2022 Annual Report

Nationale-Nederlanden Levensverzekering Maatschappij N.V.

nationale nederlanden

Annual Report contents

Composition of the Boards

The composition of the Management Board and the Supervisory Board of Nationale-Nederlanden Levensverzekering Maatschappij N.V. (NN Leven) as at 31 December 2022 was as follows:

Management Board

Composition as at 31 December 2022

L.M. (Leon) van Riet (1964), CEO and chair

A. (Arun) Sivaramakrishnan (1973), CFO

W.G. (Wilbert) Ouburg (1985), CRO

M.R. (Martijn) Hoogeweegen (1969)

G. (Gerard) van Rooijen (1972)[1]

Resigned in 2022

A.G. (Annemieke) Visser-Brons (1970)[3]

Supervisory Board

Composition as at 31 December 2022

J.L. (Janet) Stuijt (1969), chair

A.T.J. (Annemiek) van Melick (1976)[2]

J.W. (Hans) Schoen (1954)

Resigned in 2022

D. (Delfin) Rueda (1964)[4]

1 Appointment as from 1 September 2022 by the General Meeting on 30 August 2022.
2 Appointment as from 1 July 2022 by the General Meeting on 29 June 2022.
3 Resignation as from 1 September 2022 by resignation letter.
4 Resignation as from 1 July 2022 by resignation letter.

NN Group and NN Leven at a glance

NN Group

NN Group N.V. (NN Group) is an international financial services company, active in 11 countries, with a strong presence in a number of European countries and Japan.

Led by our purpose and ambition, guided by our values and brand promise, and driven by our strategic commitments, we are committed to create long-term value for all our stakeholders: customers, shareholders, employees, business partners and society at large.

With all our employees, we provide retirement services, pensions, insurance, investments and banking products to approximately 20 million customers. We are a leading financial services provider in the Netherlands.

We provide our products and services under the following brand names: Nationale-Nederlanden, OHRA, Movir, AZL and BeFrank, as well as via our joint venture, ABN AMRO Verzekeringen, and our partnership with ING Insurance.

Our roots lie in the Netherlands, with a rich history that stretches back 175 years. NN Group is listed on Euronext Amsterdam.

Within NN Group's organisational structure, NN Leven is part of the reporting segment Netherlands Life.

NN Leven

NN Leven offers a range of group life and individual life insurance products. Its group life policies are primarily group pension products. The company provides pension solutions to businesses of all sizes. It offers insured and non-insured pension solutions, bundled and unbundled options and works in close cooperation with pension administrator AZL N.V. (AZL).

NN Leven's individual life insurance business primarily consists of the closed-book operation of the individual life portfolios (comprising a range of discontinued products sold prior to 2012) of NN Leven, RVS Levensverzekering N.V. (RVS Leven), Delta Lloyd Levensverzekering N.V. (Delta Lloyd Leven) and Nationale-Nederlanden Services N.V. (NN Services).

NN Leven has a strong position in the Dutch pension market. It is NN Group's largest business measured by the balance sheet total and the largest Dutch life insurer measured by gross premium income and by balance sheet totals. In addition, NN Leven offers Defined Contribution (DC) pension products through its subsidiary BeFrank PPI N.V., which is the leading Premium Pension Institution (PPI) in the Netherlands.

NN Leven's business centers around people and trust by acting with professionalism and behaving with integrity and skill.
NN Leven believes it can build and maintain the confidence of our customers and other stakeholders. Our values 'care, clear, commit' set the standard for conduct and serve as a compass for decision-making.

On 15 July 2022, NN Leven acquired all issued shares in the share capital of ABN AMRO Levensverzekering N.V. (AAL), the life insurance subsidiary of Nationale-Nederlanden ABN AMRO Verzekeringen Holding N.V. (AAV). NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023. As a result of this merger NN Leven will acquire all assets and liabilities of AAL under universal title of succession and AAL will cease to exist as per 1 April 2023. For a more detailed disclosure, reference is made to Note 43 'Acquisitions'.

Legal structure NN Leven

NN Leven is a fully-owned subsidiary of Nationale-Nederlanden Nederland B.V. (NN Nederland) which in turn is a fully-owned subsidiary of NN Insurance Eurasia N.V. NN Insurance Eurasia N.V. is fully owned by NN Group.

Report of the Management Board

Strategy

Our purpose is to help people care for what matters most to them. Because what matters to them matters to us.

Our ambition is to be an industry leader, known for our customer engagement, talented people, and contribution to society. All parts of our business contribute to the delivery of our ambition.

NN Leven is committed to creating long-term value for all our stakeholders. Our strategy aims to address the interests of all stakeholders, which is why we have both strategic and financial targets. Our five strategic commitments will help us achieve our ambition.

1. Customers and distribution - We see our customers as the starting point of everything we do
2. Products and services - We develop and provide attractive products and services
3. People and organisation - We empower our colleagues to be their best
4. Financial strength - We are financially strong and seek solid long-term returns for shareholders
5. Society - We contribute to the well-being of people and the planet

The goal of NN Leven is to deliver an excellent customer experience, while meeting our operational efficiency ambition. We have a proven track record in reducing costs by improving efficiency whilst at the same time improving client satisfaction. By means of our Strategic Leadership Agenda (SLA) we ensure that the strategic priorities are embedded into the entire organisation.

NN Leven is organised into two Business Lines: Pensions and Services. Pensions is our open book proposition, while Services manages the closed book operations. Pensions focuses on commercial success and profitability with DC pension products, PPI and Term Life covering the total Dutch pension market from SMEs to corporates. Services focuses on efficiency through IT simplification and migrations. Services primarily consists of the closed book operation of the group life portfolios and the individual life portfolios (comprising a range of discontinued products sold prior to 2012).

NN Leven's strategy aims for an effective response to changing dynamics in the Dutch Life and Pension market such as volatile markets, intensified competition in certain segments, regulatory changes, and developments in life expectancy.

2022 witnessed a significant change in the market environment vs. previous years due to the pick-up in inflation and corresponding increase in interest rates. While rising interest rates are in general favorable for life insurance businesses, the short period over which the rate rise took place resulted in significant market volatility. NN Leven successfully navigated this environment with strong commercial momentum and improved operating capital generation while maintaining a strong balance sheet.

End of 2022, the future pensions act passed in the House of Representatives ("Tweede Kamer") with broad support and is due for consideration in the Senate ("Eerste Kamer").

The new pension system will be contribution-based and each individual pension contribution is allocated to their individual pension capital.

Going forward, NN Leven will continue to focus on delivering on key aspects: adapting to the changes in the pension market and the shift to defined contribution, improving customer service, enhancing the effectiveness of our control landscape, operational efficiency to reduce cost levels through actions such as simplifying our IT landscape, refining the investment mix on the balance sheet taking into account managing insurance and business risks. Adapting to regulatory change remains an important management priority. Major programs are underway to prepare for the regulatory changes in the pension market and for the implementation of IFRS 17 and IFRS 9 in 2023.

On 15 February 2022, it was announced that NN Group and ABN AMRO Bank N.V. (ABN AMRO Bank) had reached an agreement on the acquisition of AAL. On 15 July 2022 NN Leven acquired all issued shares in the share capital of AAL. NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

For a more detailed disclosure on the IFRS impact as result of the acquisition of AAL, reference is made to Note 43 'Acquisitions'. For a more detailed disclosure on the Solvency II ratio impact as result of the acquisition of AAL, reference is made to Note 45 'Risk Management'.

Customers and distribution

At NN Leven we see our customers as the starting point of everything we do. We engage with them to ensure we meet their real needs and offer solutions that create long-term value. We use our digital capabilities and leverage our strong distribution footprint in order to further enhance our customer experience.

Our brand promise 'You matter' is not just a slogan; it defines what we do at NN Leven, influencing every department, every employee and every interaction with our customers.

NN ranks a shared 1st place in the IG&H performance monitor. For our Term Life product, the advisor satisfaction is shared 'best in class'. Employer satisfaction (r-NPS) is higher than the market average of -5.0. Since 2021, we measure the pension participant satisfaction level via r-NPS, also showing a significant increase compared to 2021 . For our Individual Life customers, the r-NPS has also risen during 2022.

In 2022, NN Leven kept improving the Human Capital Planner (HCP) tooling. Early November, the HCP and it's PensioenPulse tool won the PensioenWegwijzer award.

Products and services

At NN Leven we excel in developing and providing attractive products and services, focused on our customers' needs. Operating with efficiency, agility and speed. To ensure we continue doing so, we will make optimal use of digital and data capabilities.

NN Leven offers the full spectrum of pensions solutions consisting of defined contribution (DC), insured defined benefit (DB) and term life insurance. BeFrank is our Premium Pension Institution (PPI).

Also offered by NN Group are a general pension fund (APF) solution via De Nationale, and pension fund administration and advisory services via AZL.

Report of the Management Board continued

NN Leven aims to offer true value propositions for a competitive price. We believe that with a combination of pension products, related services and a good customer experience, we will establish a sustainable long-term relationship with our customers. In a fast-changing market, with the new Pension Agreement and a society where the influence of the individual is growing, we are building a company that truly matters to our stakeholders.

Despite the ongoing shift towards DC pension plans, we see that Defined Benefit (DB) remains important for some of our customers. NN Leven continues to serve these customers through our DB proposition. In decumulation, DC adds to our guaranteed pension books as mature DC assets are converted to guaranteed direct pension annuities.

Overall, NN Leven offers modern pension solutions in both DB and DC, with and without guarantees. This enables clients to organise their retirement arrangements with a risk profile that meets their current needs.

In order to streamline our IT landscape, improve effectiveness and achieve our expense reduction ambitions, we will continue to invest in IT simplification initiatives. This is a multi-year programme and executed in close cooperation with the central IT organisation of NN Group. Although requiring significant effort as well as initial investments, once realised, it is expected to bring efficiency gains by creating state-of-the art and more standardised target IT systems, decommissioning legacy systems, removing manual workload and, as well, necessary compensating internal control measures to address certain identified deficiencies in the old systems. These activities also contribute to our readiness for the full implementation of the new accounting standard IFRS 17 Insurance Contracts in 2023. We increasingly employ robotics and apply STP (straight through processing) to improve quality and achieve a higher customer satisfaction at a lower cost. NN Leven is also striving to continuously improve data quality and adequately addressing identified shortcomings in customer communication. We recognise that we still have challenges and work to be done to further improve our data quality and customer processes.

For our legacy pension portfolio the focus is on increasing customer satisfaction and cost effectiveness. The aim is to convert this closed book portfolio to completely paid-up and further decrease costs.

Achieving further lower operating costs and rationalization of the administration systems will be realised by automation through applying Robotics, Business Process Management and Smart Scanning.

For the closed book operation of pensions and individual life policies (comprising a range of discontinued products sold prior to 2012) focus is on reducing expenses in line with the run-off of the portfolio and at the same time improving customer service. Key actions to enable this are migrating policies from legacy to target systems, outsourcing IT and operations, and digitalising processes. In 2022, we migrated more than 529,000 policies from legacy systems to our future proof target platforms in our business line Individual Life Services. In total, more than 3.0 million policies have been migrated to the target systems from 2020, which accounts for the entire portfolio in the former Delta Lloyd and NN legacy systems.

NN Leven continues to invest in innovative technology solutions. Mijnwaardeoverdracht.nl is the first blockchain solution within NN Leven. The value transfer process of individual pensions is largely automated and digitized. The initiative was developed from an intensive collaboration with Hyfen (the blockchain developer and administrator), APG, PGGM and Blue Sky Group.

In 2022, we also further expanded and optimised our digital online services. Customers and brokers have more (digital) ways to engage with us via the NN-portal and NN-app and provide via these channels Self Service-functionality (for information request, for policy endorsements or claims and in the collections and disbursements).

Overall, although we recognise that much work remains to be done, based on the achievements we have realised in the last few years, we are confident that we will be able to achieve our ambition to deliver an excellent customer experience, while also meeting our expense efficiency ambitions.

People and organisation

At NN Leven, we empower our people to be their best. Together, we want to create a culture aligned with our purpose, values and ambitions, which supports continuous learning, collaboration, and diversity of thinking.

Our values, care, clear, commit, which we published under the title NN statement of Living our Values, set the standard for conduct and provide a compass for decision-making. Every NN employee is responsible and accountable for living up to them. Read more on the values in the 'Who we are' section of www.nn-group.com.

Our approach to diversity and inclusion is simple. It is about embracing everyone. Together we build an environment in which people feel welcome, valued, and respected. Free to bring their full selves – regardless of gender, age, background, or sexual orientation.

We invest in attracting, developing, and retaining the best people, with a focus on further developing customer, digital and data capabilities.

Employees are encouraged to invest in themselves and in their employment prospects. For example, employees are given training, coaching and internships. To increase economic and job opportunities, we invest in employability, by stimulating our employees to develop and grow. We offer students and graduates the opportunity to gain work experience within our company.

We give clear direction about the future strategy so employees and management can anticipate upcoming changes.

In 2022, we improved our organisation by implementing end-to-end value chains and making ourselves more agile. Like every organization, NN Leven had to deal with the ongoing impact of Covid-19. In 2022, we were able to meet each other more often in-real-life and we further introduced our NN hybrid way of working within NN Leven. We continued to reach out to our management and employees on a regular basis to ensure everybody could work in a hybrid manner. We also conducted specific surveys to gather feedback from all employees and took measures to further facilitate this new way of working. This approach, with attention for the specific situation of individual employees, flexibility and tailor-made solutions has been successful.

Report of the Management Board continued

We see a slowly upward trend in our employee engagement. Continued attention and extra effort to the well-being and involvement of our employees contributed positively to our employee engagement score.

At NN Leven, the number of employees is 2,157 in 2022 of which approximately 60% are male and 40% are female.

Financial strength

At NN Leven, we maintain a strong balance sheet and create solid financial returns by using our financial strength, scale and by efficiently managing our customers' assets and our own insurance portfolios.

Analysis of results

Amounts in millions of euros	2022	2021[1]
Investment margin	1,037	1,046
Fees and premium-based revenues	328	331
Technical margin	123	103
Operating income	1,488	1,480
Administrative expenses	405	416
DAC, amortisation and trail commissions	27	29
Total expenses	432	445
Operating result	1,056	1,035
Non-operating items	-871	2,027
- of which gains/losses and impairments	-131	1,615
- of which revaluations	-1,386	463
- of which market and other impacts	646	-51
Special items	-32	-17
Result before tax	153	3,045
Taxation	-9	446
Net result	162	2,599
Minority interests	56	140
Net result attributable to the shareholder of the parent	106	2,459

1 The comparative figures are adjusted in relation to the acquisition of AAL. For more information reference is made to Note 43 Acquisitions.

The full-year 2022 operating result increased to EUR 1,056 million from EUR 1,035 million in 2021. The increase is driven by a higher technical margin and lower administrative expenses, partly offset by a lower investment margin and lower fees and premium based revenues.

The technical margin for full-year 2022 includes higher mortality experience, partly offset by lower morbidity results. Administrative expenses decreased to EUR 405 million from EUR 416 million in 2021, mainly driven by lower staff expenses. The investment margin of 2021 included EUR 94 million of private equity and special dividends whereas the current year did not include such dividends.

The full-year 2022 result before tax decreased to EUR 153 million compared with EUR 3,045 million in 2021. The decrease mainly reflects negative revaluations on derivatives and real estate as well as lower gains/losses and impairments on public equity and government bonds, partly offset by higher markets and other impacts and a higher operating result.

Key figures

Amounts in millions of euros	2022	2021
New sales life insurance (APE)	372	256
DC Assets under Management Total (in EUR billion)	28	30
Value of new business (VNB)	57	27
Administrative expenses	405	416
Operating capital generation (OCG)[1]	1,142	846
NN Leven Solvency II ratio[2]	191%	219%

1 The OCG is calculated based upon the segment Netherlands Life, excluding the Czech branch.

2 The Solvency ratios are not final until filed with the regulators. The Solvency II ratio is based on the Partial Internal Model.

New sales (APE) for the full-year 2022 increased to EUR 372 million from EUR 256 million in 2021, mainly due to higher volume of group pension contracts.

The value of new business for the full-year 2022 increased to EUR 57 million compared with EUR 27 million in 2021, reflecting a higher volume of group pension contracts as well as a favourable impact from an increase in interest rates.

Full-year 2022 operating capital generation increased to EUR 1,142 million from EUR 846 million in 2021. The increase is mainly driven by the lower net negative impact of the UFR drag and risk margin release as a result of higher interest rates, as well as positive experience variance and higher new business contribution, partly offset by a lower investment return.

For more information on the decrease of the Solvency II ratio, reference is made to Note 45 'Risk Management'.

Society

At NN Leven we contribute to the well-being of people and the planet. We do business with the future in mind and contribute to a world where people can thrive for many generations to come. We do this by investing our assets responsibly, being a fair taxpayer, managing our direct environmental footprint, and through our activities in the communities where we operate.

We take our role in society seriously. Activities range from financial education to health and well-being initiatives. These involve raising funds and employees volunteering their time for special projects. For example, NN Leven participated in de Week van het Geld and employees gave job application training to people that have difficulty in entering the labour market.

At NN Leven, focusing on diversity and inclusion is not just about doing the right thing, it's about empowering people by respecting and praising what makes them unique. NN Leven employees are free to truly value their differences in a safe, positive, and nurturing environment. At NN Leven, we care about diversity in the workplace and more broadly in society. We strive to make people feel respected and valued for who they are as individuals and as a group. We want to make sure that our employees feel valued, heard and part of the success of our organisation.

NN Leven, together with NN Group, has supported the establishment of the Research Centre for Longevity Risk in collaboration with the University of Amsterdam (UvA). At the centre, UvA scientists study the trends in survival rates and life expectancy, and how these are affected by different relevant factors. The research conducted in the centre contributes to the management of longevity risk, and is vital for governments, policymakers and other stakeholders in the financial sector.

Report of the Management Board continued

It also helps raising awareness about accruing a pension. This is in line with our purpose to help people care for what matters most to them.

Also, in 2022 NN Leven further updated the 'Pensioen Hulp', a tool which provides people insight in their pension, open to everyone. There has been strong interest in this with over 62,000 subscriptions.

A few other initiatives of NN Leven in 2022:

- Collaborating with renowned research institutes, for example with Kien Onderzoek, to ensure original and relevant content on the awareness and expectations of the future pensions act among Dutch employees.
- Participation career coach JINC and LEF.
- Provide people financial insights with PensioenTV Broadcasts.

NN Leven has a policy framework in place to ensure that its assets are invested responsibly. Amongst others, the policy includes requirements to systematically incorporate environmental, social and governance (ESG) factors into the investment process. Consideration of ESG factors, alongside traditional financial data, helps to make better informed decisions and optimise the risk-return profile of investment portfolios. Furthermore, the implementation of a Restricted List should prevent investments in securities that are not in line with NN Leven's values, and/or applicable laws and regulations.

To our customers we provide dashboard information showing them the impact of their life cycle investments in terms of CO2 reduction, water savings and waste reduction.

Risk management
For information regarding risk management reference is made to Note 45 'Risk management'.

Capital and liquidity management
For information on liquidity and financing, reference is made to Note 46 'Capital and liquidity management'.

Dutch Individual Life unit-linked products
In the Netherlands, unit-linked products have received negative public attention since the end of 2006. We have taken this criticism to heart, as our aim is to support our customers as best as we can. NN Leven has reached out to all individual customers who purchased unit linked products in the past ('activeren').

NN Leven continues to periodically reach out to groups of selected customers to encourage them to carefully assess their unit-linked products in order to enable them to address their personal situation and offer customers the option to switch to another product or make changes to their policy free of charge. Customers are also entitled to free advice.

As at 31 December 2022, the portfolio of NN Leven comprised approximately 315,000 active unit-linked policies, which includes approximately 56,000 active policies issued by ABN AMRO Levensverzekering N.V. In a limited number of cases (less than 1,250), NN Leven has settled disputes with individual customers. These are tailor-made solutions. A limited number of individual customers and several consumer protection organisations have initiated legal proceedings against NN Leven.

Reference is made to Note 38 'Legal proceedings'.

Non-financial statement
NN Leven is exempt from the requirements of the Decree disclosure of non-financial information (Besluit bekendmaking niet-financiële informatie, the 'Decree'). NN Leven is an indirect subsidiary of NN Group. NN Group includes a non-financial statement in its Report of the Management Board for NN Group as a whole pursuant to the Decree.

Rapportage van het Intern Toezicht 2022
The 'Rapportage van het Intern Toezicht 2022' concerning the Pension Fund Governance on the so called 'rechtstreeks verzekerde regelingen' was approved in the Supervisory Board meeting on 29 March 2023. The report can be found on the website of Nationale-Nederlanden. More information is available in the 'Wie zijn wij?' section of www.nn.nl.

Implementation of IFRS 9 and 17 in 2023
As of 1 January 2023, NN Leven implements IFRS 9 'Financial Instruments' and IFRS 17 'Insurance Contracts'.

IFRS 9 and 17 will be implemented as of 2023 retrospectively with amendment of the 2022 comparative figures. The implementation will result in significant changes to NN Leven's accounting policies and may have significant impact on shareholder's equity, net result, presentation and disclosures. Shareholder's equity under IFRS 9 and IFRS 17 at the 1 January 2022 transition date was significantly lower as a result of the measurement of insurance liabilities at current assumptions. However, with the increase of market interest rates during 2022, this difference largely reversed in 2022.

For information on the implementation of IFRS 9 and 17, reference is made to Note 1 'Accounting policies'.

Conclusions 2022 and going forward
The year 2022 witnessed significant events. The Russian invasion of Ukraine marked the return of war to the European continent after many decades and a human tragedy. The impacts of the invasion on energy prices coupled with large scale financial and monetary stimulus as a reaction to the COVID pandemic, resulted in a sharp pick-up in both inflation and interest rates, negatively impacted equity markets and overall increased volatility. From a regulatory perspective, 2022 witnessed further progress on the proposed new pension framework in the Netherlands. NN Leven constantly monitors the developments and the (potential) impact on NN Leven; including taking appropriate actions.

In 2022, NN Leven was able to maintain its leading position in the Dutch market. We continued our efforts to improve efficiency on current processes and further strengthened our customer focus.

We are concerned by the war in Ukraine, and the threat that it poses to our democracy and safety. Our thoughts are with everyone affected by the war, and we will continue to do our best to help them. We do not have business activities in Ukraine or Russia and our direct financial exposure to these countries is limited. We will continue to actively monitor the developments in Ukraine and its implications.

Corporate governance

Diversity and inclusion

NN Group aims to have an adequate and balanced composition of its boards. In order to ensure such composition at all times, several relevant selection criteria are balanced and (re)appointments to these boards are made on the basis of harmonised policies and in accordance with legal and regulatory requirements.

Although the statutory target figure regulation as previously included in the Dutch Civil Code expired on 1 January 2020, NN Group continued to (voluntarily) apply gender diversity targets for the boards in scope of the former regulation. As of 1 January 2021, NN Group aims to have a gender balance of at least 40% women and 40% men for its boards. As of 2021 NN Group also has a target to have at least 40% women in senior management positions. In 2021, these positions included the Management Board and managerial positions reporting directly to a Management Board member. To further improve and strengthen the impact of its gender diversity ambition, in 2022 NN Group extended the scope of the target to include all senior managerial positions reporting to a business unit CEO, in addition to the Management Board and managerial positions reporting directly to the Management Board.

In addition, in 2022, a target was set to have at least 40% women in management team positions within each Dutch NN Group company in scope of the act on gender diversity in boards of Dutch companies (*Wet tot wijziging van Boek 2 van het Burgerlijk Wetboek in verband met het evenwichtiger maken van de verhouding tussen het aantal mannen en vrouwen in het bestuur en de raad van commissarissen van grote naamloze en besloten vennootschappen*, "the Act on gender diversity"), which entered into force on 1 January 2022.

In support of the ambitious gender diversity targets, NN Group has set an action plan, that is adopted by all NN Group companies in scope of the Act on gender diversity. This action plan supports a healthy and diverse succession pool for senior management throughout the organisation, as part of our Diversity and Inclusion and Key Talent Management policy and processes. We have set out various actions on the different drivers behind our Diversity and Inclusion roadmap such as: enhanced processes, data & monitoring, visibility and networks, and mindset & awareness. Actions include a.o.:

- The 40% target must be taken into account in the succession planning and process for appointments of persons in [board and senior management] positions
- At least once a year Talent Review & Succession Planning sessions for senior management positions are organised
- Strive for a minimum of 50% females on shortlists for senior management positions
- A list of female talent pool is kept and participation in succession planning sessions and leadership and development programmes is ensured
- Engagement with female talent pool and increase visibility (examples: networking events, mentoring programme Women in Leadership Network, etc.)
- Performing equal pay analysis

Composition of NN Leven's Management and Supervisory Boards and management team

Despite NN Leven's aim to have a gender balance of at least 40% women and 40% men for its boards, following the succession of Annemieke Visser-Brons by Gerard van Rooijen as Management Board member, the gender balance of the Management Board declined from 20% female and 80% male to 0% female and 100% male as from 1 September 2022.

As at 31 December 2022, NN Leven's management team consisted of its Management Board members and five additional positions; 20% of NN Leven's management team positions were held by women while 80% of such positions were held by men.

The appointment of Gerard van Rooijen was not made in line with the aimed gender balance, though ample efforts had been made. Factors like readily available and suitable candidates (internally and externally), retention of critical internal knowledge and capabilities, as well as pressing timelines due to market situations played a role in the appointment.

NN Leven's aim to have a gender balance of at least 40% women and 40% men for its boards, and the fact that its Supervisory Board consists of only three members, require the Supervisory Board to consist of at least one female and at least one male. In 2022 the composition of the Supervisory Board met this target. Until 1 July 2022, the composition consisted of one female and two males. Following the appointment of Annemiek van Melick as Delfin Rueda's successor as Supervisory Board member, the composition of this board consists of two females and one male.

In future appointments of Management and Supervisory board members and management team members, NN Leven will continue to take into account all applicable laws and regulations and relevant selection criteria, including gender diversity targets.

We believe our company is strongest when we embrace the full spectrum of humanity. Regardless of what we look like, where we come from, or who we love. That is why NN Group, including NN Leven, takes a stand for diversity, inclusion and equal opportunities for all. When people inside of our company represent the people outside our company, we can be more responsive to what they expect, want and need, also in changing circumstances. After all, change is a constant factor in our lives, also in the financial sector.

More information can be found in the Diversity and inclusion section on page 41 of the 2022 NN Group Annual Report, our NN Statement on Diversity and Inclusion, and NN Group's Diversity and Inclusion report 2021. NN Group's Diversity and Inclusion report 2022 will be published in the course of 2023.

Audit committee

NN Leven is exempt from the requirement to set up an audit committee pursuant to the Decree of 8 December 2016 (Bulletin of Acts and Decrees 2016, no. 507). NN Leven is an indirect subsidiary of NN Group, which complies with the requirements referred to in Article 3a of the Besluit instelling auditcommissie. In addition, audit committee's duties mentioned in Article 2 paragraph 4 are assumed by NN Leven's Supervisory Board. For the composition of the Supervisory Board, reference is made to the Composition of the boards section on page 3.

Financial reporting process

As NN Leven is part of NN Group, the policies and procedures for establishing and maintaining adequate internal control over financial reporting are the same as those applied by NN Group for its consolidated annual accounts.

Corporate governance continued

The internal control over financial reporting is a process designed under the supervision of the CFO, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of annual accounts for external purposes in accordance with generally accepted accounting principles.

The 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 NN Leven's assets
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of annual accounts in accordance with generally accepted accounting principles, and that NN Leven's receipts and expenditures are handled only in accordance with authorisation of its management and directors
- Provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use or disposition of the assets that could have a material effect on NN Leven's annual accounts

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Moreover, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

External auditor

On 29 May 2019, the general meeting of NN Group reappointed KPMG Accountants N.V. (KPMG) as the external auditor of NN Group for the financial years 2020 through 2022. On 31 May 2019, the general meeting of NN Leven (General Meeting) reappointed KPMG as external auditor of NN Leven for the financial years 2020 through 2022. On 19 May 2022, the general meeting of NN Group again reappointed KPMG as the external auditor of NN Group for the financial years 2023 through 2025. Subsequently, the General Meeting of NN Leven reappointed KPMG as well as external auditor of NN Leven for the financial years 2023 through 2025.

The external auditor attended the meetings of the Supervisory Board on 29 March, 26 May, 23 August and 10 November 2022.

More information on NN Group's policy on external auditor independence is available on the website of NN Group.

Code of Conduct for Insurers

NN Leven signed up to the Code of Conduct for Insurers. The Code is a cornerstone of NN Leven's operations. The Code of Conduct for Insurers contains three core values: 'providing security', 'making it possible' and 'social responsibility'. These core values ensure that we never lose sight of the essence of what we do: adding value for our customers and society. NN Leven aims to offer security in both the short and the long term by bolstering continuity and boosting confidence.

The Code of Conduct for Insurers is available on the website of the Dutch Association of Insurers (www.verzekeraars.nl).

Data privacy

We are aware of the need to strike an appropriate balance between individual choices, privacy and social responsibility. As digitalization continues apace, we are conscious that to safeguard the privacy of our customers it is more important than ever to secure their personal data and handle it responsibly. We do this by complying with all legislative data protection requirements, of which the EU General Data Protection Regulation (GDPR) is the most important. In our Privacy statement we explain how we have translated the GDPR into our day-to-day operations. All employees have been requested to complete a GDPR e-learning. We foster the careful processing of (personal) data by providing repeated training and regular information on our intranet.

The NN DPO Charter provides a mandatory framework that establishes the function of Data Protection Officer (DPO). NN Leven has appointed a DPO that is assigned a clear mandate and responsibilities in line with the DPO Charter and the GDPR. Our DPO continuously monitors compliance with the GDPR and acts as a point of contact for supervisory authorities and data subjects. The DPO monitors the number of complaints and data breaches. These numbers are within an acceptable range. Specific attention has been given to the judgement of the European Court of Justice of the EU regarding the transfer of personal data to the US (Schrems II). A systematic review of all transfers outside the European Economic Area (EEA) of personal data for which we are responsible is completed. In case of such transfers, additional measures were implemented to safeguard that transferred personal data are protected according to the standards of the European Data Protection Board (EDPB). Data is vital in serving today's customers effectively. Using big data to analyse customer propositions helps us strengthen our interactions with customers, forge more intuitive partnerships and create superior tailor-made solutions.

Our data and AI analyses are focused on product/market optimalisation, process efficiency, and fraud and claim analytics. For all AI use cases, it is vital that the application is trustworthy by design. To help us ensure this, in 2020 NN Group developed its own AI ethics framework, the NN AI Guidelines, in line with its Corporate values. These guidelines facilitate the development and use of trustworthy AI in anticipation of the implementation of future (European) AI legislation. The guidelines adhere to the seven principles of trustworthy AI, as set out in the Ethics Guidelines for Trustworthy AI developed by the High-Level Expert Group on Artificial Intelligence (set up by the European Commission). These AI Guidelines also enables NN Leven to deploy AI in line with the Ethical Framework of the Dutch Association of Insurers (Verbond van Verzekeraars). In addition, NN has been closely monitoring, anticipating and preparing for the development of an European AI Regulation, which was published in draft form by the European Commission in April 2021.

Rotterdam, 29 March 2023

The Management Board

Nationale-Nederlanden Levensverzekering Maatschappij N.V.

Consolidated annual accounts

Consolidated balance sheet

Amounts in millions of euros, unless stated otherwise

Consolidated balance sheet

As at 31 December	notes	2022	2021[1]
Assets			
Cash and cash equivalents	3	343	234
Financial assets at fair value through profit or loss:	4		
– investments for risk of policyholders		24,115	28,548
– non-trading derivatives		1,957	6,137
– designated as at fair value through profit or loss		386	430
Available-for-sale investments	5	48,035	68,867
Loans	6	42,610	42,282
Reinsurance contracts	16	1,079	1,200
Associates and joint ventures	7	6,405	6,789
Real estate investments	8	2,754	2,719
Property and equipment	9	62	72
Intangible assets	10	46	50
Deferred acquisition costs	11	231	235
Deferred tax assets	28	676	33
Other assets	12	7,301	3,382
Total assets		136,000	160,978
Equity			
Shareholder's equity (parent)		10,345	25,502
Minority interests		1,989	2,046
Undated subordinated loan		800	800
Total equity	13	13,134	28,348
Liabilities			
Subordinated debt	14	1,100	1,120
Other borrowed funds	15	4,265	531
Insurance and investment contracts	16	108,308	119,443
Financial liabilities at fair value through profit or loss:	17		
– non-trading derivatives		5,857	1,681
Deferred tax liabilities	28	366	3,971
Other liabilities	18	2,970	5,884
Total liabilities		122,866	132,630
Total equity and liabilities		136,000	160,978

1 The comparative figures are adjusted in relation to the acquisition of AAL. For more information reference is made to Note 43 Acquisitions.

References relate to the notes starting on page 17. These form an integral part of the Consolidated annual accounts.

Consolidated profit and loss account

Consolidated profit and loss account

For the year ended 31 December	notes		2022		2021
Gross premium income	19		3,768		4,163
Investment income	20		2,402		4,425
– gross fee and commission income		50		49	
– fee and commission expenses		-155		-191	
Net fee and commission income	21		-105		-142
Valuation results on non-trading derivatives	22		-1,151		-319
Foreign currency results[1]			419		433
Share of result from associates and joint ventures	7		269		886
Other income	23		29		7
Total income			5,631		9,453
– gross underwriting expenditure		1,356		10,112	
– investment result for risk of policyholders		4,630		-3,313	
– reinsurance recoveries		-1,223		-1,032	
Underwriting expenditure	24		4,763		5,767
Staff expenses	25		227		216
Interest expenses	26		244		175
Other operating expenses	27		244		250
Total expenses			5,478		6,408
Result before tax			153		3,045
Taxation	28		-9		446
Net result			162		2,599
Net result attributable to:					
Shareholder of the parent			106		2,459
Minority interests			56		140
Net result			162		2,599

1 The foreign currency results relate mainly to investment in debt securities in US-dollars. The foreign exchange risk on these investments is mitigated by foreign exchange derivatives and is recognised under valuation results on non-trading derivatives.

Consolidated statement of comprehensive income

Consolidated statement of comprehensive income

For the year ended 31 December		2022		2021
Net result		162		2,599
Items that may be reclassified subsequently to the profit and loss account:				
– unrealised revaluations available-for-sale investments and other	-11,597		-1,526	
– realised gains/losses transferred to the profit and loss account	-458		-1,591	
– changes in cash flow hedge reserve	-5,709		-3,283	
– deferred interest credited to policyholders	3,640		1,273	
– exchange rate differences	-24		7	
Total other comprehensive income		-14,148		-5,120
Total comprehensive income		-13,986		-2,521
Comprehensive income attributable to:				
Shareholder of the parent	-14,110		-3,204	
Minority interests	124		683	
Total comprehensive income		-13,986		-2,521

Reference is made to Note 28 'Taxation' for the disclosure on the income tax effects on each component of comprehensive income.

Consolidated statement of cash flows

Consolidated statement of cash flows

For the year ended 31 December	notes	2022	2021
Result before tax		153	3,045
Adjusted for:			
- depreciation and amortisation		128	246
- deferred acquisition costs and value of business acquired		12	11
- underwriting expenditure (change in insurance liabilities)		-1,375	-669
- realised results and impairments of available-for-sale investments		184	-2,013
- other		113	-140
Taxation paid		471	-206
Changes in:			
- non-trading derivatives		-509	1,522
- other financial assets at fair value through profit or loss		-24	80
- loans		125	81
- other assets		-3,615	1,779
- other liabilities		-3,148	-4,196
Net cash flow from operating activities		-7,485	-460
Investments and advances:			
- associates and joint ventures	7	-741	-708
- available-for-sale investments	5	-6,436	-7,996
- real estate investments	8	-136	-156
- investments for risk of policyholders		-5,691	-5,289
- loans		-32,929	-18,581
Disposals and redemptions:			
- associates and joint ventures	7	970	154
- available-for-sale investments	5	11,567	10,247
- real estate investments	8	100	124
- investments for risk of policyholders		5,550	5,065
- loans		32,633	18,375
Net cash flow from investing activities		4,887	1,235
Proceeds from other borrowed funds	15	8,800	526
Repayments of other borrowed funds	15	-5,066	-285
Dividend paid	13	-980	-996
Coupon on undated subordinated loan		-47	-47
Net cash flow from financing activities		2,707	-802
Net cash flow		109	-27
Cash and cash equivalents at beginning of the period	3	234	261
Net cash flow		109	-27
Cash and cash equivalents at end of the period		343	234

Included in Net cash flow from operating activities

For the year ended 31 December	2022	2021
Interest received	2,431	2,627
Interest paid	-217	-237
Dividend received	564	487

Consolidated statement of changes in equity

Consolidated statement of changes in equity

	Share capital	Share premium	Reserves	Total Shareholder's equity (parent)	Minority interest	Undated subordinated loan	Total equity
Balance at 1 January 2022	23	3,228	22,251	25,502	2,046	800	28,348
Unrealised revaluations property in own use	0	0	0	0	0	0	0
Unrealised revaluations available-for-sale investments and other	0	0	-11,665	-11,665	68	0	-11,597
Realised gains/losses transferred to the profit and loss account	0	0	-458	-458	0	0	-458
Changes in cash flow hedge reserve	0	0	-5,709	-5,709	0	0	-5,709
Deferred interest credited to policyholders	0	0	3,640	3,640	0	0	3,640
Exchange rate differences	0	0	-24	-24	0	0	-24
Other changes	0	0	0	0	0	0	0
Total amount recognised directly in equity (Other comprehensive income)	0	0	-14,216	-14,216	68	0	-14,148
Net result	0	0	106	106	56	0	162
Total comprehensive income	0	0	-14,110	-14,110	124	0	-13,986
Changes in the composition of the group and other changes	0	0	-32	-32	-181	0	-213
Dividend	0	0	-980	-980	0	0	-980
Coupon on undated subordinated loan	0	0	-35	-35	0	0	-35
Balance at 31 December 2022	23	3,228	7,094	10,345	1,989	800	13,134

	Share capital	Share premium	Reserves	Total Shareholder's equity (parent)	Minority interest	Undated subordinated loan	Total equity
Balance at 1 January 2021	23	3,228	26,450	29,701	1,371	800	31,872
Unrealised revaluations property in own use	0	0	0	0	0	0	0
Unrealised revaluations available-for-sale investments and other	0	0	-2,068	-2,068	535	0	-1,526
Realised gains/losses transferred to the profit and loss account	0	0	-1,591	-1,591	0	0	-1,591
Changes in cash flow hedge reserve	0	0	-3,283	-3,283	0	0	-3,283
Deferred interest credited to policyholders	0	0	1,273	1,273	0	0	1,273
Exchange rate differences	0	0	7	7	0	0	7
Other changes	0	0	0	0	0	0	0
Total amount recognised directly in equity (Other comprehensive income)	0	0	-5,662	-5,662	535	0	-5,120
Net result	0	0	2,459	2,459	140	0	2,599
Total comprehensive income	0	0	-3,203	-3,203	675	0	-2,521
Changes in the composition of the group and other changes	0	0	26	26	0	0	28
Dividend	0	0	-988	-988	0	0	-996
Coupon on undated subordinated loan	0	0	-35	-35	0	0	-35
Balance at 31 December 2021	23	3,228	22,251	25,502	2,046	800	28,348

Notes to the Consolidated annual accounts

NN Leven is a public limited liability company (naamloze vennootschap) incorporated under Dutch law and domiciled in Rotterdam, the Netherlands. NN Leven is recorded in the Commercial Register, no. 24042211. The principal activities of NN Leven are described in 'NN Group and NN Leven at a Glance'. Amounts in the annual accounts are in millions of euros, unless stated otherwise.

1 Accounting policies

Basis of preparation

NN Leven prepares its Consolidated annual accounts in accordance with International Financial Reporting Standards as endorsed by the European Union (IFRS-EU) and Part 9 of Book 2 of the Dutch Civil Code. In the Consolidated annual accounts the term IFRS-EU is used to refer to these standards, including the decisions NN Leven made with regard to the options available under IFRS-EU. IFRS-EU provides a number of options in accounting policies. The key areas in which IFRS-EU allows accounting policy choices, and the related NN Leven accounting policy, are summarised as follows:

- Under IFRS 4, an insurer may continue to apply its existing pre-IFRS accounting policies for insurance contracts, provided that certain minimum requirements are met. Upon adoption of IFRS in 2008, NN Leven decided to adopt IFRS-EU as was already applied by its parent company as of 2005. For the recognition and measurement of the insurance liabilities this included a continuation of the accounting standards generally accepted in the Netherlands (Dutch GAAP) as of 2005. Changes in Dutch GAAP subsequent to the adoption of IFRS-EU are considered for adoption on a case-by-case basis. If adopted, the impact thereof is accounted for as a change in accounting policy under IFRS-EU,
- NN Leven's accounting policy for real estate investments is fair value, with changes in the fair value reflected immediately in the Consolidated profit and loss account.

NN Leven's policy for property in own use is fair value, with changes in the fair value reflected, after tax, in the 'Revaluation reserve' in 'Other comprehensive income' (equity). A net negative revaluation on individual properties is reflected immediately in the Consolidated profit and loss account.

NN Leven's accounting policies under IFRS-EU and its decision on the options available are included below. Except for the options included above, the principles are IFRS-EU and do not include other significant accounting policy choices made by NN Leven. The accounting policies that are most significant to NN Leven are included in the section 'Critical accounting policies and significant judgements'.

The preparation of the Consolidated annual accounts requires the use of estimates and assumptions. These estimates and assumptions affect the reported amounts of the assets and liabilities and the amounts of the 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.

Upcoming changes in IFRS-EU

Upcoming changes in IFRS-EU that are the most relevant for NN Leven relate to IFRS 9 'Financial Instruments' and IFRS 17 'Insurance Contracts'.

IFRS 9 'Financial Instruments'

IFRS 9 'Financial Instruments' was issued in 2014. IFRS 9 replaces most of IAS 39 'Financial Instruments: Recognition and Measurement' and includes requirements for classification and measurement of financial assets and liabilities, impairment of financial assets and hedge accounting.

Main features of IFRS 9

The *classification and measurement* of financial assets under IFRS 9 depends on NN Leven's business model and the instrument's contractual cash flow characteristics. This results in financial assets being recognised at amortised cost, at fair value through other comprehensive income (equity) or at fair value through profit or loss. In many instances, the classification and measurement under IFRS 9 is similar to IAS 39, although changes in classification occur. For equity securities accounted for at fair value through other comprehensive income, realised gains and losses are no longer recognised in the profit and loss account but reclassified within equity and impairments are also no longer recognised. The classification and measurement of financial liabilities remains unchanged.

The recognition and measurement of *impairment* under IFRS 9 is intended to be more forward-looking than under IAS 39. The impairment requirements of IFRS 9 apply to all financial assets measured at amortised cost and at fair value through other comprehensive income, except for equity securities. Initially, a provision is required for expected credit losses resulting from default events that are expected within the next twelve months. In the event of a significant increase in credit risk, a provision is required for expected credit losses resulting from all possible default events over the expected life of the financial assets.

The *hedge accounting* requirements of IFRS 9 aim to simplify hedge accounting. IFRS 9 includes the option to continue applying IAS 39 for hedge accounting.

Notes to the Consolidated annual accounts continued

Effective date of IFRS 9 and comparative information

IFRS 9 is effective as of 2018. However, for entities with activities that are predominantly connected with insurance, amongst which NN Leven qualifies, there is a temporary exemption to align the effective date with that of IFRS 17, i.e. 1 January 2023. NN Leven applies this temporary exemption. Usage of this exemption requires certain additional disclosures on whether financial assets that remain accounted for under IAS 39 meet the definition of 'solely payments of principal and interest on the principal amount outstanding' in IFRS 9 as well as additional information on the credit rating of such assets and whether such assets are 'low credit risk'. In this context, 'low credit risk' is equivalent to 'investment grade' as defined by ratings agencies (generally a rating of BBB- or better). These additional disclosures are included in Note 29 'Fair value of financial assets and liabilities' and in Note 45 'Risk management' in the 2022 Annual Accounts of NN Leven.

NN Leven does not have associates or joint ventures for which IFRS 9 has a significant impact. IFRS 9 includes an option to restate the comparative information for the financial year 2022, except for assets that have been disposed of in 2022. IFRS 17 includes an option to apply a 'classification overlay approach' for assets of entities of which the activities are predominantly connected with insurance, amongst which NN Leven qualifies. Based on this overlay approach in IFRS 17, also the comparative information for assets that are or will be disposed of in 2022 may be restated. NN Leven intends to apply both options, which is expected to result in comparative information for 2022 as if IFRS 9 had always been applied. As a result, the transition date for IFRS 9 for NN Leven is 1 January 2022.

