018
Listed	7,637	6,895
Unlisted	192	208
	7,829	**7,103**

Changes in equity securities (excluding trading)

	2019	2018
Opening balance	2,199	2,759
Effect of change in accounting policy due to implementation of IFRS 9	–	–2
Additions	3	26
Changes in unrealised revaluations	174	–572
Disposals	–174	1
Exchange rate differences	10	–16
Other changes	3	2
Closing balance	**2,215**	**2,199**

The cost or purchase price of the shares in the trading portfolio approximates their fair value. As at 31 December 2019 the cost or purchase price of shares excluding trading portfolio is EUR 1,580 million lower (2018: EUR 1,914 million lower) than the carrying amount.

7 Investments in group companies

Investments in group companies

	2019		2018	
	Interest held (%)	Statement of financial position value	Interest held (%)	Statement of financial position value
ING België N.V.	100	11,157	100	10,256
ING Holding Deutschland GMBH	100	8,672	100	8,200
ING Bank (Australia) Limited	100	3,028	100	2,757
ING Financial Holdings Corporation	100	2,257	100	2,484
ING Bank Slaski S.A.	75	2,663	75	2,316
ING Bank A.S.	100	1,330	100	1,305
ING Mauritius Investments I Limited	100	1	100	920
ING Real Estate B.V.	100	443	100	443
ING Australia Holdings Limited	100	441	100	726
ING Corporate Investments B.V.	100	601	100	588
Other (including financing companies)		2,718		2,819
		33,310		**32,815**

As at 31 December 2019, Investments in group companies includes credit institutions of EUR 19,541 million (2018: EUR 17,809 million).

As at 31 December 2019 listed investments in group companies amount to EUR 2,663 million (2018: EUR 2,316 million).

Changes in investments in group companies

	2019	2018
Opening balance	32,815	32,325
Effect of change in accounting policy due to implementation IFRS 9	–	–511
Repayment of capital injection	–570	–178
Revaluations	249	198
Results from group companies	3,036	3,025
Dividends received	–2,290	–1,647
Capital contribution	27	73
Mergers and liquidations	–62	–
Exchange rate differences	93	–546
Other changes	11	76
Closing balance	**33,310**	**32,815**

In 2019 ING Bank N.V. merged with Euston Square B.V.

8 Investments in associates and joint ventures

Investments in associates and joint ventures

	2019		2018	
	Interest held (%)	Statement of financial position value	Interest held (%)	Statement of financial position value
TMB Public Company Limited	23	1,509	25	832
Other		137		100
		1,646		**932**

Changes in investments in associates and joint ventures	2019	2018
Opening balance	932	808
Effect of change in accounting policy due to implementation IFRS 9	–	–23
Additions	616	66
Share of results	39	98
Dividends received	–38	–20
Disposals	–	–45
Revaluations	1	–2
Exchange rate differences	96	39
Other changes	1	10
Closing balance	**1,646**	**932**

9 Intangible assets

Changes in intangible assets	Goodwill		Software		Other		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
Opening balance	525	422	571	431	2	2	1,097	855
Additions	17	202	290	279			307	481
Amortisation			–148	–125		–0	–148	–125
Impairments			–55	–1			–55	–1
Exchange rate differences	–28	–99	–0	0	–0	0	–28	–99
Other changes			3	–14		0	3	–14
Closing balance	**513**	**525**	**660**	**571**	**2**	**2**	**1,175**	**1,097**

10 Equipment

Changes in equipment	2019	2018
Opening balance	431	412
Effect of changes in accounting policy due to the implementation of IFRS 16	465	–
Additions	467	137
Depreciation	–198	–114
Disposals	–40	–2
Exchange rate differences	6	0
Other changes	–0	–2
Closing balance	**1,130**	**431**
Gross carrying amount as at 31 December	2,288	1,471
Accumulated depreciation as at 31 December	–1,158	–1,040
Net carrying value	**1,130**	**431**

11 Other assets

Other assets by type	2019	2018
Derivatives	36,032	32,107
Deferred tax assets	352	365
Income tax receivables	188	72
Accrued interests and rents	27	28
Other accrued assets	466	342
Pension asset	685	510
Other receivables	3,823	5,256
	41,573	**38,680**

Derivatives includes transactions with group companies of EUR 16,818 million (2018: EUR 13,100 million).

Other receivables includes EUR 2,022 million (2018: EUR 3,438 million) related to transactions still to be settled at balance sheet date. As at 31 December 2019, an amount of EUR 1,055 million (2018: EUR 239 million) is expected to be settled after more than one year from the balance sheet date.

12 Deposits from banks

Deposits from banks

	2019	2018
Group companies	32,613	29,595
Third parties	31,391	30,705
	64,004	**60,300**

13 Customer deposits

Customer deposits by group companies and third parties

	2019	2018
ING Groep N.V.	31,461	24,594
Group companies	33,885	38,753
Third parties	257,097	251,665
	322,443	**315,012**

Customer deposits from ING Groep N.V. includes EUR 24,768 million (2018: EUR 17,449 million) Senior non-preferred debt.