NN Leven's implementation of IFRS 9

For *classification and measurement*, NN Leven intends to align the accounting for financial assets under IFRS 9 as much as possible to the accounting for insurance liabilities under IFRS 17. As a result, NN Leven accounts for financial assets of the insurance operations at fair value through other comprehensive income (equity) where allowed under IFRS 9. This mainly impacts the accounting for (mortgage) loans in the insurance operations (currently accounted for at amortised cost). Measurement of investments in equity securities will remain unchanged at fair value through OCI , but realised gains and losses and impairments will no longer be recognised in the profit and loss account.

For *hedge accounting*, NN Leven continues applying the hedge accounting requirements in IAS 39.

IFRS 17 'Insurance Contracts'

IFRS 17 'Insurance Contracts' was issued in 2017 and revised in 2020. IFRS 17 covers the recognition and measurement, presentation and disclosure of insurance contracts and replaces the current IFRS 4. IFRS 17 fundamentally changes the accounting for insurance liabilities and deferred acquisition costs (DAC) for all insurance companies, including NN Leven and its subsidiaries. IFRS 17 is endorsed in the EU and is effective as of 1 January 2023

Main features of IFRS 17

The main features of IFRS 17 are:

- Measurement of the insurance liabilities in the balance sheet at current fulfilment value, being the sum of the present value of estimated future cash flows and a risk adjustment.
- Remeasurement of the current fulfilment value every reporting period using current assumptions and discount rates.
- A Contractual Service Margin ('CSM') is recognised in the balance sheet , which is equal to the unearned expected profit in a group of insurance contracts at issue date and which is subsequently recognised in the profit and loss account over the remaining duration of the group of contracts. Losses on onerous contracts are recognised immediately in the profit and loss account.
- Insurance contracts are aggregated per CSM group under IFRS 17. A CSM group consists of contracts within the same portfolio, the same profitability bucket and issued in the same annual period. Contracts are in the same portfolio if these are managed together and have similar risks. NN Leven uses three profitability buckets: onerous contracts, contracts that have no possibility of becoming onerous and remaining contracts. Contract issued in the same annual period are referred to as an annual cohort.
- Certain changes in the insurance liability are adjusted against the CSM and thereby recognised in the profit and loss account over the remaining duration of the group of contracts.
- The effect of changes in discount rates is, depending on the choice made per portfolio of insurance contracts, recognised either in the profit and loss account or in Other Comprehensive Income ('OCI') in equity. When recognised in OCI, the effect of these changes is recognised in the profit and loss account over the duration of the portfolio.
- The presentation of the balance sheet, profit and loss account, other primary statements and the disclosures, in the notes will change fundamentally. The profit and loss account will have a margin-type of presentation (with insurance result, investment result and other result). Premium income will no longer be used to determine revenue under the General Measurement Model and the Variable Fee Approach.
- IFRS 17 is implemented retrospectively with amendment of comparative figures.

Notes to the Consolidated annual accounts continued

Key measurement differences between IFRS 17 and NN Leven's current IFRS accounting

The main differences for measuring the insurance liability between the requirements in IFRS 17 and the currently applicable IFRS 4 relate to the following:

- IFRS 17 requires insurance liabilities to be measured using current best estimate assumptions and current market data for all actuarial and financial assumptions. IFRS 4 allows the use of locked-in assumptions that are set at issue of the policies, in combination with a reserve adequacy test at current assumptions.
- The insurance liability under IFRS 17 includes an explicit risk adjustment for non-financial risk and an explicit contractual service margin, representing the unamortised part of the updated profit margin. These elements are not explicitly recognised under IFRS 4.
- IFRS 17 allows certain changes in assumptions to be absorbed in the contractual service margin or in other comprehensive income in equity. Under IFRS 4, changes in assumptions are, to the extent relevant, recognised in the profit and loss account.
- In applying IFRS 4, directly attributable acquisition costs (Deferred Acquisition Costs, DAC) and the Value Of Business Acquired (VOBA) are recognised as assets which are amortised in the profit and loss account over time. In applying IFRS 17, DAC and VOBA are (implicitly) accounted for as part of the insurance liability.
- Deferred interest credited to policyholders is no longer separately accounted for but is (implicitly) part of the insurance liability under IFRS 17.

Key measurement differences between IFRS 17 and Solvency II

Both IFRS 17 and Solvency II require insurance liabilities to be measured on the basis of the net present value of the best estimate of future expected cash flows and an explicit allowance for non-financial risk. There are however significant differences in the following areas:

- In Solvency II, the initial margin in the premium over the insurance liability is recognised immediately in Own Funds. In IFRS 17, such initial margin (when positive) is recognised as contractual service margin (CSM) in the insurance liability and amortised and adjusted over time.
- In Solvency II the discount rate is prescribed by the prudential regulator, whereas the discount rate under IFRS 17 is set by NN Leven taking into account the specific characteristics of NN Leven's portfolios.
- In Solvency II the cost of capital rate and the level of diversification in determining the risk adjustment is prescribed by the regulator, whereas under IFRS 17 these are set by NN Leven taking into account the specific characteristics of NN Leven's portfolios.
- There are differences in the best estimate of future cash flows, for example, caused by different expense attributions in Solvency II and IFRS 17.

NN Leven's implementation of IFRS 17

IFRS 17 allows certain accounting policy choices and requires judgment in setting certain assumptions. The most important choices and assumptions that are relevant to NN Leven are set out below.

- NN Leven applies two of the three **accounting models** in IFRS 17. The General Measurement Model ('GMM') is the default model and is applied to most traditional life insurance portfolios, the savings mortgages portfolios as well as other portfolios. The Variable Fee Approach ('VFA') is applied to most unit-linked portfolios. The VFA is only applied to those insurance portfolios that met the VFA eligibility criteria at the assessment date.
- NN Leven determines per portfolio of insurance contracts whether changes in financial assumptions are reflected in other comprehensive income (the 'OCI option') or directly in the profit and loss account. For contracts accounted for under the GMM, in principle the OCI-option is used, unless accounting for the impact of changes in financial assumptions directly in the profit and loss account resolves accounting mismatches or is otherwise preferred. For contracts accounted for under the VFA, the OCI-option is, in principle, not applied.
- For the **level of aggregation**, under the EU-endorsed version of IFRS 17 (IFRS-EU), certain specific insurance contracts may be aggregated on the level of a profitability group within a portfolio and do not need to be further disaggregated by the year in which these contracts were issued ('annual cohorts'). NN Leven does not currently apply this IFRS-EU exemption.
- **Estimates of future cash flows** reflect mortality rate assumptions that are derived from recent credible national mortality tables published by relevant actuarial or statistical bodies; where needed, these tables are adjusted so as to reflect NN Leven's experience of its own portfolio. Lapse rates are set by major product line based on NN Leven's own experience. Estimates of future cash flows include NN Leven's projection of future expenses to the extent that these relate to the fulfilment of contracts.
- **Discount rates** to discount the expected future fulfilment cash flows are determined using a liquid risk free curve to which an illiquidity premium is added. For the Euro currency, the risk-free curve is based on the swap rate and includes a last liquid point (LLP) of 30 years and a long-term forward rate (LTFR) of 3.25% at 31 December 2022. The illiquidity premium is derived from NN Leven's own asset portfolio, where the asset yield is adjusted for expected and unexpected credit losses.

Notes to the Consolidated annual accounts continued

- The **risk adjustment** for non-financial risk is determined using the Cost of Capital methodology based on the Solvency II internal model. NN Leven applies diversification based on the fact that they are part of NN Group. The Cost of Capital rate represents NN Leven's view on the compensation required for bearing risk; the rate used at 1 January 2022 in the fulfilment value of insurance liabilities was 4%.
- NN Leven applies the **fair value transition approach** for almost all contracts held. In the fair value transition approach, the contractual service margin is determined by reference to the fair value of insurance liabilities. Fair value is determined similar to fulfilment value, except that no group diversification is reflected in the risk adjustment, the cost of capital rate in the risk adjustment is set at 6% and expenses also include non-directly attributable expenses.

Impact of IFRS 9 and 17 on NN Leven

NN Leven implements IFRS 17 together with IFRS 9. The implementation of IFRS 9 and IFRS 17 will result in significant changes to NN Leven's accounting policies and may have a significant impact on shareholder's equity, net result, presentation and disclosures. Shareholder's equity under IFRS 9 and IFRS 17 was significantly lower at the 1 January 2022 transition date as a result of the measurement of insurance liabilities at current assumptions (including a current discount rate).

The table below provides a reconciliation between shareholder's equity at 31 December 2021 in the current balance sheet to shareholder's equity in the preliminary balance sheet at 1 January 2022 (the 'Transition date') after implementation of IFRS 9 and IFRS 17.

The impact is preliminary and reflects the status at the date of these Annual Accounts. The final impact may deviate from the below and will be included in the 2023 Annual Accounts.

Impact of IFRS 9 and IFRS 17 on Total Equity

	Share capital and premium	Revaluation reserves	Other reserves	Minority interest	Undated subordinated notes	Total
31 December 2021/ 1 January 2022						
Total equity as reported at 31 December 2021	3,251	13,015	9,236	2,046	800	28,348
Impact (net of tax) of IFRS 9:						
- Loans to Fair value through OCI		2,028	48			2,076
- Available-for-sale to Fair value through profit or loss		-619	619			0
- Impairments		-401	486			84
Impact (net of tax) of IFRS 17:						
- Remeasurement of (re)insurance liabilities		-3,471	-10,238			-13,709
Other impact			-32			-32
Preliminary Total equity at 1 January 2022	3,251	10,552	119	2,046	800	16,768

The decrease in equity at the transition date mainly reflects the remeasurement of insurance liabilities to current discount rates and other current assumptions. Under the IFRS accounting policies applied by NN Leven to date, only the revaluation of assets is recognised in equity, whilst the offsetting effect of revaluation on insurance liabilities is not recognised. Under IFRS 9 and IFRS 17 the revaluation on both assets and liabilities will be recognised in equity. Shareholders' equity under IFRS 9 and IFRS 17 at the 1 January 2022 transition date was significantly lower as a result of the measurement of insurance liabilities at current assumptions. However, with the increase of market interest rates during 2022, the reported shareholders' equity under current IFRS decreased from EUR 25,502 million at 31 December 2021 to EUR 10,345 million at 31 December 2022, and, therefore, the difference with shareholders' equity under IFRS 9 and IFRS 17 largely reversed in 2022.

The table below provides a reconciliation between the carrying amounts at 31 December 2021 in the current balance sheet to the amounts in the preliminary balance sheet at 1 January 2022 after implementation of IFRS 9 and IFRS 17.

Notes to the Consolidated annual accounts continued

Reconciliation of balance sheet

Balance sheet item	Reported amount	1. Remeasur-ement	2. Reclassifi-cation	3. Reclassifi-cation	4. Remeasur-ement	Adjusted amount	Preliminary balance sheet item
- current balance sheet IAS 39 and IFRS 4							- with IFRS 9 and IFRS 17
Cash and cash equivalents	234					234	Cash and cash equivalents
Available-for-sale investments	68,865	40,682	-5,211	2,732		107,068	Investments at fair value through OCI
Loans	42,283	-40,682	-59	106		1,648	Investments at cost
Financial assets designated at fair value through profit or loss	430		33,818	65		34,312	Investments at fair value through profit or loss
Real estate investments	2,719					2,719	Investments in real estate
Associates and joint ventures	6,789				4	6,793	Investments in associates and joint ventures
Investments for risk of policyholders	28,548		-28,548			0	Investments for risk of policyholders
Insurance contracts	0					0	Insurance contracts
Reinsurance contracts	1,200				-1,207	-7	Reinsurance contracts
Non-trading derivatives	6,137			2		6,139	Derivatives
Property and equipment	72					72	Property and equipment
Intangible assets	50			-50		0	Intangible assets
Deferred acquisition costs	235			-235		0	
Deferred tax assets	33				-27	6	Deferred tax assets
Other assets	3,382				-219	3,164	Other assets
Total assets	160,978	0	0	2,620	-1,449	162,149	Total assets
Insurance contracts	119,444				17,596	137,039	Insurance contracts
Reinsurance contracts	0				179	179	Reinsurance contracts
Investment contracts	0				904	904	Investment contracts
Subordinated debt	1,120					1,120	Subordinated debt
Other borrowed funds	531					531	Other borrowed funds
Non-trading derivatives	1,681			2		1,683	Derivatives
Deferred tax liabilities	3,970		1		-4,006	-35	Deferred tax liabilities
Other liabilities	5,884				-1,924	3,960	Other liabilities
Total liabilities	132,630	0	1	2	12,749	145,381	Total liabilities
Total equity	28,348	0	-1	2,618	-14,198	16,768	Total equity

The references in the columns above are explained as follows:
1. Loans held by insurance entities within NN Group are remeasured from amortised cost to fair value and mostly presented and measured as Investments at fair value through OCI; these are subject to an expected credit loss provision.
2. Available-for-sale investments that do not qualify for measurement at fair value through OCI are presented as Investments at fair value through profit or loss. Investments for risk of policyholders are presented as Investments at fair value through profit or loss
3. DAC (deferred acquisition costs), VOBA (value of business acquired), policy loans and insurance receivables and payables are derecognised and form part of the liability for insurance contracts.
4. Measurement differences on (re)insurance assets and liabilities; Reinsurance and investment contracts are presented separately.

Further details on Insurance, investment and reinsurance contracts under IFRS 17 are presented below:

Insurance contract by component

Insurance contracts (IFRS 17)	1/1/2022
General Measurement Model and Variable Fee Approach:	
- Estimates of the present value of future cash flows	131,611
- Risk Adjustment (RA)	2,196
- Contractual Service Margin (CSM)	
- determined retrospectively	109
- determined under the modified retrospective approach	0
- determined under the fair value approach	3,123
Total Insurance contracts	137,039
Insurance contracts, presented as assets	
Insurance contracts, presented as liabilities	137,039
Total Insurance contracts	137,039

Notes to the Consolidated annual accounts continued

NN Leven intends to continue using Operating result as an Alternative Performance Measure. The definition of Operating result will be amended to reflect the impact of IFRS 9 and IFRS 17. NN Leven also intends to continue using the financial leverage ratio. The current leverage ratio is based on equity excluding the revaluation on (only) assets; NN Leven also intends to amend the leverage ratio by including net revaluations and CSM.

The implementation of IFRS 9 and IFRS 17 will not impact NN Leven's Own Funds and the Solvency Capital Requirement under Solvency II, nor its Operating Capital Generation (OCG).

Changes in presentation
The presentation of and certain terms used in the Consolidated balance sheet, Consolidated profit and loss account, Consolidated statement of cash flows, Consolidated statement of changes in equity and the notes was changed to provide additional and more relevant information or (for changes in comparative information) to better align with the current period presentation. The impact of these changes is explained in the respective notes when significant.

Changes in comparative figures
Through the acquisition of Delta Lloyd in 2017, NN Group owned 51% of the shares of Nationale-Nederlanden ABN AMRO Verzekeringen Holding B.V. (AAV). AAV is a joint venture between NN Group (51%) and ABN AMRO Bank N.V. (ABN AMRO bank)(49%).

In February 2022 NN Group, ABN AMRO Bank and their joint venture AAV announced that they had reached an agreement to sell AAV's life insurance subsidiary (AAL) to NN Leven for a total consideration of EUR 253 million.

On 15 July 2022, NN Leven acquired the life insurance subsidiary of AAV. The acquisition date for the acquired businesses by NN Leven for acquisition accounting under IFRS is 15 July 2022. The figures in the tables above regarding the IFRS 9 and IFRS 17 implementation are adjusted in relation to the acquisition of AAL.

The acquisition of the life insurance subsidiary AAL was between companies with the same parent NN Group ('under common control'). IFRS 3 Business combinations is not applicable for common control transactions. As a result of this acquisition, NN Leven acquired all assets and liabilities of AAL under universal title of succession. The comparative figures of the NN Leven Consolidated annual accounts are accordingly restated.

The values of certain assets and liabilities acquired as at 1 January 2021 as disclosed below differ from the values of the assets and liabilities in the balance sheet of the businesses immediately before the acquisition by NN Leven. This results from differences between the accounting previously applied by AAL and the acquisition accounting at NN accounting policies due to the acquisition by NN Group in 2017.

For a more detailed disclosure, reference is made to Note 43 'Acquisitions'.

Critical accounting policies and significant judgements
NN Leven has identified the accounting policies that are most critical to its business operations and to the understanding of its results. These critical accounting policies are those which involve the most complex or subjective judgements and assumptions, and relate to insurance contracts, acquisition accounting, deferred acquisition costs, the determination of the fair value of real estate and financial assets and liabilities and impairments. In each case, the determination of these items is fundamental to the financial condition and results of operations, and requires management to make complex judgements based on information and financial data that may change in future periods. As a result, determinations regarding these items necessarily involve the use of assumptions and subjective judgements as to future events and are subject to change, as the use of different assumptions or data could produce significantly different results. All valuation techniques used are subject to internal review and approval. For further details on the application of these accounting policies, reference is made to the applicable notes to the Consolidated annual accounts and the information below.

Reference is made to Note 45 'Risk management' for a sensitivity analysis of certain assumptions as mentioned below.

Acquisition accounting, goodwill and other intangible assets
NN Leven's acquisitions are accounted for using the acquisition method of accounting. The consideration for each acquisition is measured at the aggregate of the fair value (at the date of acquisition) of assets acquired, liabilities incurred or assumed and equity instruments issued in exchange for control of the acquiree. Assets acquired include intangible assets such as brand names, client relationships and distribution channels. Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, measured at its acquisition-date fair value. Goodwill, being the positive difference between the cost of the acquisition (including assumed debt) and NN Leven'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. In case there is a negative difference between the cost of the acquisition (including assumed debt) and NN Leven's interest in the fair value of the acquired assets, liabilities and contingent liabilities as at the date of acquisition, this is referred to as negative goodwill and is recognised in profit and loss in the reporting period the acquisition is finalised. Negative goodwill is recognised immediately in the profit and loss account as income.

The results of the operations of the acquired companies are included in the profit and loss account from the date control is obtained. Acquisition-related costs are recognised in the profit and loss account as incurred and presented in the profit and loss account as 'Other operating expenses'.

Notes to the Consolidated annual accounts continued

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 annual accounts can be limited. The initial accounting shall be completed within a year after acquisition.

Valuation techniques are subjective in nature and significant judgement is involved in establishing the fair value for certain financial assets and liabilities. Valuation techniques involve various assumptions. The use of different valuation techniques and assumptions could produce significantly different estimates of the fair value.

Goodwill is allocated to cash generating units (reporting units) for the purpose of impairment testing of goodwill and other intangible assets. These cash generating units (reporting units) represent the lowest level at which goodwill is monitored for internal management purposes, which is generally the segment level. This test is performed annually or more frequently if there are indicators of impairment. Under the impairment tests, the carrying value of the cash generating units (reporting units including goodwill) is compared to its recoverable amount which is the higher of its fair value less costs to sell and its value in use.

The identification of cash generating units and impairments is an inherently uncertain process involving various assumptions and factors, including expected future cash flows, discount rates, etc. Estimates and assumptions are based on management's judgement and other information available. Significantly different results can occur as circumstances change and additional information becomes known.

Insurance liabilities and Deferred acquisition costs (DAC)

The determination of insurance liabilities and DAC is an inherently uncertain process, involving assumptions about factors such as social, economic and demographic trends, inflation, investment returns, policyholder behaviour, court decisions, changes in laws and other factors, and, in the life insurance business, assumptions concerning mortality and morbidity trends. Specifically, assumptions that could have a significant impact on financial results include interest rates, mortality, morbidity, investment yields on equity and real estate and foreign currency exchange rates.

Insurance liabilities also include the impact of minimum guarantees which are contained within certain products. This impact is dependent upon the difference between the potential minimum benefits payable and the total account balance, expected mortality and surrender rates. The determination of the potential minimum benefits payable also involves the use of assumptions about factors such as inflation, investment returns, policyholder behaviour, mortality and morbidity trends and other factors.

The use of different assumptions could have a significant effect on insurance liabilities, DAC and underwriting expenditure. Changes in assumptions may lead to changes in insurance liabilities over time.

The adequacy of the insurance liabilities, net of DAC, is evaluated each reporting period. The test involves comparing the established insurance liability with current best estimate actuarial assumptions. The use of different assumptions in this test could lead to a different outcome.

Fair value of real estate

Real estate investments are reported at fair value. The fair value of real estate investments is based on regular appraisals by external, qualified valuers. The fair value is established using valuation methods such as comparable market transactions, capitalisation of income methods or discounted cash flow calculations. The underlying assumption used in the valuation is that the properties are let or sold to third parties based on the actual letting status. The discounted cash flow analysis and capitalisation of income method are based on calculations of the future rental income in accordance with the terms in existing leases and estimations of the rental values for new leases when leases expire and incentives like rent free periods. The cash flows are discounted using market based interest rates that appropriately reflect the risk characteristics of real estate investments.

Reference is made to Note 30 'Fair value of non-financial assets' for more disclosure on fair value of real estate investments at the balance sheet date.

The use of different assumptions and techniques could produce significantly different valuations.

Fair value of financial assets and liabilities

The fair value of financial assets and liabilities is based on unadjusted quoted market prices at the balance sheet date where available. Such quoted market prices are primarily obtained from exchange prices for listed instruments. Where an exchange price is not available, market prices may be obtained from external market vendors, brokers or market makers. In general, positions are valued taking the bid price for a long position and the offer price for a short position. In some cases positions are marked at mid-market prices.

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 the fair value.

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, based on market conditions existing at each balance sheet date. These valuation techniques range from discounting of cash flows to 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.

Notes to the Consolidated annual accounts continued

Valuation techniques are subjective in nature and significant judgement is involved in establishing the fair value 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 the fair value.

Reference is made to Note 29 'Fair value of financial assets and liabilities' for more disclosure on fair value of financial assets and liabilities at the balance sheet date.

Impairments

All debt and equity securities and loans (other than those carried at fair value through profit or loss) are subject to impairment testing every reporting period. The carrying value is reviewed in order to determine whether an impairment loss has been incurred. Evaluation for impairment includes both quantitative and qualitative considerations. For debt securities, such considerations include actual and estimated incurred credit losses indicated by payment default, market data on (estimated) incurred losses and other current evidence that the issuer may be unlikely to pay amounts when due. Equity securities are impaired when management believes that, based on a significant or prolonged decline of the fair value below the acquisition price, there is sufficient reason to believe that the acquisition cost may not be recovered. 'Significant' and 'prolonged' are interpreted on a case-by-case basis for specific equity securities. Generally 25% and six months are used as triggers. Upon impairment of available-for-sale debt and equity securities the full difference between the (acquisition) cost and fair value is removed from equity and recognised in net result. Impairments on debt securities may be reversed if there is a decrease in the amount of the impairment which can be objectively related to an observable event after the impairment. Impairments on equity securities cannot be reversed.

The identification of impairments is an inherently uncertain process involving various assumptions and factors, including financial condition of the counterparty, expected future cash flows, statistical loss data, discount rates, observable market prices, etc. Estimates and assumptions are based on management's judgement and other information available. Significantly different results can occur as circumstances change and additional information becomes known.

General accounting policies

Consolidation

NN Leven comprises Nationale-Nederlanden Levensverzekering Maatschappij N.V. and all its subsidiaries. The Consolidated annual accounts of NN Leven comprise the accounts of Nationale-Nederlanden Levensverzekering Maatschappij N.V. and all entities over which NN Leven has control. NN Leven has control over an entity when NN Leven is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The assessment of control is based on the substance of the relationship between NN Leven and the entity and considers existing and potential voting rights that are substantive. For a right to be substantive, the holder must have the practical ability to exercise that right.

For interests in investment entities, the existence of control is determined taking into account both NN Leven's financial interests for own risk and its role as an asset manager. Financial interests for risk of policyholders are not taken into account when the policyholders decide on the investment allocations of their insurance policies (i.e. the policyholder has the 'power') and assume all risks and benefits of these investments (i.e. the policyholder assumes the variable returns).

The results of the operations and the net assets of subsidiaries are included in the profit and loss account and the balance sheet from the date control is obtained until the date control is lost. Minority interests are initially measured at their proportionate share of the subsidiaries' identifiable net assets at the date of acquisition. On disposal, the difference between the sales proceeds, net of directly attributable transaction costs, and the net assets is included in net result.

All intercompany transactions, balances and unrealised gains and losses on transactions between group companies are eliminated. Where necessary, the accounting policies used by subsidiaries are changed to ensure consistency with NN Leven policies. In general, the reporting dates of subsidiaries are the same as the reporting date of NN Leven.

A list of principal subsidiaries is included in Note 39 'Principal subsidiaries'.

Foreign currency translation

Functional and presentation currency

Items included in the annual accounts of all NN Leven entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The Consolidated annual accounts are presented in euros, which is NN Leven's functional and 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 profit and loss account, except when deferred in equity as part of qualifying cash flow hedges or qualifying net investment hedges.

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. Exchange rate differences on non-monetary items measured at fair value through other comprehensive income (equity) are included in the revaluation reserve in equity.

Notes to the Consolidated annual accounts continued

Exchange rate differences in the profit and loss account are generally included in 'Foreign currency results and net trading income'. Exchange rate differences relating to the disposal of available-for-sale debt and equity securities are considered to be an inherent part of the capital gains and losses recognised in 'Investment income'.

Recognition and derecognition of financial instruments

Financial assets and liabilities are generally (de)recognised at trade date, which is the date on which NN Leven commits to purchase or sell the asset. Loans and receivables are recognised at settlement date, which is the date on which NN Leven receives or delivers the asset.

Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or where NN Leven has transferred substantially all risks and rewards of ownership. If NN Leven 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.

Realised gains and losses on investments are determined as the difference between the sales proceeds and (amortised) cost. For equity securities the cost is determined using a weighted average per portfolio. For debt securities, the cost is determined by specific identification (generally FIFO).

Fair value of financial assets and liabilities

The fair values of financial instruments are based on unadjusted quoted market prices at the balance sheet date where available. The quoted market price used for financial assets held by NN Leven is the current bid price; the quoted market price used for financial liabilities is the current offer price.

The fair values of financial instruments that are not traded in an active market are determined using valuation techniques, based on market conditions existing at each balance sheet date. An active market for the financial instrument is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. Assessing whether a market is active requires judgement, considering factors specific to the financial instrument.

Reference is made to Note 29 'Fair value of financial assets and liabilities' for the basis of determination of the fair value of financial instruments.

Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset, and the net amount reported in the balance sheet when NN Leven 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 at the same time.

Impairments of financial assets

NN Leven 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 recognised 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. 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.

In certain circumstances NN Leven may grant 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'. In general, forbearance represents an impairment trigger under IFRS-EU. In such cases, the net present value of the postponement and/or reduction of loan principal and/or interest payments is taken into account in the determination of the appropriate level of loan loss provisioning as described below. 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.

In determining the impairment loss, expected future cash flows are estimated on the basis of the contractual cash flows of the assets in the portfolio. NN Leven first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, and then individually or collectively for financial assets that are not individually significant.

If there is objective evidence that an impairment loss on an asset carried at amortised cost has occurred, the amount of the loss is measured as the difference between the asset's carrying value 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 value of the asset is reduced through the use of an allowance account (loan loss provisions) and the amount of the loss is recognised in the profit and loss account in investment income. 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. When a loan is uncollectable, it is written off against the related loan loss provision. Such loans are written off after all the necessary procedures have been completed and the amount of the loss has been determined.

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 profit and loss account.

Notes to the Consolidated annual accounts continued

If there is objective evidence that an impairment loss on available-for-sale debt and equity investments has occurred, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that asset previously recognised in net result – is removed from equity and recognised in the profit and loss account.

Impairment losses recognised on equity instruments can never be reversed. If, in a subsequent period, the impairment loss on a loan or a debt instrument classified as available-for-sale reverses, which can be objectively related to an event occurring after the impairment loss was recognised in the profit and loss account, the impairment loss is reversed through the profit and loss account.

Maximum credit risk exposure

The maximum credit risk exposure for items on the balance sheet 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 37 'Contingent liabilities and commitment' for these off-balance sheet items. Collateral received is not taken into account when determining the maximum credit risk exposure. The manner in which NN Leven manages credit risk and determines credit risk exposures is explained in Note 45 'Risk management'.

Leases

The leases entered into by NN Leven as a lessee are primarily operating leases. At inception of a contract, NN Leven assesses whether a contract is, or contains, a lease. A contract is, or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The net present value of operating lease commitments is recognised on the balance sheet as a 'right of use asset' under Property and equipment or Real estate investments and a lease liability is recognised under Other liabilities. NN Leven does not recognise a right of use asset and a lease liability for short term leases that have a lease term of 12 months or less and for leases of low value assets. The lease payments associated with these leases are recognised as an expense.

Taxation

NN Leven is part of the Dutch fiscal unity for corporate income tax purposes of NN Group making it jointly and severally liable for the total tax payable by the fiscal unity. The tax receivables and payables concern the receivables and payables of NN Group.

Some of the subsidiaries of REI Investment I B.V. are not part of the fiscal unity of NN Group.

Income tax on the result for the year comprises current and deferred tax. Income tax is generally recognised in the profit and loss account, but is recognised directly in equity if the tax relates to items that are recognised directly in equity.

Current tax consists of the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date.

Deferred tax is provided in full, using the liability method, on all temporary differences arising between the tax bases of assets and liabilities and their carrying values in the balance sheet. Deferred tax is determined using tax rates (and laws) applicable in the jurisdictions in which NN Leven is liable to taxation, that have been enacted or substantively enacted at the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled. Deferred tax assets and liabilities are not discounted.

Deferred tax assets are recognised for all deductible temporary differences and unused tax losses carried forward where it is probable that future taxable profits will be available against which the temporary differences can be used. Unrecognised deferred tax assets are reassessed periodically and recognised to the extent that has become probable that future taxable profits will be available against which they can be used. Deferred 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 NN Leven 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 used.

Offsetting deferred tax assets with deferred tax liabilities is allowed as long as there is a legally enforceable right to offset current tax assets against current tax liabilities together with the intention to do so and the deferred taxes relate to income taxes levied by the same taxation authority on the same entity or on the same fiscal unity.

Employee benefits

Defined contribution pension plans

For defined contribution plans, NN Leven pays contributions to publicly or privately administered pension plans on a mandatory, contractual or voluntary basis. NN Leven has no further payment obligations once the contributions have been paid. The contributions are recognised as staff expenses in the profit and loss account when they are due.

Share-based payments

NN Group share-based payment expenses in relation to NN Leven staff are recognised as staff expenses 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 is measured at the grant date.

Notes to the Consolidated annual accounts continued

Interest income and expenses

Interest income and expenses are recognised in the profit and loss account 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 expenses over the relevant period. The effective interest rate is the rate that exactly discounts the estimated future cash payments or receipts throughout the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying value of the financial asset or financial liability. When calculating the effective interest rate, NN Leven 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 income and expenses from non-trading derivatives are classified as interest income and interest expenses in the profit and loss account, except for interest income/expense on derivatives for which no hedge accounting is applied. The latter is classified in 'Valuation results on non-trading derivatives', together with the changes in the (clean) fair value of these derivatives.

Statement of cash flows

The Consolidated 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 profit and loss account, and changes in balance sheet items, which do not result in actual cash flows during the year.

Cash and cash equivalents comprise balances with less than three months maturity from the date of acquisition. Investments qualify as a cash equivalent if they are readily convertible into a known amount of cash and are not subject to significant 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.

Cash flows related to mortgage loans held as investment in the insurance operations are recognised under Net cash flow from investing activities.

Cash flows on collateral related to derivatives (presented in the balance sheet in Other assets and Other liabilities) is presented in the Consolidated statement of cash flows as part of Net cash flow from operating activities, consistent with the cash flows of the related derivatives.

Accounting policies for specific items

Financial assets and liabilities at fair value through profit or loss (Notes 4 and 17)

A financial asset or liability is classified as at fair value through profit or loss if it is acquired principally for the purpose of selling in the short-term or if designated by management as such. Management will make this designation only if this eliminates a measurement inconsistency or if the related assets and liabilities are managed on a fair value basis.

Transaction costs on initial recognition are expensed as incurred. Interest income from debt securities and loans and receivables classified as at fair value through profit or loss is recognised in the profit and loss account using the effective interest method. Dividend income from equity instruments classified as at fair value through profit or loss is recognised in the profit and loss account when the dividend has been declared.

Investments for risk of policyholders

Investments for risk of policyholders are investments against insurance liabilities for which all changes in the fair value of invested assets are offset by similar changes in insurance liabilities. Investments for risk of policyholders are recognised at fair value; changes in fair value are recognised in the profit and loss account.

Derivatives and hedge accounting

Derivatives are recognised at fair value. Derivatives are presented as assets when the fair value is positive and as liabilities when the fair value is negative.

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. NN Leven designates certain derivatives as hedges of highly probable future cash flows attributable to a recognised asset or liability or a forecast transaction (cash flow hedge), hedges of the fair value of recognised assets or liabilities or firm commitments (fair value 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 hedge transaction NN Leven documents the relationship between hedging instruments and hedged items, its risk management objectives, together with the methods selected to assess hedge effectiveness. In addition NN Leven 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 value or cash flows of the hedged items.

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 other comprehensive income (equity) in the cash flow hedge reserve.

Notes to the Consolidated annual accounts continued

The gain or loss relating to the ineffective portion is recognised immediately in the profit and loss account. Amounts accumulated in equity are recycled to the profit and loss account 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 in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the profit and loss account. When a forecast transaction is no longer expected to occur, the cumulative gain or loss previously reported in equity is transferred immediately to the profit and loss account.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in the profit and loss account, 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 profit and loss account 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 profit and loss account only when the hedged item is derecognised.

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 other comprehensive income (equity) and the gain or loss relating to the ineffective portion is recognised immediately in the profit and loss account. Gains and losses in equity are included in the profit and loss account when the foreign operation is disposed.

Non-trading derivatives that do not qualify for hedge accounting

Derivatives that are used by NN Leven as part of its risk management strategies, that do not qualify for hedge accounting under NN Leven'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 'Valuation results on non-trading derivatives' in the profit and loss account.

Certain derivatives embedded in other contracts are measured as separate derivatives if:

- 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
- A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative (unless the embedded derivative meets the definition of an insurance contract)

These embedded derivatives are measured at fair value with changes in fair value recognised in the profit and loss account. An assessment is carried out when NN Leven 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.

Available-for-sale investments (Note 5)

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 the profit and loss account in 'Investment income'. Dividend income from equity instruments classified as available-for-sale is recognised in the profit and loss account in 'Investment income' when the dividend has been declared.

Unrealised gains and losses arising from changes in the fair value are recognised in other comprehensive income (equity). On disposal, the related accumulated fair value adjustments are included in the profit and loss account as 'Investment income'. For impairments of available-for-sale financial assets reference is made to the section 'Impairments of financial assets'.

Loans (Note 6)

Loans 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 amortised cost using the effective interest method less any impairment losses. Interest income from loans is recognised in the profit and loss account in 'Investment income' using the effective interest method.

Associates and joint ventures (Note 7)

Associates are all entities over which NN Leven has significant influence but not control. Significant influence generally results from a shareholding of 20% or more 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 policy making process
- Interchange of managerial personnel

Joint ventures are all entities in which NN Leven has joint control.

Notes to the Consolidated annual accounts continued

Associates and joint ventures are initially recognised at cost (including goodwill) and subsequently accounted for using the equity method of accounting.

Subsequently, NN Leven's share of profits or losses is recognised in the profit and loss account and its share of changes in reserves is recognised in other comprehensive income (equity). The cumulative changes are adjusted against the carrying value of the investment. When NN Leven's share of losses in an associate or joint venture equals or exceeds the book value of the associate or joint venture, NN Leven does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains and losses on transactions between NN Leven and its associates and joint ventures are eliminated to the extent of NN Leven's interest. Accounting policies of associates and joint ventures have been changed where necessary to ensure consistency with the policies of NN Leven. The reporting dates of all significant associates and joint ventures are consistent with the reporting date of NN Leven.

For interests in investment entities the existence of significant influence is determined taking into account both NN Leven's financial interests for own risk and its role as asset manager.

Associates include interests in real estate funds and private equity funds. The underlying assets of both the real estate and the private equity funds are measured at fair value through profit or loss (i.e. no revaluations in other comprehensive income). The fair value of underlying real estate in real estate funds is determined as set out below for Real estate investments. The fair value of underlying private equity investments in private equity funds is generally based on a forward-looking market approach. This approach uses a combination of company financials and quoted market multiples. 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 by reference to market valuations for similar entities quoted in an active market.

Valuations of private equity investments are mainly based on an 'adjusted multiple of earnings' methodology on the following basis:

- Earnings: reported earnings are adjusted for non-recurring items, such as restructuring expenses, for significant corporate actions and, in exceptional cases, for run-rate adjustments to arrive at maintainable earnings. The most common measure is earnings before interest, tax, depreciation and amortisation (EBITDA). Earnings used are usually management forecasts for the current year, unless data from management accounts for the 12 months preceding the reporting period or the latest audited annual accounts provide a more reliable estimate of maintainable earnings,
- Earnings multiples: earnings multiples are derived from comparable listed companies or relevant market transaction multiples for companies in the same industry and, where possible, with a similar business model and profile in terms of size, products, services and customers, growth rates and geographic focus. Adjustments are made for differences in the relative performance in the group of comparable companies,
- Adjustments: a marketability or liquidity discount is applied based on factors such as alignment with management and other investors and NN Leven's investment rights in the deal structure.

Real estate investments (Note 8)

Real estate investments under construction are included in 'Real estate investments'. Real estate investments are held for long-term rental yields and are not occupied by NN Leven. Real estate investments are initially measured at cost, including transaction cost and are subsequently measured at fair value. Changes in the carrying value resulting from revaluations are recognised in the profit and loss account. On disposal the difference between the sales proceeds and carrying value is recognised in the profit and loss account. The fair value of real estate investments is based on regular appraisals by independent qualified valuers. For each reporting period every property is valued by an external valuer. Market transactions and disposals made by NN Leven are monitored as part of the validation procedures to test the valuations. Valuations performed earlier in the year are updated if necessary to reflect the situation at the year-end. All real estate investments are appraised externally at least annually.

The fair value represents the estimated amount for which the property could be exchanged on the date of valuation between a willing buyer and willing seller in an at-arm's-length transaction after proper marketing wherein the parties each acted knowledgeably, prudently and without compulsion. The fair value is based on appraisals using valuation methods such as: comparable market transactions, capitalisation of income methods or discounted cash flow calculations. The underlying assumption used in the valuation is that the properties are let or sold to third parties based on the actual letting status. The discounted cash flow analysis and capitalisation of income method are based on calculations of the future rental income in accordance with the terms in existing leases and estimations of the rental values for new leases when leases expire and incentives like rent-free periods. The cash flows are discounted using market-based interest rates that reflect appropriately the risk characteristics of real estate. The valuation of real estate investments takes (expected) vacancies into account. Occupancy rates differ significantly from investment to investment. For real estate investments held through (minority shares in) real estate investment funds, the valuations are performed under the responsibility of the funds' asset manager.

Subsequent expenditures are recognised as part of the asset's carrying value only when it is probable that future economic benefits associated with the item will flow to NN Leven and the cost of an item can be measured reliably. All other repairs and maintenance costs are recognised immediately in the profit and loss account. Borrowing costs on real estate investments under construction are capitalised until completion.

Property and equipment (Note 9)

Land and buildings held for own use are stated at fair value at the balance sheet date. Increases in the carrying value are recognised in other comprehensive income (equity). Decreases in the carrying value that offset previous increases of the same asset are charged against other comprehensive income (equity); all other decreases are recognised in the profit and loss account.

Notes to the Consolidated annual accounts continued

Increases that reverse a revaluation decrease on the same asset previously recognised in net result are recognised in the profit and loss account. Depreciation is recognised based on the fair value and the estimated useful life (in general 20-50 years). On disposal, the related revaluation reserve in equity is transferred within equity to 'Retained earnings'.

The fair value of land and buildings is based on regular appraisals by independent, qualified valuers or internally, similar to appraisals of real estate investments. All significant holdings of land and buildings are appraised at least annually. Subsequent expenditure is included in the asset's carrying value when it is probable that future economic benefits associated with the item will flow to NN Leven and the cost of the item can be measured reliably.

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 its estimated useful life, which is generally as follows: two to five years for data processing equipment, and four to ten years for fixtures and fittings. Expenditure incurred on maintenance and repairs is recognised in the profit and loss account as incurred. Expenditure incurred on major improvements is capitalised and depreciated. The difference between the proceeds on disposal and net carrying value is recognised in the profit and loss account in 'Other income'.

Methods of depreciation and amortisation

Items of property and equipment are depreciated, intangible assets with finite useful lives are amortised. The carrying values of the assets are depreciated/amortised on a straight-line basis over the estimated useful lives. Methods of depreciation and amortisation, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

Intangible assets (Note 10)

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 three years. Amortisation is included in 'Other operating expenses'.

Value of business acquired (VOBA)

VOBA is an asset that represents the present value of estimated net cash flows embedded in the insurance contracts of an acquired company, which exists at the time the company was acquired. It represents the difference between the fair value of insurance liabilities and their carrying value. VOBA is amortised in a similar manner to the amortisation of the deferred acquisition costs as described in the section 'Deferred acquisition costs'.

The intangible assets are reviewed for impairments at least annually if events indicate that impairments may have occurred. They are tested for impairment by comparing the carrying value with the best estimate of the recoverable amount of the individual intangible asset.

Deferred acquisition costs (Note 11)

Deferred acquisition costs (DAC) represent costs of acquiring insurance and investment contracts that are deferred and amortised. The deferred costs, all of which vary with (and are primarily related to) the production of new and renewal business, consist principally of commissions, certain underwriting and contract issuance expenses, and certain agency expenses.

For the majority of the life insurance contracts DAC is amortised over a fixed period of time. For other types of life insurance contracts DAC is amortised over the lives of the policies in relation to the emergence of estimated gross profits. Amortisation is adjusted when estimates of current or future gross profits, to be realised from a group of products, are revised.

DAC amortisation is included in the Underwriting expenditure in the profit and loss account.

DAC is evaluated for recoverability at issue. Subsequently it is tested on a regular basis together with the life insurance liabilities. The test for recoverability is described in the section 'Insurance and investment contracts, reinsurance contracts'.

For certain products DAC is adjusted for the impact of unrealised results on allocated investments through equity.

Subordinated debt, Other borrowed funds (Note 14 and 15)

Subordinated debt and other borrowed funds are recognised initially at their issue proceeds (fair value of consideration received) net of transaction costs incurred. Borrowings are subsequently measured at amortised cost. Any difference between proceeds, net of transaction costs, and the redemption value is recognised in the profit and loss account over the period of the borrowings using the effective interest method.

Financial liabilities include only instruments of which the terms and conditions represent a contractual obligation to pay interest and/or principal. Instruments that are similar in substance, but of which the terms and conditions do not include a contractual obligation to pay interest and principal are classified as equity.

Insurance and investment contracts, reinsurance contracts (Note 16)

Insurance liabilities are established in accordance with IFRS 4 'Insurance Contracts'. Under IFRS 4, an insurer may continue its existing pre-IFRS accounting policies for insurance contracts, provided that certain minimum requirements are met. Upon adoption of IFRS-EU in 2008, NN Leven decided to adopt IFRS-EU as was already applied by its parent company as of 2005.

Notes to the Consolidated annual accounts continued

For the recognition and measurement of the insurance contracts this included a continuation of the accounting standards generally accepted in the Netherlands (Dutch GAAP) as of 2005. Changes in Dutch GAAP subsequent to the adoption of IFRS-EU are considered for adoption on a case-by-case basis. If adopted, the impact thereof is accounted for as a change in accounting policies under IFRS-EU.

In addition, for certain specific products or components thereof, NN Leven applies the option in IFRS 4 to measure (components of) insurance contracts using market consistent interest rates and other current estimates and assumptions.

Insurance contracts

Insurance policies which bear significant insurance risk and/or contain discretionary participation features are presented as insurance contracts. Insurance liabilities represent estimates of future pay-outs that will be required for insurance claims, including expenses relating to such claims. For some insurance contracts the measurement reflects current market assumptions. Unless indicated otherwise below, changes in the insurance liabilities are recognised in the profit and loss account.

Life insurance liabilities

The life insurance liabilities are generally calculated on the basis of a prudent prospective actuarial method.

Insurance liabilities on traditional life policies are calculated using various assumptions, including assumptions on mortality, morbidity, expenses, investment returns and surrenders. Assumptions for insurance liabilities for traditional life insurance contracts, including traditional whole-life and term-life insurance contracts, are based on best estimate assumptions including margins for adverse deviations. Generally, these assumptions are set initially at the policy issue date and remain constant throughout the life of the policy. For the insurance liabilities that were taken over in the Delta Lloyd acquisition, these assumptions are set as at the date of acquisition, 1 April 2017.

Insurance liabilities for universal life, variable life and annuity contracts, unit-linked contracts, etc. are generally set equal to the balance that accrues to the benefit of the policyholders.

Certain contracts contain minimum (interest) guarantees on the amounts payable upon death and/or maturity. The insurance liabilities include the impact of these minimum (interest) guarantees, taking into account the difference between the potential minimum benefit payable and the total account balance, expected mortality and surrender rates.

Unamortised interest rate rebates on periodic and single premium contracts are deducted from or added to the life insurance contract liabilities. Interest rate rebates granted during the year are amortised in conformity with the anticipated recovery pattern and are recognised in the profit and loss account.

Deferred interest credited to policyholders

For insurance contracts with discretionary participation features, 'Deferred interest credited to policyholders' is recognised for the full amount of the unrealised revaluations on allocated investments. Upon realisation, the 'Deferred interest credited to policyholders' regarding unrealised revaluations is reversed and a deferred profit sharing amount is recognised for the share of realised results on allocated investments that is expected to be shared with policyholders. The amount of deferred profit sharing is reduced by the actual allocation to individual policyholders. The change in the amount of 'Deferred interest credited to policyholders' on unrealised revaluations (net of tax) is recognised in the 'Revaluation reserve' in other comprehensive income (equity).

Liabilities for life insurance for risk of policyholders

Liabilities for life insurance for risk of policyholders are generally shown at the balance sheet value of the related investments.

Reinsurance contracts

Reinsurance premiums, commissions and claim settlements, as well as the reinsurance element of insurance contracts are accounted for in the same way as the original contracts for which the reinsurance was concluded. If the reinsurers are unable to meet their obligations, NN Leven remains liable to its policyholders for the portion reinsured. Consequently, provisions are recognised for receivables on reinsurance contracts which are deemed uncollectable. Both reinsurance premiums and reinsurance recoveries are included in 'Underwriting expenditure' in the profit and loss account.

Adequacy Test

The adequacy of the insurance liabilities is evaluated at each reporting period. The test involves comparing the established insurance liability (gross of unamortised interest rate rebates, DAC and VOBA) to a liability based on current best estimate actuarial assumptions. The best estimate reserve makes assumptions about factors such as economic and demographic trends, inflation, investment returns, policyholder behaviour, mortality and morbidity trends, court decisions, changes in laws, and other factors. Three key assumptions impacting the best estimate reserve are future mortality trends, expenses and future reinvestment rates and returns. The best estimate assumption for mortality takes into account both mortality data from the Dutch national population and comparable European countries and experience mortality data from the insured portfolios. The projected expenses take into account normalised maintenance expenses (unit costs per policy) and an add-on for incidental expenses. The assumed investment returns are a combination of the run-off of current portfolio yields on existing assets and reinvestment rates in relation to maturing assets and anticipated new premiums, as a result (part of) the revaluation reserve in shareholder's equity is taken into account in assessing the adequacy of insurance liabilities.

If the established insurance liability is lower than the liability based on current best estimate actuarial assumptions the shortfall is recognised immediately in the profit and loss account.

Notes to the Consolidated annual accounts continued

If the insurance liabilities are determined to be more than adequate no reduction in the insurance liabilities is recognised.

Investment contracts
Insurance policies without discretionary participation features which do not bear significant insurance risk are presented as Investment contracts. Investment contract liabilities are determined at amortised cost, using the effective interest method (including certain initial acquisition expenses).

Other liabilities (Note 18)
Provisions
Other liabilities include reorganisation provisions, litigation provisions and other provisions. Reorganisation provisions include employee termination benefits when NN Leven 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. Provisions are discounted when the effect of the time value of money is significant, using a before tax discount rate. The determination of provisions is an inherently uncertain process involving estimates regarding amounts and timing of cash flows.

Gross premium income (Note 19)
Premiums from insurance policies are recognised as income when due from the policyholder. Receipts under investment contracts are not recognised as gross premium income; instead deposit accounting is applied. When applying deposit accounting, the amounts contributed by policyholders are recognised as direct increases in the provision for investment contracts, not as premium income and payments are deducted directly from the provision.

Net fee and commission income (Note 21)
Fees and commissions are generally recognised as the service is provided. 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.

2 The war in Ukraine

In February 2022, the Russian military build-up on the border of Ukraine escalated tensions between Russia and Ukraine. At the date of this report, Russian troops continue to invade Ukraine and millions of Ukrainians have fled their homes. NN Leven does not have business activities in Ukraine or Russia, and NN Leven's direct financial exposure to these countries is limited. However, the Russian military actions and the resulting sanctions have adversely affected the global economy and financial markets. Any possible further escalation thereof, might have further adverse impact on the global economy and financial markets and, therefore, NN Leven's financial results. More information is provided in Note 45 'Risk management'.

3 Cash and cash equivalents

Cash and cash equivalents

	2022	2021
Cash and bank balances	343	234
Cash and cash equivalents	343	234

4 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

	2022	2021
Investments for risk of policyholders	24,115	28,548
Non-trading derivatives	1,957	6,137
Designated as at fair value through profit or loss	386	430
Financial assets at fair value through profit or loss	26,458	35,115

Investments for risk of policyholders

	2022	2021
Equity securities	23,481	27,768
Debt securities	25	55
Loans and receivables	609	725
Investments for risk of policyholders	24,115	28,548

Investments in investment funds (with underlying investments in debt and equity securities, real estate and derivatives) are included in equity securities.

Notes to the Consolidated annual accounts continued

Non-trading derivatives

	2022	2021
Derivatives used in:		
- hedges of net investments in foreign operations	23	1
- cash flow hedges	235	4,609
Other non-trading derivatives	1,699	1,527
Non-trading derivatives	1,957	6,137

The fair value of derivatives was impacted significantly in 2022 by the change (increase) in market interest rates. This change in market interest rates also significantly impacted other balance sheet items, including Available for sale investments and Other liabilities – Cash collateral amounts received as well as other liabilities in the consolidated statement of cash flows. Other non-trading derivatives includes derivatives for which no hedge accounting is applied.

Designated as at fair value through profit or loss

	2022	2021
Equity securities	360	402
Debt securities	25	26
Other	1	2
Designated as at fair value through profit or loss	386	430

5 Available-for-sale investments

Available-for-sale investments

	2022	2021
Equity securities	9,861	10,488
Debt securities	38,174	58,379
Available-for-sale investments	48,035	68,867

Changes in available-for-sale investments

	Equity securities		Debt securities		Total	
	2022	2021	2022	2021	2022	2021
Available-for-sale investments - opening balance	10,488	9,981	58,379	64,077	68,867	74,058
Additions	2,073	2,123	4,363	5,925	6,436	8,048
Amortisation	0	0	-60	-163	-60	-163
Transfers and reclassifications of afs investments	130	0	0	0	130	0
Changes in unrealised revaluations	-951	1,016	-14,545	-4,197	-15,496	-3,181
Impairments	-621	-41	-17	1	-638	-40
Reversals of impairments	0	0	0	0	0	0
Disposals and redemptions	-1,207	-2,611	-10,360	-7,711	-11,567	-10,322
Exchange rate differences	-51	48	414	447	363	495
Changes in the composition of the group and other changes	0	-28	0	0	0	-28
Available-for-sale investments - closing balance	9,861	10,488	38,174	58,379	48,035	68,867

NN Leven's total exposure to debt securities is included in the following balance sheet lines:

Total exposure to debt securities

	2022	2021
Available-for-sale investments	38,174	58,379
Loans	141	275
Available-for-sale investments and loans	38,315	58,654
Investments for risk of policyholders	25	55
Designated as at fair value through profit or loss	25	26
Financial assets at fair value through profit or loss	50	81
Total exposure to debt securities	38,365	58,735

Notes to the Consolidated annual accounts continued

NN Leven's total exposure to debt securities included in 'Available-for-sale investments' and 'Loans' is specified as follows by type of exposure:

Debt securities by type

	Available-for-sale-investments		Loans		Total	
	2022	2021	2022	2021	2022	2021
Government bonds	25,201	40,451	0	0	25,201	40,451
Corporate bonds	9,009	12,047	0	0	9,009	12,047
Financial institution bonds	3,020	4,553	0	0	3,020	4,553
ABS portfolio	944	1,328	141	275	1,085	1,603
Debt securities - Available-for-sale investments and Loans	38,174	58,379	141	275	38,315	58,654

For more details, reference is made to Note 45 'Risk management'.

Available-for-sale equity securities

	2022	2021
Listed	3,069	4,859
Unlisted	6,792	5,629
Available-for-sale equity securities	9,861	10,488

6 Loans

Loans

	2022	2021
Loans secured by mortgages	34,678	33,300
Loans related to savings mortgages	1,425	1,550
Loans to or guaranteed by public authorities	1,195	1,277
Asset-backed securities	141	275
Policy loans	6	7
Other loans	5,257	5,987
Loans - before loan loss provisions	42,702	42,396
Loan loss provisions	-92	-114
Loans	42,610	42,282

Other contains EUR 927 million (2021: EUR 1,524 million) of loans with NN Group companies.

Changes in Loans secured by mortgages

	2022	2021
Loans secured by mortgages – opening balance	33,300	29,849
Additions/ origination	3,828	6,313
Redemption	-2,324	-2,774
Amortisation	-87	-110
Transfers to/from assets/liabilities	0	0
Changes in the composition of the group and other changes	-39	22
Loans secured by mortgages – closing balance	34,678	33,300

Reference is made to Note 40 'Structured entities'.

Changes in Loan loss provisions

	2022	2021
Loan loss provisions - opening balance	114	123
Write-offs	-50	-7
Increase/decrease in loan loss provisions	28	-4
Changes in the composition of the group and other changes	0	2
Loan loss provisions - closing balance	92	114

Notes to the Consolidated annual accounts continued

7 Associates and joint ventures

Associates and joint ventures (2022)

	Interest held	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
Vesteda Residential Fund FGR	24%	1,771	9,403	2,100	-7	-1
CBRE Dutch Office Fund FGR	19%	364	2,693	733	-84	83
CBRE Retail Industrial Fund Iberica FGR	50%	221	986	544	63	17
CBRE Dutch Residential Fund FGR	8%	238	3,301	139	125	40
Lazora S.I.I. S.A.	22%	241	1,636	545	122	40
NRP Nordic Logistic Fund SA	42%	201	509	32	10	5
CBRE Dutch Retail Fund FGR	20%	170	1,181	342	-8	43
CBRE UK Property Fund PAIF	10%	174	1,697	19	-85	13
Dutch Urban Living Venture FGR	45%	142	469	157	-5	10
Allee center Kft	50%	117	259	25	24	14
Ardstone Residential Income Fund	33%	226	892	203	54	10
the Fizz Student Housing Fund SCS	50%	88	259	82	7	6
Dutch Student and Young Professional Housing fund FGR	49%	143	372	82	39	3
Parcom Buy-Out Fund V CV	21%	88	534	114	173	5
Robeco Bedrijfsleningen FGR	26%	81	314	0	12	1
Rivage Euro Debt infrastructure 3	34%	297	870	2	0	0
Fiumaranuova s.r.l.	50%	105	216	7	12	9
DPE Deutschland III (Parallel) GmbH & Co	17%	74	554	110	-11	9
Boccaccio - Closed-end Real Estate Mutual Investment Fund	50%	69	193	55	5	8
Octopus Commercial Real Estate Debt Fund III LP	46%	78	190	21	0	0
Hayfin Amber GP S.A R.L.	100%	106	185	79	0	0
Rivage Euro Debt Infrastructure High return 2	34%	62	184	1	0	0
Healthcare Activos SOCIMI S.A.	38%	164	784	350	42	11
CBRE Dutch Retail Fund II FGR	10%	57	585	11	-50	11
Delta Mainlog Holding GmbH & Co. KG	50%	79	164	7	-21	2
CBRE Property Fund Central and Eastern Europe FGR	50%	59	163	46	18	8
Parquest Capital II B FPCI	29%	71	251	8	0	7
NL Boompjes Property 5 C.V.	50%	68	141	4	11	1
Prime Ventures V C.V.	20%	69	378	27	8	4
Rivage Hopitaux Publics Euro	34%	75	249	30	0	0
Macquarie European Infrastructure Debt Fund	48%	360	757	0	0	0
Other		347				
Associates and joint ventures		6,405				

The above associates and joint ventures mainly consist of non-listed investment entities investing in real estate and private equity.

Significant influence exists for certain associates in which the interest held is below 20%, based on the combination of NN Leven's financial interest for own risk and other arrangements, such as participation in the relevant boards.

NN Leven holds associates over which it cannot exercise control despite holding more than 50% of the share capital. For this reason these are classified as associates and are not consolidated.

Other includes EUR 262 million of associates and joint ventures with an individual balance sheet value of less than EUR 50 million and EUR 85 million of receivables from associates and joint ventures. The amounts presented in the table above could differ from the individual annual accounts of the associates due to the fact that the individual amounts were brought in line with NN Leven's accounting principles.

The reporting dates of all significant associates and joint ventures are consistent with the reporting date of NN Leven.

The associates and joint ventures of NN Leven are subject to legal and regulatory restrictions regarding the amount of dividends that can be paid to NN Leven. 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 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.

Notes to the Consolidated annual accounts continued

Associates and joint ventures (2021)

	Interest held	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
Vesteda Residential Fund FGR	24%	1,840	9,463	1,909	1,588	132
CBRE Dutch Office Fund FGR	19%	402	2,883	721	279	68
CBRE European Industrial Fund FGR	27%	322	1,729	544	343	39
CBRE Retail Industrial Fund Iberica FGR	50%	223	520	73	43	26
CBRE Dutch Residential Fund FGR	8%	235	3,075	134	413	34
Lazora S.I.I. S.A.	22%	212	1,542	583	72	43
NRP Nordic Logistic Fund SA	42%	222	532	3	100	5
CBRE Dutch Retail Fund FGR	20%	185	1,298	384	-9	37
CBRE UK Property Fund PAIF	10%	201	1,992	16	306	2
Dutch Urban Living Venture FGR	45%	152	447	112	53	5
Allee center Kft	50%	124	275	27	14	11
Achmea Dutch Health Care Property Fund	23%	128	580	15	47	8
Ardstone Residential Income Fund	45%	178	540	147	28	1
Dutch Student and Young Professional Housing fund FGR	49%	127	339	80	30	5
Parcom Buy-Out Fund V CV	21%	107	584	81	127	6
Robeco Bedrijfsleningen FGR	26%	112	432	1	51	5
Rivage Euro Debt infrastructure 3	34%	227	665	2	0	0
Fiumaranuova s.r.l.	50%	110	229	9	13	10
Siresa House S.L.	49%	98	484	282	61	54
DPE Deutschland III (Parallel) GmbH & Co	17%	149	970	88	289	3
Boccaccio - Closed-end Real Estate Mutual Investment Fund	50%	79	189	31	11	4
the Fizz Student Housing Fund SCS	50%	91	259	74	20	6
Parcom Buy Out Fund IV B.V.	100%	68	80	12	54	23
CBRE Dutch Retail Fund II FGR	10%	65	667	15	-10	13
Delta Mainlog Holding GmbH & Co. KG	50%	96	192	1	70	2
CBRE Property Fund Central and Eastern Europe FGR	50%	59	163	44	14	8
DPE Deutschland II B GmbH & Co KG	37%	52	182	40	3	0
Parquest Capital II B FPCI	26%	78	308	14	0	8
NL Boompjes Property 5 C.V.	50%	65	133	4	14	3
Siresa House 2 S.L.	49%	55	199	86	11	8
Prime Ventures V C.V.	19%	57	306	0	3	4
Rivage Hopitaux Publics Euro	34%	61	178	0	0	0
Macquarie European Infrastructure Debt Fund	77%	152	198	1	0	0
Other		457				
Associates and joint ventures		6,789				

Changes in Associates and joint ventures

	2022	2021
Associates and joint ventures - opening balance	6,789	5,570
Additions	741	708
Disposals	-970	-154
Transfer to/from Available-for-sale investments	-130	0
Share in change in equity (revaluations)	10	-4
Share of results	269	886
Dividends received	-271	-223
Exchange rate differences	-32	6
Changes in the composition of the group and other changes	-1	0
Associated and joint ventures - closing balance	6,405	6,789

8 Real estate investments

Changes in Real estate investments

	2022	2021
Real estate investments - opening balance	2,719	2,444
Additions	136	156
Disposals	-100	-124
Transfer to/from property in own use	10	0
Transfer to/from Other assets	-2	2
Fair value gains/(losses)	-9	241
Real estate investments - closing balance	2,754	2,719

The total amount of rental income recognised in the profit and loss account for the year ended 31 December 2022 is EUR 169 million (2021: EUR 161 million). The Real estate investments include properties that are leased (ground lease). At 31 December 2022, the corresponding right of use assets amounts to EUR 45 million (2021: EUR 45 million).

Notes to the Consolidated annual accounts continued

The total amount of direct operating expenses (including repairs and maintenance) in relation to real estate investments recognised in rental income for the year ended 31 December 2022 is EUR 60 million (2021: EUR 57 million).

Real estate investments by year of most recent appraisal

In percentages	2022	2021
Most recent appraisal in current year	100%	100%

NN Leven's total exposure to real estate is included in the following balance sheet lines:

Real estate exposure

	2022	2021
Real estate investments	2,754	2,719
Investments - available-for-sale	2,909	2,415
Associates and joint ventures	4,914	5,612
Property and equipment - property in own use	28	35
Total Real estate exposure	10,605	10,781

Furthermore, the exposure is impacted by third-party interests, leverage in funds and off-balance commitments. Reference is made to Note 45 'Risk management'.

9 Property and Equipment

Property and Equipment

	2022	2021
Property in own use	28	35
Equipment	0	0
Property and equipment owned	28	35
Right of use assets	34	37
Property and equipment	62	72

Changes in Property in own use

	2022	2021
Property in own use – opening balance	35	36
Transfers to/from real estate investments	-10	0
Revaluations	3	-1
Property in own use – closing balance	28	35
Gross carrying value	28	35
Accumulated depreciation, revaluations and (reversal of) impairments	0	0
Net carrying value	28	35
Revaluation surplus – opening balance	7	8
Revaluation in year	3	-1
Revaluation surplus – closing balance	10	7

Changes in Right of use assets - Property

	2022	2021
Right of use assets – opening balance	37	42
Depreciation	-4	-5
Changes in the composition of the group and other changes	1	0
Right of use assets – Closing balance	34	37
Gross carrying value	51	50
Accumulated depreciation	-17	-13
Net carrying value	34	37

Notes to the Consolidated annual accounts continued

10 Intangible assets

Changes in Intangible assets

	2022	2021
Intangible assets - opening balance	50	54
Amortisation	-5	-7
Exchange rate differences	1	3
Intangible assets - closing balance	46	50
Gross carrying value	81	81
Accumulated amortisation	-35	-31
Net carrying value	46	50

The intangible assets consist of value of business acquired, which relates to the Czech business.

11 Deferred acquisition costs

Changes in Deferred acquisition costs

	2022	2021
Deferred acquisition costs - opening balance	235	235
Capitalised	37	36
Amortisation	-43	-42
Disposals	0	2
Exchange rate differences	2	4
Deferred acquisition costs - closing balance	231	235

The capitalised acquisition costs in 2022 and 2021 are mainly related to the Czech business.

12 Other assets

Other assets

	2022	2021
Insurance and reinsurance receivables	214	205
Income tax receivable	32	0
Accrued interest and rents	877	958
Other accrued assets	19	16
Cash collateral amounts paid	4,310	258
Other	1,849	1,945
Other assets	7,301	3,382

Cash collateral amounts paid relate to collateralised derivatives. The increase is a result of the increase in fair value of outstanding collateralised derivatives following an increase in market interest rates.
Other contains EUR 1,090 million (2021 EUR 1,725 million) of current accounts with NN Group companies.

Insurance and reinsurance receivables

	2022	2021
Receivables on account of direct insurance from:		
- policyholders	207	198
- intermediaries	3	3
Reinsurance receivables	4	4
Insurance and reinsurance receivables	214	205

The allowance for uncollectable insurance and reinsurance receivables amounts to EUR 1 million as at 31 December 2022 (2021: EUR 3 million). The receivables are presented net of this allowance.

Notes to the Consolidated annual accounts continued

13 Equity

Total equity

	2022	2021
Share capital	23	23
Share premium	3,228	3,228
Revaluation reserve	-1,155	13,015
Currency translation reserve	-66	-41
Other reserves	8,315	9,277
Shareholder's equity (parent)	10,345	25,502
Minority interests	1,989	2,046
Undated subordinated notes	800	800
Total equity	13,134	28,348

Share capital

	Shares (in numbers)		Ordinary shares (amounts in millions of euros)	
	2022	2021	2022	2021
Authorised share capital	22,689,015	22,689,015	114	114
Unissued share capital	18,151,212	18,151,212	91	91
Issued share capital	4,537,803	4,537,803	23	23

Ordinary shares

All shares are in registered form. No share certificates have been issued. Shares may be transferred by means of a deed of transfer, subject to the approval of the General Meeting. The par value of ordinary shares is EUR 5. The authorised ordinary share capital of NN Leven consists of 22,689,015 shares, of which 4,537,803 shares are issued and fully paid up as at 31 December 2022.

Distributable reserves

NN Leven is subject to legal restrictions regarding the amount of dividends it can pay to its shareholder. The Dutch Civil Code contains the restriction that dividends can only be paid up to an amount equal to total shareholder's equity less the issued and outstanding capital and less the reserves required by law. In case of negative balances for individual reserves legally to be retained, no distributions can be made out of retained earnings to the level of these negative amounts.

For information on the share of associates reserve reference is made to the Parent company annual accounts.

Share premium

	2022	2021
Share premium - opening balance	3,228	3,228
Changes in the composition of the group and other changes	0	0
Share premium - closing balance	3,228	3,228

Changes in Revaluation reserve (2022)

	Property revaluation reserve	Available-for-sale reserve	Cash flow hedge reserve	Total
Revaluation reserve - opening balance	6	4,409	8,600	13,015
Unrealised revaluations	0	-11,665	0	-11,665
Realised gains/losses transferred to the profit and loss account	0	-458	0	-458
Changes in cash flow hedge reserve	0	0	-5,709	-5,709
Deferred interest debited/credited to policyholders	0	3,640	0	3,640
Changes in the composition of the group and other changes	0	22	0	22
Revaluation reserve - closing balance	6	-4,052	2,891	-1,155

Changes in Revaluation reserve (2021)

	Property revaluation reserve	Available-for-sale reserve	Cash flow hedge reserve	Total
Revaluation reserve - opening balance	6	6,796	11,883	18,685
Unrealised revaluations	0	-2,068	0	-2,068
Realised gains/losses transferred to the profit and loss account	0	-1,591	0	-1,591
Changes in cash flow hedge reserve	0	0	-3,283	-3,283
Deferred interest debited/credited to policyholders	0	1,273	0	1,273
Changes in the composition of the group and other changes	0	-2	0	-2
Revaluation reserve - closing balance	6	4,409	8,600	13,015

Notes to the Consolidated annual accounts continued

Deferred interest credited to policyholders reflects the change in the deferred profit sharing liabilities (net of deferred tax). Reference is made to Note 16 'Insurance and investment contracts, reinsurance contracts'.

Changes in Currency translation reserve

	2022	2021
Currency translation reserves - opening balance	-41	-48
Changes in the composition of the group and other changes	-1	0
Exchange rate differences for the period	-24	7
Currency translation reserves - closing balance	-66	-41

Changes in Other reserves (2022)

	Retained Earnings	Share of associate reserve	Total
Other reserves - opening balance	7,441	1,836	9,277
Net result for the period	106	0	106
Transfer to/from Share of associates reserve	168	-168	0
Dividend	-980	0	-980
Coupon on undated subordinated notes	-35	0	-35
Changes in the composition of the group and other changes	-53	0	-53
Other reserves - closing balance	6,647	1,668	8,315

Changes in Other reserves (2021)

	Retained Earnings	Share of associate reserve	Total
Other reserves - opening balance	6,560	1,257	7,817
Net result for the period	2,459	0	2,459
Transfer to/from Share of associates reserve	-579	579	-0
Dividend	-988	0	-988
Coupon on undated subordinated notes	-35	0	-35
Changes in the composition of the group and other changes	24	0	24
Other reserves - closing balance	7,441	1,836	9,277

In accordance with the NN Group annual accounts only the non-distributable reserves are recognised in the Share of associate reserve.

Proposed appropriation of result

The result is appropriated pursuant to article 21 of the articles of association of NN Leven, the relevant provisions of which state that the appropriation of result shall be determined by the General Meeting, having heard the advice of the Management Board and the Supervisory Board. It is proposed to add the 2022 net result of EUR 106 million to the 'Retained earnings'.

Undated subordinated loan

On 30 May 2014, NN Leven received a EUR 450 million perpetual subordinated loan from NN Group. The loan is callable at par value after 5 years and every quarter thereafter (subject to regulatory approval). The coupon is fixed at 4.520% per annum for the first 10 years and will be floating thereafter. As this loan is undated and includes optional deferral of interest at the discretion of NN Leven, this is classified under IFRS-EU as equity. Coupon payments are distributed out of equity if and when paid or contractually due.

On 31 December 2016, Delta Lloyd Leven received a EUR 350 million perpetual subordinated loan from Delta Lloyd N.V. The loan is callable at par value after 10 years and every quarter thereafter (subject to regulatory approval). The coupon is fixed at 7.600% per annum for the first 10 years and will be floating thereafter. As this loan is undated and includes optional cancellation of interest at the discretion of NN Leven, this is classified under IFRS-EU as equity. Coupon payments are distributed out of equity if and when paid or contractually due. As a result of merging Delta Lloyd N.V. with NN Group N.V. and Delta Lloyd Leven with NN Leven, this undated subordinated loan is now between NN Group and NN Leven.

In 2022, coupon payments on the undated subordinated notes of EUR 35 million after tax (2021: EUR 35 million after tax) were distributed out of the Other reserves.

14 Subordinated debt

Subordinated debt

Interest rate	Year of Issue	Due date	First call date	Notional amount		Balance sheet value	
				2022	2021	2022	2021
5.600%	2014	10-Feb-44	10-Feb-24	600	600	600	600
9.000%	2012	29-Aug-42	29-Aug-22	0	500	0	520
5.240%	2022	26-Feb-43	26-Aug-32	500	0	500	0
Subordinated debt				1,100	1,100	1,100	1,120

Notes to the Consolidated annual accounts continued

Under IFRS-EU the above subordinated debt instruments are classified as liabilities.

In 2014, NN Leven received a EUR 600 million subordinated loan from NN Group. This loan is callable at par value after 10 years and every quarter thereafter (subject to regulatory approval). The coupon is fixed at 5.600% per annum for the first 10 years and will be floating thereafter.

The outstanding EUR 500 million 9.0% Fixed to Floating Rate Subordinated Notes due 2042 were redeemed early on their first call date, 29 August 2022.

In August 2022, NN Leven received a EUR 500 million subordinated loan from NN Group. The EUR 500 million subordinated notes have a maturity of 20.5 years and are first callable after 10 years, subject to redemption conditions. The coupon is fixed at 5.24% per annum until the first reset date on 26 February 2033 and will be floating thereafter. The subordinated notes qualify as Tier 2 regulatory capital under Solvency II.

15 Other borrowed funds

Other borrowed funds

	2022	2021
Other borrowed funds - opening balance	531	290
Additions	8,800	526
Disposals	-5,066	-285
Other borrowed funds - closing balance	4,265	531

Other borrowed funds includes repo transactions used for liquidity management purposes. Under Note 46 'Capital and liquidity management' an overview of the internal borrowing facilities is disclosed.

16 Insurance and investment contracts, reinsurance contracts

Insurance and investment contracts, reinsurance contracts

	Liabilities net of reinsurance		Reinsurance contracts		Insurance and investment contracts	
	2022	2021	2022	2021	2022	2021
Non-participating life policy liabilities	33,093	35,594	52	31	33,145	35,625
Participating life policy liabilities	48,518	47,696	380	463	48,898	48,159
Liabilities for (deferred) profit sharing and rebates	1,237	6,154	60	56	1,297	6,210
Life insurance liabilities excluding liabilities for risk of policyholders	82,848	89,444	492	550	83,340	89,994
Life insurance liabilities for risk of policyholders	23,533	27,895	587	650	24,120	28,545
Life insurance liabilities	106,381	117,339	1,079	1,200	107,460	118,539
Investment contracts for risk of company	849	904	0	0	849	904
Investment contracts liabilities	849	904	0	0	849	904
Insurance and investment contracts, reinsurance contracts	107,230	118,243	1,079	1,200	108,309	119,443

The liabilities for insurance and investment contracts are presented gross in the balance sheet as 'Insurance and investment contracts'. The related reinsurance is presented as 'Reinsurance contracts' under Assets in the balance sheet.

Deferred interest credited to policyholders is included in the 'Liabilities for (deferred) profit sharing and rebates' and amounts to EUR 1,035 million as at 31 December 2022 (2021: EUR 5,947 million).

Notes to the Consolidated annual accounts continued

Changes in Life insurance liabilities

	Net life insurance liabilities[1]		Net liabilities for risk of policyholders[2]		Reinsurance contracts		Life insurance liabilities	
	2022	2021	2022	2021	2022	2021	2022	2021
Life insurance liabilities - opening balance	89,444	91,473	27,895	24,428	1,200	1,437	118,539	117,338
Current years liabilities	478	824	1,778	1,993	953	855	3,209	3,672
Deferred interest credited to policyholders	-4,911	-1,602	0	0	0	-30	-4,911	-1,632
Prior year liabilities:						0		0
-benefit payments to policyholders	-3,792	-3,681	-1,577	-1,450	-1,025	-840	-6,394	-5,971
-interest accrual and changes in fair value of liabilities	1,621	1,631	0	0	1	3	1,622	1,634
-valuation changes for risk of policyholders	0	0	-4,553	3,255	-76	57	-4,628	3,312
-technical result life insurance	0	0	0	0	0	0	0	0
Exchange rate differences	0	8	0	1	28	61	28	70
Other changes[3]	8	791	-10	-332	-2	-343	-4	116
Life insurance liabilities - closing balance	82,848	89,444	23,533	27,895	1,079	1,200	107,460	118,539

1 Net of reinsurance and liabilities for risk of policyholders.
2 Net of reinsurance.
3 Other changes include termination of a large corporate reinsured contract (EUR 400 million), insurance contracts for risk of policyholders with guarantees that were extended as general account contracts, and the transfer of certain insurance contracts.

Where discounting is used in the calculation of life insurance liabilities, the rate is within the range of 1.8% to 4% (2021: 1.8% to 4.2%).

The reinsurance mainly concerns:

- reinsurance of the insurance operations of the branch in the Czech Republic.
- reinsurance of the longevity risk with external parties.

To the extent that the assuming reinsurers are unable to meet their obligations, NN Leven is liable to its policyholders for the portion reinsured. Consequently, provisions are made for receivables on reinsurance contracts which are deemed uncollectable.

As at 31 December 2022, the total reinsurance exposure including reinsurance contracts (presented in Note 16 'Insurance and investment contracts, reinsurance contracts') and receivables from reinsurers (presented in Note 12 'Other assets') amounts to EUR 1,083 million (2021: EUR 1,204 million).

Changes in Investment contracts

	2022	2021
Investment contracts - opening balance	904	956
Current year liabilities	0	0
Prior year liabilities:		
- payments to contract holders	-61	-60
- interest accrual	6	8
Investment contracts - closing balance	849	904

Longevity reinsurance

In May 2020, NN Leven entered into three reinsurance agreements to reinsure the full longevity risk associated with in total approximately EUR 13.5 billion of pension liabilities in NN Leven in the Netherlands. This reinsurance reduces NN Leven's exposure to longevity risk and, consequently, the required capital under Solvency II. The three reinsurance agreements are similar in nature but are agreed with three different assuming reinsurers, Canada Life, Munich Re and Swiss Re. The risk transfer has been effective as of 1 January 2020 and will continue until the relevant portfolio has run off.

The premium payable to the assuming reinsurers is fixed and includes a margin of approximately EUR 456 million over the current best estimate of benefits payable under the related portfolios. This margin, which represents a cost of reinsurance to NN Leven, is recognised in the profit and loss account over the duration of the reinsurance. An amount of EUR 26 million (2021: EUR 27 million) was recognised in Underwriting expenditure in the profit and loss account in 2022. An amount of approximately EUR 378 million (2021: EUR 399 million) (undiscounted) remains to be recognised in future periods.

In December 2021, NN Leven entered into a fourth reinsurance agreement to reinsure the full longevity risk associated with in total approximately EUR 4 billion of pension liabilities in NN Leven in the Netherlands. This reinsurance reduces NN Leven's exposure to longevity risk and, consequently, the required capital under Solvency II. The fourth reinsurance agreement is similar in nature to the first three contracts but is agreed with a different reinsurer, RGA. The risk transfer for the fourth contract is effective as of 31 December 2021. The risk transfer will continue until the relevant portfolio has run off.

The premium payable to the assuming reinsurer is fixed and includes a margin of approximately EUR 140 million over the current best estimate of benefits payable under the related portfolios. This margin, which represents a cost of reinsurance to NN Leven is recognised in the profit and loss account over the duration of the reinsurance.

Notes to the Consolidated annual accounts continued

An amount of EUR 5 million (2021: EUR nihil) was recognised in Underwriting expenditure in the profit and loss account in 2022. An amount of approximately EUR 135 million (2021: EUR 140 million) (undiscounted) remains to be recognised in future periods.

17 Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include only non-trading derivatives.

Non-trading derivatives

	2022	2021
Other non-trading derivatives		
- cash flow hedges	3,156	881
- hedges of net investments in foreign operations	0	10
Other non-trading derivatives	2,701	790
Non-trading derivatives	5,857	1,681

Other non-trading derivatives mainly consist of interest rate swaps for which no hedge accounting is applied.

18 Other liabilities

Other liabilities

	2022	2021
Income tax payable	186	21
Other taxation and social security contributions	63	64
Deposits from reinsurers	1,081	1,198
Lease liabilities	81	84
Accrued interest	144	127
Costs payable	87	42
Amounts payable to brokers	2	2
Amounts payable to policyholders	619	661
Other provisions	14	29
Amounts to be settled	288	279
Cash collateral amounts received	220	3,086
Other	185	291
Other liabilities	2,970	5,884

Cash collateral amounts received relate to collateralised derivatives. The decrease is a result of the decrease in fair value of outstanding collateralised derivatives following an increase in market interest rates.

19 Gross premium income

Premiums written – net of reinsurance

		Gross		Reinsurance		Net of reinsurance
	2022	2021	2022	2021	2022	2021
Insurance for risk of insurer	1,923	2,298	1,131	979	792	1,319
Insurance for risk of policyholders	1,845	1,865	135	124	1,710	1,741
Total	3,768	4,163	1,266	1,103	2,502	3,060

Notes to the Consolidated annual accounts continued

Gross premium income (2022)

	Insurance for risk of insurer			Insurance for risk of policyholders		
	Gross	Reinsurance	Net of reinsurance	Gross	Reinsurance	Net of reinsurance
Regular premiums						
Individual						
– without profit sharing	428	65	363	205	128	77
– with profit sharing	246	31	215	0	0	0
	674	96	578	205	128	77
Group						
– without profit sharing	105	0	105	1,424	0	1,424
– with profit sharing	299	1,035	-736	0	0	0
	404	1,035	-631	1,424	0	1,424
Total regular premiums	1,078	1,131	-53	1,629	128	1,501
Single premiums						
Individual						
– without profit sharing	84	0	84	80	7	73
– with profit sharing	22	0	22	0	0	0
	106	0	106	80	7	73
Group						
– without profit sharing	415	0	415	136	0	136
– with profit sharing	324	0	324	0	0	0
	739	0	739	136	0	136
Total Single premiums	845	0	845	216	7	209
Total Gross premium income	1,923	1,131	792	1,845	135	1,710

Gross premium income is presented before deduction of reinsurance and retrocession premiums. Gross premium income excludes premium received for investment contracts, for which deposit accounting is applied.

Gross premium income (2021)

	Insurance for risk of insurer			Insurance for risk of policyholders		
	Gross	Reinsurance	Net of reinsurance	Gross	Reinsurance	Net of reinsurance
Regular premiums						
Individual						
– without profit sharing	401	58	343	218	119	99
– with profit sharing	323	37	286	0	0	0
	724	95	629	218	119	99
Group						
– without profit sharing	83	0	83	1,297	0	1,297
– with profit sharing	350	884	-534	0	0	0
	433	884	-451	1,297	0	1,297
Total regular premiums	1,157	979	178	1,515	119	1,396
Single premiums						
Individual						
– without profit sharing	119	0	119	103	5	98
– with profit sharing	27	0	27	0	0	0
	146	0	146	103	5	98
Group						
– without profit sharing	513	0	513	247	0	247
– with profit sharing	482	0	482	0	0	0
	995	0	995	247	0	247
Total Single premiums	1,141	0	1,141	350	5	345
Total Gross premium income	2,298	979	1,319	1,865	124	1,741

Geographical segmentation of gross premium income

	2022	2021
Netherlands	3,571	3,973
The Czech Republic	197	190
Total	3,768	4,163

Notes to the Consolidated annual accounts continued

Reference is made to Note 24 'Underwriting expenditure' for disclosure on reinsurance ceded.

20 Investment income

Investment income

	2022	2021
Interest income from investments in debt securities	1,192	1,226
Interest income from loans	899	865
Interest income from Investment in debt securities and loans	2,091	2,091
Realised gains/losses on disposal of available-for-sale debt securities	127	544
Impairment of available-for-sale debt securities	-17	1
Realised gains/losses and impairments of available-for-sale debt securities	110	545
Realised gains/losses on disposal of available-for-sale equity securities	326	1,055
Impairments of available-for-sale equity securities	-621	-41
Realised gains/losses and impairments of available-for-sale equity securities	-295	1,014
Interest income on non-trading derivatives	136	162
Increase/decrease in loan loss provisions	-28	4
Income from real estate investments	109	105
Dividend income	288	263
Change in fair value of real estate investments	-9	241
Investment income	2,402	4,425

21 Net fee and commission income

Net fee and commission income

	2022	2021
Asset management fees	34	50
Insurance brokerage and advisory fees	-7	-10
Other	23	9
Gross fee and commission income	50	49
Asset management fees	-135	-147
Commission expenses and other	-2	0
Insurance brokerage and advisory fees	-18	-44
Fee and commission expenses	-155	-191
Net fee and commission income	-105	-142

22 Valuation results on non-trading derivatives

Valuation results on non-trading derivatives

	2022	2021
Change in fair value of derivatives relating to:		
- cash flow hedges (ineffective portion)	-75	-10
- other non-trading derivatives	-1,056	-338
Net result on non-trading derivatives	-1,131	-348
Change in fair value of assets and liabilities (hedged items)	-2	-3
Valuation results on assets and liabilities designated as at fair value through profit or loss	-18	32
Valuation results on non-trading derivatives	-1,151	-319

Included in 'Valuation results on non-trading derivatives' are the fair value movements on derivatives used to economically hedge exposures, but for which no hedge accounting is applied. These derivatives hedge exposures in insurance contract liabilities and foreign exchange exposures in the investment portfolio. The fair value movements on the derivatives are influenced by changes in the market conditions, such as share prices, interest rates and currency exchange rates. The change in fair value of the derivatives is partly offset by changes in insurance contract liabilities, which are included in 'Underwriting expenditure' and partly offset by foreign currency results. Reference is made to Note 26 'Underwriting expenditure' and the line Foreign currency results in the consolidated profit and loss account.

Valuation results on non-trading derivatives are reflected in the Consolidated statement of cash flows in the section 'Result before tax', in the line item 'Adjusted for: other'. Reference is made to Note 31 'Derivatives and hedge accounting'.

Notes to the Consolidated annual accounts continued

23 Other income

'Other income' in 2022 includes settlements and releases of various provisions.

24 Underwriting expenditure

Underwriting expenditure

	2022	2021
Gross underwriting expenditure:		
- before effect of investment result for risk of policyholders	5,986	6,799
- effect of investment result for risk of policyholders	-4,630	3,313
Gross underwriting expenditure	1,356	10,112
Investment result for risk of policyholders	4,630	-3,313
Reinsurance recoveries	-1,223	-1,032
Underwriting expenditure	4,763	5,767

The investment income and valuation results regarding investments for risk of policyholders is EUR -4,630 million (2021: EUR 3,313 million). This amount is recognised in 'Underwriting expenditure'. As a result it is shown together with the equal amount of related change in life insurance liabilities for risk of policyholders.

Underwriting expenditure by class

	2022	2021
Reinsurance and retrocession premiums	1,267	1,103
Gross benefits	6,133	6,342
Reinsurance recoveries	-1,223	-1,032
Change in life insurance liabilities	-1,555	-747
Costs of acquiring insurance business	54	58
Other underwriting expenditure	26	-7
Profit sharing and rebates	55	43
Other changes in investment contract liabilities	6	7
Underwriting expenditure	4,763	5,767

At the end of each year, a settlement is made which ensures that any remaining assets and liabilities and remaining profit or loss from the Czech insurance operations in the NN Leven Annual accounts are transferred to NN Re. Reference is made to Note 41 'Related parties'.

Gross benefits

	2022	2021
Surrenders	1,231	1,362
Payments upon maturity	1,913	1,996
Payments upon death	238	246
Annuities and other periodic payments	2,734	2,712
Other	17	26
Gross benefits	6,133	6,342

Costs of acquiring insurance business

	2022	2021
Changes in deferred acquisitions costs	13	16
Brokerage fee	37	34
Other commissions	4	8
Costs of acquiring insurance business	54	58

Profit sharing and rebates

	2022	2021
Distributions on account of interest or underwriting results	36	7
Bonuses added to policies[1]	19	36
Profit sharing and rebates	55	43

1 The 'Bonuses' added to policies consists of NN Leven and RVS Leven policyholders' share in the profit, whereby both profit sharing schemes are being maintained. For more information reference is made to the section 'Guidelines profit sharing for policies with a participation feature'.

The total costs of acquiring insurance business and investment contracts amounted to EUR 54 million (2021: EUR 58 million). This includes amortisation and unlocking of DAC of EUR 44 million (2021: EUR 43 million) and the net amount of commissions paid of EUR 48 million (2021: EUR 51 million) and commissions capitalised in DAC of EUR 37 million (2021: EUR 36 million).

The total amount of commission paid and commission payable amounted to EUR 66 million (2021: EUR 50 million). This includes the commissions recognised in 'costs of acquiring insurance business' of EUR 48 million (2021: EUR 46 million) referred to above and commissions recognised in 'Other underwriting expenditure' of EUR 18 million (2021: EUR 4 million). Other underwriting expenditure also includes reinsurance commissions paid of EUR 0 million (2021: EUR 29 million).

Notes to the Consolidated annual accounts continued

25 Staff expenses

Staff expenses

	2022	2021
Salaries	119	121
Variable salaries	1	1
Pension costs	23	23
Social security costs	16	16
External staff costs	61	50
Education	2	1
Other staff costs	5	5
Staff expenses	227	216

NN Leven staff are employed by NN Personeel B.V. (NN Personeel). NN Leven is charged for its staff expenses by NN Personeel under a service level agreement. Although these costs are not paid out in the form of staff expenses by NN Leven, they have the characteristics of staff expenses and they are therefore recognised as such. A provision for holiday entitlement and bonuses is recognised by NN Personeel. Actual costs are charged to NN Leven by NN Personeel.

Employees in the Czech Republic were transferred to a shared service centre (NN Finance S.R.O). The salary costs are recognised in the line 'Other' in the other operating expenses instead of under staff expenses.

Pension costs

Defined contribution plans

NN Leven is one of the sponsors of NN Group's defined contribution plan. The assets of all NN Group's defined contribution plans are held in independently administered funds. Contributions are generally determined as a percentage of pay. These plans do not give rise to balance sheet provisions, other than relating to short-term timing differences included in 'Other assets' or 'Other liabilities'.

Number of employees

	2022	2021
Netherlands - average number of employees on full-time equivalent basis	1,632	1,675
Rest of Europe - average number of employees on full-time equivalent basis	15	18
Number of employees	1,647	1,693

Remuneration of Management Board and Supervisory Board

Reference is made to Note 42 'Key management personnel compensation'.

Share plans

NN Group has granted shares to a number of senior executives of NN Leven. The purpose of the share schemes is to attract, retain and motivate senior executives.

Share awards comprise upfront shares and deferred shares. The entitlement to the deferred shares 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. A retention period of one year applies from the moment of vesting these awards.

Change in Share awards outstanding on NN Group shares for NN Leven

	Share awards (in number)		Weighted average grant date fair value (in euros)	
	2022	2021	2022	2021
Share awards outstanding - opening balance	12,288	21,284	33.08	29.16
Granted	4,620	10,927	42.90	40.32
Vested	-8,327	-12,045	35.85	35.53
Forfeited	-374	-7,878	33.08	28.76
Share awards outstanding - closing balance	8,207	12,288	36.17	33.08

In 2022, 4,620 share awards of NN Group Shares (2021: 7,173) were granted to the members of the Management Board of NN Leven. To other employees of NN Leven 0 share awards of NN Group shares (2021: 3,754) were granted.

As at 31 December 2022 the share awards of NN Group shares consisted of 8,207 share awards (2021: 12,288) relating to equity-settled share-based payment arrangements and no share awards to cash-settled share-based payment arrangements.