Customer deposits by type

	2019	2018
Savings accounts	122,853	120,873
Credit balances on customer accounts	108,346	100,196
Corporate deposits	53,183	61,022
Other	38,061	32,922
	322,443	**315,012**

14 Other liabilities

Other liabilities

	2019	2018
Derivatives	32,716	28,525
Trading liabilities	1,216	5,359
Accrued interest	1	19
Costs payable	1,085	1,231
Income tax payable	108	345
Other taxation and social security contribution	63	66
Other amounts payable	5,102	5,814
	40,291	**41,361**

Derivatives includes transactions with group companies of EUR 12,959 million (2018: EUR 8,798 million).

Other amounts payable includes EUR 2,673 million (2018: EUR 3,285 million) related to transactions still to be settled at balance sheet date. As at 31 December 2019, an amount of EUR 570 million (2018: EUR 518 million) is expected to be settled after more than one year from the balance sheet date.

15 General provisions

General provisions

	2019	2018
Deferred tax liabilities	475	241
Pension liabilities and other staff-related liabilities	10	12
Reorganisations and relocations	164	304
Other	154	240
	803	**797**

As at 31 December 2019, an amount of EUR 550 million (2018: EUR 385 million) is expected to be settled after more than one year from the balance sheet date.

16 Subordinated loans

Subordinated loans by group companies and third parties

	2019	2018
Group companies	12,998	10,358
Third parties	3,762	3,598
	16,760	**13,957**

Subordinated loans by type

	2019	2018
Capital debentures	4,652	4,734
Private loans	12,108	9,222
	16,760	**13,957**

The subordinated loans rank subordinated to the other liabilities in a winding-up of ING Bank.

17 Equity

Equity

	2019	2018
Share capital	525	525
Share premium	16,542	16,542
Revaluation reserves	2,467	2,187
Legal and statutory reserves	1,532	1,317
Other reserves	21,194	19,155
Unappropriated result	4,663	4,447
Total equity	**46,924**	**44,173**

Share capital

	Ordinary shares (par value EUR 1.13)			
	Number x 1,000		Amount	
	2019	2018	2019	2018
Authorised share capital	1,600,000	1,600,000	1,808	1,808
Unissued share capital	1,134,965	1,134,965	1,283	1,283
Issued share capital	**465,035**	**465,035**	**525**	**525**

No changes occurred in the issued share capital and share premium in 2019 and 2018.

Changes in revaluation reserves

2019	Property in own use reserve	Available-for-sale reserve	Equity securities at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	Cash flow hedge reserve	Net defined benefit assets/- liability remeasurement reserve	Credit liability	Total
Opening balance	14	n/a	1,538	29	534	57	16	2,187
Unrealised revaluations	10		342	1			–124	230
Realised gains/losses transferred to the statement of profit or loss				–11				–11
Realised revaluations reclassified to retained earnings			–320				–6	–326
Changes in cash flow hedge reserve					265			265
Change in net defined benefit assets/liability						123		123
Closing balance	**24**	**n/a**	**1,560**	**19**	**798**	**180**	**–114**	**2,467**
2018								
Opening balance	10	2,352			480	56		2,898
Effect of change in accounting policy		–2,352	2,117	49			–173	–358
Balance as at 1 January 2018	10		2,117	49	480	56	–173	2,539
Unrealised revaluations	4		–578	5			188	–381
Realised gains/losses transferred to the statement of profit or loss				–25				–25
Changes in cash flow hedge reserve					54			54
Change in net defined benefit assets/liability						1		1
Closing balance	**14**	**n/a**	**1,538**	**29**	**534**	**57**	**16**	**2,187**

Changes in legal and statutory reserves

2019	Share of associates and joint ventures reserves	Currency translation reserve	Statutory reserves	Capitalised software	Total
Opening balance	1,252	–2,050	1,638	476	1,317
Result for the year			180		180
Unrealised revaluations available-for-sale investments and other	–231				–231
Realised gains/losses transferred to the statement of profit or loss	–22				–22
Changes in cash flow hedge reserve	339				339
Unrealised revaluation property in own use	41				41
Changes in net defined benefit asset/liability remeasurement reserve	–65				–65
Exchange rate differences and other	24	–35			–11
Changes in composition of the group and other changes	–117			103	–14
Closing balance	**1,220**	**–2,085**	**1,818**	**579**	**1,532**
2018					
Opening balance	1,238	–1,645	1,478	344	1,415
Effect of change in accounting policy	–287				–287
Balance as at 1 January 2018	952	–1,645	1,478	344	1,128
Result for the year			160		160
Unrealised revaluations available-for-sale investments and other	–129				–129
Changes in cash flow hedge reserve	288				288
Unrealised revaluation property in own use	–3				–3
Changes in net defined benefit asset/liability remeasurement reserve	5				5
Exchange rate differences and other	19	–405			–386
Changes in composition of the group and other changes	121			132	253
Closing balance	**1,252**	**–2,050**	**1,638**	**476**	**1,317**

The Share of associates and joint ventures reserve includes the following components: Reserve for non-distributable retained earnings of associates of EUR 793 million (2018: EUR 758 million), Revaluation reserve of associates and joint ventures EUR 938 million (2018: EUR 963 million), Currency translation reserve of EUR 5 million (2018: EUR -18 million) and Net defined benefit asset/liability remeasurement reserve of EUR -516 million (2018: EUR -451 million).

The Statutory reserves include non-distributable reserves of EUR 1,818 million (2018: EUR 1,638 million) related to the former Stichting Regio Bank and the former Stichting Vakbondspaarbank SPN that cannot be freely distributed in accordance with the article 23.1 of the articles of association.

Changes in the value of hedging instruments that are designated as net investment hedges, are included in the line Exchange rate differences and other.

Changes in other reserves, retained earnings

	2019	2018
Opening balance	19,155	17,416
Effect of change in accounting policy	–	–393
Transfer from unappropriated result	4,447	4,866
Dividends	–2,819	–2,517
Employee stock options and share plans	39	59
Changes in the composition of the group and other changes	372	–277
Closing balance	**21,194**	**19,155**

The reserve for cash flow hedges is included in the Share of associates and joint ventures reserve on a net basis. The Revaluation reserve, Share of associates and joint ventures reserve and Currency translation reserve cannot be freely distributed. Retained earnings can be freely distributed, except for an amount equal to the negative balance in each of the components of the Revaluation reserve , Share of associates and joint ventures reserve and the Currency translation reserve. Unrealised gains and losses on derivatives, other than those used in cash flow hedges, are presented in the statement of profit or loss and are therefore part of Retained earnings and are not included in Share of associates and joint ventures reserve.

The total amount of non-distributable reserves, in accordance with the financial reporting requirements per Part 9 of Book 2 of the Dutch Civil Code, is EUR 8,397 million (2018: EUR 7,603 million).

Reference is made to Note 18 'Equity' and the Capital Management section in the consolidated financial statements for additional information, including restrictions with respect to dividend and repayment of capital.

Notes to the Parent company statement of profit or loss

18 Net interest income

Net interest income

	2019	2018
Interest income on loans	10,146	10,039
Interest income on impaired loans	83	69
Negative interest on liabilities	354	380
Total interest income on loans	**10,584**	**10,488**
Interest income on financial assets at fair value through OCI	146	146
Interest income on financial assets at amortised cost	47	35
Interest income on securities at fair value through profit or loss	953	967
Interest income on non-trading derivatives (no hedge accounting)	829	607
Interest income on non-trading derivatives (hedge accounting)	2,208	2,294
Other interest income	49	41
Interest income	**14,817**	**14,577**

	2019	2018
Interest expense on deposits from banks	245	186
Interest expense on customer deposits	1,870	1,824
Interest expense on debt securities	1,285	1,449
Interest expense on subordinated loans	654	700
Interest expense on securities at fair value through profit or loss	814	784
Interest expense on non-trading derivatives (no hedge accounting)	1,071	789
Interest expense on non-trading derivatives (hedge accounting)	2,160	2,102
Other interest expense	42	29
Negative interest on assets	313	351
Interest expense	**8,454**	**8,214**
Net interest income	**6,363**	**6,363**

19 Investment income and results from participating interests

Investment income and results from participating interests

	2019	2018
Results from shares and other non-fixed income securities	129	125
Results from group companies	3,036	3,025
Results from associates, joint ventures and other participations	158	–27
	3,323	**3,123**

20 Net commission income

Fee and commission income

	2019	2018
Funds transfer	810	789
Securities business	298	321
Insurance broking	46	38
Asset management fees	54	52
Brokerage and advisory fees	231	266
Other	501	483
	1,939	**1,948**

Fee and commission expenses	2019	2018
Funds transfer	293	279
Securities business	84	113
Asset management fees	8	4
Brokerage and advisory fees	60	35
Other	95	100
	540	**532**

21 Results from financial transactions

Results from financial transactions	2019	2018
Results from securities trading portfolio	933	–737
Results from currency trading portfolio	167	183
Results from non-trading derivatives	39	866
Other	–813	344
	326	**655**

In 2019, Other includes EUR –1,170 million (2018: EUR 341 million) related to fair value changes on trading derivatives.

22 Staff expenses

Staff expenses	2019	2018
Staff expenses		
– Salaries	1,849	1,671
– Social security costs	236	226
Pension costs and other staff related benefit costs	271	289
Other management fees	855	843
	3,211	**3,030**

Remuneration of Senior management, Management board and Supervisory board

Reference is made to Note 48 'Related parties' in the ING Bank Consolidated financial statements.