The fair value of share awards granted is recognised as an expense under 'Staff expenses' and is allocated over the vesting period of the share awards.

As at 31 December 2022 total unrecognised compensation costs related to share awards amounted to EUR 95 thousand (2021: EUR 194 thousand). These costs are expected to be recognised over an average period of 1.3 years (2021: 1.3 years).

Notes to the Consolidated annual accounts continued

26 Interest expenses

Interest expenses

	2022	2021
Interest expenses on non-trading derivatives	127	98
Interest on lease liability	3	3
Other interest expense	114	74
Interest expenses	244	175

Other interest expenses mainly consist of interest on the 'Subordinated debt'.

In 2022, total interest income and total interest expenses for items not valued at fair value through profit or loss were EUR 2,091 million and EUR 127 million respectively (2021: EUR 2,161 million and EUR 74 million respectively).

Interest income and expenses are included in the following profit and loss account lines:

Total net interest income

	notes	2022	2021
Investment income	20	2,227	2,257
Interest expenses on non-trading derivatives		-127	-98
Interest on lease liability		-3	-3
Other interest expense		-114	-74
Total net interest income		1,983	2,082

27 Other operating expenses

Other operating expenses

	2022	2021
Depreciation of property and equipment	4	5
Travel and accommodation expenses	1	0
Computer costs	71	67
External advisory fees	24	23
Office expenses	6	0
Advertising and public relations	9	3
Allocated staff expenses head office support functions	44	22
Allocated staff expenses services	20	44
Other	65	86
Total	244	250

Other

'Other' also includes redundancy costs of EUR 11 million (2021: EUR 17 million), recharged by NN Group to NN Leven. The provision is reported on NN Group Level.

The salary costs of the employees in the Czech Republic have been recognised in the line 'Other' in the 'Other operating expenses' instead of under 'Staff expenses'.

Fees of auditors

Reference is made to Note 50 'Fees of auditors' of the Consolidated annual accounts of NN Group for audit fees and audit related fees. The services rendered by the auditor, in addition to the statutory audit, includes an audit in relation to reporting to regulators.

28 Taxation

NN Leven is part of the Dutch fiscal unity for corporate income tax purposes of NN Group making it jointly and severally liable for the total tax payable by the fiscal unity.

Income tax payable amounts to EUR 186 million (2021: EUR 21 million payable). It concerns tax payable to NN Group for the most recent quarter. Reference is made to Note 18 'Other liabilities'.

Notes to the Consolidated annual accounts continued

Deferred tax (2022)

	Net liability 2021	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2022[1]
Investments	2,620	-3,725	-62	5	0	-1,162
Real estate investments	1,102	0	-19	0	0	1,083
Deferred acquisition costs and VOBA	37	0	-3	0	0	34
Fiscal equalisation reserve	62	0	-62	0	0	0
Insurance provisions	-2,854	1,267	325	4	-2	-1,260
Cash flow hedges	2,975	-1,996	0	0	0	979
Other provisions	-1	0	0	0	0	-1
Unused tax losses carried forward	-28	0	7	0	0	-21
Other	25	14	3	-4	0	38
Deferred tax	3,938	-4,440	189	5	-2	-310
Presented in the balance sheet as:						
Deferred tax liabilities	3,971					366
Deferred tax assets	-33					-676
Deferred tax	3,938					-310

1 Positive amounts are liabilities, negative amounts are assets.

Deferred tax (2021)

	Net liability 2020	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2021
Investments	3,605	-963	-22	0	0	2,620
Real estate investments	906	0	198	-2	0	1,102
Deferred acquisition costs and VOBA	40	0	-3	0	0	37
Fiscal equalisation reserve	8	0	54	0	0	62
Insurance provisions	-3,083	359	-122	-6	-2	-2,854
Cash flow hedges	3,939	-964	0	0	0	2,975
Other provisions	-7	0	0	6	0	-1
Unused tax losses carried forward	-21	0	-7	0	0	-28
Other	29	-5	1	0	0	25
Deferred tax	5,416	-1,573	99	-2	-2	3,938
Presented in the balance sheet as:						
Deferred tax liabilities	5,416					3,971
Deferred tax assets	0					-33
Deferred tax	5,416					3,938

1 Positive amounts are liabilities, negative amounts are assets.

Deferred tax on unused tax losses carried forward

	2022	2021
Total unused tax losses carried forward	181	215
Unused tax losses carried forward not recognised as a deferred tax asset	-112	-118
Unused tax losses carried forward recognised as a deferred tax asset	69	97
Average tax rate	30.4%	28.9%
Deferred tax asset	21	28

Total unused tax losses carried forward analysed by term of expiration

	No deferred tax asset recognised		Deferred tax asset recognised	
	2022	2021	2022	2021
More than 5 years but less than 10 years	0	0	0	0
Unlimited	112	118	69	97
Total	112	118	69	97

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.

Notes to the Consolidated annual accounts continued

Taxation on result

	2022	2021
Current tax	-203	345
Deferred tax	194	101
Taxation on result	-9	446

Reconciliation of the weighted average statutory tax rate to NN Leven's effective tax rate

	2022	2021
Result before tax	153	3,045
Weighted average statutory tax rate	25.8%	25.0%
Weighted average statutory tax amount	39	761
Participation exemption	-109	-292
Other income not subject to tax and other	8	-7
Expenses not deductible for tax purposes	3	4
Impact on deferred tax from change in tax rates	0	1
Deferred tax benefit from previously unrecognised amounts	-4	-10
Tax for non recognised losses	0	-12
Adjustments to prior periods	54	1
Effective tax amount	-9	446
Effective tax rate	-5.9%	14.6%

In 2022, the effective tax rate of -5.9% was lower than the weighted average statutory tax rate of 25.8%. This is mainly a result of tax exempt results of associates and participations.

In 2021, the Dutch corporate income tax rates were amended, so that the tax rate for 2022 will increase from 25% to 25.8%. As a result, the deferred tax assets and liabilities of NN Leven were remeasured in 2021 to the enacted new rate. The net impact of the tax rate change in 2021 was EUR nihil.

Taxation on components of other comprehensive income

	2022	2021
Unrealised revaluations Available for sale investment and other	3,836	1,158
Realised gains/losses transferred to the profit and loss account	6	7
Changes in cash flow hedge reserve	1,982	971
Deferred interest credited to policyholders	-1,270	-359
Income tax	4,554	1,777

29 Fair value of financial assets and liabilities

The following table presents the estimated fair value of NN Leven's financial assets and liabilities. Certain balance sheet items are not included in the table, as they do not meet the definition of a financial asset or liability. The aggregation of the fair value presented below does not represent and should not be construed as representing, the underlying value of NN Leven.

Fair value of financial assets and liabilities

	Estimated fair value		Balance sheet value	
	2022	2021	2022	2021
Financial assets				
Cash and cash equivalents	343	234	343	234
Financial assets at fair value through profit or loss:				
– investments for risk of policyholders	24,115	28,548	24,115	28,548
– non-trading derivatives	1,957	6,137	1,957	6,137
– designated as at fair value through profit or loss	386	430	386	430
Available-for-sale investments	48,035	68,867	48,035	68,867
Loans	37,345	45,126	42,610	42,282
Financial assets	112,181	149,341	117,446	146,498
Financial liabilities				
Subordinated debt	1,067	1,192	1,100	1,120
Other borrowed funds	4,250	531	4,265	531
Investment contracts for risk of company	765	927	849	904
Financial liabilities at fair value through profit or loss:				
– non-trading derivatives	5,857	1,681	5,857	1,681
Financial liabilities	11,939	4,331	12,071	4,236

For the other financial assets and financial liabilities not included in the table above, including short-term receivables and payables, the carrying amount is a reasonable approximation of fair value.

Notes to the Consolidated annual accounts continued

Reference is made to Note 1 'Accounting policies' for the upcoming changes as a result of IFRS 9 'Financial instruments'. One of the requirements in IFRS 9 is to assess whether investments in debt securities and loans meet the definition of 'Solely Payments of Principal and Interest', also referred to as 'SPPI assets'. SPPI assets are financial assets with contractual terms that give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding (as defined in IFRS 9), excluding assets that are held for trading and/or that are managed and whose performance is evaluated on a fair value basis. The table below provides a split of the fair value of financial assets into three categories: SPPI assessment applicable under IFRS 9 and conditions met (SPPI compliant assets), SPPI assessment applicable under IFRS 9 and conditions not met (SPPI non-compliant assets), and SPPI assessment not applicable. Whilst IFRS 9 becomes effective for NN Leven on the same date as IFRS 17, the information in the table below is based on the assets held, and business models in place on 31 December 2022.

Fair value of financial assets - SPPI assessment

	SPPI compliant assets		SPPI non-compliant assets		SPPI assessment not applicable	
	2022	2021	2022	2021	2022	2021
Cash and cash equivalents	0	0	0	0	343	234
Financial assets at fair value through profit or loss:						
– investments for risk of policyholders	0	0	0	0	24,115	28,548
– non-trading derivatives	0	0	0	0	1,957	6,137
– designated as at fair value through profit or loss	0	0	0	0	386	430
Available-for-sale investments	38,068	58,207	3,727	3,099	6,240	7,560
Loans	37,293	45,057	45	62	7	7
Financial assets	75,361	103,264	3,772	3,161	33,048	42,916

The estimated fair value represents the price at which an orderly transaction to sell the financial asset or to transfer the financial liability would take place between market participants at the balance sheet date ('exit price'). The fair value of financial assets and liabilities is based on unadjusted quoted market prices, where available. Such quoted market prices are primarily obtained from exchange prices for listed instruments. Where an exchange price is not available market prices are obtained from independent market vendors, brokers or market makers. Because substantial trading markets do not exist for all financial instruments, various techniques have been developed to estimate the approximate fair value of financial assets and liabilities that are not actively traded. The fair value presented may not be indicative of the net realisable value. In addition, the calculation of the estimated fair value is based on market conditions at a specific point in time and may not be indicative of the future fair value.

The following methods and assumptions were used by NN Leven to estimate the fair value of the financial instruments:

Cash and cash equivalents

Cash and cash equivalents are recognised at their nominal value which approximates the fair value.

Financial assets and liabilities at fair value through profit or loss

Derivatives

Derivative 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 that are not actively traded, the fair value is 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 discounted cash flows, Black-Scholes option 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 directly, but can be determined from observable prices via valuation model calibration procedures. The inputs used include prices available from exchanges, dealers, brokers or providers of pricing, yield curves, credit spreads, default rates, recovery rates, dividend rates, volatility of underlying interest rates, equity prices, and foreign currency exchange rates. These inputs are determined with reference to quoted prices, recently executed trades, independent market quotes and consensus data, where available.

Available-for-sale investments

Equity securities

The fair value of publicly traded equity securities is determined using 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

The fair value for debt securities is 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. If quoted prices in an active market are not available, fair value is based on an analysis of available market inputs which may include, values obtained from one or more pricing services or by a valuation technique that discounts expected future cash flows using market interest rate curves, referenced credit spreads, maturity of the investment and estimated prepayment rates where applicable.

Notes to the Consolidated annual accounts continued

Loans
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.

Subordinated debt
The fair value of subordinated debt is estimated using discounted cash flows based on interest rates and credit spreads that apply to similar instruments.

Other borrowed funds
The fair value of other borrowed funds 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.

Investment contracts
For investment contracts for risk of the company the fair value has been estimated using a discounted cash flow approach based on interest rates currently being offered for similar contracts with maturities consistent with those remaining for the contracts being valued. For investment contracts for risk of policyholders the fair value generally equals the fair value of the underlying assets. For other investment-type contracts, the fair value is estimated based on the cash surrender values.

Financial assets and liabilities at fair value
The fair value of the financial instruments carried at fair value was determined as follows:

Methods applied in determining the fair value of financial assets and liabilities carried at fair value (2022)

	Level 1	Level 2	Level 3	Total
Financial assets				
Investments for risk of policyholders	23,502	3	610	24,115
Non-trading derivatives	120	1,837	0	1,957
Financial assets designated as at fair value through profit or loss	196	190	0	386
Available-for-sale investments	30,948	11,771	5,316	48,035
Financial assets	54,766	13,801	5,926	74,493
Financial liabilities				
Non-trading derivatives	2	5,837	18	5,857
Financial liabilities	2	5,837	18	5,857

Methods applied in determining the fair value of financial assets and liabilities carried at fair value (2021)

	Level 1	Level 2	Level 3	Total
Financial assets				
Investments for risk of policyholders	27,819	4	725	28,548
Non-trading derivatives	29	6,108	0	6,137
Financial assets designated as at fair value through profit or loss	262	168	0	430
Available-for-sale investments	48,854	16,238	3,775	68,867
Financial assets	76,964	22,518	4,500	103,982
Financial liabilities				
Non-trading derivatives	18	1,651	12	1,681
Financial liabilities	18	1,651	12	1,681

NN Leven has categorised its financial instruments that are either measured in the balance sheet at fair value or for 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 on whether the fair value is 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 OTC and credit 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), mortgage loans and consumer lending, private equity instruments and investments in real estate funds.

Notes to the Consolidated annual accounts continued

Observable inputs reflect market data obtained from independent sources. Unobservable inputs are inputs which are based on NN Leven'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. Transfers into and transfers out of levels in the fair value hierarchy are recognised on the date of the event or change of circumstances that caused the transfer.

Level 1 – (Unadjusted) Quoted prices in active markets

This category includes financial instruments whose fair value is determined directly by reference to published quotes in an active market that NN Leven 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, broker, industry group, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions with sufficient frequency and volume to provide reliable pricing information on an ongoing basis.

Level 2 – Valuation technique supported by observable inputs

This category includes financial instruments whose 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. If certain inputs in the model are unobservable the instrument is still classified in this category, provided that the impact of those unobservable inputs elements on the overall valuation is insignificant. Included in this category are items whose value is derived from quoted prices of similar instruments, but for which the prices are modified based on other market observable external data and items whose value is derived from quoted prices but for which there was insufficient evidence of an active market.

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 is classified in its entirety 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 the price at which an orderly transaction would likely occur can be derived.

Changes in Level 3 Financial assets (2022)

	Investments for risk of policyholders	Non-trading derivatives	Available-for-sale investments	Total
Level 3 Financial assets - opening balance	725	0	3,775	4,500
Amounts recognised in the profit and loss account	-83	0	-21	-104
Revaluation recognised in other comprehensive income (equity)	0	0	8	8
Purchase	0	0	1,619	1,619
Sale	-32	0	-174	-206
Maturity/settlement	0	0	0	0
Other transfers and reclassifications	0	0	130	130
Transfers into Level 3	0	0	0	0
Transfers out of Level 3	0	0	0	0
Exchange rate differences	0	0	-21	-21
Level 3 Financial assets - closing balance	610	0	5,316	5,926

Changes in Level 3 Financial assets (2021)

	Investments for risk of policyholders	Non-trading derivatives	Available-for-sale investments	Total
Level 3 Financial assets - opening balance	787	0	2,576	3,363
Amounts recognised in the profit and loss account	-41	0	-18	-59
Revaluation recognised in other comprehensive income (equity)	0	0	386	386
Purchase	0	0	1,077	1,077
Sale	-21	0	-50	-71
Maturity/settlement	0	0	-108	-108
Other transfers and reclassifications	0	0	0	0
Transfers into Level 3	0	0	11	11
Transfers out of Level 3	0	0	-120	-120
Exchange rate differences	0	0	21	21
Level 3 Financial assets - closing balance	725	0	3,775	4,500

Changes in Level 3 Financial liabilities (2022)

	Non-trading derivatives
Level 3 Financial liabilities - opening balance	12
Amounts recognised in the profit and loss account	6
Sale	0
Transfers out of Level 3	0
Level 3 Financial liabilities - closing balance	18

Notes to the Consolidated annual accounts continued

Changes in Level 3 Financial liabilities (2021)

	Non-trading derivatives
Level 3 Financial liabilities - opening balance	17
Amounts recognised in the profit and loss account during the year	-5
Sale	0
Transfers out of Level 3	0
Level 3 Financial liabilities - closing balance	12

Level 3 – Amounts recognised in the profit and loss account during the year (2022)

	Held at balance sheet date	Derecognised during the period	Total
Financial assets			
Investments for risk of policyholders	-83	0	-83
Available-for-sale investments	-21	0	-21
Amounts recognised in the profit and loss account during the year	-104	0	-104
Financial liabilities			
Non-trading derivatives	6	0	6
Financial liabilities	6	0	6

Level 3 – Amounts recognised in the profit and loss account during the year (2021)

	Held at balance sheet date	Derecognised during the period	Total
Investments for risk of policyholders	-41	0	-41
Available-for-sale investments	-18	0	-18
Amounts recognised in the profit and loss account during the year	-59	0	-59
Financial liabilities			
Non-trading derivatives	-5	0	-5
Financial liabilities	-5	0	-5

Level 3 Financial assets at fair value

Financial assets measured at fair value in the balance sheet as at 31 December 2022 of EUR 74,493 million (2021: EUR 103,982 million) include an amount of EUR 5,926 million (8.0%) that is classified as Level 3 (2021: EUR 4,500 million (4.3%)). Changes in Level 3 are disclosed above in the table 'Level 3 Financial assets'.

Financial assets in Level 3 include both assets for which the fair value was determined using valuation techniques that incorporate unobservable inputs and assets for which the fair value was determined using quoted prices, but for which the market was not actively trading at or around the balance sheet date. Unobservable inputs are inputs which are based on NN Leven's own assumptions about the factors that market participants would use in pricing an asset, 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. Fair values that are determined using valuation techniques using unobservable inputs are sensitive to the inputs used. Fair values that are determined using quoted prices are not sensitive to unobservable inputs, as the valuation is based on unadjusted external price quotes. These are classified in Level 3 as a result of the illiquidity in the relevant market, but are not significantly sensitive to NN Leven's own unobservable inputs.

Unrealised gains and losses that relate to 'Level 3 Financial assets' are included in the profit and loss account as follows:

- Those relating to investments for risk of policyholders are included in 'Underwriting expenditure'
- Those relating to non-trading derivatives are included in 'Valuation results on non-trading derivatives'
- Those relating to financial assets designated as at fair value through profit or loss are included in 'Valuation results on non-trading derivatives' - Valuation results on assets and liabilities designated as at fair value through profit or loss (excluding trading)'.

Unrealised gains and losses that relate to available-for-sale investments are recognised in other comprehensive income (equity) and included in reserves in the line unrealised revaluations available-for-sale investments.

Investments for risk of policyholders

Of the EUR 5,926 million (2021: EUR 4,500 million) Level 3 investments EUR 610 million (2021: EUR 725 million) relates to investments for risk of policyholders. Net result is unaffected when reasonable possible alternative assumptions would have been used in measuring these investments.

Non-trading derivatives

Non-trading derivatives classified as 'Level 3 Financial assets' are mainly used for economic hedges ('basket option'). These derivatives classified as Level 3 amounted to nil as at 31 December 2022 (2021: nil).

Notes to the Consolidated annual accounts continued

Available-for-sale investments

The remaining EUR 5,316 million (2021: EUR 3,774 million) relates to 'Available-for-sale investments' whose fair value is generally based on unadjusted quoted prices in inactive markets. This includes for example debt securities and shares in real estate investment funds and private equity investment funds for which the fair value is determined using quoted prices for the securities or quoted prices obtained from the asset managers of the funds. It is estimated that a 10% change in valuation of these investments would have no impact on net result but would increase or reduce 'Shareholder's equity' by EUR 532 million (2021: EUR 377 million), being approximately 4.05% (before tax) (2021: 1,33% (before tax)), of 'Total equity'.

Level 3 Financial liabilities at fair value
Non-trading derivatives

The total amount of financial liabilities classified as Level 3 at 31 December 2022 of EUR 18 million (2021: EUR 12 million) relates to non-trading derivative positions. These derivatives are used to for the longevity hedge. Reference is made to Note 31 'Derivatives and hedge accounting' for more information.

EUR 18 million relates to longevity hedges closed by NN Leven. It is estimated that a 5% increase in mortality assumptions for these longevity hedges would reduce result and equity before tax by EUR 5 million and a 5% decrease in mortality assumptions would increase result and equity before tax by EUR 7 million.

Financial assets and liabilities at amortised cost

The fair value of the financial instruments carried at amortised cost in the balance sheet (where fair values are disclosed) were determined as follows:

Methods applied in determining the fair value of financial assets and liabilities carried at amortised cost (2022)

	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents	343	0	0	343
Loans	0	2,888	34,457	37,345
Financial assets	343	2,888	34,457	37,688
Financial liabilities				
Subordinated debt	0	1,067	0	1,067
Other borrowed funds	250	4,000	0	4,250
Investment contracts for risk of company	0	0	765	765
Financial liabilities	250	5,067	765	6,082

Methods applied in determining the fair value of financial assets and liabilities carried at amortised cost (2021)

	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents	234	0	0	234
Loans	0	3,663	41,462	45,125
Financial assets	234	3,663	41,462	45,359
Financial liabilities				
Subordinated debt	532	659	0	1,191
Other borrowed funds	500	30	1	531
Investment contracts for risk of company	0	0	927	927
Financial liabilities	1,032	689	928	2,649

30 Fair value of non-financial assets

The following table presents the estimated fair value of NN Leven's non-financial assets that are measured at fair value in the balance sheet. Reference is made to Note 1 'Accounting policies' in the section 'Real estate investments' and 'Property and equipment' for the method and assumption used by NN Leven to estimate the fair value of the non-financial assets.

Fair value of non-financial assets

	Estimated fair value		Balance sheet value	
	2022	2021	2022	2021
Real estate investments	2,754	2,719	2,754	2,719
Property in own use	28	35	28	35
Fair value of non-financial assets	2,782	2,754	2,782	2,754

Notes to the Consolidated annual accounts continued

The fair value of the non-financial assets was determined as follows:

Methods applied in determining the fair value of non-financial assets (2022)

	Level 1	Level 2	Level 3	Total
Real estate investments	0	0	2,754	2,754
Property in own use	0	0	28	28
Non-financial assets	0	0	2,782	2,782

Methods applied in determining the fair value of non-financial assets (2021)

	Level 1	Level 2	Level 3	Total
Real estate investments	0	0	2,719	2,719
Property in own use	0	0	35	35
Non-financial assets	0	0	2,754	2,754

Changes in Level 3 Non-financial assets (2022)

	Real estate investments	Property in own use
Level 3 Non-financial assets - opening balance	2,719	35
Purchase	136	0
Revaluation recognised in equity during the year	0	0
Sale	-100	0
Amounts recognised in the profit and loss account during the year	-9	3
Changes in the composition of the group and other changes	8	-10
Level 3 Non-financial assets - closing balance	2,754	28

Changes in Level 3 Non-financial assets (2021)

	Real estate investments	Property in own use
Level 3 Non-financial assets - opening balance	2,444	36
Purchase	156	0
Revaluation recognised in equity during the year	0	0
Sale	-124	0
Amounts recognised in the profit and loss account during the year	241	-1
Changes in the composition of the group and other changes	2	0
Level 3 Non-financial assets - closing balance	2,719	35

Level 3 – Amounts recognised in the profit and loss account during the year non-financial assets (2022)

	Held at balance sheet date	Derecognised during the year	Total
Real estate investments	-9	0	-9
Property in own use	3	0	3
Level 3 - Amounts recognised in the profit and loss account during the year non-financial assets	-6	0	-6

Level 3 – Amounts recognised in the profit and loss account during the year non-financial assets (2021)

	Held at balance sheet date	Derecognised during the year	Total
Real estate investments	241	0	241
Property in own use	-1	0	-1
Level 3 - Amounts recognised in the profit and loss account during the year non-financial assets	240	0	240

Real estate investments

Valuation methodology

The fair value of real estate is based on regular appraisals by independent, qualified valuers. The fair value is established using valuation methods that take into account recent comparable market transactions (CMT), capitalisation of income (CI) methods and/or discounted cash flow (DCF) calculations.

The underlying assumption used in the valuation is that the properties are let or sold to third parties based on the actual letting status. Future rental income is taken into account in accordance with the terms in existing leases, (expected) vacancies, estimations of the rental values for new leases when leases expire and incentives like rent-free periods. These estimated cash flows are discounted using market-based discount rates that reflect appropriately the risk characteristics of the real estate investments.

Key assumptions

Key assumptions in the valuation of real estate include the estimated current rental value per square metre, the estimated future rental value per square metre (ERV), the net initial yield and the vacancy rate. These assumptions were in the following ranges:

Notes to the Consolidated annual accounts continued

Significant assumptions

	Fair value	Valuation technique	Current rent/m2	ERV/m2	Net initial yield (%)	Vacancy (%)	Average lease term in years
The Netherlands							
Office	169	DCF	333 - 342	364-406	3.52 - 3.54	1.26	7.4
Residential	64	DCF	218.1	245.0	4.5	4.5	
Residential	4	Residual approach					
Industrial	172	DCF	49 - 52	54 - 64	3.23 - 3.63		3.7
Retail	12	DCF	139.2	202.1	4.5	35.1	8.2
Ground positions	2	Residual approach					
IPUC	97	Residual approach					
Germany							
Retail	258	DCF	192-321	173-322	4.26-4.48	6.6	4.7
Industrial	258	DCF	48-96	60-97	3.9-4.5	2.0	6.2
France							
Residential	228	DCF	286-429	225-353	3.66-4.86	1.9	2.0
Industrial	339	DCF	46-73	46-73	3.86-4.78		5.1
Spain							
Retail	246	DCF	225-233	195-256	6.41-8.48	5.0	3.6
Industrial	124	DCF	0-45	30-45	0.82-6.56	40.2	1.7
Italy							
Retail	219	DCF	161-760	170-780	0.9-7.51	2.0	5.9
Industrial	37	DCF	52	55	4.6		1.4
Denmark							
Residential	122	DCF	271	271	3.9		
Industrial	83	DCF	112-165	142-195	4.72-5		10.4
Belgium							
Retail	116	DCF	82 - 365	103 - 324	5.45 - 6.86	3.6	2.9
Industrial	34	DCF	45	48	4.6		0.7
Office	18	DCF	315	194	5.0	23.0	0.5
Residential	25	DCF	189	188			26.2
Poland							
Retail	82	DCF	154	157	8.2	5.0	3.3
Real estate under construction and other	45						
Total Real estate	2,754						

Sensitivities

Significant increases (decreases) in the estimated rental value and rent growth in isolation would result in a significantly higher (lower) fair value of the real estate investments. Significant increases (decreases) in the long-term vacancy rate and discount rate in isolation would result in a significantly lower (higher) fair value of the real estate investments.

During 2022, the number of transactions in relevant real estate markets has decreased, resulting in larger uncertainties around the inputs to the valuations and, therefore, increased uncertainty in the fair value of real estate investments.

31 Derivatives and hedge accounting

Use of derivatives and hedge accounting

NN Leven uses derivatives (mainly interest rate swaps) for economic hedging purposes in the management of its asset and liability portfolios. The objective of economic hedging is to enter into positions with an opposite risk profile to an identified exposure to reduce that exposure.

The accounting treatment of hedge transactions varies according to the nature of the instrument hedged and whether the hedge qualifies under the IFRS-EU hedge accounting rules. Derivatives that qualify for hedge accounting under IFRS-EU are classified and accounted for in accordance with the nature of the hedged item and the type of IFRS-EU hedge model that is applicable. The three models applicable under IFRS-EU are cash flow hedge accounting, fair value hedge accounting and net investment hedge accounting. The company's detailed accounting policies for these hedge models are set out in Note 1 Accounting policies in the section on Accounting policies for specific items.

Notes to the Consolidated annual accounts continued

To qualify for hedge accounting under IFRS-EU, strict criteria must be met. Certain hedges that are economically effective from a risk management perspective do not qualify for hedge accounting under IFRS-EU. The fair value changes of derivatives relating to such non-qualifying hedges are taken to the profit and loss account. However, in certain cases, NN Leven does not use IFRS-EU hedge accounting and mitigates the profit and loss account volatility by designating hedged assets and liabilities at fair value through profit or loss. If IFRS-EU hedge accounting is applied, it is possible that a hedge relationship no longer qualifies for hedge accounting and hedge accounting cannot be continued, even if the hedge remains economically effective. As a result, the volatility arising from undertaking economic hedging in the profit and loss account may be higher than would be expected from an economic point of view.

For interest rate derivative contracts, the notional or contractual amount of these instruments is indicative of the nominal value of transactions outstanding at the balance sheet date; however they do not represent amounts at risk.

In 2017 NN Leven entered into a longevity hedge, based on a general index of Dutch mortality. The maximum pay-out of the hedge amounts to EUR 100 million, payable after twenty years. The hedge is financed by annual premium payments to the counterparty. The longevity hedge is accounted for as derivative and has a fair value of EUR -18 million as per 31 December 2022 (2021: EUR -12 million). The hedge reduces the impact of longevity trend scenarios implying more improvement in life expectancy. The regulator approved including the effects of this specific hedge on the SCR. The purpose of the hedge is to reduce the net longevity risk.

Cash flow hedge accounting

NN Leven's hedge accounting consists mainly of cash flow hedge accounting. NN Leven's cash flow hedges mainly consist of Euribor based (forward starting) interest rate swaps that are used to protect against its exposure to variability in future interest cash flows on assets 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 per specific portfolio of financial assets, based on contractual terms and other relevant factors including estimates of prepayments and defaults.

Gains and losses on the effective portions of derivatives designated under cash flow hedge accounting are recognised in shareholder's equity. Interest income and expenses on these derivatives are recognised in the profit and loss account in interest result consistent with the manner in which the forecast cash flows affect net result. The gains and losses on ineffective portions of such derivatives are recognised immediately in the profit and loss account.

For the year ended 31 December 2022, NN Leven recognised EUR -5,709 million (2021: EUR -3,283 million) in equity as effective fair value changes on derivatives under cash flow hedge accounting. The balance of the cash flow hedge reserve in equity as at 31 December 2022 was EUR 4,876 million (2021: EUR 11,590 million) gross and EUR 2,891 million (2021: EUR 8,600 million) after deferred tax. This cash flow hedge reserve will fluctuate with the fair value of the underlying derivatives and will be reflected in the profit and loss account under Interest income/expenses over the remaining term of the underlying hedged items. The cash flow hedge reserve relates to a large number of derivatives and hedged items with varying maturities up to 49 years with the largest concentrations in the range of one year to eight years. Accounting ineffectiveness on derivatives designated under cash flow hedge accounting resulted in EUR 75 million expense (2021: EUR 10 million expense) which was recognised in the profit and loss account.

As at 31 December 2022, the fair value of outstanding derivatives designated under cash flow hedge accounting was EUR –2,921 million (2021: EUR 3,728 million), presented in the balance sheet as EUR 235 million (2021: EUR 4,609 million) positive fair value under assets and EUR 3,156 million (2021: EUR 881 million) negative fair value under liabilities.

Included in 'Interest income' and 'Interest expenses on non-trading derivatives' is EUR 136 million (2021: EUR 162 million) and EUR 127 million (2021: EUR 98 million), respectively, relating to derivatives used in cash flow hedges.

Fair value hedge accounting

NN Leven'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.

Gains and losses on derivatives designated under fair value hedge accounting are recognised in the profit and loss account. The effective portion of the fair value change on the hedged item is also recognised in the profit and loss account. As a result, only the net accounting ineffectiveness has an impact on the net result.

For the year ended 31 December 2022, NN Leven recognised EUR nihil million (2021: EUR nihil) of fair value changes on derivatives designated under fair value hedge accounting in the profit and loss account. This amount was offset by EUR -2 million (2021: EUR -3 million) fair value changes recognised on hedged items. This resulted in EUR –2 million (2021: -3 million) net accounting ineffectiveness recognised in the profit and loss account. As at 31 December 2022, the fair value of outstanding derivatives designated under fair value hedge accounting was nil (2021: nil), presented in the balance sheet as nil (2021: nil) positive fair value under assets and nil (2021: nil) negative fair value under liabilities.

32 Assets by contractual maturity

Amounts presented in these tables by contractual maturity are the amounts as presented in the balance sheet.

Assets by contractual maturity (2022)

	Less than 1 month[1]	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Assets							
Cash and cash equivalents	343	0	0	0	0	0	343
Financial assets at fair value through profit or loss:	0	0	0	0	0	0	
– investments for risk of policyholders[2]	0	0	0	0	0	24,115	24,115
– non-trading derivatives	0	120	4	203	1,631	0	1,958
– designated as at fair value through profit or loss	0	0	25	1	0	361	387
Available-for-sale investments	869	587	1,919	7,904	26,895	9,861	48,035
Loans	120	1,104	941	3,996	36,458	-9	42,610
Reinsurance contracts	15	23	41	145	225	630	1,079
Intangible assets	0	1	4	20	21	0	46
Deferred acquisition costs	3	7	29	122	70	0	231
Deferred tax assets	0	0	0	630	7	39	676
Other assets	3,959	877	2,455	10	0	0	7,301
Remaining assets (for which maturities are not applicable)[3]	0	0	0	0	0	9,220	9,220
Total assets	5,309	2,719	5,418	13,031	65,307	44,217	136,000

1 Includes assets on demand.
2 Investments for risk of policyholders are managed on behalf of policyholders on a fair value basis. Although individual instruments may (or may not) have a maturity depending on their nature, this does not impact the liquidity position of NN Leven.
3 Included in remaining assets for which maturities are not applicable are associates and joint ventures, real estate investments and equipment. Due to their nature remaining assets consist mainly of assets expected to be recovered after more than 12 months.

Assets by contractual maturity (2021)

	Less than 1 month[1]	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Assets							
Cash and cash equivalents	234	0	0	0	0	0	234
Financial assets at fair value through profit or loss:							
– investments for risk of policyholders[2]	0	0	0	0	0	28,548	28,548
– non-trading derivatives	0	41	6	35	6,055	0	6,137
– designated as at fair value through profit or loss	0	0	0	28	0	402	430
Available-for-sale investments	514	779	2,644	11,613	42,831	10,486	68,867
Loans	124	1,684	1,090	4,313	35,082	-11	42,282
Reinsurance contracts	4	29	68	176	230	693	1,200
Intangible assets	1	1	4	16	28	0	50
Deferred acquisition costs	3	7	28	122	75	0	235
Deferred tax assets	0	0	0	0	0	33	33
Other assets	1,030	292	2,051	8	1	0	3,382
Remaining assets (for which maturities are not applicable)[3]	0	0	0	0	0	9,580	9,580
Total assets	1,910	2,833	5,891	16,311	84,302	49,731	160,978

1 Includes assets on demand.
2 Investments for risk of policyholders are managed on behalf of policyholders on a fair value basis. Although individual instruments may (or may not) have a maturity depending on their nature, this does not impact the liquidity position of NN Leven.
3 Included in remaining assets for which maturities are not applicable are associates and joint ventures, real estate investments and equipment. Due to their nature remaining assets consist mainly of assets expected to be recovered after more than 12 month

Notes to the Consolidated annual accounts continued

33 Liabilities by maturity

The tables below include all financial liabilities by maturity based on contractual, undiscounted cash flows. 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, including insurance and investment contracts, are included based on a breakdown of the (discounted) balance sheet amounts by expected maturity. Reference is made to the Liquidity risk paragraph in Note 45 'Risk management' for a description on how liquidity risk is managed.

Liabilities by maturity (2022)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Adjustment[1]	Total
Liabilities								
Subordinated debt[2]	0	0	0	600	500	0	0	1,100
Other borrowed funds	1,250	1,500	1,515	0	0	0	0	4,265
Financial liabilities at fair value through profit or loss:								
– non-trading derivatives	38	69	262	2,084	12,114	0	-8,710	5,857
Financial liabilities	1,288	1,569	1,777	2,684	12,614	0	-8,710	11,222
Insurance and investment contracts	227	527	1,790	9,804	71,793	24,168	0	108,309
Deferred tax liabilities	3	1	2	3	356	0	0	365
Other liabilities	2,456	384	27	37	66	0	0	2,970
Non-financial liabilities	2,686	912	1,819	9,844	72,215	24,168	0	111,644
Total liabilities	3,974	2,481	3,596	12,528	84,829	24,168	-8,710	122,866
Coupon interest due on financial liabilities[3]	4	5	17	0	0	0	0	26

1 This column reconciles the contractual undiscounted cash flow on financial liabilities to the balance sheet values. The adjustments mainly relate to the impact of discounting and, for derivatives, to the fact that the contractual cash flows are presented gross basis (unless the cash flows are actually settled net).
2 Subordinated debt maturities are presented based on first call date. For legal date of maturity reference is made to Note 14 'Subordinated debt'.
3 For some of the 'Other borrowed funds' NN Leven receives a discount on the interest paid. Given the low interest rates this resulted in negative amounts on the interest due for some periods.

Liabilities by maturity (2021)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Adjustment[1]	Total
Liabilities								
Subordinated debt[2]	0	0	500	600	0	0	20	1,120
Other borrowed funds	30	500	1	0	0	0	0	531
Financial liabilities at fair value through profit or loss:								
– non-trading derivatives	13	71	243	937	7,327	0	-6,910	1,681
Financial liabilities	43	571	744	1,537	7,327	0	-6,890	3,332
Insurance and investment contracts	316	714	2,142	11,695	75,984	28,591	1	119,443
Deferred tax liabilities	3	2	8	33	3,623	302	0	3,971
Other liabilities	4,251	134	218	548	697	36	0	5,884
Non-financial liabilities	4,570	850	2,368	12,276	80,304	28,929	1	129,298
Total liabilities	4,613	1,421	3,112	13,813	87,631	28,929	-6,889	132,630
Coupon interest due on financial liabilities[3]	0	0	0	0	0	0	0	0

1 This column reconciles the contractual undiscounted cash flow on financial liabilities to the balance sheet values. The adjustments mainly relate to the impact of discounting and, for derivatives, to the fact that the contractual cash flows are presented gross basis (unless the cash flows are actually settled net).
2 Subordinated debt maturities are presented based on first call date. For legal date of maturity reference is made to Note 14 'Subordinated debt'.
3 For some of the 'Other borrowed funds' NN Leven receives a discount on the interest paid. Given the low interest rates this resulted in negative amounts on the interest due for some periods.

34 Assets not freely disposable

The assets not freely disposable relate primarily to investments of nil (2021: nil) provided as guarantees for certain contingent liabilities. There are no significant terms and conditions relating to the collateral represented by such guarantees.

Assets relating to securities lending are disclosed in Note 35 'Transferred, but not derecognised financial assets'.

Notes to the Consolidated annual accounts continued

35 Transferred, but not derecognised financial assets

The majority of NN Leven's financial assets, that have been transferred, but do not qualify for derecognition are debt instruments used in securities lending. NN Leven retains substantially all risks and rewards of those transferred assets. The assets are transferred in return for cash collateral or other financial assets. Non-cash collateral is not recognised in the balance sheet. Cash collateral is recognised as an asset and an offsetting liability is established for the same amount as NN Leven is obligated to return this amount upon termination of the lending arrangement.

Transfer of financial assets not qualifying for derecognition

	2022	2021
Transferred assets at carrying value		
Available-for-sale investments	7,666	16,133
Associated liabilities at carrying value		
Other borrowed funds	4,265	530

36 Offsetting of 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 balance sheet under the IFRS-EU offsetting requirements (legal right to offset and intention to settle on a net basis) and amounts presented gross in the balance sheet but subject to enforceable master netting arrangements or similar agreements.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements (2022)

					Related amounts not offset in the balance sheet		
Balance sheet line item	Financial instrument	Gross financial assets	Gross financial liabilities offset in the balance sheet	Net financial assets in the balance sheet	Financial instruments	Cash and financial instruments collateral	Net amount
Non-trading derivatives	Derivatives	1,932	0	1,932	-1,602	-325	5
Financial assets at fair value through profit or loss		1,932	0	1,932	-1,602	-325	5
Available-for-sale	Other	46	0	46	-28	-18	0
Investments		46	0	46	-28	-18	0
Total financial assets		1,978	0	1,978	-1,630	-343	5

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements (2021)

					Related amounts not offset in the balance sheet		
Balance sheet line item	Financial instrument	Gross financial assets	Gross financial liabilities offset in the balance sheet	Net financial assets in the balance sheet	Financial instruments	Cash and financial instruments collateral	Net amount
Non-trading derivatives	Derivatives	4,003	0	4,003	-916	-3,082	5
Financial assets at fair value through profit or loss		4,003	0	4,003	-916	-3,082	5
Available-for-sale	Other	17	0	17	-5	-13	-1
Investments		17	0	17	-5	-13	-1
Total financial assets		4,020	0	4,020	-921	-3,095	4

Notes to the Consolidated annual accounts continued

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (2022)

Balance sheet line item	Financial instrument	Gross financial liabilities	Gross financial assets offset in the balance sheet	Net financial liabilities in the balance sheet	Related amounts not offset in the balance sheet: Financial instruments	Cash and financial instruments collateral	Net amount
Non-trading derivatives	Derivatives	5,717	0	5,717	-1,602	-4,057	58
Financial liabilities at fair value through profit or loss		5,717	0	5,717	-1,602	-4,057	58
Other items where offsetting is applied in the balance sheet		4,041	0	4,041	-28	-3,961	52
Total financial liabilities		9,758	0	9,758	-1,630	-8,018	110

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (2021)

Balance sheet line item	Financial instrument	Gross financial liabilities	Gross financial assets offset in the balance sheet	Net financial liabilities in the balance sheet	Related amounts not offset in the balance sheet: Financial instruments	Cash and financial instruments collateral	Net amount
Non-trading derivatives	Derivatives	1,109	0	1,109	-916	-189	4
Financial liabilities at fair value through profit or loss		1,109	0	1,109	-916	-189	4
Other items where offsetting is applied in the balance sheet		6	0	6	-5	-2	-1
Total financial liabilities		1,115	0	1,115	-921	-191	3

37 Contingent liabilities and commitments

In the normal course of business NN Leven is party to activities whose risks are not reflected in whole or in part in the Consolidated annual accounts. In response to the needs of its customers, NN Leven offers financial products related to loans. These products include traditional off-balance sheet credit-related financial instruments.

Contingent liabilities and commitments (2022)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Commitments	150	263	875	96	0	63	1,447
Guarantees	0	0	0	0	0	0	0
Contingent liabilities and commitments	150	263	875	96	0	63	1,447

Contingent liabilities and commitments (2021)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Commitments	315	477	1,317	109	0	343	2,561
Guarantees	0	0	2	0	0	0	2
Contingent liabilities and commitments	315	477	1,319	109	0	343	2,563

Next to this NN Leven has committed amounts to investments of EUR 4,262 million (2021: 3,665 million) where it is uncertain when those amounts will be invested.

The commitments mainly concern mortgage offers issued. In addition to the items included in 'Contingent liabilities', NN Leven has issued guarantees as a participant in collective arrangements of national industry bodies and as a participant in government required collective guarantee schemes. Of these commitments EUR 1,383 million (2021: EUR 2,215 million) (mortgages and other) concerns the parent company.

The guarantees, other than those included in 'Insurance contracts', are expected to expire without being drawn on and therefore do not necessarily represent future cash outflows.

Tax liabilities

NN Leven, together with certain of its subsidiaries, is a part of a fiscal unity for Dutch income tax purposes. The members of the fiscal unity are jointly and severally liable for any income taxes payable by the Dutch fiscal unity. The income tax positions of NN Group at the end of 2022 and 2021 constitute a receivable.

38 Legal proceedings

General
NN is involved in litigation and other binding proceedings in the Netherlands involving claims by and against NN Leven which arise in the ordinary course of its business, including in connection with its activities as insurer, investor and its position as employer and taxpayer. In certain of such proceedings, very large or indeterminate amounts are sought. While it is not feasible to predict or determine the ultimate outcome of all pending or threatened legal and regulatory proceedings, NN Leven believes that some of the proceedings set out below may have, or have in the recent past had, a significant effect on the financial condition, profitability or reputation of NN Leven.

Unit-linked products in the Netherlands
Since the end of 2006, unit-linked products (commonly referred to in Dutch as 'beleggingsverzekeringen') have received negative attention in the Dutch media, from the Dutch Parliament, the Netherlands Authority for the Financial Markets (Autoriteit Financiële Markten) and consumer protection organisations. Costs of unit-linked products sold in the past are perceived as too high and Dutch insurers are in general being accused of being less transparent in their offering of such unit-linked products.

On 29 April 2015, the European Court of Justice issued its judgment on preliminary questions submitted by the District Court in Rotterdam, upon request of parties, including NN Leven, to obtain clarity on principal legal questions with respect to cost transparency in relation to unit-linked products. The main preliminary question considered by the European Court of Justice was whether European law permits the application of information requirements based on general principles of Dutch law that extend beyond information requirements as explicitly prescribed by laws and regulations in force at the time the policy was written. The European Court of Justice ruled that the information requirements prescribed by the applicable European directive may be extended by additional information requirements included in national law, provided that these requirements are necessary for a policyholder to understand the essential characteristics of the commitment and are clear, accurate and foreseeable. Dutch courts will need to take the interpretation of the European Court of Justice into account in relevant proceedings.