23 Depreciation and amortisation

Depreciation and amortization	2019	2018
Depreciation of equipment	198	114
Amortisation of software and other intangible assets	203	129
	401	**244**

24 Other expenses

Other expenses	2019	2018
Computer costs	505	480
Office expenses	135	214
Travel and accommodation expenses	69	87
Advertising and public relations	185	193
External advisory fees	320	293
Regulatory costs	540	483
Addition/(releases) of provision for reorganisations and relocations	–49	–42
Other	134	948
	1,839	**2,656**

25 Taxation

Taxation by type	2019	2018
Current taxation	664	878
Deferred taxation	–2	–46
	663	**832**

26 Maturity of certain assets and liabilities

Analysis of certain assets and liabilities by maturity

2019	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Assets							
Loans and advances to banks	25,049	6,794	8,661	14,542	8,379	19,281	82,704
Loans and advances to customers	31,015	9,453	26,706	85,694	162,927	16,850	332,645
Liabilities							
Deposits from banks	26,686	783	11,200	10,429	1,783	13,123	64,004
Customer deposits	241,251	10,453	16,529	18,146	19,704	16,361	322,443
Debt securities in issue	2,146	8,305	23,193	20,693	8,175	20,030	82,541
Subordinated loans				1,780	14,307	673	16,760

Analysis of certain assets and liabilities by maturity

2018	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Assets							
Loans and advances to banks	17,534	5,255	7,357	14,946	8,644	18,818	72,553
Loans and advances to customers	34,752	10,948	22,987	85,938	161,846	28,201	344,672
Liabilities							
Deposits from banks	23,750	666	2,266	19,235	2,061	12,321	60,300
Customer deposits	229,952	19,539	15,974	16,739	14,951	17,856	315,012
Debt securities in issue	2,760	12,227	21,789	31,157	9,480	14,139	91,552
Subordinated loans			0	1,700	6,497	5,760	13,957

27 Assets not freely disposable

Assets not freely disposable

	2019	2018
Equity and debt instruments	14,483	8,374
Lending	62,717	64,668
Banks	15,030	12,691
Other assets	717	536
	92,946	**86,269**

The table includes assets relating to securities lending as well as sale and repurchase transactions

28 Contingent liabilities and other commitments

Contingent liabilities by type

	2019	2018[1]
Guarantees	45,801	52,495
Irrevocable letters of credit	7,480	7,961
Other	20	
Contingent debts	**53,300**	**60,456**
Irrevocable facilities	58,295	56,506
	111,596	**116,962**

1 The prior period has been updated to improve consistency and comparability.

Contingent debts

	2019	2018
Group companies	29,132	36,260
Third parties	24,169	24,196
	53,300	**60,456**

Irrevocable facilities

	2019	2018
Group companies	3	3
Third parties	58,292	56,503
	58,295	**56,506**

29 Other

Guarantees

ING Bank has issued guarantees as participant in collective arrangements of national banking funds and as a participant in required collective guarantee schemes. For example, ING Bank N.V. provided a guarantee to the German Deposit Guarantee Fund ('Einlagensicherundsfonds' 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.

ING Bank N.V. has issued statements of liabilities in connection with Section 403 Book 2 of the Dutch Civil Code ('403 statements') and issued third party guarantees (and third party letters of comfort/awareness) in a limited number of cases. Third party guarantees are used when ING Bank N.V. is requested to issue a guarantee to a third party creditor of one of its subsidiaries in order to guarantee the (financial) performance of this subsidiary. 403 statements have been issued for the following Dutch subsidiaries:

- B.V. Deelnemings- en Financieringsmaatschappij 'Nova Zembla'
- B.V. Maatschappij van Onroerende Goederen 'Het Middenstandshuis'
- Bank Mendes Gans N.V.
- BMG monumenten B.V.
- Cofiton B.V.
- Entero B.V.
- ING Bank Personeel B.V.
- ING Business Shared Services B.V.
- ING Commercial Finance B.V.
- ING Corporate Investments B.V.
- ING Corporate Investments Mezzanine Fonds B.V.
- ING Corporate Investments Participaties B.V.
- ING Corporate Investments Structured Finance B.V.
- ING Groenbank N.V.
- ING Lease (Nederland) B.V.
- ING Sustainable Investments B.V.
- ING Vastgoed Ontwikkeling B.V.
- N.V. Haagsche Herverzekering-Maatschappij van 1836
- Nationale-Nederlanden Hypotheekbedrijf N.V.
- Nationale-Nederlanden Intervest II B.V.
- WestlandUtrecht Verzekeringen B.V.

Claim agreements

In the ordinary course of business we have entered into a number of agreements whereby we are provided and being provided indemnifications related to sale of our past businesses and agreements whereby we made detailed arrangements regarding allocation and handling of claims.

Fiscal unity

ING Bank N.V. forms a fiscal unity with ING Groep N.V. and several Dutch banking entities for corporation tax purposes. ING Bank N.V. and ING Groep N.V. and its banking subsidiaries that form part of the fiscal unity are jointly and severally liable for taxation payable by the fiscal unity. Settlements of corporate income tax paid or received are executed by ING Bank N.V.

Proposed appropriation of results

For 2019, it is proposed that the result, insofar at the disposal of the General Meeting, will be appropriated as follows. A total dividend payment of EUR 2,689 million, including interim dividend of EUR 2,646 million and a final dividend of EUR 43 million. The remainder of the result will be appropriated to the Other Reserves.

In May, August and November 2019 ING Bank N.V. paid EUR 882 million interim dividend to ING Groep N.V.

Proposed appropriation of result

	2019
Net result	4,843
Addition to reserves pursuant to Article 24 of the Articles of Association	2,155
Proposed to be added to the Other Reserves pursuant to Article 24 of the Articles of Association	**2,689**

30 Subsequent events

There are no subsequent events to report.

Authorisation of Parent company financial statements

Amsterdam, 2 March 2020

The Supervisory Board

G.J. (Hans) Wijers, chairman
H.J.M. (Hermann-Josef) Lamberti, vice-chairman
J.P. (Jan Peter) Balkenende
E.F.C.B. (Eric) Boyer de la Giroday
M. (Mariana) Gheorghe
M. (Margarete) Haase
A.M.G. (Mike) Rees
H.W.P.M.A. (Herna) Verhagen

The Management Board Banking

R.A.J.G. (Ralph) Hamers, CEO and chairman of the Management Board Banking
T. (Tanate) Phutrakul, CFO
S.J.A. (Steven) van Rijswijk, CRO
M. I. (Isabel) Fernandez Niemann, head of Wholesale Banking
R.M.M (Roel) Louwhoff, COO/CTO
A. (Aris) Bogdaneris, head of Challengers & Growth Markets
P. (Pinar) Abay, head of Market Leaders

Independent auditor's report

To: the Shareholder and the Supervisory Board of ING Bank N.V.

Report on the audit of the financial statements 2019 included in the annual report

Our opinion

In our opinion:

— the accompanying consolidated financial statements give a true and fair view of the financial position of ING Bank N.V. as at 31 December 2019 and of its result and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and with Part 9 of Book 2 of the Dutch Civil Code;

— the accompanying parent company financial statements give a true and fair view of the financial position of ING Bank N.V. as at 31 December 2019 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the financial statements 2019 of ING Bank N.V. (the 'Company' or 'the Group' or 'ING Bank') based in Amsterdam. The financial statements include the consolidated financial statements and the parent company financial statements.

The consolidated financial statements comprise:

1 the consolidated statement of financial position as at 31 December 2019;

2 the following consolidated statements for 2019: the statement of profit or loss, the statements of comprehensive income, changes in equity and cash flows; and

3 the notes comprising a summary of the significant accounting policies and other explanatory information.

The parent company financial statements comprise:

1 the parent company statement of financial position as at 31 December 2019;

2 the parent company statement of profit or loss and statement of changes in equity for 2019; and

3 the notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of ING Bank N.V. in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' ('ViO', Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' ('VGBA', Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Audit approach

Summary

Materiality
— Group materiality of EUR 300 million (2018: EUR 300 million).
— 4.4% of profit before taxation from continuing operations (2018: 4.4%).

Group audit
— 90% of total assets covered by audit procedures performed by component auditors (2018: 90%).
— 85% of profit before taxation from continuing operations covered by audit procedures performed by component auditors (2018: 80%).

Key Audit Matters
— Assessment of Expected Credit Losses on loans and advances to customers and banks.
— Risk of inappropriate access or changes to information technology systems.

Opinion
Unqualified

Materiality

Based on our professional judgement, we determined the materiality for the financial statements as a whole at EUR 300 million (2018: EUR 300 million) which represents 4.4% (2018: 4.4%) of profit before taxation from continuing operations. The materiality is determined with reference to the profit before taxation from continuing operations.

We consider profit before taxation from continuing operations as the most appropriate benchmark based on our assessment of the general information needs of users of financial statements and given the fact that ING Bank is a profit-oriented entity. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Audit Committee of the Supervisory Board that misstatements in excess of EUR 15 million which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

ING Bank is at the head of a group of components. The financial information of this group is included in the financial statements of ING Bank.

ING Bank is structured in segments: Retail Netherlands, Retail Belgium, Retail Germany, Retail Other, Wholesale Banking and Corporate Line Banking, covering different countries. Because we are ultimately responsible for the group audit engagement, we are responsible for directing, supervising and performing the group audit. In this respect, we have determined the nature and extent of the audit procedures to be carried out for components. Our group audit is mainly focused on significant components. These components are either individually financially significant due to their relative size compared to ING Bank or because we identified a significant risk of material misstatement to one or more account balances of these entities. In addition, we included certain other non-significant components in the scope of our group audit in order to arrive at a sufficient coverage over all relevant significant account balances.