In 2013 Woekerpolis.nl and in 2017 Consumentenbond and Wakkerpolis, all associations representing the interests of policyholders of NN Leven, individually initiated so-called 'collective proceedings' against NN Leven. These claims are all based on similar grounds and have been rejected by NN Leven and NN Leven defends itself in these legal proceedings.

Woekerpolis.nl requested the District Court in Rotterdam to declare that NN Leven sold products which are defective in various respects. Woekerpolis.nl alleges that NN Leven failed to meet the required level of transparency regarding, cost charges and other product characteristics, failed to warn policyholders of certain product related risks, such as considerable stock depreciations, the inability to realise the projected final policy value, unrealistic capital projections due to differences in geometric versus arithmetic returns and that certain general terms and conditions regarding costs were unfair. On 19 July 2017, the District Court in Rotterdam rejected all claims of Woekerpolis.nl and ruled that NN Leven has generally provided sufficient information on costs and deductions. Woekerpolis.nl has lodged an appeal with the Court of Appeal in The Hague against the judgment of the District Court in Rotterdam. On 23 February 2021, the Court of Appeal in The Hague rendered an interim judgment submitting preliminary questions to the Dutch Supreme Court to obtain clarity on the interpretation of certain principle questions of law that are relevant in disputes concerning unit-linked policies. The questions concern the relationship between the specific Dutch regulations applicable to insurers regarding the provision of (pre)contractual information, and Dutch civil law and the impact thereon by European law. On 11 February 2022, the Supreme Court answered the questions of law submitted to it by the Court of Appeal in The Hague. The Supreme Court primarily considers that Dutch civil law is applicable to the legal relationship between insurer and policyholder. It is up to lower courts to decide whether Dutch civil law entails obligations to provide information in addition to the obligations arising from specific regulations and, if so, which obligations. The Supreme Court holds that if the lower courts were to decide that additional information obligations apply, such obligations must satisfy the criteria formulated by the European Court of Justice in the abovementioned judgment of 2015. This means that the courts have to judge whether these information obligations 1) pertain to information that is clear and accurate, 2) are necessary for a proper understanding of the essential characteristics of the unit-linked policy, and 3) enable the insurer to identify with sufficient foreseeability the additional information that must be provided and that the policyholder may expect. (Only) in case any potential obligation to provide additional information satisfies the aforementioned criteria, the policyholder can claim legal protection before the court. The judgment has no direct consequences for customers with a unit-linked policy. The Court of Appeal in The Hague resumed the collective proceedings between Woekerpolis.nl and NN Leven. Under Dutch law, judgments rendered by lower (including appellate) courts have no legal status as precedent and only bind parties in the respective legal proceedings. The Court of Appeal in The Hague is to independently asses all facts, circumstances, arguments, claims and counter arguments brought forward in the collective proceedings between Woekerpolis.nl and NN Leven. A judgment in appeal is expected in the first half of 2023. Any final judgment by the Court of Appeal is subject to cassation proceedings at the Dutch Supreme Court.

Consumentenbond alleges that NN Leven failed to adequately inform policyholders on cost charges, deductions for life insurance cover and the leverage and capital consumption effect and that NN Leven provided misleading capital projections. Consumentenbond requested the District Court in Rotterdam to order a recalculation of certain types of unit-linked insurance products and to declare that NN Leven is liable for any damage caused by a lack of information and misleading capital projections. On 29 July 2020, the District Court in Rotterdam rejected all claims of Consumentenbond. The court ruled that NN Leven has provided sufficient information on the effect of costs and deductions for life insurance cover included in the gross premium, leading to consensus between parties ('wilsovereenstemming') on these costs and deductions and on the manner in which these costs components are set off during the term of the insurance. Consumentenbond has lodged an appeal with the Court of Appeal in The Hague against the judgment of the District Court. The appeal proceedings commenced on 29 June 2021 and are expected to resume in due course after a deferral in anticipation of the judgment in the preliminary proceedings before the Supreme Court mentioned above.

Notes to the Consolidated annual accounts continued

Wakkerpolis' and several individual policyholders' claims primarily concentrate on the recovery of initial costs for policyholders, claiming that there is no contractual basis for settling these initial costs. In an interim judgment rendered on 22 April 2020, the District Court in Rotterdam in principle dismissed Wakkerpolis' most important claim to recalculate unit-linked insurance policies without initial costs for policies taken out after 1 July 1994. In its final judgment (in first instance) of 20 July 2022, the District Court in Rotterdam considered that for policies taken out after 1 July 1994, NN Leven has generally complied with its information obligations towards its policyholders, leading to consensus between parties on initial costs. Only with respect to policies taken out before 1 July 1994, the District Court in Rotterdam concluded that NN Leven did not (fully) comply with its information obligations and, therefore, a contractual basis for settling initial costs is absent. NN Leven has to recalculate these policies, as if the initial costs were never incurred, unless consensus between parties on initial costs can otherwise be established. For premium policies taken out between 1 July 1994 and 1 August 1999 that were surrendered early or converted into a paid-up policy, the District Court in Rotterdam ruled that settlement of initial costs upon surrender or conversion was allowed, but that NN Leven should apply a settlement period of five years instead of a settlement period of five to ten years, if that is more favourable for the policyholder. For policies taken out in the period 1 August 1999 onwards, the District Court in Rotterdam found that NN Leven sufficiently informed policyholders of the consequences of early surrender or conversion into a paid-up policy for the value of the policy. Wakkerpolis lodged an appeal against the judgment of 20 July 2022. Although the judgment is largely in line with NN Leven's views, NN Leven disagrees with the District Court in Rotterdam on a number of points and will lodge a cross appeal. In the context of the ongoing proceedings against NN Leven, NN Leven does not disclose further details on the (potential) financial impact of this judgment.

There has been for some time and there continues to be political, regulatory and public attention focused on the unit-linked issue in general. Elements of unit-linked policies are being challenged or may be challenged on multiple legal grounds in current and future legal proceedings. There is a risk that one or more of those legal challenges will succeed. Customers of NN Leven have claimed, among others, that (a) the investment risk, costs charged or the deductions was or were not, or not sufficiently, made clear to the customer, (b) the product costs charged on initial sale and on an ongoing basis were so high that the expected return on investment was not realistically achievable, (c) the product sold to the customer contained specific risks that were not, or not sufficiently, made clear to the customer (such as the leverage capital consumption risk) or was not suited to the customer's personal circumstances, (d) the insurer owed the customer a duty of care which the insurer has breached, (e) the insurer failed to warn of the risk of not realising the projected policy values and/or that these projected policy values were incorrect, (f) the policy conditions were unfair, or (g) the costs charged or the deductions had no contractual basis. These claims may be based on general standards of contract or securities law, such as reasonableness and fairness, error, duty of care, or standards for proper customer treatment or due diligence, such as relating to the fairness of terms in consumer contracts and may be made by customers, or on behalf of customers, holding active policies or whose policies have lapsed, matured or been surrendered. There is no assurance that further proceedings for damages based on aforementioned legal grounds or other grounds will not be brought. The timing of reaching any finality in last instance on these pending legal claims and proceedings is uncertain and such uncertainty is likely to continue for some time.

Rulings or announcements made by courts or decision-making bodies or actions taken by regulators or governmental authorities against NN Leven or other Dutch insurance companies in respect of unit-linked products, or settlements or any other actions to the benefit of customers (including product improvements or repairs) by other Dutch insurance companies towards consumers, consumer protection organisations, regulatory or governmental authorities or other decision-making bodies in respect of the unit-linked products, may affect the (legal) position of NN Leven and may force such subsidiaries to take (financial) measures that could have a substantial impact on the financial condition, results of operations, solvency or reputation of NN Leven. As a result of the public and political attention the unit-linked issue has received, it is also possible that sector-wide measures may be imposed by governmental authorities or regulators in relation to unit-linked products in the Netherlands. The impact on NN Leven of rulings made by courts or decision-making bodies, actions taken by regulators or governmental bodies against other Dutch insurance companies in respect of unit-linked products, or settlements or any other actions to the benefit of customers (including product improvements or repairs), may be determined not only by market share but also by portfolio composition, product features, terms and conditions and other factors. Adverse decisions or the occurrence of any of the developments as described above could result in outcomes materially different than if NN Leven or its products had been judged or negotiated solely on their own merits.

The book of policies of NN Leven dates back many years, and in some cases several decades. Over time, the regulatory requirements and expectations of various stakeholders, including customers, regulators and the public at large, as well as standards and market practice, have developed and changed, increasing customer protection. As a result, policyholders and consumer protection organisations have initiated and may in the future initiate proceedings against NN Leven alleging that products sold in the past fail to meet current requirements and expectations. In any such proceedings, it cannot be excluded that the relevant court, regulator, governmental authority or other decision-making body will apply current norms, requirements, expectations, standards and market practices on laws and regulations to products sold, issued or advised on by NN Leven.

Although the financial consequences of any of these factors or a combination thereof could be substantial for NN Leven and, as a result, may have a material adverse effect on NN Leven's business, reputation, revenues, results of operations, solvency, financial condition and prospects, it is not possible to reliably estimate or quantify NN Leven's overall exposures at this time.

Notes to the Consolidated annual accounts continued

39 Principal subsidiaries

The principal subsidiaries and their statutory place of incorporation or primary place of business are as follows:

Principal subsidiaries of NN Leven

Subsidiary	Statutory place	Proportion of ownership interest held by NN Leven 2022	2021
REI Investment I B.V.	The Hague, the Netherlands	79%	80%
REI Diaphane Fund FGR	The Hague, the Netherlands	79%	80%
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	86%
Private Equity Investments B.V.	The Hague, the Netherlands	94%	94%
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	95%	95%
Private Debt Investments B.V.	The Hague, the Netherlands	100%	100%
ABN AMRO Levensverzekering N.V.[1]	Zwolle, the Netherlands	100%	51%

1 On 15 July 2022, NN Leven acquired 100% of the life insurance subsidiary of AAV. The acquisition of the life insurance subsidiary AAL was between companies with the same parent NN Group ('under common control'). As a result of the common control transaction, NN Leven had 51% interest in AAL in 2021.

Principal subsidiaries of REI Investment I B.V.

Subsidiary	Statutory place	Proportion of ownership interest held by REI Investment I B.V. 2022	2021
REI Belgium Warande B.V.	Schiphol, the Netherlands	100%	100%
REI Belgium Puurs N.V.	Brussels, Belgium	100%	100%
REI Belgium Evere	Brussels, Belgium	100%	100%
REI Belgium Gent	Brussels, Belgium	100%	100%
REI Belgium Mechelen	Brussels, Belgium	100%	100%
REI Belgium Fonsny	Brussels, Belgium	100%	100%
Grupo Berkley Tres S.L.U.	Madrid, Spain	100%	100%
REI Spain Vitoria S.L.	Vitoria-Gasteiz, Spain	100%	100%
REI Vitoria Boulevard S.L.	Vitoria-Gasteiz, Spain	100%	100%
REI Spain Logistics S.L.U.	Madrid, Spain	100%	100%
REI Henares Logistics S.L.	Madrid, Spain	100%	100%
REI Denmark Copenhagen ApS	Copenhagen, Denmark	100%	100%
REI Denmark Solvgade Holding A/S	Copenhagen, Denmark	100%	100%
REI Denmark Solvgade A/S	Copenhagen, Denmark	100%	100%
REI Denmark Kastrup ApS	Copenhagen, Denmark	100%	100%
REI Italy Anzola S.R.L.	Milan, Italy	100%	100%
Bodio 3 S.r.l.	Milan, Italy	100%	100%
Galleria Commerciale Limbiate S.r.l.	Milan, Italy	100%	100%
Italian High Street Retail Fund	Milan, Italy	100%	100%
Stadtgalerie Heilbronn GmbH & Co KG	Frankfurt, Germany	95%	95%
REI Altenwerder GmbH & Co KG	Frankfurt, Germany	100%	100%
LZA III Mobi GmbH	Frankfurt, Germany	100%	100%
LZA III Altenwerder Grundstückverwaltung GmbH	Frankfurt, Germany	100%	100%
REI Germany Bergkirchen B.V.	The Hague, the Netherlands	100%	100%
REI Logistics Bergkirchen GmbH & Co KG	Frankfurt, Germany	94%	94%
REI Germany Lurup Center B.V.	The Hague, the Netherlands	100%	100%
REI Germany Logistics B.V.	The Hague, the Netherlands	100%	100%
REI Germany Neu Ulm B.V.	The Hague, the Netherlands	100%	100%
INS Holding France SAS	Paris, France	100%	100%
INS Investment France SCI	Paris, France	100%	100%
INS II SCI	Paris, France	0%	100%
INS III SCI	Paris, France	0%	100%
INS Jonage SCI	Paris, France	100%	100%
INS Criquebeuf SCI	Paris, France	100%	100%
INS Pusignan SCI	Paris, France	0%	100%
INS MER SCI	Paris, France	100%	100%
INS Saint Priest SCI	Paris, France	100%	100%
INS Saint-Vulbas SCI	Paris, France	100%	100%
INS Satolas SCI	Paris, France	100%	100%
REI France Logistics SAS	Paris, France	100%	100%
Brie Logistique SAS	Paris, France	100%	100%
Chelles SAS	Paris, France	100%	100%
Les Arpajons SAS	Paris, France	100%	100%
Logistique Portefeuille SAS	Paris, France	100%	100%
Marolles 91 SAS	Paris, France	0%	100%
France Campus Acrueil SNC	Paris, France	100%	100%
France Campus Bagneux SNC	Paris, France	100%	100%
France Campus Holding SAS	Paris, France	100%	100%

Notes to the Consolidated annual accounts continued

France Campus Massy SNC	Paris, France	100%	100%
France Campus AIX SNC	Paris, France	100%	100%
France Campus Levallois SNC	Paris, France	100%	100%
INS Holding Levallois SAS	Paris, France	100%	100%
France Campus Guyancourt SNC	Paris, France	100%	100%
REI Poland Jantar sp. z o.o.	Warsaw, Poland	100%	100%
REI Netherlands B.V.	The Hague, the Netherlands	100%	100%
REI Netherlands Venlo Zonneveld B.V.	The Hague, the Netherlands	100%	100%
REI Netherlands Amstelveenseweg B.V.	The Hague, the Netherlands	100%	100%
VGI Orionweg Moerdijk B.V.	The Hague, the Netherlands	100%	100%
REI Fund Netherlands B.V.	The Hague, the Netherlands	100%	100%
Nationale-Nederlanden Intervest XII B.V.	The Hague, the Netherlands	100%	100%

For each of the subsidiaries listed above, the voting rights held equal the proportion of ownership interest.

40 Structured entities

NN Leven's activities involve transactions with structured entities in the normal course of 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. NN Leven'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 Note 1 'Accounting policies', NN Leven establishes whether these involvements result in no significant influence, significant influence, joint control or control over the structured entity.

The structured entities over which NN Leven can exercise control are consolidated. NN Leven may provide support to these consolidated structured entities as and when appropriate, however this is fully reflected in the Consolidated annual accounts of NN Leven as all assets and liabilities of these entities are included in the consolidated balance sheet and off-balance sheet commitments are disclosed.

Third party managed structured entities

As part of its investment activities, NN Leven invests both in debt and, equity instruments of structured entities originated by third parties.

Most of the investments in debt instruments of third-party managed structured entities relates to asset-backed securities (ABS) classified as loans. Reference is made to Note 6 'Loans' where the ABS portfolio is disclosed.

The majority of the investments in equity instruments of third-party managed structured entities relate to interests in investment funds that are not originated or managed by NN Leven.

The investments in loan instruments of structured entities relate to loans secured by mortgages that are not originated or managed by NN Leven for an amount of EUR 8,636 million (2021: 8,175 million).

NN Leven has significant influence over some of its real estate investment funds as disclosed in Note 7 'Associates and joint ventures'.

41 Related parties

In the normal course of business, NN Leven 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. Transactions between related parties have taken place on an arm's length basis, and include rendering and receiving of services, leases, transfers under finance arrangements and provisions of guarantees or collateral. There are no significant provisions for doubtful debts or individually significant bad debt expenses recognised on outstanding balances with related parties.

NN Leven conducts transactions with its parent company and its subsidiaries. NN Leven is part of NN Group. The following categories of transactions are conducted under market-compliant conditions with related parties belonging to NN Group:

- Reinsurance activities through NN Re
- NN Personeel: reference is made to Note 25 'Staff expenses'.
- Transactions with NN Group concerning the payment of taxes as NN Group heads the fiscal unity. Reference is made to Note 37 'Contingent liabilities and commitments'.
- Transactions relating to the remuneration of board members. Reference is made to Note 42 'Key management personnel compensation'.
- The management of financial instruments takes place via a management agreement with NN Investment Partners Holdings N.V.
- An overview of the internal borrowing facilities is disclosed under Note 45 'Capital and liquidity management'
- Transactions relating the sale of the mortgage portfolios of EUR 15 million from NN Leven to Hypenn RMBS I B.V. and EUR 68 million to Nationale-Nederlanden Bank N.V.
- The derivatives transactions are conducted mainly via NNIF. The unrealised revaluations of derivatives recognised in the result of NN Leven for the 2022 financial year amount to EUR -70 million (2021: EUR -543 million).

Notes to the Consolidated annual accounts continued

Reinsurance activities through NN Re

The results of the insurance activities of NN Leven's Czech branch are fully reinsured through NN Re.

Given that the Czech branch reported a positive result of EUR 3.6 million (2021: EUR 13.6 million), an expense of EUR 3.6 million (2021: EUR 13.4 million) under the reinsurance contract is recognised in the result of NN Leven. The difference of EUR 0 million (2021: EUR 0.2 million) relates to interest income for NN Leven on capital made available to our Czech operations.

The overall balance of outstanding reinsurance receivables from NN Re amounts to EUR 1,009 million (2021: EUR 1,127 million).

Income and expenses from NN Leven recharged to NN Group companies

	Parent companies		Other group companies			Total
	2022	2021	2022	2021	2022	2021
Expenses	0	0	37	31	37	31
Investment income	5	0	145	198	150	198
Income and expenses from NN Leven recharged to NN Group companies	5	0	182	229	187	229

Income and expenses from NN Group companies recharged to NN Leven

	Parent companies		Other group companies			Total
	2022	2021	2022	2021	2022	2021
Expenses	58	61	578	591	636	652
Investment income	5	11	2,822	1,555	2,827	1,566
Income and expenses from NN Group companies recharged to NN Leven	63	72	3,400	2,146	3,463	2,218

Financial assets and liabilities with related parties

	Parent companies		Other group companies			Total
	2022	2021	2022	2021	2022	2021
Financial assets						
Financial assets at fair value through profit or loss:						
– non-trading derivatives	0	0	674	2,133	674	2,133
Loans	927	1,524	132	123	1,059	1,647
Other assets	1,088	1,704	106	119	1,194	1,823
Financial assets	2,015	3,228	912	2,375	2,927	5,603
Financial liabilities						
Subordinated loan	1,100	600	0	0	1,100	600
Other borrowed funds	0	0	15	0	15	0
Financial liabilities at fair value through profit or loss:				0		
– non-trading derivatives	0	0	1,470	363	1,470	363
Other liabilities	40	33	1,369	1,485	1,409	1,518
Financial liabilities	1,140	633	2,854	1,848	3,994	2,481

Transactions with post-employment benefit plans

Entities administering or executing post-employment benefit plans of the employees of NN Leven are considered to be related parties of NN Leven. This relates to CDC pension fund and BeFrank. For more information on the post-employment benefit plans, reference is made to Note 25 'Staff expenses'.

42 Key management personnel compensation

Transactions with key management personnel (Management Board and Supervisory Board) are transactions with related parties. These transactions are disclosed in more detail as required by Part 9 Book 2 of the Dutch Civil Code.

Notes to the Consolidated annual accounts continued

Management Board[1]

Amounts in thousands of euros	2022	2021
Fixed compensation:		
– base salary	1,845	1,587
– pension costs[2]	126	122
– individual saving allowance[2]	294	272
- termination benefit	0	320
Variable compensation:		
– upfront cash	64	84
– upfront shares	64	84
– deferred cash	76	96
– deferred shares	76	96
Other benefits	253	222
Fixed and variable compensation	2,798	2,883

1 Reference is made to Composition of the Boards during 2022 on page 3.
2 The pension costs consist of an amount of employer contribution (EUR 126 thousand) and an individual savings allowance (EUR 294 thousand, which is 23,3% of the amount of base salary above EUR 114,866).
3 Over 2022 the Management Board was responsible for both NN Leven and AAL.

The Management Board members were eligible for a range of other emoluments, such as health care insurance and expat allowances. The Management Board members were also able to obtain banking and insurance services in the ordinary course of business and on terms that apply to all employees of NN Group in the Netherlands.

Remuneration of the members of the Management Board is recognised in the profit and loss account in 'Staff expenses' as part of 'Total expenses'. On 15 July 2022 the members of the management board of AAL resigned in light of the acquisition of AAL by NN Leven; they were succeeded by Leven's Management Board members. As a result, as per the date of acquisition, the Management Board is responsible for both NN Leven and AAL. As per the date of appointment the Management Board members hold remunerated positions within both entities. The related remuneration costs are allocated within NN Leven and are not allocated to AAL.

The NN Leven Supervisory Board members do not receive any compensation for their activities, except for one Supervisory Board member who is not an employee of NN Group (2021: one external Supervisory Board member). The remuneration of EUR 25 thousand (2021: EUR 26,313) is recognised in the profit and loss account in 'Operating expenses'. Some Supervisory Board members hold remunerated (Board) positions within NN Group, but not within NN Leven. Their remuneration is part of the allocation of headquarter expenses, and they do not receive any (additional) allowances for their role as Supervisory Board members. NN Leven does not provide the Supervisory Board with a pension arrangement, termination arrangements (including termination of retirement benefits) or variable remuneration in cash or in shares.

The total remuneration of EUR 2,798 thousand (2021: EUR 2,883 thousand), as disclosed in the table above, includes all variable remuneration related to the performance year 2022. Under IFRS-EU, certain components of variable remuneration are not recognised in the profit and loss account directly, but are allocated over the vesting period of the award. The comparable amount recognised in 'Staff expenses' in 2022 and therefore included in 'Total expenses' in 2022, relating to the fixed expenses of 2022 and the vesting of variable remuneration of earlier performance years, is EUR 2,916 thousand (2021: EUR 2,786 thousand).

Remuneration policy

As an indirect subsidiary of NN Group, NN Leven is in scope of the NN Group Remuneration Framework. NN Leven is well aware of the public debate about pay in the financial industry and the responsibility the industry is taking in that light. The remuneration policies of NN Group take into account all applicable regulations and codes, including the Code of Conduct for Insurers. The NN Group Remuneration Framework strikes a balance between interests of its customers, employees, shareholder and society at large, and supports the long-term objective of the company. The variable remuneration is linked to clear targets. These targets are for a large part non-financial.

The general principles underpinning the NN Group Remuneration Framework are (amongst others) as follows:

- Support the attraction, motivation and retention of employees, while being compliant with applicable legislation and with the aim of applying best practices within the financial industry.
- Take into account NN Group's business strategy, objectives, its role in society, values and risk appetite, as well as long-term value creation for all stakeholders.
- Be mindful of the role of the financial sector in society.
- Contribute to an inclusive working environment by ensuring equal opportunities, working conditions and equal pay for equal work.
- Promote robust and effective risk management, including risk management of sustainability risks (such as environment, society, governance and Employee related matters) in the integration thereof in the risk management system and procedures. It supports balanced risk taking, long term value creation and the protection of a sound Capital Base. This will amongst others be supported by performance objective setting processes.
- Avoid improper treatment of customers and employees.
- Comply with legislation as applicable to NN Group from time to time, apply best practices in the industry, and act in the spirit of (inter)national regulations and guidance on Remuneration.

Notes to the Consolidated annual accounts continued

Loans and advances to key management personnel

	Amount outstanding 31 December		Average interest rate		Repayments	
Amounts in thousands of euros	2022	2021	2022	2021	2022	2021
Management Board members	233	1,274	1.9%	3.3%	178	89
Loans and advances to key management personnel	233	1,274	1.9%	3.3%	178	89

As at 31 December 2022, the total amount of loans outstanding by NN Group regulated entities to the Management Board members was EUR 233 thousand (31 December 2021: EUR 1,274 thousand). The loans and advances provided to members of the Management consist of mortgage loans. The total amount of redemptions of these mortgage loans during 2022 was EUR 178 thousand (2021: EUR 89 thousand).

43 Acquisitions

Acquisitions (2022)

In February 2022 NN Group, ABN AMRO Bank and their joint venture AAV announced that they have reached an agreement to sell AAV's life insurance subsidiary, ABN AMRO Levensverzekering N.V. (AAL), to NN Leven for a total consideration of EUR 253 million. AAV is a joint venture between NN Group (51%) and ABN AMRO Bank (49%).

Overview of transaction

On 15 July 2022, NN Leven acquired AAL. The transaction was funded from existing cash resources. The transaction is in line with NN Leven's strategy to achieve profitable growth and value creation. The acquisition is expected to strengthen NN Leven's position in the Life insurance market. NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

Accounting for AAL – Consolidated annual accounts

The acquisition of AAL was between companies with the same parent NN Group ('under common control') and is accounted for as if AAL was always part of NN Leven's consolidated annual accounts. Consequentially, the comparative figures as presented in the annual accounts of NN Leven for 2021 are adjusted to reflect the inclusion of AAL, using the carrying amounts of the assets and liabilities as included in the NN Group consolidated annual accounts.

Reconciliation of Consolidated balance sheet 31 December 2021 to 1 January 2022:

Consolidated balance sheet	NN Leven	AAL[1]	Adjustments[2]	
As at 31 December	31/12/2021	31/12/2021	31/12/2021	31/12/2021
Assets				
Cash and cash equivalents	233	1	0	234
Financial assets at fair value through profit or loss:				
- investments for risk of policyholders[1]	27,229	1,319	0	28,548
– non-trading derivatives	6,137	0	0	6,137
– designated as at fair value through profit or loss	430	0	0	430
Available-for-sale investments[1]	68,093	774	0	68,867
Loans	40,220	1,929	133	42,282
Reinsurance contracts	1,200	13	-13	1,200
Associates and joint ventures	6,789	0	0	6,789
Real estate investments	2,719	0	0	2,719
Property and equipment	72	0	0	72
Intangible assets	50	0	0	50
Deferred acquisition costs	235	0	0	235
Deferred tax assets	33	26	-26	33
Other assets	3,370	12	0	3,382
Total assets	156,810	4,073	94	160,978
Equity				
Shareholder's equity (parent)	25,313	72	117	25,502
Minority interests	1,865	69	112	2,046
Undated subordinated loan	800	0	0	800
Total equity	27,978	141	229	28,348
Liabilities				
Subordinated debt	1,120	0	0	1,120
Other borrowed funds	531	0	0	531
Insurance and investment contracts	115,766	3,865	-188	119,443
Financial liabilities at fair value through profit or loss:	0	0	0	0
– non-trading derivatives	1,681	0	0	1,681
Deferred tax liabilities	3,917	0	54	3,971
Other liabilities	5,817	67	0	5,884
Total liabilities	128,832	3,932	-134	132,630

1 This column include the statutory amounts as reported in the AAL's statutory annual accounts.
2 This column represents the difference between the AAL's and the NN Leven statutory annual accounts (i.e. the carrying amounts of AAL's assets and liabilities as included in the consolidated annual accounts of NN Group).

Notes to the Consolidated annual accounts continued

Consolidated profit and loss account For the year ended 31 December		NN Leven 2021		AAL[1] 2021	Adjustments[2] 2021		Total 2021
Gross premium income		3,981		182	0		4,163
Investment income		4,408		84	-67		4,425
– gross fee and commission income	44		5		0	49	
– fee and commission expenses	-190		-1		0	-191	
Net fee and commission income		-146		4	0		-142
Valuation results on non-trading derivatives		-319		-29	29		-319
Foreign currency results and net trading income		433		0	0		433
Share of result from associates and joint ventures		886		0	0		886
Other income		7		0	0		7
Total income		9,250		241	-38		9,453
– gross underwriting expenditure	9,773		359		-17	10,115	
– investment result for risk of policyholders	-3,173		-140		0	-3,313	
– reinsurance recoveries	-1,028		-6		-1	-1,035	
Underwriting expenditure		5,572		213	-18		5,767
Staff expenses		209		7	0		216
Interest expenses		175		0	0		175
Other operating expenses		239		9	2		250
Total expenses		6,195		229	-16		6,408
Result before tax		3,055		12	-22		3,045
Taxation		447		2	-3		446
Net result		2,608		10	-19		2,599
Net result attributable to:							
Shareholder of the parent		2,464		5	-10		2,459
Minority interests		144		5	-10		140
Net result		2,608		10	-19		2,599

1 This column include the statutory amounts as reported in the AAL's statutory annual accounts.
2 This column represents the difference between the AAL's and the NN Leven statutory annual accounts (i.e. the carrying amounts of AAL's assets and liabilities as included in the consolidated annual accounts of NN Group).

44 Subsequent events

Dividend distribution

In March 2023, NN Leven made a dividend distribution of EUR 245 million from the Other reserves to its shareholder NN Nederland. The solvency ratio per year end 2022 has not been adjusted for this dividend payment.

Legal merger AAL and NN Leven

NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

45 Risk management

Introduction

Accepting and managing risks is an integral part of insurance, banking and investment management business and therefore, risk management is fundamental. Appropriate risk management enables NN Leven to meet obligations towards clients, regulators and other stakeholders.

The Risk Management paragraph has the following structure:

I. Acquisition AAL
II. Risk Management System, consisting of:
III. Risk Governance, based on the Three lines of defence model; and
IV. Risk Control Cycle, covering Risk Strategy (incl. Risk Appetite Statements, Limits and Tolerances), Risk Assessment, Risk Control, Risk Monitoring & Reporting and Risk Culture
V. Risk Profile, categorised into:
VI. Strategic and emerging risks including climate change
VII. Financial risks (based on the structure of our internal model); and
VIII. Non-Financial risks

NN Leven has one international branch in the Czech Republic. The insurance risks of the Czech branch are reinsured to NN Re. We exclude the Czech branch from this Risk Management Paragraph.

Notes to the Consolidated annual accounts continued

Key risks as identified in 2022 by the Management Board in the strategic risk assessment include business model sustainability, managing ongoing expenses, regulatory environment and key staff and talent management.

I. Acquisition AAL

On 15 July 2022, NN Leven acquired AAL. The transaction was funded from existing cash resources. The transaction is in line with NN Leven's strategy to achieve profitable growth and value creation. The acquisition is expected to strengthen NN Leven's position in the Life insurance market. NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

The acquisition of AAL was between companies with the same parent NN Group ('under common control') and is accounted for as if AAL was always part of NN Leven's consolidated annual accounts. Consequentially, the comparative figures as presented in the annual accounts of NN Leven for 2021 have been adjusted to reflect the inclusion of AAL, using the carrying amounts of the assets and liabilities as included in the NN Group consolidated annual accounts.

For supervisory reporting AAL was not a subsidiary of NN Leven on 31 December 2021. Therefore the 2021 eligible own funds, SCR figures and Solvency II ratio in the risk management paragraph tables have not been adjusted. When considered as a subsidiary in the 2021 figures, the impact of the acquisition of AAL would be:

- Eligible own funds: +43 million
- SCR: +76 million
- Solvency II ratio: -2%

The asset tables 2022 in the Financial risks section include the assets of AAL. The asset tables 2021 have been adjusted and AAL has been included in these tables, consistent with the tables 2022.

II. Risk Management System

III. Risk Governance / System of Governance

NN Leven's System of Governance comprises amongst others the following elements:

- General governance elements, including amongst others reporting lines, decision structures, company policies, and segregation of duties,
- Remuneration,
- Persons who effectively run NN Leven or have other key functions, who should be "Fit and Proper",
- Key Functions: the Risk Management, Compliance, Actuarial and Internal Audit Functions,
- System of Risk Management and Internal Control,
- Investment activities, based on the Prudent Person Principle,
- Capital Management, and
- Managing and overseeing outsourcing critical or important operational functions and activities.

In 2022, a review of NN Leven's System of Governance, as required under Solvency II was conducted by the Management Board and the outcomes were discussed with the Supervisory Board. The review was based, amongst others, on self-assessments by each Key Function on its compliance with requirements and on its operational effectiveness, as well as on a self-assessment on the effectiveness of the NN Leven System of Risk Management and Internal Control (challenged by the Risk Management and Compliance Key Functions). Overall, whilst some improvement areas were identified with actions defined and taken, the Management Board concluded that NN Leven's System of Governance is adequate and effective, supports its strategic objectives and operations and provides for sound and prudent management of the business.

NN Leven's risk governance follows the 'three lines of defence' concept, which outlines the decision-making, execution and oversight responsibilities for NN Leven's risk management. This structure has been embedded in each of NN Leven's organisational layers.

Three lines of defence

The *three lines of defence* defines three risk management levels, each with distinct roles, decision authorities, execution responsibilities and oversight responsibilities. This concept helps to ensure that risk is managed in line with the risk appetite as defined by the Management Board of NN Leven and cascaded throughout NN Leven.

Notes to the Consolidated annual accounts continued

First line of defence	Second line of defence	Third line of defence
Management board members Other managers	Risk, Actuarial, Legal and Compliance teams	Corporate Audit Services
• Make business decisions • Accountable for financial performance, sales, operations, investments • Design and sell products that reflect local needs and thus know their customers and are well-positioned to act in both the customers' and NN Leven's best interest • Accountable for risk taking	• Support the commercial departments in their decision-making and risk/return trade-offs • Countervailing power to prevent risk concentrations and other forms of unwanted/excessive risk taking • Encouraging, challenging and monitoring sound risk management throughout NN Leven and coordinating the reporting of risks • Escalation power in relation to business activities that are judged to present unacceptable risks to NN Leven	• Provides independent assurance on the effectiveness of NN Leven's business and support processes, including governance, quality of risk management and quality of internal controls • Assesses first line of defence activities as well as second line of defence activities

First line of defence: Executive Management

Management Board

The Management Board is responsible for the strategic direction of the company, the day-to-day management, and for ensuring that the company has adequate internal risk management and control systems in place so that it is aware, in good time, of any material risks the company has and that these risks can be managed properly. The Management Board retains ultimate responsibility for NN Leven's risk management whilst delegating certain powers to the Crisis Committee, Asset and Liability Committees (ALCO), Non-financial Risk Committee (NFRC) and Model Committees (MoC).

NN Leven may independently perform all activities that are consistent with the strategy of NN Group and the approved business plan (the 'Business Plan') as long as these are consistent and compliant with the internal risk management and control frameworks, applicable laws and regulations, applicable collective agreements, NN Group's risk appetite and NN Group Values. NN Leven is expected to operate transparently and must provide all relevant information to the relevant Management Board members and Support Function Head(s) at Head Office.

The Chief Executive Officer (CEO) is responsible for:
- Execution of the strategy, that conforms to the strategic framework of NN Group, and the financial performance of business and operational activities, as well as managing the related risks
- Ensuring that the business operates in compliance with laws and regulations, NN Group policies and standards and internal controls
- Fulfilling CEO's statutory responsibilities
- Operating a sound internal risk and control system and operating in accordance with NN Group's values
- Viability of NN Leven in the long term

Regular interaction between Head Office and the NN Leven risk oversight functions takes place with respect to, amongst others, product approval, mandate approval, risk limit setting, risk reporting, Own Risk and Solvency Assessment (ORSA), policy setting and implementation monitoring, model and assumption review and validation. This covers all types of risks, both financial and non-financial risks.

Supervisory Board

The Supervisory Board is responsible for supervising the Management Board and the general course of affairs of NN Leven and its business and providing advice to the Management Board.

Second line of defence: Risk Management Function, Compliance Function and Actuarial Function

Risk Management Function

Within the Management Board, the Chief Risk Officer (CRO) is entrusted with the day-to-day execution of the Risk Management Function.

The NN Leven CRO steers an independent risk organisation which supports the first line in their decision-making, with sufficient countervailing power to prevent excessive risk taking. The NN Leven CRO is also responsible for the organisation of Risk at NN Leven. The NN Leven CRO is member of the NN Leven Board and reports hierarchically to the NN Leven CEO and functionally to the NN Group CRO. The CEO is primarily responsible for the communication of risk-related topics to the NN Group Management Board and NN Leven Supervisory Board.

Notes to the Consolidated annual accounts continued

Responsibilities of the Risk Management Function include:
- Setting and monitoring compliance with NN Leven's overall risk policies issued by the Risk Management Function
- Formulating NN Leven's risk management strategy and ensuring that it is implemented throughout NN Leven
- Supervising the operation of NN Leven's risk management and business control systems
- Reporting of NN Leven's risks, as well as the processes and internal controls
- Making risk management decisions with regard to matters which may have an impact on the financial results of NN Leven or its reputation, without limiting the responsibility of each individual member of the Management Board in relation to risk management
- Sharing best practices across NN Leven

The NN Leven CRO has co-responsibility together with the business (first line) for risk in NN Leven and to translate the risk appetite into methodologies and policies to support and monitor management's control of risk. The CRO ensures that dashboards and other risk measurement tools are appropriately maintained and developed. The CRO is ultimately responsible for all risk related information required for financial reports and statements.

At NN Leven, the CRO acts in his role as Risk Management Function Holder accordingly to the Solvency II directive article 44 – Risk Management and delegates related tasks respectively to the Head of Non-Financial Risk Management, Head of Financial Risk Management and Head of Insurance Risk Management.

Model Validation

Model Validation, part of the Risk Management Function, is internally outsourced to NN Group and aims to ensure that all material Cash Flow models and Risk models are fit for their intended use. For this purpose, Model Validation carries out validations of risk and valuation models in particular those related to Solvency II. The findings of Model Validation are regularly reported to the NN Leven Model Committees. (Changes to) models and their disclosed metrics are approved by one of the two NN Leven Model Committees (Pricing and Valuation Model Committee and Risk Model Committee) and where appropriate, depending on materiality, require approval from either the Group CRO and Group Chief Financial Officer (CFO) or the NN Group Management Board, following advice from the NN Group Model Committee. These committees are responsible for modelling policies, processes, methodologies, and parameters which are applied within NN Leven.

Model Validation performs validation on reliability of models at different stages during their life cycle: at initiation, prior to approval, when the model has been redeveloped or modified, and on a regular basis (based on a planning discussed and agreed with the Model Development departments). The validation process covers a mix of developmental evidence assessment, process verification and outcome analysis.

The validation cycle determines the maximum period between two model validations, which can be up to five years. This means that each model in scope will be independently validated at least once within the validation cycle. Model Validation can also start validating before the due date, for example following specific portfolio/market developments or regulatory changes. Materiality of a model is determined based on quantitative and qualitative criteria. Quantitative criteria relate to, amongst others, a percentage of Market Value of Liabilities/Assets, or Solvency Capital Requirement. Qualitative criteria cover model complexity, strategic importance and other factors. Depending on materiality of the model, as well as the severity of findings resulting from a model validation, models receive a Validation Opinion. Models with severe findings require remediation actions by management, such as further adjustments of the model.

Compliance Function

To effectively manage business conduct risk, the Management Board has a Compliance Function which is headed by the Head of Compliance. The Compliance Function is positioned independently from the business it supervises. This independent position is, amongst others, warranted by independent reporting, unrestricted access to senior management as well as structural, periodic meetings with the CEO. Within NN Leven's broader risk framework, the purpose of the Compliance Function is to:
- Understand and advocate rules, regulations and laws for the effective management of risks in scope of the compliance function
- Proactively work with and advise the business to manage business conduct and product suitability risk throughout NN Leven's products' life cycle and business' activities to meet stakeholder expectations
- Develop and enhance tools to strengthen the three lines of defence to detect, communicate, manage and to report on business conduct risks
- Support NN Leven's strategy by establishing clear roles and responsibilities to help embed good compliance practices throughout the business by using a risk based approach to align business outcomes with NN Leven's risk appetite
- Deepen the culture of compliance by partnering with the business to increase the culture of trust, accountability, transparency and integrity in evaluating, managing and in reporting on business conduct risk
- Monitor that management and employees act in accordance with NN Leven's policies and standards as well as relevant material laws and regulation, in scope of the function.

The Head of Compliance reports hierarchically to the CEO of NN Leven and functionally to the Chief Compliance Officer of NN Group.

Actuarial Function

The primary objective of the Actuarial Function, that reports hierarchically to the CRO of NN Leven, is to ensure that technical provisions (under Solvency II and IFRS) are reliable and adequate, and as such that NN Leven is able to meet its obligations towards policyholders and to protect NN Leven from loss or reputational damage.

Notes to the Consolidated annual accounts continued

The Actuarial Function operates within the context of NN Leven's broader risk management system, reports hierarchically to the CRO of NN Leven and has a functional reporting line to the NN Group Chief Actuary. The Actuarial Function of NN Leven has unrestricted access to the NN Leven Management Board and NN Leven Supervisory Board in relation to actuarial topics. This contributes to the financial solidity of NN Leven.

Within this system, the role of the Actuarial Function is to:

- Understand and advocate the rules, regulations and laws for effective management of the calculation process of technical provisions, covering elements such as data quality, assumption setting, models and methods, as well as underwriting and reinsurance arrangements; proactively advise the business to manage the risk of unreliable and inadequate technical provisions
- Inform management and the Supervisory Board on its opinion on the adequacy and the reliability of the technical provisions, the adequacy of reinsurance arrangements and the underwriting policy at least on an annual basis through the Actuarial Function Report
- Develop and enhance tools to strengthen the three lines of defence to detect, communicate, manage and to report on risks related to unreliable or inadequate technical provisions
- Support NN Leven's strategy by establishing clear roles and responsibilities to help embed good (actuarial) practices throughout the organisation by using a risk-based approach to align insights with NN Leven's risk appetite
- Strengthen the culture of professional risk management by challenging management and experts to increase the culture of trust, accountability, transparency and integrity in evaluating, managing and reporting on risks to unreliable or inadequate technical provisions
- Provide second line opinion when first line business initiatives can materially impact the risk profile of NN Leven or NN Group and/or provide additional assurance for presented key first line risk related information.

Third line of defence: Corporate Audit Services

Internal Audit Function

The Internal Audit Function is internally outsourced to Corporate Audit Services NN Group (CAS). CAS is the internal audit department within NN Group, it is an independent assurance function and its responsibilities are established by the Executive Board of NN Group, pre-discussed with the Audit Committee and approved by the Supervisory Board of NN Group. CAS independently assesses the design and effectiveness of the organisation and the quality of procedures and control measures. CAS is an essential part of the corporate governance structure of NN Leven.

CAS keeps in close contact with supervisors and regulators as well as with the external auditor via regular meetings in which current (audit) issues are discussed, as well as internal and external developments and their impact on NN Leven and CAS. CAS also provides information like risk assessments and relevant (audit) reports.

The General Manager and staff of CAS are authorized to:

- Obtain without delay, from General Managers within NN Leven, information on any significant incident concerning NN Leven's operations including but not limited to security, reputation and/or compliance with regulations and procedures
- Obtain without delay, from responsible managers within NN Leven, a copy of all letters and reports received from external review agencies (e.g. external auditor, supervisors, regulators and other agencies providing assurance related services)
- Have free, full, unrestricted and unfettered access, at any time deemed appropriate, to all NN Leven departments, offices, activities, books, accounts, records, files, information. CAS must respect the confidentiality of (personal) information acquired
- Require all NN Leven staff and business management to supply such information and explanations, as may be needed for the performance of assessments, within a reasonable period of time
- Allocate resources, set frequencies, select subjects, determine scope of work and apply appropriate techniques required to accomplish the CAS's objectives
- Obtain the necessary assistance of personnel in various departments/offices of NN Leven where CAS performs audits, as well as other specialised/professional services where considered necessary from within or outside NN Leven. CAS should exercise its authority with the minimum possible disruption to the day-to-day activities of the area being assessed.

In compliance with the Dutch Corporate Governance Code, the NN Group Executive Board is responsible for the role and functioning of CAS, supervised by the Supervisory Board, supported by the Audit Committee. The General Manager of CAS is accountable to the CEO and functionally to the chair of the Audit Committee. On a day-to-day basis the General Manager of CAS reports to the CEO.

IV. Risk Control Cycle

The business model exposes NN Leven to inherent risks and obligations. As such, the environment determines the playing field and rules against which to calibrate risk management activities. These activities are carried out within NN Leven's risk appetite and framework.

Notes to the Consolidated annual accounts continued

Figure 1: the risk control cycle

Every employee has a role in identifying risk in their area of responsibility and to manage risk in a proactive way. It is paramount to know which risks NN Leven takes and why, to be aware of large existing and emerging risks and to ensure an adequate return for the risk assumed in the business.

NN Leven's risk control cycle consists of four steps, supported by a sound risk culture. The cycle starts with (1) setting business and risk objectives, resulting in a risk strategy (risk appetite, policies and standards). The next steps of the cycle are (2) to identify and assess the risks that need to be managed, followed by (3) effective mitigation through controls and (4) continuous monitoring effectiveness of controls, including reporting of risk levels. This cycle is supported by a sound risk culture.

The risk control cycle ensures that NN Leven operates within the risk appetite. The risk control cycle supports, NN Leven's strategy, the Business Plan (financial control cycle) and the performance management (HR cycle) which enables NN Leven to meet its business objectives.

Risk Strategy

NN Leven's risk appetite is the key link between NN Leven's strategy, capital plan and regular risk management as part of business plan execution. NN Leven's risk appetite, and the related risk limits and tolerances, is established in conjunction with the business strategy.

The Risk Appetite Statements define how NN Leven weighs strategic decisions and communicates its strategy to key stakeholders with respect to accepting risk. The statements describe how NN Leven wants to avoid unwanted or excessive risk taking and aim to optimise use of capital. Risk limits and tolerances are the qualitative and quantitative boundaries for risk taking and are derived in a consistent way from the risk appetite statements.

NN Leven expresses its risk appetite via three key risk appetite statements, which are then internally detailed further into eleven sub-statements, relevant risk limits and tolerances, control objectives and reporting.

Risk Appetite Statement	Description
Strategic Challenges	We manage our businesses on a risk-return basis, so that we can meet strategic objectives while taking into account the interests of our stakeholders.
Strong Balance Sheet	This facilitates sound financial business performance – we want to avoid having to raise equity capital after a moderate stress event or being a forced-seller of assets when markets are distressed.
Sound Business Performance	To achieve sound operational performance, we conduct business applying the NN Values and treating customers fairly; we aim to avoid human or process errors in our operations, and limit the impact of any such errors when they do occur.

Risk Taxonomy

NN Leven has defined and categorised its generic risk landscape with the risk taxonomy as outlined below:

Risk Appetite Statement	Risk Class	Description
Strategic Challenges	Emerging Risks	Newly developing risks, or changing risks, that cannot yet be fully assessed or quantified but that could, in the future, affect the viability of NN Leven's strategy.
	Strategic Risks	Risks arising from making incorrect business decisions, implementing decisions poorly, or being unable to adapt to changes in the operating environment.
	Human Capital Risks	Risks arising from being unable to attract, retain or pay competent employees.
Strong Balance Sheet	Market Risks	Risks related to (the volatility of) financial and real estate markets. This includes liquidity risk
	Counterparty Default Risks	Risks related to counterparties failing to meet contractual debt obligations
	Non-Market Risks	Financial risks related to the products NN Leven markets
Sound Business Performance	Non-Financial Risks	Risks related to people, inadequate or failed internal processes (including information technology and communication systems) and/or external events.

Risk Limits and Tolerances

Risk appetite statements are implemented within the business through the use of risk tolerances and limits, as prescribed in specific policies for relevant risk categories. A risk limit is the maximum exposure of a risk, management is willing to accept, and should not be breached. A risk tolerance is the level of exposure of a risk, where management wants to be actively informed – it is set to function as a trigger for reviewing the exposure regularly and might lead to taking action.

Notes to the Consolidated annual accounts continued

Risk Appetite Statement	Key Risk Limits and Tolerances
Strategic Challenges	Various metrics related to the Business Plan, such as progress on main strategic initiatives and expense targets, and to the workforce, such as employee engagement scores.
Strong Balance Sheet	**Solvency II ratio:** the ratio of Eligible Own Funds (EOF) to Solvency Capital Requirement (SCR). NN Group aims to capitalise its operating units adequately at all times. To ensure adequate capitalisation, NN Leven manages its commercial capital levels (based on the Solvency II ratio) in accordance with the risk associated with the business activities. **Solvency II ratio sensitivities:** NN Leven monitors the changes for both EOF and SCR under various scenarios. **Own Funds at Risk limit:** NN Leven has implemented a limit to monitor the impact of moderate (1-in-20) stress events. **Interest Rate Risk limits:** NN Leven has implemented limits and tolerances for interest rate risk exposures. **Concentration Risk limits:** in order to prevent excessive concentration risk, NN Leven has a concentration risk limit framework. The framework sets a risk appetite and concentration limits on corporate and sovereign issuers, asset type and country of risk. **Liquidity Risk:** liquidity risks are monitored by assessing the ratio between liquid assets and liquidity requirements for severe stress scenarios and different time horizons. **Longevity Risk tolerance:** NN Leven has implemented a tolerance for longevity risk exposure.
Sound Business Performance	**Annual Loss Tolerance and materiality:** Tolerances on potential yearly loss, reputation impact and financial reporting accuracy. **Restricted List:** to prevent investments in securities that are not in line with NN Group's values and/or applicable laws and regulations, NN Leven has a Restricted List in place. This list is leveraged for the risk analysis related to client acceptance for the provision of financial products and services throughout NN Leven.

Risk Assessment

Risk assessments are regularly performed throughout NN Leven. For market, counterparty default and non-market risks, NN Leven's internal and associated models are leading in risk assessments/measurement. Risks that do not directly impact the balance sheet generally require professional judgement in identification and quantification: qualitative risk assessments (non-financial risks) and scenario analysis (strategic/emerging risks) are used to assess identified risks and set up adequate controls.

Risk Appetite Statement	Risk Class	Risk Assessment and main mitigation technique
Strategic Challenges	Emerging Risks	Strategic Risk Assessment, Scenario analysis and contingency planning
	Strategic Risks	Scenario analysis and business planning
	Human Capital Risks	Internal and external benchmarking on employer attractiveness and renumeration; strategic workforce planning
Strong Balance Sheet	Market Risks	Quantified via NN Leven's Partial Internal Model; Assessed in New Asset Class Assessment (NACA), ALM studies and Strategic Asset Allocation (SAA) Mitigated by limit structure and use of derivatives
	Counterparty Default Risks	NN Leven's Partial Internal Model; Limit structure
	Non-Market Risks	NN Leven's Partial Internal Model; Product Approval and Review Process (PARP), Limit structure, reinsurance
Sound Business Performance	Non-Financial Risks	Detailed risk assessments on (sub-) processes (including IT aspects, fraud, etc.); Business and key controls, control testing, incident management and external insurance

In the remainder of the paragraph some of the assessments as in the table above are described in more detail. Main mitigation techniques, such as the limit structure for financial risks, are discussed in more detail in the *Risk profile* paragraph, where all the main risk types will be described and how they are measured and managed.

Own Risk and Solvency Assessment (ORSA)

As part of the regular Own Risk and Solvency Assessment (ORSA), a strategic risk assessment is performed at least annually. Outcomes of the strategic risk assessment are key risks, that are potentially solvency threatening, or that may have a significant negative impact on the achievement of one or more of the business objectives from NN Leven's strategy or business plan. NN Leven prepares an ORSA at least once a year. Detailed risk assessments, performed bottom up by responsible managers throughout the organisation, serve as a main input. In the ORSA, NN Leven articulates its strategy and risk appetite, describes its key risks and how they are managed, analyses whether its risks and capital are appropriately modelled, and evaluates how susceptible the capital position is to shocks through stress and scenario testing, including a multi-year view. Stress testing examines the effect of severe but plausible scenarios on the capital position of NN Leven. Stress testing can also be initiated outside the ORSA, either internally or by external parties such as De Nederlandsche Bank (DNB) and European Insurance and Occupational Pensions Authority (EIOPA). The ORSA includes a forward-looking overall assessment of NN Leven's solvency position considering the risks it holds. As part of the ORSA, the emerging risks are covered, that in the longer run might impact our balance sheet, including sustainability risks. For more information we refer to paragraph Risk Profile/Strategic, human capital and emerging risks. As part of the ORSA, NN Leven also assesses the ongoing appropriateness of its internal model which is used to calculate the Solvency II ratio.

Product approval and review process (PARP)

The PARP has been developed to enable effective design, underwriting and pricing of all insurance products, as well as to ensure that they can be managed throughout their lifetime. This process establishes requirements to the product risk profile features to ensure that products are aligned with NN Leven's strategy. The PARP takes into account customer benefits and product suitability, expected sales volumes, value-oriented pricing metrics and relevant policies. It includes requirements and standards to assess risks as per the risk categories, as well as the assessment of the administration and accounting aspects of the product.

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New asset class assessment (NACA) and investment mandate process

NN Leven maintains a NACA for approving investments in new asset classes. At group level, NN Group establishes a global list of asset classes in which NN Leven may invest, and NN Leven maintains a local asset list that is a subset of the global asset list prescribing in which asset classes NN Leven may invest. The investments in these asset classes are governed through investment mandates given to the asset manager(s).

Responsible Investment Framework policy and Restricted List

NN Leven has a policy framework in place to ensure that its assets are invested responsibly. Amongst others, the policy includes requirements to systematically incorporate environmental, social and governance (ESG) factors into the investment process. Consideration of ESG factors, alongside traditional financial data, helps to make better informed decisions and optimise the risk-return profile of investment portfolios. Furthermore, the implementation of a Restricted List should prevent investments in securities that are not in line with NN Leven's values, and/or applicable laws and regulations.

Risk Control

Risk Control refers to activities undertaken to ensure proper mitigating measures are designed, documented and executed such that risks are managed within defined risk limits and tolerances.

Activities that are expected to be theoretically beyond the formulated risk appetite shall not be started. Inherent risks that are assessed as beyond the risk appetite shall be controlled to the extent it meets the relevant risk appetite statement(s). Risk controls can be classified along several dimension, e.g. nature (preventive, detective), object (entity wide, IT, process, security, fraud, …), execution (automated, manual), level (BU MB, team levels) or scope (managerial, transactional).

Risk Appetite Statement	Risk Class	Risk Assessment and main mitigation technique
Strategic Challenges	Emerging Risks	• Scenario analysis and contingency/recovering planning
	Strategic Risks	• Adjusting the strategic targets / business model to meet the changing environment, implemented through strategic initiatives/programmes • Business planning, monitoring strategic execution and scenario analysis • Employee engagement surveys, strategic workforce planning, renumeration policies, succession planning (human capital risk)
	Human Capital Risks	• Employee engagement surveys, strategic workforce planning, renumeration policies and succession planning
Strong Balance Sheet	Market Risks	• Monitoring based on limits and tolerances, hedging/use of derivatives, monitoring investment mandates, • Cash management/treasury techniques (liquidity risk)
	Counterparty Default Risks	• Monitoring based on limits and tolerances
	Non-Market Risks	• Monitoring based on limits and tolerances, Product approval and review process (PARP), reinsurance
Sound Business Performance	Non-Financial Risks	• Business and key controls and control testing • Incident management and external insurance • Risk awareness and training • Project risk logs and monitoring • Business continuity management

NN Leven has determined via the NN Group Preparatory Crisis Plan a set of measures for early detection of and potential response to a financial or non-financial crisis, should it occur. The aim of this Preparatory Crisis Plan is to ensure that tools, measures and processes are in place that enable NN Leven to:

- Avoid going into Recovery
- Timely anticipate an approaching financial distress and/or potential recovery situation
- Quickly recover to an acceptable minimum solvency (and liquidity) level when faced with financial distress and/or Recovery

The Management Board of NN Group is responsible for the Preparatory Crisis Plan and the plan is regularly reassessed and updated by Finance, which is filed with DNB. NN Leven updates its specific NN Leven recovery measures which are included in the Preparatory Crisis Plan.

In the Risk Profile section we describe per risk type the mitigating activities.

Risk Monitoring & Reporting

Risk monitoring helps to assess and evaluate developments in the risk profile. It determines whether risks are managed within the applicable risk appetite, related limits and tolerances and in line with policies and standards. Results of the Risk monitoring are reported regularly to responsible managers of departments, as well as Management Board and Supervisory Board of NN Leven. This includes information on strategic projects, financial risk limits and developments, control effectiveness, control deficiencies and incidents, as well as second line opinion and advice. Action shall be taken by management when monitoring indicates that risks are not adequately controlled.

On a quarterly basis, the Management Board is presented with an Own Funds report, an SCR report and an Effective Control Framework (ECF) report. These reports are also presented to the Supervisory Board of NN Leven.

Notes to the Consolidated annual accounts continued

The Own Funds and SCR reports aim to provide an overview of the quarterly Solvency II capital position and development, including the Solvency II ratio sensitivities assessing the changes in various scenarios for both Eligible Own Funds and SCR at NN Leven level. Solvency II ratio sensitivities are disclosed at NN Group level.

The ECF report is to provide one consistent, holistic overview of the risks of NN Leven. It focuses on comparing current risk levels to NN Leven's risk appetite, with conclusions drawn by the CEO, and aims to encourage forward-looking risk management. The report also includes a second line opinion on the conclusions drawn by the CEO.

Risk Culture

Management plays a vital role in creating a sound risk culture as they are role models and the main messengers of sound risk management. This includes to:

- show a solid risk management focus in decision making, with a view to long term stability of the business, including understanding and use of risk models when relevant,
- foster diversity of thoughts and solicits different views in decision making,
- foster a culture of transparency in which early identification of risk issues and material incidents are communicated timely to relevant parties,
- ensure operational management take their proper responsibilities in the risk control cycle,
- address dysfunctional behaviour of staff,
- ensure adequate staffing and ensure employees are well trained for their roles, and
- actively manage risks throughout the lifetime of products and not just at the moment of sale.

Within the risk management cycle, NN Leven performs regular assessments with regard to risk culture and maturity, to assess and learn whether this supports the effective functioning of the risk control cycle. The Maturity Reflection assessment provides the NN Leven CEO with a periodical confirmation that the framework is still materially complete and operated by first and second line as intended, ensuring the CEO will be timely informed on things the CEO needs to know from risk perspective, either by lower first line levels or by the second line, and if not, what the ambition is. In addition it creates awareness on what a good (risk) culture entails and fosters internal discussions on the same.

V. Risk profile

VI. Strategic, human capital and emerging risks

Strategic risks

Risk profile

Economic, technological, ecological and demographic developments are impacting the strategic context in which we operate. To remain relevant to our customers in the long run, we need to timely anticipate these developments. Strategic risks are risks arising from making incorrect business decisions, implementing decisions poorly, or being unable to adapt to changes in the operating environment.

We manage our businesses on a risk-return basis, so that we can meet strategic objectives while taking into account the interests of our stakeholders.

In the annual Strategic Risk assessment (for more detail see sub-sections *Risk Assessment* and *Risk Control* in the section on the *Risk Control Cycle*) the Management Board of NN Leven identified various strategic risks, amongst others business model sustainability, managing ongoing expenses, regulatory environment, and key staff and talent management.

Risk mitigation

Strategic risks are mainly managed by undertaking strategic projects to adjust our organisation, products or businesses to address new regulatory, technological or demographic developments. We realise organic growth in the markets we are active by developing new ecosystems or products. We also undertake scenario analysis to analyse potential future events that can impact our strategy and/or capital position, a.o. in the ORSA.

Risk measurement

Strategic risks are not fully quantified, instead several metrics are reported, such as (externally) progress versus our strategic commitments and (internally) progress on strategic initiatives

Human capital risks

Risk profile

Digitalising our customer experience, being more agile to adjust to a faster-moving environment, new developments such as climate change and a focus on environmental matters – these all require us to keep developing our workforce and attracting new talent. Especially in the aftermath of the Covid-19 pandemic, finding and retaining talent is harder than ever.

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Risk mitigation

We invest in personal and professional development throughout our employees' careers, offering people unique learning opportunities and advocating job rotation. HR introduced a Strategic Workforce Planning framework to identify future capability requirements and take the necessary steps to meet them. Our management also embraces new ways of working and the management skills they require. We have therefore composed a new leadership profile, based on which managers are trained to manage and coach people in an agile environment.

Risk measurement

Several metrics are reported and monitored, such as employee engagement scores.

Emerging risks

Risk profile

Emerging risks are newly developing risks, or changing risks, that cannot yet be fully assessed or quantified but that could, in the future, affect the viability of NN Leven's strategy. Most of these risks have a high degree of uncertainty with regard to how they can impact us, or the size of the impact.

An important topic that receives significant attention are risks related to ESG matters, including climate change. For NN Leven's businesses, transition risk is most important. Transition risk, meaning risks related to transition to lower carbon economies which may adversely affect individual businesses, sectors and the broader economy, thereby also having an impact on our investment portfolio and related results. Pricing and investment returns of financial assets may be influenced by such factors as public policy (carbon tax, subsidies etc.), technological developments (resulting in invested companies that will be able to profit, or that will be negatively impacted by the transition) and changing consumer preferences (e.g. customers favouring greener products).

Risk mitigation

NN Leven manages emerging risks by performing regular risk assessments, that help to further understand how emerging risks evolve, and how a combination of events can impact us. An important tool is scenario analysis to further understand how our risk profile would be impacted under certain circumstances, but also creating backup and contingency plans in case events would realise. Our main mitigant is adjusting our strategy to proactively react to these risks.

Around climate change the main mitigating activities are:

- Dealing with climate change is an integral part of our strategy. We have set specific non-financial targets, as part of our strategic commitment *Society*, a.o. to integrate ESG aspects in our investments and our risk management framework.
- NN Leven manages climate change risks by further integrating ESG aspects in its investment strategy, as laid down in the Responsible Investment Framework, where NN Leven is phasing out its investments in certain industries, as well as investing in Climate Solutions. Furthermore NN Leven uses concentration limits to avoid concentration risk in certain counterparties/industries, as well as applies stress testing to further understand the sensitivities of the investments.
- Following an amendment of the Solvency II directive in 2022, aimed to integrate ESG risks into the risk management framework, NN Leven considers ESG risks in actuarial and risk management practices and performed a climate risk materiality assessment to assess materiality of climate risks to which NN Leven is exposed.
- Deploying qualitative and quantitative scenario analyses, a.o. as part of our ORSA, helps us to better understand the materiality of both physical and transitional risks on our assets and liabilities, for different time horizons. We use the insights gained as further input for formulating our investment strategy and integrating climate change risks in our risk management practices.

Risk measurement

Emerging risks can be challenging to assess or quantify. In particular for climate change risks this is challenging as physical and transition risks are characterised by deep uncertainty and non-linearity, their chances of occurrence are not reflected in historical data and the possibility of extreme values cannot be ruled out. NN Leven continues to improve methodologies to quantify climate change risks.

VII. Financial risks

Partial Internal Model (PIM)

The Solvency Capital Requirement (SCR) is calculated based on the actual NN Leven risk exposure. Under Solvency II, the SCR is defined as the loss in basic own funds of the Solvency II balance sheet resulting from a 1-in-200-year adverse event over a one-year horizon. The risk-based framework for calculating solvency capital requirements at NN Leven is a Partial Internal Model. Most components use internally developed methodologies for modelling the market, counterparty default, business and insurance risks to determine the solvency position for reporting and Group consolidation purposes. The capital requirement for operational risk is based on the Standard Formula approach.

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The choice for a Partial Internal Model is based on the conviction that an internal model better reflects the risk profile of NN Leven and has additional benefits for risk management purposes:

- An internal model approach better reflects the specific assets and market risk in the portfolio of NN Leven.
- The approach used for most significant non-market risks within NN Leven such as life risk and expense risk can be better tailored to the specific portfolio characteristics. Diversifications effects that are intuitive to the business model can be captured in a more adequate way.
- The granularity of the PIM and close alignment of the modelling techniques and parameters to NN's risk management approach also mean that it can support a wide range of business decisions.

Assumptions and limitations

Risk-free rate and Volatility Adjustment (VOLA)

The assumptions regarding the underlying risk-free curve are crucial in discounting future cash flows when calculating the market values of liabilities. For liabilities, NN Leven uses the methodology prescribed by EIOPA for the risk-free rate including the Credit Risk Adjustment (CRA) and the Ultimate Forward Rate (UFR). Where appropriate, the risk-free rate is adjusted with the VOLA for the calculation of Own Funds.

Valuation assumptions – replicating portfolios

For SCR calculations, NN Leven uses replicating portfolio techniques to represent the insurance product-related cash flows, options and guarantees by means of standard financial instruments. This approach is also used for the mortgages portfolio of NN Leven. The replications are used to determine and revalue insurance liabilities and mortgages under a large number of Monte Carlo scenarios.

Diversification and correlation assumptions

For a financial services provider offering a variety of products across different business segments, and investing in a wide range of assets, diversification is key to the business model. The resulting diversification reflects the fact that not all potential worst-case losses are likely to materialise at the same time. The Internal Model takes diversification effects into account when aggregating required capitals for different risk types.

Where possible, correlation parameters are derived through statistical analysis based on historical data. In case historical data or other portfolio-specific observations are insufficient or not available, correlations are set by expert judgement via an established, well-defined and controlled process. Similar to other risk models, correlations and expert judgements are also monitored for appropriateness given availability of more recent data, and are subject to regular development, validation and regulatory oversight. Based on these correlations, industry-standard aggregation approaches such as Gaussian copula and VaR–CoVaR approach are used to determine the dependency structure of quantifiable risks.

Model limitations

NN Leven's Partial Internal Model (PIM) resulted from balancing between (1) an appropriate and clear methodology and (2) efficient calculations with appropriate accuracy and granularity in the underlying risks. Despite several limitations stemming from this, the overall PIM is considered to be materially robust, appropriate and compliant with Solvency II.

As a result of the granular modelling approach and the wide variety of NN Leven's assets and liabilities, the PIM is more complex than the Standard Formula.

Inherent model limitations of the PIM are related to the calibration of 1-in-200 year stress event for a full spectrum of market and non-market risks, which are based on making use of limited historical data. Limitations also relate to the overall aim of determining forward-looking distributions of risk factors under stress based on historical data as well as the use of modelling assumptions and expert judgements.

Risks that cannot be directly modelled in the same way as market risk or insurance risk, for example strategic, reputational and model risks, and also emerging risks are managed through qualitative risk assessments. In addition, and as part of the ORSA, NN Leven holistically assesses its risk exposure to both quantifiable and non-quantifiable risks in order to also outline mitigating actions as required.

The components of NN Leven's PIM for market and counterparty default risk and the models for risk aggregation and replication have been developed centrally by Group Risk, and thus carry an inherent risk that the developed models include aspects which might be less appropriate for individual entities. On a regular basis NN Leven performs "Fit For Local Use" assessments. Models also undergo regular reviews and monitoring, under agreed governance, and in addition, model validations are performed by independent model validation department. Such reviews could result in additional monitoring and/or locally calculated and further centrally processed adjustments.

The Risk Management Function informs the Management Board and Supervisory Board on an annual basis on the performance of the internal model.

Solvency II 2020 review

EIOPA's Opinion on the Solvency II review to the European Commission (EC) was published on 17 December 2020. The Opinion consists of a proposed package of measures and will be used as input for the European Commission to draft a legislative proposal which will be discussed with the European Council and European Parliament in the coming years.

On 22 September 2021 the European Commission published as part of the Solvency II 2020 Review the proposed Level I texts (Directive) and insights in the upcoming Level II (Delegated Acts) regulations. Since this proposal mainly contains details on the Solvency II Directive, full detailed specifications of Delegated Acts are not yet clear.

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Furthermore, this EC proposal forms the basis for the upcoming political process, which can take several quarters and can lead to further changes in the proposals. The EC advice is on many items broadly in line with the earlier EIOPA proposal published in December 2020. However, some noteworthy changes in the EC advice can be summarised as follows:

- *Interest rate curve:* The implementation of the alternative extrapolation methodology used for the valuation of (long) insurance cash-flows will lead to a higher valuation of liabilities. The phasing-in of this negative impact will follow a simpler phasing-in mechanism and the initial impact on the Solvency II ratio is expected to be smaller compared to the original EIOPA proposals.
- *Risk margin:* The EC proposes to lower the cost-of-capital rate from 6% to 5%. Furthermore, it is proposed to remove the floor in the so called "lambda approach" that was part of the EIOPA advice. These changes will lower the valuation of the risk margin. The exact details will be part of the Level II regulations, but the EC already included in its communication that these changes are considered.
- *VOLA and Enhanced Prudency Principle:* The entity specific liquidity haircut for volatility adjustment is not included in the proposals of the EC. This will increase the effectiveness of the VOLA compared to the EIOPA advice and it impacts the Enhanced Prudency Principle.

The resulting updated legislation is currently expected to be implemented at the earliest in 2026.

Solvency II ratio

Solvency II ratio of NN Leven

The following table shows the NN Leven Solvency II ratio as at 31 December 2022 and 31 December 2021 respectively.

	2022	2021
Eligible Own Funds (EOF)	10,227	13,528
Solvency Capital Requirement (SCR)	5,356	6,187
Solvency II ratio (EOF/SCR)	191%	219%

The Solvency Capital Requirement is based on the Partial Internal Model. The decrease of the Solvency II ratio over 2022 reflects the net impact of the strong market movements in 2022 and dividend payments, partly offset by operating capital generation.

Solvency Capital Requirement

The following table shows the NN Leven Solvency Capital Requirement (SCR) as at 31 December 2022 and 31 December 2021 respectively.

Solvency II Capital Requirements

	2022	2021
Market risk	5,340	5,721
Counterparty default risk	58	39
Non-market risk	3,217	4,503
Total BSCR (before diversification)	8,615	10,264
Diversification	-2,109	-2,722
Total BSCR (after diversification)	6,506	7,542
Operational risk	371	490
Other	-48	-27
LACDT	-1,472	-1,818
Solvency II SCR	5,356	6,187

The breakdown of specific SCR risk types and explanations for the most significant changes in the risk profile over the year 2022 are presented in the next sections. The overall market risk SCR decreased from EUR 5,721 in 2021 to EUR 5,340 million in 2022 which can be attributed to a significantly lower Equity risk and Credit Spread risk, partly offset by a decrease in market risk diversification benefit following a decrease in interest rate risk. The Non-market risk SCR decreased from EUR 4,503 million in 2021 to EUR 3,217 million in 2022, driven by higher interest rates.

Following discussions between DNB and NN Group on various aspects of the PIM, NN Leven applies a voluntary adjustment on the SCR implemented in the Q3 2022 reporting. At the end of 2022 the level of the adjustment is EUR 75 million pre-tax.

The loss absorbing capacity of deferred taxes (LAC DT) recognised as a percentage of gross SCR has decreased from 22,7% to 21,6%. The decrease is driven by a lower effective tax rate. This is a result of the decreased market risk diversification (46% in 2021 compared to 33% in 2022) leading to higher tax-exempt SCR. LAC DT has also decreased in absolute value because of lower gross SCR.

In the above table, 'Other' only includes the loss-absorbing capacity of technical provisions (LACTP). This stands in contrast to 2021 where capital adjustments were included in 'Other' as well. As of 2022 the capital adjustments are implicitly included in the sub-risks. This holds in particular for the voluntary adjustment, and the inclusion of AAL treated as an equity participation.

Main types of risks

In the next sections the main risks associated with NN Leven's business are discussed. Each risk type is analysed through the risk profile, risk mitigation and risk measurement. For Market and Non-market risks more detailed quantification of risk exposures are provided.

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Market risk

Market risk comprises the risks related to the impact of changes in various financial markets indicators on NN Leven's balance sheet. Market risks are taken in pursuit of returns for the benefit of customers and shareholders. These returns are used to fulfil policyholder obligations with any surplus returns benefiting the shareholders. Accordingly, optimisation within the risk appetite is paramount to generate returns for both policyholder and shareholder. In general, market risks are managed through a well-diversified portfolio under several relevant policies within clearly defined and monitored limits. NN Leven reduces downside risk through various hedging programmes, in particular risks for which NN Leven has no or only a limited appetite like interest rate, inflation and foreign exchange risk. In addition, NN Leven performs ad hoc analyses in response to changing market circumstances. NN Leven also integrates Environmental, Social, and Governance (ESG) factors in the investment decision-making framework.

Market risk capital requirements

	2022	2021
Interest rate risk	346	1,369
Equity risk	1,953	2,855
Credit spread risk	2,766	3,943
Real estate risk	1,620	1,681
Foreign exchange risk	344	452
Inflation risk	309	192
Basis risk	42	57
Concentration risk	0	0
Diversification market risk	-2,040	-4,827
Market risk	5,340	5,721

In 2022, the Market risk SCR decreased to EUR 5,340 million. Over the year the capital for equity risk and credit spread risk have decreased significantly, due to transactions and a steep rise in interest rates following a persistent surge in the inflation rate. The effect of the decrease in equity risk and credit spread risk on the market risk SCR is partly offset by lower market risk diversification benefit following a decrease in interest rate risk.

The table below sets out NN Leven's market value of assets for each asset class as at the end of 2022 and 2021. The values in these tables may differ from those included in the consolidated IFRS balance sheet as derivatives are excluded and furthermore due to classification and valuation differences to reflect a risk management view.

Investment assets

	Market value 2022	% of total 2022	Market value 2021	% of total 2021
Fixed income	80,635	82%	99,178	81%
Government bonds and loans	25,065	26%	40,923	34%
Financial bonds and loans	4,755	5%	6,382	5%
Corporate bonds and loans	14,820	15%	17,414	14%
Asset-backed securities	1,135	1%	1,677	1%
Mortgages[1]	34,649	35%	32,581	27%
Other retail loans	211	0%	201	0%
Non-fixed income	17,129	18%	18,891	16%
Common & preferred stock[2]	3,276	4%	5,347	4%
Private equity	98	0%	1,102	1%
Real estate[3]	10,481	11%	10,303	9%
Mutual funds (money market funds excluded)[4]	3,274	3%	2,139	2%
Money market instruments (money market funds included)[5]	300	0%	3,430	3%
Total investments	98,064	100%	121,499	100%

1 Mortgages are on amortised cost value. The mortgage value on the consolidated IFRS balance sheet differs from the value in the current table due to the acquisition premium of mortgages and the inclusion of mortgages underlying the mortgage structure vehicles.
2 All preference shares are included in 'common & preferred stock', even when preference shares are modelled as bonds.
3 The real estate values exclude the real estate forward commitments, since NN Leven has no price risk related to them.
4 Fixed income mutual funds are included in mutual funds.
5 Money market mutual funds and commercial papers are included in the Money Market Instruments.

Total investment assets have decreased from EUR 121,499 million at the end of 2021 to EUR 98,064 million at the end of 2022. This is the result of the sharp rise in interest rates reducing the market value of fixed income investments. Main risk profile related developments in 2022 are reflecting the strategy of NN Leven to strike a balance between increase of Operating Capital Generation (OCG) and stability in solvency position. OCG increases by shifting to higher-yielding assets, such as Below Investment Grade loans. Solvency stability will improve by a gradual reduction in (lower yielding) core government bonds and mortgages, and a move towards growth in liquid corporate bond investments.

Interest rate risk

Interest rate risk is defined as the risk of having losses in the Solvency II Own Funds due to adverse changes in the level or shape of the risk-free interest rate curve used for discounting assets and liabilities cash flows. Exposure to interest rate risk arises from asset or liability positions that are sensitive to changes in this risk-free interest rate curve.

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Risk profile
As shown in the 'Market risk capital requirements' table above, the interest rate risk SCR of NN Leven decreased from EUR 1,369 million in 2021 to EUR 346 million in 2022. The decrease in capital is driven by a steep rise in interest rates and this, furthermore, contributes to a reduction in market risk diversification benefit.

Risk mitigation
The interest rate SCR indicates to what extent assets and liabilities are matched on Solvency II basis. NN Leven manages its interest rate position by investing in long-term bonds and interest rate swaps. The interest rate risk management focuses on matching best estimate liability cash flows with asset cash flows for tenors where markets for fixed income instruments are sufficiently deep and liquid.

NN Leven liability cash flows are predictable and stable since exposure to policyholder behaviour and profit-sharing mechanisms is limited. Until year 30, where markets for fixed income instruments are sufficiently deep and liquid, best estimate liability cash flows (excluding risk margin) are closely matched with government bonds, corporate bonds, mortgages, and loans. Cash flows after 30 years are partially hedged on a duration basis with long term government bonds and interest rate swaps, due to price and illiquidity of markets.

NN Leven has implemented limits and tolerances for interest rate risk exposures.

Risk measurement
For discounting EUR-denominated asset cash flows, NN Leven uses market swap curves as a basis to value assets. For the asset cash flows denominated in other currencies, the relevant swap or government curve is used for that specific currency.

For discounting the EUR-denominated liability cash flows NN Leven uses a swap curve less credit risk adjustment (CRA) plus Volatility Adjustment (VOLA) in line with definitions under the Solvency II framework. For the liability cash flows denominated in other currencies, the relevant swap or government curve is used where this curve is also lowered by the credit risk adjustment and adding the Volatility Adjustment specific for each currency. In line with Solvency II regulations, NN Leven extrapolates the EUR swap curve starting from the last liquid point onwards to the Ultimate Forward Rate for each relevant currency in its portfolio. The last liquid point (LLP) used for EUR is 20 years. As such, the sensitivity of SCR for interest rate risk primarily depends on the level of cash flow matching between assets and liabilities up to the 20-year point, and the difference between the swap curve and the curve extrapolated to the UFR for longer cash flows.

Over the year 2022 the European Insurance and Occupational Pensions Authority (EIOPA) prescribes a UFR level set at 3.45%. The sensitivity of the Solvency II ratio to changes in interest rates is monitored on a quarterly basis.

Equity risk
Equity risk is defined as the risk of having losses in Solvency II Own Funds due to adverse changes in the level of equity market prices. Exposure to equity risk arises from direct or indirect asset or liability positions, including equity derivatives such as futures and options, that are sensitive to equity prices.

Risk profile
The table below sets out the market value of NN Leven's equity assets as at the 31 December 2022 and 2021, respectively.

Equity assets

	2022	2021
Common & preferred stock	3,276	5,347
Private equity	98	1102
Mutual funds (money market funds are excluded. Fixed income mutual funds are included)	3,274	2,139
Total	6,648	8,588

NN Leven is mostly exposed to public listed equity, but also invests in private equity funds and equity exposures through mutual funds. The equity exposure is spread mainly across the Netherlands, and remaining exposure in other countries predominantly in core EU countries. Note that mutual funds are classified as equity in the table above but include predominantly fixed income funds. The movements of private equity and mutual funds include some reclassifications within these categories, which lead to a decrease in the category private equity and increase in the category mutual funds.

As shown in the 'Market risk capital requirements' table above, the Equity risk SCR of NN Leven decreased from EUR 2,855 million in 2021 to EUR 1,953 million in 2022. The decrease in capital is due to a lower equity exposure reflecting divestments and an overall negative equity performance over 2022.

Risk mitigation
Exposure to equities provides additional diversification and upside return potential in the asset portfolio of an insurance company with long-term illiquid liabilities. The concentration risk on individual issuers is mitigated by having issuer risk limits in place in investment mandates. NN Leven hedges the interest and equity sensitivities of the unit-linked guarantees. Equity risk in the unit-linked portfolio is hedged using a dynamic hedge which is updated at least quarterly. NN Leven uses short futures and long calls to hedge equity risk.

Risk measurement
The sensitivity of the Solvency II ratio to changes in the value of equity is monitored on a quarterly basis.

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Credit spread risk

The credit spread risk is defined as the risk of having losses in Solvency II Own Funds due to adverse movements in the credit spreads of fixed income assets. The credit spread widening (or narrowing) reflects market supply and demand, rating migration of the issuer and changes in expected default. Changes in liquidity and other risk premiums that are relevant to specific assets can play a role in the value changes.

In the calculation of the SCR, NN Leven assumes no change to the volatility adjustment on the liability side of the balance sheet after a shock-event, but instead reflects the illiquidity of liabilities in the asset shocks to ensure appropriate solvency capital requirements. This approach ensures appropriate risk incentives. NN Leven also shocks all government bonds and its mortgage portfolio in the calculation of spread risk capital requirements.

The main asset classes in scope of the credit spread risk module are government and corporate bonds, mortgages and loans.

Risk profile

As shown in the 'Market risk capital requirements' table, the credit spread risk SCR of NN Leven decreased from EUR 3,943 million in 2021 to EUR 2,766 million in 2022. The decrease in capital is predominantly driven by increased interest rates and a model update regarding mortgage valuation.

The table below shows the market value of NN Leven's fixed-income bonds subject to credit spread risk SCR by issuer as at the 31 December 2022 and 31 December 2021, respectively.

Fixed-income bonds and loans by type of issuer

	Market value		Percentage	
	2022	2021	2022	2021
Government Bonds & Loans	25,065	40,923	55%	62%
Finance and Insurance	4,755	6,382	10%	10%
Asset Backed Securities	1,135	1,677	2%	3%
Manufacturing	4,030	5,173	9%	8%
Utilities	1,737	1,948	4%	3%
Real Estate and Rental and Leasing	1,524	1,497	3%	2%
Information	1,160	1,516	3%	2%
Transportation and Warehousing	809	1,230	2%	2%
Other	5,560	6,050	12%	9%
Total	45,775	66,396	100%	100%

The decrease in exposure to government bonds in 2022 reflects the steep increase in interest rates decreasing the market value of our fixed income, and the strategy of NN Leven to shift to higher-yielding assets.

The table below sets out the market value of NN Leven's assets invested in government bonds and loans by country and maturity.

Market value government bond and loans exposures (2022)

			Market value of government bond and loans 2022 by number of years to maturity[4]								
	Rating[1]	Domestic exposure [2]	0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	Total
France	AA	0%	36	0	0	0	37	1,543	598	2,784	4,998
Germany	AAA	0%	5	302	0	50	1,222	1,988	304	203	4,074
Netherlands	AAA	100%	511	0	135	16	353	2,383	43	9	3,450
Austria	AA+	0%	0	159	0	366	0	278	558	928	2,289
Belgium	AA-	0%	15	0	0	39	220	1,345	479	590	2,688
United States	AAA	0%	0	0	1	0	0	223	1,498	0	1,722
Spain	A-	0%	0	15	52	6	166	811	363	25	1,438
UK	AA-	0%	0	0	0	0	157	0	0	0	157
Ireland	AA-	0%	0	0	46	0	4	2	181	0	233
Multilateral[3]	AAA	0%	0	25	0	88	43	474	221	21	872
Portugal	BBB+	0%	0	0	0	38	167	9	0	0	214
Finland	AA+	0%	0	0	143	0	0	594	169	0	906
Italy	BBB	0%	8	0	0	81	398	21	33	26	567
Other			67	60	92	315	384	307	188	44	1,457
Total		14%	642	561	469	999	3,151	9,978	4,635	4,630	25,065

1 NN Leven uses the second-best rating across Fitch, Moody's and S&P to determine the credit rating label of its bonds.
2 Percentage of the bonds held in the local unit, e.g. percentage of Dutch bonds held by entities registered in the Netherlands.
3 Includes EIB, ECB, EFSF, EU and ESM.
4 Based on legal maturity date.

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Market value government bond and loans exposures (2021)

	Rating[1]	Domestic exposure[2]	Market value of government bond and loans 2021 by number of years to maturity[4] 0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	Total
France	AA	0%	1	36	0	0	15	3,307	537	5,057	8,953
Germany	AAA	0%	0	48	449	13	1,840	2,912	669	387	6,317
Netherlands	AAA	100%	11	534	0	201	327	2,251	2,024	12	5,360
Austria	AA+	0%	147	0	172	316	662	1,071	753	1,829	4,950
Belgium	AA-	0%	298	177	0	43	377	2,221	535	918	4,569
United States	AAA	0%	1	0	0	1	0	282	2,085	0	2,369
Spain	A-	0%	0	0	41	59	49	1,365	509	0	2,023
UK	A	0%	0	0	2	0	1	0	0	0	3
Ireland	A	0%	0	0	0	0	8	3	0	0	11
Multilateral[3]	AAA	0%	94	14	79	86	16	509	524	14	1,336
Portugal	BBB	0%	0	0	0	0	2	0	0	0	2
Finland	AA+	0%	0	0	0	161	0	0	958	1	1,120
Italy	BBB-	0%	23	9	0	0	598	0	0	0	630
Other			357	106	159	513	1,206	565	357	17	3,280
Total		13%	932	924	902	1,393	5,100	14,486	8,952	8,235	40,923

1 NN Leven uses the second best rating across Fitch, Moody's and S&P to determine the credit rating label of its bonds.
2 Percentage of the bonds held in the local unit, e.g. percentage of Dutch bonds held by entities registered in the Netherlands.
3 Includes EIB, ECB, EFSF, EU and ESM.
4 Based on legal maturity date.

Of the total NN Leven sovereign debt exposure 73% (or EUR 18.4 billion) is invested in AAA and AA rated eurozone countries (2021: 76% (or EUR 31.2 billion)). These long-term government bonds and loans are sensitive to sovereign credit spread movements versus EUR swap rates. In line with the strategy of NN Leven there is a gradual reduction in the exposure to government bonds and mortgages, and an increase in allocation to corporate bonds and loans.

The tables below show the market value of non-government fixed-income securities (excluding mortgages and derivatives) by rating and maturity.

Market value non-government bond securities and loans (2022)

	Market value of non-government bond securities and loans by number of years to maturity 0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	Total
AAA	51	48	1	153	72	700	255	595	1,875
AA	143	67	77	252	229	95	140	117	1,120
A	547	648	705	1,138	1,285	443	575	445	5,786
BBB	873	1,517	834	1,468	1,667	1,245	576	82	8,262
BB	263	161	351	617	903	21	23	0	2,339
B	7	101	163	386	200	0	0	0	857
CCC	16	10	9	12	34	0	0	0	81
CC	0	0	0	7	0	0	0	0	7
C	0	0	0	0	0	0	0	0	0
D	16	0	5	8	0	12	0	0	41
No rating available	73	68	5	114	79	0	2	1	342
Total	1,989	2,620	2,150	4,155	4,469	2,516	1,571	1,240	20,710

Market value non-government bond securities and loans (2021)

	Market value of non-government bond securities and loans by number of years to maturity 0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	Total
AAA	60	86	75	61	156	821	384	1,015	2,658
AA	293	182	76	206	273	367	194	156	1,748
A	880	972	718	1,512	1,245	615	567	552	7,061
BBB	798	1,157	1,553	1,800	1,781	1,474	843	115	9,521
BB	221	181	228	699	1,189	51	16	14	2,599
B	71	210	200	528	375	5	0	0	1,389
CCC	35	23	12	70	101	0	0	0	241
CC	0	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0	0
D	14	0	0	1	7	13	0	0	35
No rating available	37	3	7	0	145	0	0	29	221
Total	2,409	2,815	2,869	4,876	5,272	3,347	2,005	1,881	25,474

The table below sets out NN Leven's holdings of loans and other debt securities as at the 31 December 2022 and 2021, respectively.

Notes to the Consolidated annual accounts continued

Market value bonds, loans and other debt securities (per credit rating)

	Fair value 2022	Fair value 2021	Book value 2022	Book value 2021
AAA	11,733	17,361	11,821	14,018
AA	12,786	22,582	12,761	18,148
A	7,627	10,163	7,770	9,422
BBB	9,459	11,224	9,672	10,687
BB	2,659	3,145	2,729	3,108
B	1,040	1,423	1,053	1,435
CCC	81	241	81	246
CC	7	0	7	0
C	0	0	0	0
D	41	35	89	78
No rating available	341	224	300	141
Mortgages[1]	34,649	32,581	34,649	32,581
Other Retail Loans	211	201	211	201
Total	80,634	99,179	81,143	90,065

1 Mortgages refer to all mortgages using the same criteria and is aligned with the mortgages figure in the Investment assets table.

Mortgages

The required capital for mortgages under the Partial Internal Model is calculated in the credit spread risk module. The credit spread risk module captures the behaviour of Own Funds when the valuation of mortgages changes with market mortgage rates.

The Loan-to-Value (LTV) for residential mortgages (which is based on the net average loan to property indexed value) of NN Leven stands at 53% at the end of December 2022 (2021: 59%). Over the full year 2022 increasing house prices (+ 11.9%) resulted in a migration towards lower LTV buckets. The inherent credit risk of mortgages is backed primarily by means of the underlying property, but also through guarantees by the Nationale Hypotheek Garantie (NHG) and other secondary covers like saving accounts, investments, and life insurance policies. Mortgages with NHG accounted for 24% at NN Leven at the end of 2022 (2021: 26%). The relative NHG coverage is decreasing in the portfolios mostly due to the high house prices, so overall less mortgages are eligible for NHG coverage.

Loan-to-Value on mortgage loans[1]

	2022	2021
NHG	24%	26%
LTV <=80%	72%	66%
LTV 80%-90%	3%	5%
LTV 90% - 100%	1%	2%
LTV >100%	0%	1%
Total NN Leven	100%	100%

1 Risk figures and parameters do not include third party originated mortgages and collateralised mortgages although they are on the balance sheet of NN Leven.

The mortgage portfolio is under regular review to ensure troubled assets are identified early and managed properly. The loan is categorised as a non-performing loan (NPL) if the loan is 90 days past due, or the client was in default in the previous month, and the minimum holding period (MHP) is active or the loan is classified as Unlikely To Pay (UTP) by the problem loans department. A loan is re-categorised as a performing loan again when the amount past due has been paid in full (and the UTP-status is withdrawn).

The main criterion for lifting the default status will be that no arrears greater than EUR 250 occurred during the Minimum Holding Period (MHP). For defaulted clients that are classified as 'distressed restructuring', the MHP is 12 months. For all other defaulted clients, the MHP is 3 months.