Applying these scoping criteria led to a full or specific scope audit for 40 components globally, in total covering 14 countries. This resulted in a coverage performed by component auditors of 84% of profit before taxation from continuing operations and 90% of total assets. For the remaining 16% of profit before taxation from continuing operations and 10% of total assets, procedures were performed by the group audit team. The consolidation of ING Bank, the disclosures in the financial statements and certain accounting topics that are performed at ING Bank level, are audited by the group audit team. Procedures that are performed by the group audit team include, but are not limited to, substantive procedures with respect to equity, goodwill, certain elements of the Expected Credit Loss provisioning process, and analytical procedures in order to corroborate our assessment that the risk of material misstatement in the residual population is less than reasonable possible and scoping remained appropriately throughout the audit.

All components in scope for group reporting are audited by KPMG member firms. We sent detailed instructions to all component auditors, covering significant areas including the relevant significant risks of material misstatement identified at group level, and set out the information required to be reported to the group audit team. We visited component auditors in the Netherlands, Belgium, Germany, United States of America, Italy and Luxembourg, where we performed local audit file reviews. For Australia, we reviewed the file remotely. For all components in scope of the group audit, we held conference calls and/or physical meetings with the auditors of the components. During these visits, meetings and calls, the planning, risk assessment, procedures performed, findings and observations reported to the group auditor were discussed in more detail and any further work deemed necessary by the group audit team was then performed.

The group audit team has set component materiality levels, which ranged from EUR 25 million to EUR 115 million, based on the mix of size and financial statement risk profile of the components within ING Bank to reduce the aggregation risk to an acceptable level.

By performing the procedures mentioned above at group components, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about ING Bank's financial information to provide an opinion about the consolidated financial statements.

The audit coverage as stated in the section summary can be further specified as follows:

Total assets

90%	10%
Covered by audit procedures performed by component auditors	Covered by procedures performed at group level

Profit before taxation from continuing operations

85%	15%
Covered by audit procedures performed by component auditors	Covered by procedures performed at group level

Audit scope in relation to fraud

In accordance with the Dutch standards on auditing, we are responsible for obtaining a high (but not absolute) level of assurance that the financial statements taken as a whole are free from material misstatement, whether caused by fraud or error.

As part of our risk assessment process, we have evaluated events or conditions that indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud ('fraud risk factors') to determine whether fraud risks are relevant to our audit. During this risk assessment, we made use of our own forensic specialists.

We communicated identified fraud risks throughout our team and remained alert to any indications of fraud throughout the audit. This included communication from the group to component audit teams of relevant fraud risks identified at group level.

In accordance with the auditing standard, we evaluated the fraud risk. The presumed fraud risk on the revenue recognition was not considered a significant risk to our audit. The other fraud risks that are relevant to our audit, are:

— Fraud risk in relation to management override of controls (a presumed risk).

— Fraud risk in relation to management override of Expected Credit Loss provision results.

Our audit procedures included an evaluation of the design, implementation as well as the operating effectiveness of internal controls relevant to mitigate these risks and substantive audit procedures, including detailed testing of high risk journal entries and evaluation of management bias. These procedures are among others related to the Loan Loss Provision and suspense accounts. In determining the audit procedures, we used the Company's evaluation in relation to fraud risk management (prevention, detections and response), including the set-up of ethical standards to create a culture of honesty.

As part of our evaluation of any instances of fraud, we discussed with management the incidents and follow-up by management.

We communicated our risk assessment and audit response to the Management Board and the Audit Committee of the Supervisory Board. Our audit procedures differ from a specific forensic fraud investigation, which investigation often has a more in-depth character.

Our procedures to address fraud risks did not result in a Key Audit Matter. However, the procedures to address the significant risk described in the Key Audit Matter related to 'Assessment of Expected Credit Losses on loans and advances to customers and banks' also address the fraud risk in relation to management override of Expected Credit Loss provision results.

We do note that our audit is based on the procedures described in line with applicable auditing standards and are not primarily designed to detect fraud.

Audit scope in relation to non-compliance with laws and regulations

We have evaluated facts and circumstances in order to assess laws and regulations relevant to the Company. In this evaluation we made use of our own forensic specialists.

We identified laws and regulations that could reasonably be expected to have a material effect on the financial statements based on our general understanding and sector experience, through discussion with relevant management and evaluating the policies and procedures regarding compliance with laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. This included communication from the group to component audit teams of relevant laws and regulations identified at group level. The potential effect of these laws and regulations on the financial statements varies considerably:

- Firstly, the Company is subject to laws and regulations that directly affect the financial statements including taxation and financial reporting (including related company legislation). We assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.
- Secondly, the Company is subject to many other laws and regulations where the consequences of non-compliance could have an indirect material effect on amounts recognised or disclosures provided in the financial statements, or both, for instance through the imposition of fines or litigation.

We identified the following areas as those most likely to have such an indirect effect:

- Anti-money laundering laws and regulations.
- Sanctions laws.

Auditing standards limit the required audit procedures to identify non-compliance with laws and regulations that have an indirect effect to inquiring of relevant management and inspection of regulatory and legal correspondence. Through these procedures, we did not identify any additional actual or suspected non-compliance other than those previously identified by the Company. We considered the effect of actual or suspected non-compliance as part of our procedures on the related financial statement items.

As disclosed in the Management Board report, ING continued to deliver on the bank-wide Know Your Customer enhancement program (the 'Enhancement program') in order to improve governance, systems and tools around client due diligence and transaction monitoring as disclosed in the Management Board report. We inquired senior management, ING Bank legal counsel, ING Bank compliance officer and Head of Internal Audit and inspected the progress reports in relation to the Enhancement program. We also evaluated and discussed internal audit reports in relation to compliance and instructed local auditors of selected components of ING Bank to assess the progress of the remediation at component level. We observe that the required Enhancement program receives and will need ongoing attention from management, the Audit Committee and the Supervisory Board.

Our procedures to address compliance with laws and regulations did not result in the identification of a Key Audit Matter.

We do note that our audit is not primarily designed to detect non-compliance with laws and regulations and that management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to errors or fraud, including compliance with laws and regulations.

The more distant non-compliance with indirect laws and regulations (irregularities) is from the events and transactions reflected in the financial statements, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

Our Key Audit Matters

Key Audit Matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the Key Audit Matters to the Audit Committee of the Supervisory Board. The Key Audit Matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

The 2018 Key Audit Matter with respect to instances of non-compliance with anti-money laundering and anti-terrorism financing acts is not included, as this specifically relates to the financial year 2018 and previous years.

Assessment of Expected Credit Losses on loans and advances to customers and banks

Description

As discussed in section 'Credit Risk' in the Management Board Report, and Note 7 and Note 3 to the consolidated financial statements, the loans and advances to customers and loans and advances to banks amounts are EUR 612 billion and EUR 35 billion, respectively, as at 31 December 2019. These loans and advances are measured at amortised cost, less a provision for Expected Credit Losses ('ECL') of EUR 4.6 billion. Considerable judgement is exercised in determining the amount of ECL for loans and advances to customers and banks assessed on both a collective and an individual basis.

We identified the assessment of ECL on loans and advances to customers and banks as a Key Audit Matter because there was a high degree of estimation uncertainty as a result of complexity of the models, inputs, assumptions and judgements in measuring the ECL. Specifically, assessment of the probability of default ('PD'), the loss given default ('LGD'), and the exposure at default ('EAD'), including expected future recovery cash flows, the use of the macro-economic assumptions in the ECL, and the criteria for identifying significant increase in credit risk ('SICR') required significant and complex management and auditor judgement and knowledge and experience in the industry.

KPMG

Our response

The primary procedures we performed to address this Key Audit Matter, included the following:

- We tested certain internal controls over the Company's ECL process for loans and advances to customers and banks, including controls related to governance and monitoring of the ECL, review of the relevant loan inputs used in the collective provisioning models, determination of risk ratings, and the estimated future recovery cash flows of individual loan provisions. Furthermore, we tested certain internal controls with respect to the assessment of the PD, LGD, and EAD assumptions in credit risk models used to calculate the collective ECL, including the development of macro-economic scenarios, SICR criteria, and review of model outputs.
- We involved professionals with specialised skills and knowledge who assisted in:
  - evaluating the inputs, assumptions and judgements to determine the PD, LGD, and EAD parameters in models used by the Company to calculate the collective provisions;
  - assessing the criteria and thresholds used to identify loans that experienced a significant increase in credit risk.
- With the assistance of Corporate Finance professionals and Real Estate Valuation professionals with specialised skills and knowledge, we assessed the methodologies, cash flows and collateral values used in expected future recovery cash flow assessments of provisions for impaired loans, including the Company's judgements made.
- We involved economic professionals with specialised skills and knowledge to assist in the assessment of the Company's methodology in determining the macro-economic scenarios used in the ECL calculation.

Our observation

Based on our procedures performed, we found management's overall assessment relating to the valuation of loans and advances to customers and banks within an acceptable range and adequately disclosed in Note 7 and Note 3 to the financial statements respectively.

Risk of inappropriate access or changes to information technology systems

Description

ING Bank is dependent on its IT environment for the reliability and continuity of its operations and financial reporting. Inappropriate access or changes to an application or infrastructure could impact an automated control and therefore compromise reliability of financial data and continuity of ING Bank's operations. ING Bank continued to make efforts to improve its IT systems and processes to increase the efficiency and effectiveness of the IT environment and the reliability and continuity of the IT processing as well as to remediate deficiencies identified in the previous year in access and change management areas.

Our response

Our audit approach depends to a large extent on the effectiveness of automated controls and, therefore, procedures are designed to test among others access and change management controls over IT systems. Given the IT technical characteristics of this part of the audit, IT audit specialists are an integral part of our engagement team.

IT audit specialists assessed the reliability and continuity of the IT environment, when needed for the scope of our audit of the financial statements. We examined the framework of governance over ING Bank's IT organisations and the IT general controls, access to programs and data, program changes and IT operations, including compensating controls where those were required.