The impact of the war in Ukraine and increasing inflation on the creditworthiness of the portfolio is limited. Combined with low levels of unemployment, the outstanding non-performing loans decreased in 2022. Provisions decreased due to sharply increasing house prices in 2022 (+ 11.9%) and a decrease in non-performing loans.

The net exposure decreased because of increasing house prices.

Credit quality: NN Leven mortgage portfolio, outstanding[1 2]

	2022	2021
Performing mortgage loans that are not past due	26,316	25,539
Performing mortgage loans that are past due	111	128
Non-performing mortgage loans[3]	85	79
Total[4]	26,512	25,746
Provisions for performing mortgage loans	1	2
Provisions for non-performing mortgage loans	4	5
Total[4]	5	7

1 Risk figures and parameters do not include third party originated mortgages and collateralised mortgages although they are on the balance sheet of NN Leven.
2 Amounts are excluding partial transfer of mortgages.
3 The non-performing loans include "unlikely to pay" mortgage loans, which may not be past due
4 The total value for Mortgages is different in this table vs. Investment Assets Table because of exclusion of mortgage structure vehicles.

Notes to the Consolidated annual accounts continued

Collateral on mortgage loans[1]

	2022	2021
Carrying value	26,512	25,746
Indexed collateral value of real estate	58,286	49,536
Savings held[2]	1,144	985
NHG guarantee value[3]	5,600	5,480
Total cover value[4] + including NHG guarantee capped at carrying value	26,500	25,729
Net exposure	12	16

1 The figures in the table contain mortgages originated by NN Bank. Mortgages sourced via third party manager are not included in the table
2 Savings held includes life policies
3 The NHG guarantee value follows an annuity scheme and is corrected for the 10% own risk (on the granted NHG claim)
4 The cover value of the real estate does not include haircuts, which are applied in the determination of loan loss provisions

Risk mitigation

NN Leven has a policy of maintaining a high-quality investment grade portfolio while avoiding substantial risk concentrations. To diversify the credit spread risk, NN Leven increased its investments in non-listed assets. The concentration risk on individual issuers is managed using rating-based issuer limits on one (group of related) single name(s), effectively managing the default risk of the issuers.

Risk measurement

NN Leven has exposure to government, corporate and financial debt, and is exposed to spread changes for these instruments. Furthermore, the Volatility Adjustment in the valuation of liabilities introduces an offset to the valuation changes on the asset side. The sensitivity of the Solvency II ratio to changes in the value of credit spread is monitored on a quarterly basis.

Government bond shocks are applied to the following asset classes: government bonds and loans, government-linked instruments (sub-sovereigns and supranational). Corporate spread shocks are applied to the following asset classes: corporate bonds (financials and non-financials), covered bonds, subordinated bonds, asset-backed securities and loans. Mortgages are subject to spread shocks in a separate scenario.

Real estate risk

Real estate risk is defined as the risk of having losses in Solvency II Own Funds due to adverse changes in the value of real estate. Exposure to real estate risk arises from holding direct real estate properties or positions in real estate mutual funds. With the long-term nature of the liabilities of NN Leven, illiquid assets such as real estate play a key role in the asset allocation.

Risk profile

NN Leven's real estate exposure (excluding forward commitments) increased from EUR 10,303 million at the end of 2021 to EUR 10,481 million at the end of 2022.

NN Leven holds real estate directly (owning the object) or indirectly by having a stake in an investment fund dedicated to real estate. Several of the real estate funds owned by NN Leven include leverage, and therefore the actual real estate exposure is larger than NN Leven's actual real estate assets.

The table below sets out NN Leven's real estate exposure per region as of 31 December 2022 and 2021, respectively.

Real estate assets per region[1]

	2022	2021
Western Europe	60%	62%
Southern Europe	17%	16%
Nordics	8%	7%
Central and Eastern Europe	4%	4%
UK and Ireland	11%	11%
Other	0%	0%
Total	100%	100%

1 Excludes real estate forward commitments, since NN Leven has no price risk related to them.

As shown in the 'Market risk capital requirements' table, the real estate risk SCR of NN Leven decreased from EUR 1,681 million in 2021 to EUR 1,620 million in 2022. The relative stable capital is the net effect of positive real estate performance up until the third quarter of 2022 and mostly offset by depreciation over the final quarter of 2022.

Risk mitigation

Exposure to real estate provides for additional diversification for the asset portfolio. The concentration risk on individual assets is mitigated under the relevant investment mandates. Real estate portfolio is also well diversified across European countries and sectors.

Risk measurement

NN Leven monitors the sensitivity of the Solvency II ratio to quarterly changes in the value of real estate.

Foreign exchange risk

Foreign exchange (FX) risk measures the impact of losses related to adverse changes in currency exchange rates.

Notes to the Consolidated annual accounts continued

Risk profile
FX transaction risk can occur when items included in the annual accounts are measured using the country's local currency instead of NN Leven's reporting currency, the euro.

The SCR for foreign exchange risk decreased from EUR 452 million in 2021, to EUR 344 million in 2022. The decrease in capital can be attributed to negative equity performance, transactions and increasing interest rates.

Risk mitigation
FX risk is mitigated by hedging the FX risk in liabilities that are sensitive to changes in FX rates and by limiting investment in non-euro-denominated assets. As a result of this, FX risk marginally contributes to the SCR of NN Leven.

Inflation risk
Inflation risk is defined as the risk of adverse changes in inflation that result into decrease in Solvency II Own Funds.

Risk profile
NN Leven has two types of inflation-linked exposures. The first exposure relates to inflation-linked group contracts where the payment (pensions) to the policyholder is linked to an external inflation index. Next to that, NN Leven expenses are sensitive to inflation risk because of, for example, increasing wages. This latter will be discussed in more detail in the upcoming section on Business risk.

Risk mitigation
Regarding the inflation-linked liabilities, part of the underlying contracts features a cap applied to the inflation being compensated to the policyholders, which limits the risk of high inflation rates to NN Leven. Furthermore, NN Leven hedges the inflation risk using inflation-linked swaps. These instruments are used to offset the inflation risk included in the liabilities (i.e., the inflation-linked group contracts). NN Leven has a specific hedging policy in place and tolerances defined. The position is monitored quarterly and adjusted if needed (e.g., in case of a tolerance breach). Furthermore, the NN Leven ALCO is periodically updated on the performance of the hedge and inflation developments in general.

Risk measurement
As of Q4 2022 the required capital for the inflation risk related to the inflation-linked contracts, offset by the inflation-linked swaps, is EUR 309 million, while per year-end 2021 the capital was EUR 192 million. The increase in capital is driven by a model update regarding the valuation of the inflation-linked contracts. The capital for inflation risk related to NN Leven expenses is included in the expense risk and discussed in more detail in the upcoming section on Business risk.

Basis risk
The SCR Basis risk is defined as a risk that the underlying asset or liability behaves differently than the underlying hedge instrument, which results in the loss in the Solvency II balance sheet.

Risk profile
The SCR for basis risk decreased from EUR 57 million in 2021 to EUR 42 million in 2022, mostly due to less hedged equity exposure.

Risk mitigation
The Basis Risk is mitigated by fund mapping of the underlying funds to risk factors, and by constant monitoring of the fund performance compared to the benchmark.

Market risks within separate account businesses
For the separate account businesses the policyholder bears most of the market and credit risk. NN Leven's earnings from the separate account businesses are primarily driven by fee income. However, in the case of variable annuities and the guaranteed separate account pension business, NN Leven retains risk associated with the guarantees provided to its policyholders. Businesses in this separate account category are (i) the group pension business for which guarantees are provided and (ii) other separate account business, primarily the unit-linked business and variable annuities (VA).

Separate account guaranteed group pension business in NN Leven
Risk profile
In the separate account guaranteed group pension portfolio, investments are held in separate accounts on behalf of the sponsor employer who concluded their contract with NN Leven. Regardless of actual returns on these investments, pension benefits for the beneficiaries are guaranteed under the contract. The value of the provided guarantee is sensitive to interest rates, movements in the underlying funds and the volatility of those funds.

The Assets under Management for NN Leven's portfolio decreased from EUR 2.9 billion 31 December 2021 to EUR 2.1 billion 31 December 2022, mainly caused by a decrease of the Separate Account (SA) portfolio and changes in asset values.
Businesses in the separate account category are the group pension business for which certain guarantees are provided, and other separate account business, primarily the unit-linked business. Some unit-linked policies include a guarantee on the performance of specific underlying funds. The value of this guarantee is sensitive to interest rates, movements in the underlying funds and the volatility of those funds.

Notes to the Consolidated annual accounts continued

Risk mitigation

NN Leven currently hedges the value of the guarantees it provides under group pension contracts. For hedging, the exposure under such guarantees is discounted at the swap curve without the extrapolation to the UFR. Upon contract renewal, NN Leven offers policyholders defined contribution products with investments in portfolios that NN Leven can more easily hedge, thus reducing the risk. The risk that the present value of future fees is affected by market movements of the underlying policyholder funds is not hedged. NN Leven determines Eligible Own Funds (EOF) for the market of the separate account business through modelling the risks of the fee income and the guarantees including the impact of the hedge programs. The hedge program includes equity basket options, swaps and equity futures.

Other separate account businesses

Risk profile

The other separate account business primarily consists of unit-linked insurance policies and variable annuity (VA) portfolios. Unit-linked insurance policies provide policyholders with selected fund returns combined with an insurance cover. The investment risk is borne by the policyholder, although there are some unit-linked products where NN Leven has provided guarantees on the performance of specific underlying funds. Unit-linked products without guarantees do not expose NN Leven to market risk, except to the extent that the present value of future fees is affected by market movements of the underlying policyholder funds. The variable annuities consist of guaranteed minimum accumulation benefit products, guaranteed minimum death benefit products and guaranteed minimum withdrawal benefit products.

Risk mitigation

The market risks of the unit-linked and other separate account business are managed by the design of the product. Currently, NN Leven does not hedge the market risks related to the present value of future fee income derived from this business. For VA business Leven has hedging programmes in place targeting equity, interest rate, credit spread and FX risk as well as volatility risk.

Risk measurement

NN Group determines eligible own funds for the market and credit risks of the separate account business through modelling the risks of the fee income and the guarantees including the impact of the hedge programmes.

Counterparty default risk

Counterparty default risk is the risk of loss due to default or deterioration in the credit standing of the counterparties and debtors (including reinsurers) of NN Leven. The SCR for counterparty default risk is primarily based on the issuer's probability of default (PD) and the loss-given-default (LGD) of each individual position, taking into account diversification across these positions.

The counterparty default risk module also covers any credit risk exposures which are not covered in the spread risk sub-module.

Risk profile

As shown in the 'Solvency II Capital Requirements' table above, the Counterparty default risk SCR of NN Leven increased from EUR 39 million at the end of 2021 to EUR 58 million at the end of 2022. The change in capital for Counterparty default risk can be attributed to an increase in exposure towards private debt investors.

Risk mitigation

NN Leven uses different credit risk mitigation techniques. For OTC derivatives, the exchange of collateral under the International Swaps and Derivatives Associations contracts accompanied with Credit Support Annexes is an important example of risk mitigation. Other forms of credit risk mitigation include reinsurance collateral exchange. For cash and money market funds, limits per counterparty are put in place.

Risk measurement

The Counterparty default risk module comprises two sub-modules:

- CDR Type I: applicable to exposures which might not be diversified and where the counterparty is likely to be (externally) rated, e.g. reinsurance contracts, derivatives and money market exposures. The underlying model is the Ter Berg model (which was also the basis for Standard Formula calibration under Solvency II)
- CDR Type II: applicable to exposures that are usually (well) diversified and where the counterparty is likely to be unrated, like retail loans, but also other forms of term lending not covered in Type I

The capital charges for CDR Type I and CDR Type II exposures are calculated separately and subsequently aggregated.

Liquidity risk

Liquidity risk is the risk that NN Leven does not have sufficient liquid assets to meet its financial obligations when they become due and payable, at reasonable cost and in a timely manner. Liquidity in this context is the availability of funds, or certainty that funds will be available without significant losses, to honour all commitments when due. NN Leven manages liquidity risk via a liquidity risk framework: ensuring that – even after shock – NN Leven can meet immediate obligations. Liquidity stress events can be caused by a market-wide event or an idiosyncratic NN Leven specific event. These events can be short-term or long-term and can both occur on a local, regional or global scale.

Since NN Leven trades in derivatives, NN Leven is responsible for maintaining sufficient liquidity levels to meet their collateral requirements. For this purpose liquidity buffers are set to ensure sufficient liquidity is available in an adverse scenario and to ensure the liquidity thresholds are being met. The liquidity position framework estimates the collateral requirements after several interest rate scenarios.

Notes to the Consolidated annual accounts continued

Risk profile

Liquidity risk covers three areas of attention. Operational liquidity risk, is the risk that funds are unavailable to meet financial obligations when due. Market liquidity risk is the risk that an asset cannot be sold in the short-term without significant losses. Funding risk, is the risk related to not being able to refinance maturing debt instruments and may lead to higher funding costs. The connection between market and operational liquidity risk stems from the fact that when payments are due and not enough cash is available, investment positions need to be converted into cash; if market liquidity is low or an adverse market movement took place in this situation, this could lead to a loss.

For NN Leven, the main direct liquidity risk is caused by collateral requirements after interest rates increase. In case interest rates increase, the collateral requirements related to derivatives will lead to an outflow of cash from NN Leven to its counterparties such that the decreasing market value of the interest rate derivatives is matched.

Risk mitigation

NN Leven aims to match day-to-day cash in- and outflows and at the same time wants to be able to have sufficient cash in case of a liquidity stress event.

NN Group Liquidity Management Principles defines three levels of Liquidity Management:
- Short-term liquidity (including operational liquidity) management covers the day-to-day cash requirements under normal business conditions
- Long-term liquidity management considers business conditions, in which market liquidity risk materialises
- Stress liquidity management looks at the company's ability to respond to a potential crisis.

Risk measurement

NN Group Liquidity Risk Management Standard measures liquidity risk in a stress event through the gap between liquidity needs and liquidity sources compared to available liquid assets for sale. This is calculated for different time horizons and various levels of availability of liquidity sources. Liquidity risk is not part of NN Leven's Partial Internal Model.

Non-market risk

Non-market risks are split between:
- **Insurance risk**: is the risk related to the events insured by NN Leven and comprise actuarial and underwriting risks like Life risk (mortality, longevity) and Morbidity risk which result from the pricing and acceptance of insurance contracts
- **Business risks**: are the risks related to the management and development of the insurance portfolio but excluding risks directly connected to insured events. Business risk includes policyholder behaviour risks, expense risk and persistency risk. Business risks can occur because of internal, industry, regulatory/political or wider market factors.

Risk profile

The table below presents the non-market risk SCR composition at the end of 2022 and at the end of 2021 respectively. The main changes in the risk profile are explained in the subsequent section of this document.

Non-market risk capital requirements

	2022	2021
Insurance risk	2,679	4,078
Business risk	1,340	1,339
Diversification non-market risk	-802	-914
Non-market risk	3,217	4,503

Insurance risk decrease is mainly due to the impact of higher interest rates. Business risk remained overall at a similar level, due to offsetting impacts between higher inflation and the increased interest rates.

Risk mitigation

Proper pricing, underwriting, claims management and diversification are the main risk mitigating actions for insurance risks.

Insurance risk

Insurance risk is the risk that the future insurance claims and other contractual benefits cannot be covered by premiums, policy fees and/or investment income or that insurance liabilities are not sufficient because claims and benefits might differ from the assumptions used in determining the best estimate liability.

Risk profile

The table below presents the Partial Internal Model insurance risk SCR for NN Leven at 31 December 2022 and 31 December 2021.

Insurance risk capital requirements

	2022	2021
Mortality (including longevity) risk	2,677	4,076
Morbidity risk	53	60
Diversification insurance risk	-51	-58
Insurance risk	2,679	4,078

Notes to the Consolidated annual accounts continued

The SCR for insurance risk is mostly driven by longevity risk which is included in mortality risk.

Mortality risk occurs when claims are higher due to higher mortality experience (for instance in relation to term insurance). Longevity risk is the risk that insured persons live longer than expected due to mortality improvements like better living conditions, improved health care and medical breakthrough. While NN Leven is exposed to both longevity and mortality risks, these risks do not fully offset one another as the impact of the longevity risks in the pension business is significantly larger than the mortality risk in the other businesses, which is not only due to the size of the business but also due to the current low interest rate environment. Changes in mortality tables impact the future expected benefits to be paid and the present value of these future impacts is reflected directly in measures like Own Funds.

Morbidity risk occurs when claims related to disability insurance and to insured premium continuation in case of disability are higher than expected.

Risk mitigation

Insurance risk is mitigated through diversification between mortality and longevity risks within NN Leven, appropriate pricing and underwriting policies and risk transfer via reinsurance which are used to reduce the Own Funds volatility.

Concentration risk for longevity reinsurance transactions is mitigated through spreading the risk over multiple counterparties. CPD risk is further mitigated through collateral mechanisms in place for these transactions.

Risk measurement

Insurance risk decreased from EUR 4,076 million at the end of 2021 to EUR 2,667 million at the end of 2022, mainly due to the impact of higher interest rates. Given the long-term nature of the liability portfolio of NN Leven, the capital requirements underlying insurance risk are sensitive to interest rates and Volatility Adjustment changes due to the discounting impact.

Business risk

Business risk include risks related to the management and development of the insurance portfolio risk, policyholder behaviour risks, persistency risk and expense risks. These risks occur because of internal, industry, regulatory/political, or wider market factors.

Risk profile

The table below presents the Partial Internal Model business risk SCR for NN Leven at 31 December 2022 and 31 December 2021 respectively.

Business risk capital requirements

	2022	2021
Persistency	84	143
Expense	1,317	1,311
Diversification business risk	-61	-116
Business risk	1,340	1,339

The SCR for business risks is mostly driven by expense risk. While the overall level has not significantly changed over 2022, the SCR for expense risk has been affected by the decreasing impact of higher interest rates offset by the increases due to higher inflation.

Expense risk is the risk that future expenses deviate from expected (best estimate) expense assumptions. Expense level risk addresses the risk that future expenses exceed the originally assumed expenses. This includes the risk that a portion of the expenses will not decrease by the same rate as the number of policies in the in-force book, and the risk that acquisition expenses are not fully covered if the sales volume in the following 12 months is below the assumptions. Expense inflation risk relates to the actual expense development over time not being aligned with the best estimate inflation assumed.

Persistency risks have limited materiality and are most material for the Individual Life portfolios. Persistency level uncertainty risk addresses the risk that the level of the best estimate lapse rates has been incorrectly estimated. In other words, this represents the risk that the actual lapse rate level is different from the expected level, best estimate lapse rates. Persistency calamity risk is the risk that a catastrophic event leads to a sharp increase in surrender probabilities, subsequently increasing technical provisions and an associated decrease in own funds. The SCR for persistency calamity risk at a certain point in time is calculated by applying a mass lapse shock on the surrender probabilities.

Risk mitigation

Policyholder behaviour risks, such as persistency risk, are managed through the product development, product approval and review processes and by ensuring that appropriate advice is given to the customer, not only at the point of sale but also during the lifetime of the product. The policyholder behaviour experience of in-force policies is assessed at least annually.

As part of its strategy, NN Leven has put several programmes in place to own and improve the customer experience. These programmes improve the match between customer needs, and the benefits and options provided by NN Leven's products. Over time, NN Leven's understanding and anticipation of the choice policyholders are likely to make, will improve, thereby decreasing the risk of a mismatch between actual and assumed policyholder behaviour.

Notes to the Consolidated annual accounts continued

Ongoing initiatives are in place to manage expense risk throughout NN Leven where company targets are in place to reduce expenses. These initiatives seek to reduce expenses through e.g. the number of underlying contracts in place and further optimization of IT infrastructure. This is particularly relevant for the Dutch individual life closed-block business.

In addition to the mitigating actions described, proper pricing, underwriting, claims management, and diversification also mitigate business risks.

VIII. Non-financial risks

- **Business operations risk:** risks related to inadequate or failed processes, including information technology and communication systems
- **Business continuity & security risk:** risks of accidents or external events impacting continuation or security of (people or assets in) NN Leven's business operations
- **Business conduct risk:** is the risks related to unethical or irresponsible corporate behaviour, inappropriate employee behaviour and customer suitability of products

Business operations and continuity & security risk

Risk profile

Business operations and continuity & security risks are non-financial risks that include direct or indirect losses resulting from inadequate or failed processes (including as a result of fraud and other misconduct), systems failure (including information technology and communications systems), human error, and certain external events.

The business operations risk management areas covered within NN Leven are:
- **Operational control risk:** the risk of not (timely) detecting adverse deviations from strategy, policies, procedures, work instructions or authorised activities
- **Operational execution risk:** the risk of human errors during (transaction) processing
- **Financial and non-financial accounting risk:** the risk of human errors during processing of (non-)financial data into reports for (non-)financial reporting
- **Information (technology) risk:** the risk of data (information) corruption, misuse or unavailability in IT systems, either through external causes (e.g. cyber crime) or internal causes.
- **Operational change risk:** the risk that actual results of changes to the organisation (this includes changes in processes, products, IT, methods and techniques) differs adversely from the envisaged results
- **Outsourcing risk:** the risk that outsourced activities or functions perform adversely as compared to performing them in-company. This includes the risk of unclear mutual expectations as documented in the outsourcing agreement, risk of unreliable outsourcing partner (both (un)intentional), operational control, information security and continuity risk of the outsourcing partner
- **Legal risk:** the risk that agreements, claims, regulatory inquiries or disclosures potentially result in damage to NN Leven's brand and reputation, legal or regulatory sanctions or liability resulting in financial loss
- **External fraud risk:** the risk of intended acts by a third party to defraud, misappropriate property or circumvent the law

The business continuity & security risk management areas covered within NN Leven are:
- **Continuity risk:** the risk of primary business processes being discontinued for a period beyond the maximum outage time
- **Personal & physical security risk:** the risk of criminal acts or environmental threats that could endanger NN Leven employees' safety, NN Leven's assets (including physically stored data/information) or NN Leven's offices

Risk mitigation

Mitigation of risks can be preventive in nature (e.g. training and education of employees, preventive controls, etc.) or can be implemented upon discovery of a risk (e.g. enforcement of controls, disciplinary measures against employees). Risk mitigating actions or controls are based on a balance between the expected cost of implementation and execution, and the expected benefits.

Business operations and continuity risks are mitigated through controls. For specific areas like financial reporting, outsourcing of activities, and business continuity, specific policies and standards apply. In the case of outsourcing, an appropriate outsourcing agreement is required between outsourcing parties and the performance under the outsourcing agreement is required to be monitored regularly.

NN Leven conducts regular risk and control monitoring to measure and evaluate the effectiveness of key controls. It determines whether the risks are within the norms for risk appetite and in line with requirements from policies and standards. The exposure of NN Leven to non-financial risks is regularly assessed through risk assessments and monitoring. After identification of the risks, each quantifiable risk is assessed as to its likelihood of occurrence as well its potential impact, should it occur. Actions required to mitigate the risks are identified and tracked until the risk is either reduced, if such a reduction is possible, or accepted as a residual risk if the risk cannot be mitigated.

The business process owners are responsible for the actual execution of the controls and for assessing the adequacy of their controls.

The Chief Information Officer (CIO) function ensures Business Continuity Management, Cyber risk management and Business Information Security.

For IT risks, CIO has adopted the Standard of Good Practice of the Information Security Forum (ISF) as the basis to manage IT, cyber and cloud risks within NN Leven. ISF forms the basis of NN Leven's ISF Policy and Standard, and ensures a consistent view and treatment of its risks in this area. Cyber security is an integral part of NN Leven's risk management strategy. Education and awareness-raising are part of the security strategy at all levels of the organisation.

Notes to the Consolidated annual accounts continued

Main regular activities undertaken to manage this risk are amongst others:

- Regular IT risk assessments are performed on critical business environments, applications and supporting systems/networks, and testing of security measures is performed on a regular basis. Identified risks are documented, classified and monitored in the Security Action Plans.
- User identification and access management are in place, based on defined authorisation matrices and enforcing segregation of duties (especially for administrative accounts). Password parameters are system-enforced for user accounts on the network and critical applications. Multi-factor authentication on business-critical applications is required as an additional measure for protecting against unauthorized access.
- Anti-malware and anti-virus tooling and file integrity checking are implemented and kept up-to-date.
- Effective security logging and monitoring is defined and corrective actions are taken for identified vulnerabilities. A security incident process is in place, and incidents are registered, assessed and solved within a predefined timeframe.
- Networks are protected by intrusion detection and prevention systems. All hardware and software on the network are monitored so that only authorised devices and software is granted access. The security configuration of laptops, servers, and workstations is managed via a configuration management and change control process.
- Data are classified based on their relevance and confidentiality. Depending on their risk classification, data are secured and encrypted according to required security standards.
- A change management process exists and is required for relevant systems and infrastructure, including relevant steps to ensure security such as impact analyses, testing, fall back scenarios and post implementation review

Information Risk Management, as part of the second line of defence, is responsible for providing management with an objective assessment of the effectiveness of NN Leven's risks and controls.

Risk measurement
NN Leven's SCR for operational risk decreased from EUR 490 million at the end of 2021 to EUR 371 million at the end of 2022, mainly due to increased interest rates. The SCR is calculated based on the Standard Formula. As it is additive to the modelled SCR, it should be considered as net of diversification with other NN Leven risks. Business conduct risk is considered to be part of the Operational Risk SCR and is therefore not specifically calculated. Progress is also tracked through monitoring control effectiveness and timeliness as well as tracking progress of open issues.

Business conduct risk
Risk profile
Through NN Leven's retirement services, insurance and investments products, NN Leven is committed to help its customers care for what matters most to them. To fulfil this purpose, NN Leven bases its work on three core values: care, clear, commit. These values set the standard for conduct and provide a compass for decision-making. Further, NN Leven is committed to the preservation of its reputation and integrity through compliance with applicable laws, regulations and standards in each of the markets in which it operates. All employees are expected to adhere to these laws, regulations and standards and management is responsible for ensuring such compliance. NN Leven continuously enhances its business conduct risk management programme to ensure that NN Leven complies with applicable laws, regulations and standards.

Risk mitigation
NN Leven separates business conduct risk into three risk areas: Sound business conduct, employee conduct and product suitability. In addition to effective reporting systems, NN Leven has also a whistleblower policy and procedure which protects and encourages staff to speak up if they know of or suspect a breach of external regulations, internal policies or its values. NN Leven also has policies and procedures regarding anti-money laundering, anti-terrorist financing, sanctions, anti-bribery and corruption, product suitability, conflicts of interest and confidential and inside information, as well as a Code of Conduct for its personnel. Furthermore, NN Leven designates specific countries as 'ultra-high risk' and prohibits client engagements and transactions (including payments of facilitation) involving those countries.

NN Leven performs a product approval and review process for its products and continuously invests in the maintenance of risk management, legal and compliance procedures to monitor current sales practices. Customer protection regulations as well as changes in interpretation and perception of acceptable market practices by both the public at large and governmental authorities might influence customer expectations. The risk of potential reputational and financial impact from products and sales practices exists because of the (changing) market situation, customer expectations, and regulatory activity. The Compliance Function and the business work closely together with the aim to anticipate changing customers' needs.

46 Capital and liquidity management

Objective
The goal of NN Leven's capital and liquidity management is to adequately capitalise NN Leven and have sufficient liquid funds available to meet its obligations in the interests of its stakeholders. The capital and liquidity position is assessed based on regulatory and economic requirements.

Capital and liquidity management involves the management, planning and execution of transactions concerning the capital position and the availability of cash resources of NN Leven. Capital and liquidity management at NN Leven is performed in close cooperation with NN Group.

Notes to the Consolidated annual accounts continued

NN Leven is a Dutch life insurance company and is therefore supervised by the Dutch regulator, DNB. The supervision takes place based on rules and regulations, as defined in the Dutch Financial Supervision Act (Wet op het financieel toezicht; Wft) and further DNB guidelines as issued from time to time.

Processes for managing capital and liquidity

Capital and liquidity management takes place within the framework set by the NN Leven Management Board on the basis of policy documents, guidelines and procedures.

The capital position of NN Leven is evaluated in three perspectives: the statutory position, an economic point in time perspective and a dynamic forward-looking perspective. The statutory position monitors whether NN Leven fulfils the solvency requirements. The economic point in time perspective starts from the statutory solvency and applies adjustments to create a (more) economic balance sheet. The dynamic forward-looking perspective considers how the statutory capital position develops over time, taking into account the development of the technical provisions including risk margin, in relation to the development of the assets and capital requirements.

The liquidity position of NN Leven is monitored by taking into account possible events with an impact on the liquidity position like insurance claims, investments, the possibility to sell assets and collateral requirements from derivative transactions. This leads to monitoring and managing from a long-term and short-term perspective. The long-term perspective includes an assessment of the possible adverse events that can impact our liquidity position within a period of one year. It includes an analysis of the available liquidity from assets – in some cases subject to a reduction applied to the value of assets - divided by the stressed outflow including surrender payments in a severe stress scenario. The short-term perspective is based on a two-day horizon and compares directly available cash for covering potential two-day shock in cash outflow because of derivatives collateral calls with available cash resources.

Per year-end 2022 NN Leven had outstanding external short-term borrowing covered by repurchase transactions for the amount of EUR 4,250 million. The purpose of the short-term borrowing is as part of routine liquidity management and to temporarily cover possible liquidity requirements out of collateral calls for the derivatives during the period of potentially lower market liquidity around the year-end.

Per year end 2022 NN Leven has undrawn committed repurchase facility agreements for a maximum amount of EUR 1,000 million.

Main events in 2022

On 15 July 2022, NN Leven acquired all outstanding shares in ABN AMRO Levensverzekering N.V. (AAL). The transaction was funded from existing cash resources. The transaction is in line with NN Leven's strategy to achieve profitable growth and value creation. The acquisition is expected to strengthen NN Leven's position in the Life insurance market. NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

NN Leven repaid on 29 August at the first call date the EUR 500 million 9% Subordinated Note due August 2042. This external debt was classified as Tier 2 Own Funds instrument. The note has been delisted.

On 23 August NN Group granted NN Leven a EUR 500 million subordinated loan. The loan is classified as Tier 2 Own Funds instrument.

During 2022 a total amount of EUR 980 million dividend was paid in four quarterly payments of EUR 245 million each. All scheduled coupon payments on the subordinated liabilities were met during the year.

For 2022 EIOPA set the UFR at 3.45%. The same level will be maintained in 2023.

During 2022 interest rates rose significantly. The 20 year swap rate rose by more than 200 bps from 1 January until 31 December. Further, the US dollar strengthened versus the Euro. This led to material cash outflows to cover for collateral related to our derivatives used for interest rate hedging. NN Leven is in a net payer position for its collateral and also provided funding to the internal derivative vehicle Nationale-Nederlanden Interfinance B.V. (NNIF) to enable it to post collateral for the derivatives originated by NN Leven.

During 2022 NN Leven identified and executed actions to manage its liquidity including expanding the range of available instruments.

Impact AAL acquisition

The acquisition of AAL was between companies with the same parent NN Group ('under common control') and is accounted for as if AAL was always part of NN Leven's consolidated annual accounts. Consequentially, the comparative figures as presented in the annual accounts of NN Leven for 2021 are adjusted to reflect the inclusion of AAL, using the carrying amounts of the assets and liabilities as included in the NN Group consolidated annual accounts.

In the parent annual accounts AAL is accounted for as if AAL was always a subsidiary. On 31 December 2021, for supervisory reporting AAL was not a subsidiary of NN Leven and therefore the 2021 eligible own funds, SCR figures and Solvency II ratio are not adjusted in the risk management paragraph tables. If AAL would have been included in the 2021 NN Leven figures similar to the treatment in the 2022 accounts, the total eligible own funds to meet the SCR would have increased by EUR 43 million, the SCR would have increased by EUR 76 million and the Solvency II ratio would have decreased by 2%.

Notes to the Consolidated annual accounts continued

Events after year-end

In March 2023, NN Leven made a dividend distribution of EUR 245 million from the Other reserves to its shareholder NN Nederland. The solvency ratio per year end 2022 has not been adjusted for this dividend payment.

NN Leven and AAL will enter into a legal merger on 31 March 2023 and the merger will become effective as from 1 April 2023.

On 19 January 2023, S&P withdrew its 'A' long term issuer credit and insurer financial strength rating with positive outlook on NN Leven at the issuer's request.

Solvency II

Solvency II is the regulatory framework for (re-)insurance undertakings and groups domiciled in the EU. It is implemented in The Netherlands via the Wft.

Under the Solvency II regime, the required capital (Solvency Capital Requirement) is risk-based and calculated as the post-tax value-at-risk at the confidence interval of 99.5% on a one-year horizon. Available capital (Own Funds) is determined as the excess of assets over liabilities, both based on economic valuations, plus qualifying subordinated debt. The Solvency II directive requires that insurance undertakings hold sufficient Eligible Own Funds to cover the Solvency Capital Requirement.

On 17 December 2020, EIOPA published its opinion to the European Commission on the Solvency II 2020 review. The opinion, which consists of a proposed package of measures, was used as input for the European Commission to draft a legislative proposal. On 22 September 2021, the European Commission published its draft proposals on the Solvency II 2020 review. The proposal deviates in several areas from the EIOPA opinion which may have positive impact on the solvency of NN Leven, e.g. regarding the Risk Margin, risk correction for credit spread and the interest rate extrapolation. Some proposals with potential negative impact on NN Leven and the wider industry are still part of the legislative proposal and ongoing discussions. In June 2022 the European Council reached consensus on their view on the Opinion. In the first half of 2023 the European Parliament will negotiate on their position, followed by the trialogue negotiations. The proposed changes are currently expected to be implemented at the earliest in 2026. Based on the draft proposals by the European Commission and current market conditions, NN Leven remains comfortable with its solvency position.

The reported Solvency II capital ratios of NN Leven do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on in the past, as this potential liability cannot be reliably estimated or quantified at this point. Reference is made to Note 38 'Legal proceedings'.

NN Leven is well capitalised at 31 December 2022 with a Solvency II ratio of 191% based on the Partial Internal Model.

Facility Agreement

NNIF and NN Leven have a facility agreement in place, providing NN Leven with the possibility to borrow short term funds from NNIF up to a maximum amount of EUR 1,000 million. The facility agreement is regularly renewable, and has been renewed in January 2022. At year end 2022 no funds are borrowed by NN Leven using this facility agreement.

Structure, amount and quality of Own Funds

Subordinated liabilities included in NN Leven eligible Own Funds for Solvency II reporting (EUR, millions)

In the Eligible Own Funds of NN Leven there are the following subordinated liabilities.

Interest rate	Year of issue	Notional amount	Due date	First call date	Own Funds tier	Fair value (dirty) 2022[1]	Fair value (dirty) 2021[1]
4.52% (quarterly)[2]	2014	450	Perpetual	Each quarter	Tier 1	451	453
7.6% (annual)	2016	350	Perpetual	31 December 2026	Tier 1	317	357
9.0% (annual)[2]	2012	500	29 August 2042	29 August 2022	Tier 2	n/a	521
5.6% (annual)[2]	2014	600	10 February 2044	10 February 2024	Tier 2	620	655
5.24% (quarterly)[2]	2022	500	26 February 2043	26 August 2032	Tier 2	463	n/a

1 As defined based on Solvency II valuation guidelines.
2 These notes are grandfathered for a maximum period of 10 years until 1 January 2026

Notes to the Consolidated annual accounts continued

Eligible Own Funds and Solvency Capital Requirement (EUR, millions)

	2022	2021
Total equity	10,345	25,313
Elimination of deferred acquisition costs and other intangible assets	-277	-285
Valuation differences on assets	-5,708	1,928
Valuation differences on liabilities, including insurance and investment contracts	3,915	-19,879
Deferred tax effect on valuation differences	533	4,686
Excess assets/liabilities	8,808	11,763
Qualifying subordinated debt	1,851	1,986
Foreseeable dividends and distributions	-34	-47
Basic Own Funds	10,625	13,702
Non-eligible Own Funds	-398	-173
Eligible Own Funds to cover Solvency Capital Requirements (a)	10,227	13,529
Solvency Capital Requirements (b)	5,356	6,187
NN Leven Solvency II ratio (a/b)[1]	191%	219%

1 The Solvency ratio for 2022 is not final until filed with the regulators. Solvency II ratios are based on the Partial Internal Model.

Eligible Own Funds

NN Leven Own Funds are classified into three tiers as follows:

- The excess of assets over liabilities excluding net Deferred Tax Asset is classified as Tier 1
- Net Deferred Tax Asset is classified as Tier 3
- The perpetual subordinated debt is classified as (restricted) Tier 1
- The 2043 and 2044 subordinated debt is classified as Tier 2

There are a number of regulatory restrictions on the amounts classified as Restricted Tier 1, Tier 2 and Tier 3 capital. The following restrictions have to be taken into account when calculating the eligible own funds to cover the SCR (EOF):

- Restricted Tier 1 capital cannot exceed 20% of the total Tier 1 amount
- Tier 1 capital shall be at least 50% of the SCR;
- Tier 2 and Tier 3 capital together cannot exceed 50% of the SCR;
- Tier 3 capital cannot exceed 15% of the SCR;
- The proportion of Tier 1 items in the EOF should be higher than one third of the total amount of EOF;
- Tier 3 capital cannot exceed one third of the total amount of EOF.

Eligible Own Funds to cover Solvency Capital Requirement (EUR, millions)

2022	Available Own Funds	Eligibility restriction	Non-eligible Own Funds	Eligible Own Funds
Tier 1	8,341			8,341
Of which:				
- unrestricted Tier 1	7,573			7,573
- restricted Tier 1	768	Less than 20% Tier 1		768
Tier 2 + Tier 3	2,284	Less than 50% SCR	-398	1,886
Tier 2	1,082			1,082
Tier 3	1,202	Less than 15% SCR	-398	804
Total	10,625			10,227

2021	Available Own Funds	Eligibility restriction	Non-eligible Own Funds	Eligible Own Funds
Tier 1	11,424			11,424
Of which:				
- unrestricted Tier 1	10,614			10,614
- restricted Tier 1	810	Less than 20% Tier 1		810
Tier 2 + Tier 3	2,278	Less than 50% SCR	-173	2,105
Tier 2	1,176			1,176
Tier 3	1,102	Less than 15% SCR	-173	929
Total	13,702			13,529

Notes to the Consolidated annual accounts continued

Capital adequacy assessment

On 31 December 2022 the SCR based on the PIM is EUR 5,356 million. The application of the tiering restrictions can be found in the table above. The amount of Eligible Own Funds to cover the SCR is EUR 10,227 million, leading to a Solvency II ratio of 191%. The capital position of NN Leven met all regulatory solvency requirements following the Solvency II directive throughout 2022.

Credit ratings

Fitch maintained an 'AA-' insurer financial strength rating with stable outlook on NN Leven, which was affirmed on 3 March 2023.

On 19 January 2023, S&P withdrew its 'A' long term issuer credit and insurer financial strength rating with positive outlook on NN Leven at the issuer's request.

Authorisation of the Consolidated annual accounts

The Consolidated annual accounts of NN Leven for the year ended 31 December 2022 were authorised for issue in accordance with a resolution of the Management Board on 29 March 2023. The Management Board may decide to amend the Consolidated annual accounts as long as these are not adopted by the General Meeting.

The General Meeting may decide not to adopt the Consolidated annual accounts, but may not amend these during the meeting. The General Meeting can decide not to adopt the Consolidated annual accounts, propose amendments and then adopt the Consolidated annual accounts after a normal due process.

Rotterdam, 29 March 2023

The Management Board

L.M. (Leon) van Riet, CEO and chair

A. (Arun) Sivaramakrishnan, CFO

W.G. (Wilbert) Ouburg, CRO

M.R. (Martijn) Hoogeweegen

G. (Gerard) van Rooijen

The Supervisory Board

J.L. (Janet) Stuijt, chair

A.T.J. (Annemiek) van Melick

J.W. (Hans) Schoen

Confirmed and adopted by the General Meeting dated 6 June 2023.

Parent company annual accounts

Parent company balance sheet

Amounts in millions of euros, unless stated otherwise

Parent company balance sheet

As at 31 December	notes	2022	2021
Assets			
Cash and cash equivalents	2	95	43
Financial assets at fair value through profit or loss:	3		
– investments for risk of policyholders		22,959	27,229
– non-trading derivatives		1,935	6,137
– designated as at fair value through profit or loss		386	430
Available-for-sale investments	4	42,309	64,424
Loans	5	40,382	39,861
Reinsurance contracts		1,079	1,200
Subsidiaries, associates and joint ventures	6	12,850	11,749
Real estate investments	7	92	89
Property and equipment	8	36	39
Intangible assets		46	50
Deferred acquisition costs		231	235
Deferred tax assets	23	669	27
Other assets	9	6,973	3,112
Total assets		130,042	154,625
Equity			
Shareholder's equity (parent)		10,345	25,502
Undated subordinated loan		800	800
Total equity	10	11,145	26,302
Liabilities			
Subordinated debt		1,100	1,120
Other borrowed funds	11	4,250	531
Insurance and investment contracts	12	104,977	115,766
Financial liabilities at fair value through profit or loss:			
– non-trading derivatives		5,857	1,673
Deferred tax liabilities	23	0	3,612
Other liabilities	13	2,713	5,621
Total liabilities		118,897	128,323
Total equity and liabilities		130,042	154,625

References relate to the notes starting on page 105. These form an integral part of the Parent company annual accounts.

Parent company profit and loss account

Parent company profit and loss account

For the year ended 31 December	notes		2022		2021
Gross premium income	14		3,609		3,981
Investment income	15		2,167		3,965
– gross fee and commission income		24		23	
– fee and commission expenses		-119		-126	
Net fee and commission income	16		-95		-103
Valuation results on non-trading derivatives	17		-1,138		-315
Foreign currency results[1]			419		433
Share of result from subsidiaries, associates and joint ventures	6		331		1,028
Other income	18		21		7
Total income			5,314		8,996
– gross underwriting expenditure		1,336		9,773	
– investment result for risk of policyholders		4,531		-3,173	
– reinsurance recoveries		-1,217		-1,028	
Underwriting expenditure	19		4,650		5,572
Staff expenses	21		212		202
Interest expenses	22		214		166
Other operating expenses			216		224
Total expenses			5,292		6,164
Result before tax			22		2,832
Taxation	23		-84		373
Net result			106		2,459
Net result attributable to:					
Shareholder of the parent			106		2,459
Net result			106		2,459

1 The foreign currency results relate mainly to investment in debt securities in US-dollars. The foreign exchange risk on these investments is mitigated by foreign exchange derivatives and is recognised under valuation results on non-trading derivatives.