Our areas of focus related to the change management, logical user access management, cyber security, security event monitoring and segregation of duties controls. Management has put efforts to remediate identified control deficiencies. We tested the design and operating effectiveness of user access and change management controls of the IT systems relevant for financial reporting. For those control deficiencies that were not remediated, we tested compensating controls that were not impacted by ineffective controls. For certain deficiencies during the period of remediation, we substantively assessed the access to determine whether inappropriate access occurred and whether changes made were appropriate.

Our observation

The combination of the tests of the controls and the substantive tests performed, provided sufficient evidence to enable us to rely on the adequate and continued operation of the IT systems for the purposes of our audit.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information.

Based on the following procedures performed, we conclude that the other information:

— is consistent with the financial statements and does not contain material misstatements; and

— contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is less than the scope of those performed in our audit of the financial statements.

The Management Board of the Company is responsible for the preparation of the other information, including the information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the Annual General Meeting of Shareholders as auditor of ING Bank on 11 May 2015, as of the audit for the year 2016 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audits of public-interest entities.

Services rendered

For the period to which our statutory audit relates, in addition to this audit we have provided agreed-upon procedures and assurance engagements to ING Bank N.V. or its controlled undertakings. These services were rendered for the benefit of external users, largely driven by regulatory compliance.

Description of responsibilities regarding the financial statements

Responsibilities of the Management Board and the Supervisory Board for the financial statements

The Management Board is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS-EU and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Management Board is responsible for such internal control as the Management Board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Management Board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Management Board should prepare the financial statements using the going concern basis of accounting unless the Management Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Management Board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A further description of our responsibilities for the audit of the financial statements is included in the appendix of this auditor's report. This description forms part of our auditor's report.

Amstelveen, 2 March 2020

KPMG Accountants N.V.
M.A. Hogeboom RA

Appendix:
Description of our responsibilities for the audit of the financial statements

Appendix

Description of our responsibilities for the audit of the financial statements

We have exercised professional judgement and have maintained professional scepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board;
- concluding on the appropriateness of the Management Board's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern;
- evaluating the overall presentation, structure and content of the financial statements, including the disclosures; and
- evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We are solely responsible for the opinion and therefore responsible to obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the financial statements. In this respect, we are also responsible for directing, supervising and performing the group audit.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect, we also submit an additional report to the Audit Committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audits of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the Key Audit Matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Articles of Association – Appropriation of results

Appropriation of results

The result is appropriated pursuant to Article 24 of the Articles of Association of ING Bank N.V., the relevant stipulations of which state that the result shall firstly be appropriated to the Stichting Regio Bank Reserve, respectively the Reserve Stichting Vakbondsspaarbank SPN or charged to that reserves in proportion to the ratio between the Stichting Regio Bank Reserve, respectively the Reserve Stichting Vakbondsspaarbank SPN and the company's equity at the end of the relevant financial year and that the remainder shall be at the disposal of the General Meeting.

Disclaimer

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: (1) changes in general economic conditions, in particular economic conditions in ING's core markets (2) changes affecting interest rate levels, (3) changes in performance of financial markets, including developing markets, (4) changes in the fiscal position and the future economic performance of the US including potential consequences of a downgrade of the sovereign credit rating of the US government, (5) consequences of the United Kingdom's withdrawal from the European Union, (6) introduction of, changes in or discontinuation of 'benchmark' indices, (7) inflation and deflation in our principal markets; changes in conditions in the credit and capital markets generally, including changes in borrower and counterparty creditworthiness, (8) changes in laws and regulations, including those governing financial services or financial institutions, and the interpretation and application thereof, (9) changes in compliance obligations, (10) geopolitical risks, political instability and policies and actions of governmental and regulatory authorities, (11) ING's ability to meet minimum capital and other prudential regulatory requirements, (12) the outcome of current and future legal and regulatory proceedings, (13) changes in tax laws, (14) operational risks, such as system disruptions or failures, breaches of security, cyber-attacks, human error, changes in operational practices, inadequate controls including in respect of third parties with which we do business, natural disasters or outbreaks of communicable diseases, (15) risks and changes related to cybercrime including the effects of cyber-attacks and changes in legislation and regulation related to cybersecurity and data privacy, (16) changes in general competitive factors, (17) the inability to protect our intellectual property and infringement claims by third parties, (18) changes in credit ratings, (19) business, operational, regulatory, reputation and other risks and challenges in connection with climate change, (20) the inability to attract and retain key personnel, (21) conclusions with regard to purchase accounting assumptions and methodologies, and other changes in accounting assumptions and methodologies including changes in valuation of issued securities and credit market exposure, (22) changes in investor and customer behavior, (23) changes in the availability of, and costs associated with, sources of liquidity such as interbank funding, (24) changes affecting currency exchange rate, (25) changes in ownership that could affect the future availability to us of net operating loss, net capital and built-in loss carry forwards, (26) ING's ability to achieve its strategy, including projected operational synergies and change programmes, and (27) 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, (28) 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.