Parent company statement of comprehensive income

Parent company statement of comprehensive income

For the year ended 31 December		2022		2021
Net result		106		2,459
Items that may be reclassified subsequently to the profit and loss account:				
– unrealised revaluations available-for-sale investments and other	-11,623		-1,935	
– realised gains/losses transferred to the profit and loss account	-456		-1,591	
– changes in cash flow hedge reserve	-5,742		-3,264	
– deferred interest credited to policyholders	3,640		1,273	
Total other comprehensive income		-14,181		-5,517
Total comprehensive income		-14,075		-3,058
Comprehensive income attributable to:				
Shareholder of the parent	-14,075		-3,058	
Total comprehensive income		-14,075		-3,058

Parent company statement of cash flows

Parent company statement of cash flows

For the year ended 31 December	notes	2022	2021
Result before tax		22	2,832
Adjusted for:			
- depreciation and amortisation		114	247
- deferred acquisition costs and value of business acquired		12	11
- underwriting expenditure (change in insurance liabilities)		-1,129	-454
- realised results and impairments of available-for-sale investments		160	-2,030
- other		689	-371
Taxation paid		513	-158
Changes in:			
- non-trading derivatives		-509	1,557
- other financial assets at fair value through profit or loss		-24	56
- loans		125	0
- other assets		-3,800	1,478
- other liabilities		-3,120	-4,218
Net cash flow from operating activities		-6,947	-1,050
Investments and advances:			
- subsidiaries, associates and joint ventures	6	-1,154	-1,184
- available-for-sale investments	4	-4,761	-7,036
- investments for risk of policyholders		-5,658	-5,253
- loans		-33,198	-18,583
Disposals and redemptions:			
- subsidiaries, associates and joint ventures	6	48	1
- available-for-sale investments	4	11,192	10,062
- investments for risk of policyholders		5,453	4,950
- loans		32,385	18,801
Net cash flow from investing activities		4,307	1,758
Proceeds from other borrowed funds	11	8,452	500
Repayments of other borrowed funds	11	-4,733	-174
Dividend paid		-980	-980
Coupon on undated subordinated loan		-47	-47
Net cash flow from financing activities		2,692	-701
Net cash flow		52	7
Cash and cash equivalents at beginning of the period	2	43	36
Net cash flow		52	7
Cash and cash equivalents at end of the period		95	43

Included in Net cash flow from operating activities:

For the year ended 31 December	2022	2021
Interest received	2,403	2,539
Interest paid	-187	-227
Dividend received	509	394

Parent company statement of changes in equity

Parent company statement of changes in equity

	Share capital	Share premium	Share of associates reserve	Reserves	Total Shareholder's equity (parent)	Undated subordinated loan	Total equity
Balance at 1 January 2022	23	3,228	2,657	19,594	25,502	800	26,302
Unrealised revaluations property in own use	0	0	0	0	0	0	0
Unrealised revaluations available-for-sale investments and other	0	0	-15	-11,608	-11,623	0	-11,623
Realised gains/losses transferred to the profit and loss account	0	0	0	-456	-456	0	-456
Changes in cash flow hedge reserve	0	0	0	-5,742	-5,742	0	-5,742
Deferred interest credited to policyholders	0	0	0	3,640	3,640	0	3,640
Total amount recognised directly in equity (Other comprehensive income)	0	0	-15	-14,166	-14,181	0	-14,181
Net result	0	0	0	106	106	0	106
Total comprehensive income	0	0	-15	-14,060	-14,075	0	-14,075
Changes in the composition of the group and other changes	0	0	0	-67	-67	0	-67
Transfer to/from Share of associates reserve	0	0	-168	168	0	0	0
Dividend	0	0	0	-980	-980	0	-980
Coupon on undated subordinated loan	0	0	0	-35	-35	0	-35
Balance at 31 December 2022	23	3,228	2,474	4,620	10,345	800	11,145

	Share capital	Share premium	Share of associates reserve	Reserves	Total Shareholder's equity (parent)	Undated subordinated loan	Total equity
Balance at 1 January 2021	23	3,228	1,606	24,844	29,701	800	30,501
Unrealised revaluations property in own use	0	0	0	0	0	0	0
Unrealised revaluations available-for-sale investments and other	0	0	469	-2,404	-1,935	0	-1,935
Realised gains/losses transferred to the profit and loss account	0	0	0	-1,591	-1,591	0	-1,591
Changes in cash flow hedge reserve	0	0	0	-3,264	-3,264	0	-3,264
Deferred interest credited to policyholders	0	0	0	1,273	1,273	0	1,273
Other revaluations	0	0	0	0	0	0	0
Total amount recognised directly in equity (Other comprehensive income)	0	0	469	-5,986	-5,517	0	-5,517
Net result	0	0	0	2,459	2,459	0	2,459
Total comprehensive income	0	0	469	-3,527	-3,058	0	-3,058
Changes in the composition of the group and other changes	0	0	0	-118	-118	0	-118
Transfer to/from Share of associates reserve	0	0	582	-582	0	0	0
Dividend	0	0	0	-988	-988	0	-988
Coupon on undated subordinated loan	0	0	0	-35	-35	0	-35
Balance at 31 December 2021	23	3,228	2,657	19,594	25,502	800	26,302

'Reserves' include 'Revaluation reserve', 'Legal reserve', 'Retained earnings' and 'Unappropriated result'.

Notes to the Parent company annual accounts

1 Accounting policies

The Parent company annual accounts of NN Leven are prepared in accordance with the International Financial Reporting Standards as endorsed by the European Union (IFRS-EU). The principles of valuation and determination of results stated in connection with the Consolidated balance sheet and profit and loss account are also applicable to the Parent company balance sheet and Parent profit and loss account.

Applicable Accounting Policies

Where applicable, for items not described in this section, the accounting policies applied for the Parent company annual accounts are the same as those described in the accounting policies for the Consolidated annual accounts. For the items not separately disclosed in the notes to the company annual accounts, reference is made to the notes in the Consolidated annual accounts.

Subsidiaries, associates and joint ventures

Subsidiaries and associates are companies and other entities in which NN Leven has the power, directly or indirectly, to govern the financial and operating policies and that are controlled by NN Leven. Subsidiaries are recognised using the equity method of accounting.

Changes in balance sheet values due to changes in the revaluation reserves of associates are reflected in the 'Share of associates reserve', which forms part of 'Shareholder's equity'. Changes in balance sheet values due to the results of these associates, accounted for in accordance with NN Leven accounting policies, are included in the profit and loss account. Other changes in the balance sheet value of these associates, other than those due to changes in share capital, are included in the 'Share of associates reserve'.

Profit sharing for policies with a participation feature

The guidelines with the details, in Dutch, with regard to profit-sharing for policies with a participation feature can be found at www.nn.nl/winstdelingsrichtlijn.

Accounting for AAL – Parent company annual accounts

The acquisition date for AAL for acquisition accounting by NN Leven under IFRS is 1 January 2021. AAL is recognised in the Parent company annual accounts in Note 6 under the line item Subsidiaries, associates and joint ventures. In the NN Leven annual accounts, AAL is accounted for using the equity method. Interest held by NN Leven at year-end 2021 was 51%.

Name	Statutory seat	Interest held	31/12/2022	31/12/2021
ABN AMRO Levensverzekering N.V.	Zwolle, the Netherlands	51%	227	189

Impact of IFRS 9 and 17 on NN Leven

NN Leven implements IFRS 17 together with IFRS 9. The implementation of IFRS 9 and IFRS 17 will result in significant changes to NN Leven's accounting policies and will have a significant impact on shareholders' equity, net result, presentation and disclosures. Shareholders' equity under IFRS 9 and IFRS 17 will be significantly lower as a result of the measurement of insurance liabilities at current assumptions. For a more detailed disclosure on the main changes of IFRS 9 and 17, reference is made to Note 1 Accounting Policies of the Consolidated annual accounts.

The impact is preliminary and reflects the status at the date of these Annual Accounts. The final impact may deviate from the below and will be included in the 2023 Annual Accounts.

2 Cash and cash equivalents

Cash and cash equivalents

	2022	2021
Cash and bank balances	95	43
Cash and cash equivalents	95	43

3 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

	2022	2021
Investments for risk of policyholders	22,959	27,229
Non-trading derivatives	1,935	6,137
Designated as at fair value through profit or loss	386	430
Financial assets at fair value through profit or loss	25,280	33,796

Notes to the Parent company annual accounts continued

Investments for risk of policyholders

	2022	2021
Equity securities	22,325	26,449
Debt securities	25	55
Loans and receivables	609	725
Investments for risk of policyholders	22,959	27,229

Investments in investment funds (with underlying investments in debt and equity securities, real estate and derivatives) are included in equity securities.

Non-trading derivatives

	2022	2021
Derivatives used in:		
- cash flow hedges	235	4,609
Other non-trading derivatives	1,700	1,528
Non-trading derivatives	1,935	6,137

The fair value of derivatives was impacted significantly in 2022 by the change (increase) in market interest rates. This change in market interest rates also significantly impacted other balance sheet items, including Available for sale investments and Other liabilities – Cash collateral amounts received as well as other liabilities in the consolidated statement of cash flows. Other non-trading derivatives includes derivatives for which no hedge accounting is applied.

Designated as at fair value through profit or loss

	2022	2021
Equity securities	360	402
Debt securities	25	26
Other	1	2
Designated as at fair value through profit or loss	386	430

4 Available-for-sale investments

Available-for-sale investments

	2022	2021
Equity securities	4,544	6,634
Debt securities	37,765	57,790
Available-for-sale investments	42,309	64,424

Changes in available-for-sale investments

	Equity securities		Debt securities		Total	
	2022	2021	2022	2021	2022	2021
Available-for-sale investments - opening balance	6,634	7,332	57,790	63,436	64,424	70,768
Additions	453	1,163	4,308	5,873	4,761	7,036
Amortisation	0	0	-55	-157	-55	-157
Changes in unrealised revaluations	-932	591	-14,467	-4,174	-15,399	-3,583
Impairments	-600	-23	-17	1	-617	-22
Disposals and redemptions	-983	-2,426	-10,209	-7,636	-11,192	-10,062
Exchange rate differences	-28	25	415	447	387	472
Changes in the composition of the group and other changes	0	-28	0	0	0	-28
Available-for-sale investments - closing balance	4,544	6,634	37,765	57,790	42,309	64,424

The total exposure to debt securities is included in the following balance sheet lines:

Total exposure to debt securities

	2022	2021
Available-for-sale investments	37,765	57,790
Loans	141	275
Available-for-sale investments and Loans	37,906	58,065
Investments for risk of policyholders	25	55
Designated as at fair value through profit or loss	25	26
Financial assets at fair value through profit or loss	50	81
Total exposure to debt securities	37,956	58,146

Notes to the Parent company annual accounts continued

The total exposure to debt securities included in 'Available-for-sale investments' and 'Loans' is specified as follows by type of exposure:

Debt securities by type

	Available-for-sale-investments		Loans		Total	
	2022	2021	2022	2021	2022	2021
Government bonds	25,051	40,246	0	0	25,051	40,246
Corporate bonds	8,834	11,791	0	0	8,834	11,791
Financial institution bonds	2,936	4,425	0	0	2,936	4,425
ABS portfolio	944	1,328	141	275	1,085	1,603
Debt securities - Available-for-sale investments and Loans	37,765	57,790	141	275	37,906	58,065

Available-for-sale equity securities

	2022	2021
Listed	3,069	4,859
Unlisted	1,475	1,775
Available-for-sale equity securities	4,544	6,634

5 Loans

Loans

	2022	2021
Loans secured by mortgages	34,410	33,043
Loans related to savings mortgages	1,425	1,550
Loans to or guaranteed by public authorities	1,195	1,277
Asset-backed securities	141	275
Policy loans	6	7
Other loans	3,297	3,823
Loans - before loan loss provisions	40,474	39,975
Loan loss provisions	-92	-114
Loans	40,382	39,861

Other contains EUR 927 million (2021: 1,524 million) of loans with NN Group companies.

Changes in Loans secured by mortgages

	2022	2021
Loans secured by mortgages – opening balance	33,043	29,601
Additions/ origination	3,814	6,300
Redemption	-2,293	-2,743
Amortisation	-86	-109
Changes in the composition of the group and other changes	-68	-6
Loans secured by mortgages – closing balance	34,410	33,043

Changes in Loans loss provisions

	2022	2021
Loan loss provisions - opening balance	114	124
Write-offs	-50	-6
Increase/decrease in loan loss provisions	28	-4
Loan loss provisions - closing balance	92	114

Notes to the Parent company annual accounts continued

6 Subsidiaries, associates and joint ventures

Subsidiaries, associates and joint ventures (2022)

Name	Statutory seat	Interest held	Balance sheet value
REI Investment I B.V.	The Hague, the Netherlands	79%	5,630
REI Diaphane Fund FGR	The Hague, the Netherlands	79%	1,249
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	48
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	95%	663
Private Equity Investments B.V.	The Hague, the Netherlands	94%	1,209
Private Debt Investments B.V.	The Hague, the Netherlands	100%	2,246
ABN AMRO Levensverzekering N.V.	Zwolle, the Netherlands	100%	227
Vesteda Residential Fund FGR	Amsterdam, the Netherlands	21%	1,512
Other			66
Subsidiaries, associates and joint ventures			12,850

On 15 July 2022, NN Leven acquired the life insurance subsidiary of Nationale-Nederlanden ABN AMRO Verzekeringen Holding B.V. (AAV). For a more detailed disclosure, reference is made to Note 43 'Acquisitions'.

The above associates and joint ventures mainly consist of non-listed investment entities investing in real estate and private equity.

Subsidiaries, associates and joint ventures (2021)

Name	Statutory seat	Interest held	Balance sheet value
REI Investment I B.V.	The Hague, the Netherlands	80%	5,778
REI Diaphane Fund FGR	The Hague, the Netherlands	80%	1,326
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	88
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	95%	291
Private Equity Investments B.V.	The Hague, the Netherlands	94%	942
Private Debt Investments B.V.	The Hague, the Netherlands	100%	1,499
ABN AMRO Levensverzekering N.V.	Zwolle, the Netherlands	51%	189
Vesteda Residential Fund FGR	Amsterdam, the Netherlands	21%	1,574
Other			62
Subsidiaries, associates and joint ventures			11,749

Changes in Subsidiaries, associates and joint ventures

	2022	2021
Subsidiaries, associates and joint ventures - opening balance	11,930	9,447
Additions	1,154	1,184
Disposals	-48	-1
Share in change in equity (revaluations)	-41	342
Share of results	331	1,028
Dividends received	-371	-243
Changes in the composition of the group and other changes	-105	-8
Subsidiaries, associates and joint ventures - closing balance	12,850	11,749

7 Real estate investments

Changes in Real estate investments

	2022	2021
Real estate investments - opening balance	89	88
Fair value gains/(losses)	3	1
Real estate investments - closing balance	92	89

The total amount of rental income recognised in the profit and loss account for the year ended 31 December 2022 is EUR 4.2 million (2021: EUR 3.9 million).

The total amount of direct operating expenses (including repairs and maintenance) in relation to real estate investments recognised in rental income for the year ended 31 December 2022 is EUR 1.0 million (2021: EUR 0.8 million).

In percentages	2022	2021
Most recent appraisal in current year	100%	100%

Notes to the Parent company annual accounts continued

NN Leven's total exposure to real estate is included in the following balance sheet lines:

Real estate exposure

	2022	2021
Real estate investments	92	89
Investments - available-for-sale	10	10
Associates and joint ventures	8,402	8,689
Property and equipment - property in own use	2	1
Total Real estate exposure	8,506	8,789

8 Property and Equipment

Property and Equipment

	2022	2021
Property in own use	2	2
Equipment	0	0
Property and equipment owned	2	2
Right of use assets	34	37
Property and equipment	36	39

Changes in Property in own use

	2022	2021
Property in own use – opening balance	2	2
Revaluations	0	0
Property in own use – closing balance	2	2
Gross carrying value	2	2
Accumulated depreciation, revaluations and impairments	0	0
Net carrying value	2	2
Revaluation surplus – opening balance	8	8
Revaluation in year	0	0
Revaluation surplus – closing balance	8	8

Changes in Right of use assets - Property

	2022	2021
Right of use assets – opening balance	37	42
Depreciation	-4	-5
Changes in the composition of the group and other changes	1	0
Right of use assets – Closing balance	34	37
Gross carrying value	51	50
Accumulated depreciation	-17	-13
Net carrying value	34	37

9 Other assets

Other assets

	2022	2021
Insurance and reinsurance receivables	212	202
Income tax receivable	26	0
Accrued interest and rents	870	949
Other accrued assets	14	14
Cash collateral amounts paid	4,310	258
Other	1,541	1,689
Other assets	6,973	3,112

Other contains EUR 821 million (2021: EUR 1,531 million) of current accounts with NN Group companies.

Notes to the Parent company annual accounts continued

Insurance and reinsurance receivables

	2022	2021
Receivables on account of direct insurance from:		
- policyholders	207	197
- intermediaries	2	1
Reinsurance receivables	3	4
Insurance and reinsurance receivables	212	202

The allowance for uncollectable insurance and reinsurance receivables amounts to EUR 1 million as at 31 December 2022 (2021: EUR 3 million). The receivables are presented net of this allowance.

10 Equity

Equity

	2022	2021
Share capital	23	23
Share premium	3,228	3,228
Revaluation reserve	-1,700	12,490
Share of associates reserve	2,474	2,657
Retained earnings and unappropriated result	6,320	7,104
Shareholder's equity (parent)	10,345	25,502
Undated subordinated loan	800	800
Total equity	11,145	26,302

Share of associates reserve

	2022	2021
Unrealised revaluations within consolidated group companies	546	525
Currency translation reserve	-66	-41
Reserve for non-distributable retained earnings of associate	1,665	1,838
Revaluations on investment property and certain participations recognised in income	329	335
Share of associates reserve	2,474	2,657

11 Other borrowed funds

Other borrowed funds

	2022	2021
Other borrowed funds - opening balance	531	204
Additions	8,452	500
Disposals	-4,733	-173
Other borrowed funds - closing balance	4,250	531

Other borrowed funds includes repo transactions used for liquidity management purposes. Under Note 46 'Capital and liquidity management' an overview of the internal borrowing facilities is disclosed.

12 Insurance and investment contracts, reinsurance contracts

Insurance and investment contracts, reinsurance contracts

	Liabilities net of reinsurance		Reinsurance contracts		Insurance and investment contracts	
	2022	2021	2022	2021	2022	2021
Non-participating life policy liabilities	31,041	33,362	52	31	31,093	33,393
Participating life policy liabilities	48,367	47,536	380	463	48,747	47,998
Liabilities for (deferred) profit sharing and rebates	1,237	6,154	60	56	1,297	6,210
Life insurance liabilities excluding liabilities for risk of policyholders	80,645	87,052	492	550	81,137	87,601
Life insurance liabilities for risk of policyholders	22,404	26,610	587	650	22,991	27,261
Life insurance liabilities	103,049	113,662	1,079	1,200	104,128	114,862
Investment contracts for risk of company	849	904	0	0	849	904
Investment contracts liabilities	849	904	0	0	849	904
Insurance and investment contracts, reinsurance contracts	103,898	114,566	1,079	1,200	104,977	115,766

Notes to the Parent company annual accounts continued

The liabilities for insurance and investment contracts are presented gross in the balance sheet as 'Insurance and investment contracts'. The related reinsurance is presented as 'Reinsurance contracts' under Assets in the balance sheet.

Deferred interest credited to policyholders is included in the 'Liabilities for (deferred) profit sharing and rebates' and amounts to EUR 1,035 million as at 31 December 2022 (2021: EUR 5,947 million).

Changes in Life insurance liabilities

	Net life insurance liabilities[1]		Net liabilities for risk of policyholders[2]		Reinsurance contracts		Life insurance liabilities	
	2022	2021	2022	2021	2022	2021	2022	2021
Life insurance liabilities - opening balance	87,052	88,923	26,610	23,211	1,200	1,437	114,862	113,571
Current years liabilities	364	690	1,743	1,952	945	847	3,052	3,489
Deferred interest credited to policyholders	-4,911	-1,602	0	0	0	-30	-4,911	-1,632
Prior year liabilities:								0
-benefit payments to policyholders	-3,432	-3,327	-1,485	-1,337	-1,017	-832	-5,934	-5,496
-interest accrual and changes in fair value of liabilities	1,565	1,569	0	0	1	3	1,566	1,572
-valuation changes for risk of policyholders	0	0	-4,454	3,115	-76	57	-4,531	3,172
Exchange rate differences	0	8	0	1	30	61	30	70
Other changes[3]	7	791	-10	-332	-4	-343	-7	116
Life insurance liabilities - closing balance	80,645	87,052	22,404	26,610	1,079	1,200	104,128	114,862

1 Net of reinsurance and liabilities for risk of policyholders.
2 Net of reinsurance.
3 Other changes include termination of a large corporate reinsured contract (EUR 400 million), insurance contracts for risk of policyholders with guarantees that were extended as general account contracts, and the transfer of certain insurance contracts.

Where discounting is used in the calculation of life insurance liabilities, the rate is within the range of 1.8% to 4% (2021: 1.8% to 4.2%).

The reinsurance mainly concerns:

- reinsurance of the insurance operations of the branch in the Czech Republic.
- reinsurance of the longevity risk with internal and external parties.

To the extent that the assuming reinsurers are unable to meet their obligations, NN Leven is liable to its policyholders for the portion reinsured. Consequently, provisions are made for receivables on reinsurance contracts which are deemed uncollectable.

As at 31 December 2022, the total reinsurance exposure including reinsurance contracts (presented in Note 12 'Insurance and investment contracts, reinsurance contracts') and receivables from reinsurers (presented in Note 9 'Other assets') amounts to EUR 1,083 million (2021: EUR 1,204 million).

13 Other liabilities

Other liabilities

	2022	2021
Income tax payable	174	23
Other taxation and social security contributions	62	63
Deposits from reinsurers	1,081	1,198
Lease liabilities	36	39
Accrued interest	141	94
Costs payable	24	12
Amounts payable to brokers	2	2
Amounts payable to policyholders	619	661
Other provisions	12	12
Amounts to be settled	262	268
Cash collateral amounts received	220	3,086
Other	80	163
Other liabilities	2,713	5,621

14 Gross premium income

Premiums written – net of reinsurance

	Gross		Reinsurance		Net of reinsurance	
	2022	2021	2022	2021	2022	2021
Insurance for risk of insurer	1,764	2,116	1,125	971	639	1,145
Insurance for risk of policyholders	1,845	1,865	135	124	1,710	1,741
Total	3,609	3,981	1,260	1,095	2,349	2,886

Notes to the Parent company annual accounts continued

Gross premium income (2022)

	Insurance for risk of insurer			Insurance for risk of policyholders		
	Gross	Reinsurance	Net of reinsurance	Gross	Reinsurance	Net of reinsurance
Regular premiums						
Individual						
– without profit sharing	270	60	210	205	128	77
– with profit sharing	246	31	215	0	0	0
	516	91	425	205	128	77
Group						
– without profit sharing	105	0	105	1,424	0	1,424
– with profit sharing	299	1,034	-735	0	0	0
	404	1,034	-630	1,424	0	1,424
Total regular premiums	920	1,125	-205	1,629	128	1,501
Single premiums						
Individual						
– without profit sharing	84	0	84	80	7	73
– with profit sharing	21	0	21	0	0	0
	105	0	105	80	7	73
Group						
– without profit sharing	415	0	415	136	0	136
– with profit sharing	324	0	324	0	0	0
	739	0	739	136	0	136
Total Single premiums	844	0	844	216	7	209
Total Gross premium income	1,764	1,125	639	1,845	135	1,710

Gross premium income is presented before deduction of reinsurance and retrocession premiums. Gross premium income excludes premium received for investment contracts, for which deposit accounting is applied.

Gross premium income (2021)

	Insurance for risk of insurer			Insurance for risk of policyholders		
	Gross	Reinsurance	Net of reinsurance	Gross	Reinsurance	Net of reinsurance
Regular premiums						
Individual						
– without profit sharing	219	50	169	218	119	99
– with profit sharing	323	37	286	0	0	0
	542	87	455	218	119	99
Group						
– without profit sharing	83	0	83	1,297	0	1,297
– with profit sharing	350	884	-534	0	0	0
	433	884	-451	1,297	0	1,297
Total regular premiums	975	971	4	1,515	119	1,396
Single premiums						
Individual						
– without profit sharing	119	0	119	103	5	98
– with profit sharing	27	0	27	0	0	0
	146	0	146	103	5	98
Group						
– without profit sharing	513	0	513	247	0	247
– with profit sharing	482	0	482	0	0	0
	995	0	995	247	0	247
Total Single premiums	1,141	0	1,141	350	5	345
Total Gross premium income	2,116	971	1,145	1,865	124	1,741

Geographical segmentation of gross premium income

	2022	2021
Netherlands	3,412	3,791
Other EU member states	197	190
Total	3,609	3,981

Notes to the Parent company annual accounts continued

Reference is made to Note 19 'Underwriting expenditure' for disclosure on reinsurance ceded.

15 Investment income

Investment income

	2022	2021
Interest income from investments in debt securities	1,188	1,221
Interest income from loans	892	846
Interest income from Investment in debt securities and loans	2,080	2,067
Realised gains/losses on disposal of available-for-sale debt securities	135	544
Impairment of available-for-sale debt securities	-17	1
Realised gains/losses and impairments of available-for-sale debt securities	118	545
Realised gains/losses on disposal of available-for-sale equity securities	321	1,048
Impairments of available-for-sale equity securities	-600	-24
Realised gains/losses and impairments of available-for-sale equity securities	-279	1,024
Interest income on non-trading derivatives	136	162
Increase/decrease in loan loss provisions	-28	4
Income from real estate investments	3	2
Dividend income	134	160
Change in fair value of real estate investments	3	1
Investment income	2,167	3,965

16 Net fee and commission income

Net fee and commission income

	2022	2021
Asset management fees	13	29
Insurance brokerage and advisory fees	-7	-10
Other	18	4
Gross fee and commission income	24	23
Asset management fees	-109	-119
Commission expenses and other	-8	-7
Insurance brokerage and advisory fees	-2	0
Fee and commission expenses	-119	-126
Net Fee and commission income	-95	-103

17 Valuation results on non-trading derivatives

Valuation results on non-trading derivatives

	2022	2021
Change in fair value of derivatives relating to:		
- cash flow hedges (ineffective portion)	-75	-10
- other non-trading derivatives	-1,043	-334
Net result on non-trading derivatives	-1,118	-344
Change in fair value of assets and liabilities (hedged items)	-2	-3
Valuation results on assets and liabilities designated as at fair value through profit or loss (excluding trading)	-18	32
Valuation results on non-trading derivatives	-1,138	-315

18 Other income

'Other income' in 2022 includes settlements and releases of various provisions.

Notes to the Parent company annual accounts continued

19 Underwriting expenditure

Underwriting expenditure

	2022	2021
Gross underwriting expenditure:		
- before effect of investment result for risk of policyholders	5,867	6,600
- effect of investment result for risk of policyholders	-4,531	3,173
Gross underwriting expenditure	1,336	9,773
Investment result for risk of policyholders	4,531	-3,173
Reinsurance recoveries	-1,217	-1,028
Underwriting expenditure	4,650	5,572

The investment income and valuation results regarding investments for risk of policyholders is EUR -4,531 million (2021: EUR 3,173 million). This amount is recognised in 'Underwriting expenditure'. As a result it is shown together with the equal amount of related change in life insurance liabilities for risk of policyholders.

Underwriting expenditure by class

	2022	2021
Reinsurance and retrocession premiums	1,260	1,095
Gross benefits	5,778	5,925
Reinsurance recoveries	-1,217	-1,028
Change in life insurance liabilities	-1,309	-517
Costs of acquiring insurance business	52	53
Other underwriting expenditure	25	-6
Profit sharing and rebates	55	43
Other changes in investment contract liabilities	6	7
Underwriting expenditure	4,650	5,572

Gross benefits

	2022	2021
Surrenders	1,074	1,148
Payments upon maturity	1,796	1,880
Payments upon death	202	210
Annuities and other periodic payments	2,690	2,661
Other	16	26
Gross benefits	5,778	5,925

Costs of acquiring insurance business

	2022	2021
Changes in deferred acquisitions costs	13	16
Brokerage fee	35	34
Other commissions	4	3
Costs of acquiring insurance business	52	53

The total costs of acquiring insurance business and investment contracts amounted to EUR 52 million (2021: EUR 53 million). This includes amortisation and unlocking of DAC of EUR 44 million (2021: EUR 43 million) and the net amount of commissions paid of EUR 46 million (2021: EUR 46 million) and commissions capitalised in DAC of EUR 37 million (2021: EUR 35 million).

The total amount of commission paid and commission payable amounted to EUR 64 million (2021: EUR 50 million). This includes the commissions recognised in 'costs of acquiring insurance business' of EUR 46 million (2021: EUR 46 million) referred to above and commissions recognised in 'Other underwriting expenditure' of EUR 18 million (2021: EUR 4 million). Other underwriting expenditure also includes reinsurance commissions paid of EUR 0 million (2021: EUR 29 million).

Notes to the Parent company annual accounts continued

20 Staff expenses

Staff expenses

	2022	2021
Salaries	112	113
Variable salaries	0	1
Pension costs	22	21
Social security costs	14	14
External staff costs	58	48
Education	2	1
Other staff costs	4	4
Staff expenses	212	202

21 Interest expenses

Interest expenses

	2022	2021
Interest expenses on non-trading derivatives	126	98
Interest on lease liability	1	1
Other interest expense	87	67
Interest expenses	214	166

In 2022, total interest income and total interest expenses for items not valued at fair value through profit or loss were EUR 2,080 million and EUR 126 million respectively (2021: EUR 2,067 million and EUR 98 million respectively).

Interest income and expenses are included in the following profit and loss account lines:

Total net interest income

	Notes	2022	2021
Investment income	15	2,216	2,229
Interest expenses on non-trading derivatives		-126	-98
Interest on lease liability		-1	-1
Other interest expense		-87	-67
Total net interest income		2,002	2,063

22 Other operating expenses

Other operating expenses

	2022	2021
Depreciation of property and equipment	4	4
Computer Costs	67	64
Office expenses	6	-1
Travel and accommodation expenses	1	0
Advertising and public relations	8	3
External advisory fees	21	20
Allocated staff expenses head office support functions	44	22
Allocated staff expenses services	20	44
Other	45	68
Other operating expenses	216	224

23 Taxation

NN Leven is part of the Dutch fiscal unity for corporate income tax purposes of NN Group making it jointly and severally liable for the total tax payable by the fiscal unity.

Income tax payable amounts to EUR 174 million (2021: EUR 23 million payable). It concerns tax payable to NN Group for the most recent quarter. Reference is made to Note 13 'Other liabilities'.

Notes to the Parent company annual accounts continued

Deferred tax (2022)

	Net liability 2021	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2022[1]
Investments	2,567	-3,695	-51	5	0	-1,174
Real estate investments	800	0	-35	0	0	765
Acquisition costs	40	0	-3	0	0	37
Fiscal equalisation reserve	49	0	-49	0	0	0
Insurance liabilities	-2,854	1,267	301	4	-1	-1,283
Cash flow hedges	2,975	-1,996	0	0	0	979
Other provisions	0	0	0	0	0	0
Other	8	0	3	-4	0	7
Deferred tax	3,585	-4,424	166	5	-1	-669
Presented in the balance sheet as:						
Deferred tax liabilities	3,612					0
Deferred tax assets	-27					-669
Deferred tax	3,585					-669

1 Positive amounts are liabilities, negative amounts are assets.

Deferred tax (2021)

	Net liability 2020	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2021[1]
Investments	3,541	-969	-5	0	0	2,567
Real estate investments	680	0	120	0	0	800
Acquisition costs	42	0	-2	0	0	40
Fiscal equalisation reserve	0	0	49	0	0	49
Insurance liabilities	-3,073	359	-131	-7	-2	-2,854
Cash flow hedges	3,939	-964	0	0	0	2,975
Other provisions	-7	0	0	7	0	0
Other	7	-1	2	0	0	8
Deferred tax	5,129	-1,575	33	0	-2	3,585
Presented in the balance sheet as:						
Deferred tax liabilities	5,129					3,612
Deferred tax assets	0					-27
Deferred tax	5,129					3,585

1 Positive amounts are liabilities, negative amounts are assets.

Deferred tax on unused tax losses carried forward

	2022	2021
Total unused tax losses carried forward	0	0
Unused tax losses carried forward recognised as a deferred tax asset	0	0
Average tax rate	25.0%	25.0%
Deferred tax asset	0	0

Total unused tax losses carried forward analysed by term of expiration

	No deferred tax asset recognised		Deferred tax asset recognised	
	2022	2021	2022	2021
More than 5 years but less than 10 years	0	0	0	0
Total	0	0	0	0

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.

Taxation on result

	2022	2021
Current tax	-255	341
Deferred tax	171	32
Taxation on result	-84	373

Notes to the Parent company annual accounts continued

Reconciliation of the weighted average statutory tax rate to NN **Leven's** effective tax rate

	2022	2021
Result before tax	22	2,832
Weighted average statutory tax rate	25.8%	25.0%
Weighted average statutory tax amount	5	708
Participation exemption	-104	-366
Other income not subject to tax and other	1	32
Expenses not deductible for tax purposes	0	1
Impact on deferred tax from change in tax rates	0	-3
Adjustments to prior periods	14	1
Effective tax amount	-84	373
Effective tax rate	-381.8%	13.1%

In 2022, the effective tax rate of -381.8% was lower than the weighted average statutory tax rate of 25.8%. In 2021, the effective tax rate of 13.1% was lower than the weighted average statutory tax rate of 25.0%. This was mainly a result of tax-exempt results of subsidiaries, associates and joint ventures.

In 2021, the Dutch corporate income tax rates were amended, so that the tax rate for 2022 will increase from 25% to 25.8%. As a result, the deferred tax assets and liabilities of NN Leven were remeasured in 2021 to the enacted new rate. The net impact of the tax rate change in 2022 was EUR nihil.

Taxes on components of other comprehensive income

	2022	2021
Unrealised revaluations Available for sale investment and other	3,804	1,129
Realised gains/losses transferred to the profit and loss account	6	14
Changes in cash flow hedge reserve	1,997	965
Deferred interest credited to policyholders	-1,270	-359
Income tax	4,537	1,749

24 Other

Assets not freely disposable

For further explanation of the assets that are not freely disposable reference is made to Note 34 'Assets not freely disposable' in the Consolidated annual accounts.

Contingent liabilities and commitments

For further explanation of the Contingent liabilities and commitments reference is made to Note 37 'Contingent liabilities and commitments' in the Consolidated annual accounts.

Related parties

For further explanation of the related parties reference is made to Note 41 'Related parties' in the Consolidated annual accounts.

25 Subsequent events

For subsequent events of NN Leven reference is made to Note 44 'Subsequent events' in the Consolidated annual accounts.

Authorisation of the Parent company annual accounts

The Parent company annual accounts of NN Leven for the year ended 31 December 2022 were authorised for issue in accordance with a resolution of the Management Board on 29 March 2023. The Management Board may decide to amend the Parent company annual accounts as long as these are not adopted by the General Meeting.

The General Meeting may decide not to adopt the Parent company annual accounts, but may not amend these during the meeting. The General Meeting can decide not to adopt the Parent company annual accounts, propose amendments and then adopt the Parent company annual accounts after a normal due process.

Rotterdam, 29 March 2023

The Management Board

L.M. (Leon) van Riet, CEO and chair

A. (Arun) Sivaramakrishnan, CFO

W.G. (Wilbert) Ouburg, CRO

M.R. (Martijn) Hoogeweegen

G. (Gerard) van Rooijen

The Supervisory Board

J.L. (Janet) Stuijt, chair

A.T.J. (Annemiek) van Melick

J.W. (Hans) Schoen

Confirmed and adopted by the General Meeting dated 6 June 2023.

Independent auditor’s report

KPMG

Independent auditor's report

To: the General Meeting of Shareholders and the Supervisory Board of Nationale-Nederlanden Levensverzekering Maatschappij N.V.

Report on the audit of the annual accounts 2022 included in the annual report

Our opinion

In our opinion the accompanying annual accounts give a true and fair view of the financial position of Nationale-Nederlanden Levensverzekering Maatschappij N.V. (hereafter: 'NN Leven') as at 31 December 2022 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 (EU-IFRS) and in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the 2022 annual accounts of NN Leven based in Rotterdam. The annual accounts include the consolidated annual accounts and the parent company annual accounts.

The annual accounts comprise:

1. the consolidated and company balance sheet as at 31 December 2022;
2. the following consolidated and company statements for 2022: the profit and loss account, the statements of comprehensive income, cash flows and changes in equity; and
3. the notes comprising a summary of the significant 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 annual accounts' section of our report.

We are independent of NN Leven 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).

Our audit procedures were determined in the context of our audit of the annual accounts as a whole. Our observations in respect of going concern, fraud and non-compliance with laws and regulations and the key audit matters should be viewed in that context and not as separate opinions or conclusions.

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information in support of our opinion

Summary

Materiality

- Materiality of EUR 110 million
- Based on core equity; shareholders' equity minus revaluation reserves (1%)

Group audit

- 99% of core equity
- 99% of total assets
- 96% of profit before tax

Fraud/Noclar, Going concern and risks of climate change

- Fraud & Non-compliance with laws and regulations (Noclar) related risks: we considered the presumed fraud risk on management override of controls
- Going concern related risks: no going concern risks identified

Key audit matters

- Valuation of insurance liabilities
- Valuation of illiquid investments
- Unit-linked exposure
- Solvency II disclosure

Opinion

Unqualified

Independent auditor's report continued

Materiality

Based on our professional judgement we determined the materiality for the annual accounts as a whole at EUR 110 million (2021: EUR 105 million). The materiality is determined with reference to core equity (shareholders' equity minus revaluation reserves) and amounts to 1% (2021: 1%). We continue to consider core equity as the most appropriate benchmark based on our assessment of the general information needs of the users of the annual accounts of the financial institutions predominantly active in the life insurance business. We believe that core equity is a relevant metric for assessment of the financial performance of NN Leven.

We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the annual accounts for qualitative reasons.

We agreed with the Supervisory Board that misstatements identified during our audit in excess of EUR 5 million (2021: EUR 5 million) 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

NN Leven is a wholly owned subsidiary of NN Group N.V. (hereafter: 'NN Group') and is by itself a group company of several subsidiaries, which are mainly related to asset management activities (as set out in note 39). The financial information of the subsidiaries is included in the consolidated annual accounts of NN Leven.

Because we are ultimately responsible for the audit opinion, 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 group entities.

Our group audit mainly focused on significant components. These significant components are either individually financially significant due to their relative size within NN Leven or because we assigned a significant risk of material misstatement to one or more account balances of the component. In addition, we included certain components in the scope of our group audit in order to arrive at a sufficient coverage for all relevant significant account balances.

This resulted in a full or specific scope audit for 12 (2021: 10) components, in total covering seven countries, and in a coverage of 99% of core equity, 99% of total assets and 96% of profit before tax. For the remaining 1% of core equity, and 4% of profit before tax, procedures were performed at the group level including analytical procedures in order to corroborate that our scoping remained appropriate throughout the audit. This coverage is in line with our 2021 audit.

All components in scope for group reporting purposes are audited by KPMG member firms. We sent audit instructions to all component auditors, covering significant areas including the relevant risks of material misstatement and set out the information required to be reported to the group audit team.

With all components in the scope of the group audit, we discussed the planning, risk assessment, procedures performed, findings and observations reported to the group auditor and any additional work deemed necessary by the group audit team was then performed.

KPMG

The group audit team has set component materiality levels, which ranged from EUR 15 million to EUR 100 million, based on the mix of size and risk profile of the components within NN Leven.

The consolidation of NN Leven, the disclosures in the annual accounts and certain accounting topics are audited by the group audit team. The accounting matters on which audit procedures are performed with the assistance of the NN Group Audit team include but are not limited to Group Finance shared service centre equity, staff expenses in the Netherlands, other operating expenses in the Netherlands, certain elements of the risk and capital management disclosures, corporate income tax for the Dutch fiscal unity and legal proceedings.

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 the Group's financial information to provide an opinion about the annual accounts.

Audit response to the risk of fraud and non-compliance with laws and regulations

In the chapter Risk Governance/ System of Governance of the annual report, the Management Board describes its response and procedures in respect of the risk of fraud and non-compliance with laws and regulations.

As part of our audit, we have gained insights into NN Leven and its business environment, and assessed the design and implementation and, where considered appropriate, tested the operating effectiveness of the NN Leven's risk management in relation to fraud and non-compliance. Our procedures included, among other things, assessing NN Leven's code of conduct, whistleblowing procedures, incidents register and its procedures to investigate indications of possible fraud and non-compliance. Furthermore, we performed relevant inquiries with management, Supervisory Board and other relevant functions, such as Internal Audit, Legal Counsel and Compliance. As part of our audit procedures, we:

- assessed the fraud risk assessment performed by Operational Risk Management;
- assessed other positions held by the Management Board members and paid special attention to governance, procedures and compliance in view of possible conflicts of interest;
- evaluated internal compliance reports on indications of possible fraud and non-compliance;
- inspected correspondence with De Nederlandsche Bank (DNB), Autoriteit Financiële Markten (AFM) and other regulators and supervisory authorities; and
- evaluated legal confirmation letters.

In addition, we performed procedures to obtain an understanding of the legal and regulatory frameworks that are applicable to NN Leven and identified the following areas as those most likely to have a material effect on the annual report:

- Wet op het financieel toezicht (Wft) (including the European Solvency II directives);
- Financial and economic crime (FEC) related regulation; and
- Data privacy regulation (GDPR).

We evaluated, with the support of our forensics specialists, the fraud and non-compliance risk factors to consider whether those factors indicate a risk of material misstatement in the annual report.

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Independent auditor's report continued

Further we assessed the presumed fraud risk on revenue recognition as irrelevant, since the Company's significant source of income are: i) premiums that are paid by customers based on contractual agreements where the prices and conditions are pre-determined; and ii) investment income based on contractual interest conditions and market prices minus the cost price of investments. As a consequence, we did not identify an incentive nor pressure for the management board members to achieve certain results or specific financial targets and there appears to be limited perceived opportunity to commit a material fraud in this area.

Based on the above and on the auditing standards, we identified the following presumed fraud risk and responded as follows.

Management override of controls (a presumed risk)

Risk

Management is in a unique position to manipulate accounting records and prepare fraudulent annual accounts by overriding controls that otherwise appear to be operating effectively such as: estimates related to valuation and reserve adequacy of insurance liabilities and Solvency II disclosures.

Response

- We assessed the design and the implementation of internal controls that mitigate fraud and non-compliance risks, such as processes related to journal entries and estimates.
- We performed data analysis of high-risk journal entries and evaluated key estimates and judgements for bias by the NN Leven, including retrospective reviews of prior year's estimates.
- Where we identified instances of unexpected journal entries or other risks through our data analytics, we performed additional audit procedures to address each identified risk. These procedures also included testing of transactions back to source information.
- We incorporated elements of unpredictability in our audit, e.g., in the scoping of components and data-analysis on outgoing payments and performed risk-based specific item testing.
- We performed detailed testing on other emoluments in relation to the Management Board remuneration.
- We considered the outcome of our other audit procedures and evaluated whether any findings or misstatements were indicative of fraud or non-compliance. If so, we re-evaluated our assessment of relevant risks and its resulting impact on our audit procedures.

We refer to the key audit matters below that provide information of our approach related to areas of higher risk due to accounting estimates where management makes significant judgements.

Our evaluation of procedures performed related to fraud did not result in an additional key audit matter.

We communicated our risk assessment, audit responses and results to the Management Board and the Supervisory Board.

Our audit procedures did not reveal indications and/or reasonable suspicion of fraud and non-compliance that are considered material for our audit.

Independent auditor's report continued

Audit response to going concern

The Management Board has performed its going concern assessment and has not identified any significant going concern risks. Our main procedures to assess the Management Board's assessment were:

We considered whether the Management Board's assessment of the going concern risks included all relevant information of which we are aware as a result of our audit.

We assessed whether the scenarios included in the Own Risk Solvency Assessment (ORSA) and Preparatory Crisis Plan that were submitted to De Nederlandsche Bank N.V. (the Dutch Central Bank, DNB) and other regulatory correspondence indicate a significant going concern risk.

We considered whether the outcome of our audit procedures on the Solvency II capital position and disclosures (see: Key Audit Matters) indicate a significant going concern risk.

The outcome of our risk assessment procedures, including our consideration of findings from our audit procedures on other areas, did not give reason to perform additional audit procedures.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the annual accounts. We have communicated the key audit matters to the Management Board and 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 annual accounts as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of insurance liabilities

Description

Insurance and investment contract liabilities (in short: insurance liabilities) amount to EUR 108 billion as at 31 December 2022, or 89% of total liabilities. The valuation of insurance liabilities involves limited management judgement as the valuation is based on contractual terms and conditions and locked-in assumptions. Management judgement is involved especially for determining the ultimate settlement value of long-term liabilities in the so-called reserve adequacy test (RAT) to assess the adequacy of the insurance liabilities, before reinsurance and net of deferred acquisition cost, based on current best estimate actuarial assumptions.

The RAT for NN Leven is most significant to the Group given its relative size and complexity and requires significant management judgement in setting the assumptions related to longevity, expenses and future reinvestment rates.

Given the financial significance and the level of judgement required we considered the valuation and reserve adequacy of insurance contract liabilities a key audit matter.

Our response

Our audit approach is a mixture of controls testing and substantive audit procedures.

Independent auditor's report continued

Our procedures over internal controls focused on testing of controls around the adequacy of policyholder data, assumption setting, and internal review procedures performed on the RAT by the Actuarial Function Holder. We also assessed the process for the internal validation and implementation of the models used for the valuation of the RAT. With the assistance of our own actuarial specialists, we performed the following substantive audit procedures:

- We assessed the appropriateness of assumptions used in the valuation of the insurance liabilities by reference to company and industry data and expectations of future investment returns, future longevity, also in relation to recently published mortality tables, and expense developments.
- We tested the appropriateness of the data used and assumptions and methodologies applied in the valuation of the insurance liabilities and the RAT.
- We performed substantive analysis of developments in actuarial results and movements in reserve adequacy during the year fand made corroborative inquiries with management and the Actuarial Function Holder. We assessed the robustness of management's substantiation that the insurance contract liabilities are adequate as at 31 December 2022.

Our observation

The reserve adequacy test shows a positive margin, although substantially lower as compared to last year due to higher market interest rates. We consider the valuation of the insurance contract liabilities to be appropriate. We refer to note 16 of the annual accounts.

Valuation of illiquid investments

Description

For non-listed investments quoted prices are not available and fair values are based on valuation techniques which often involve the exercise of judgement by management and the use of assumptions, estimates and valuation models. Where significant pricing inputs are unobservable, management has no reliable, relevant market data available in determining the fair value for both measurement as well as for disclosure purposes. For these illiquid investments the estimation uncertainty can be high, especially due to increased market volatilities.

This is mainly applicable to:

- mortgages;
- real estate investments; and
- private equity and private debt investments.

Given the financial significance and estimation uncertainties we considered the valuation of illiquid investments a key audit matter.

Our response

We assessed management's approach to the valuation illiquid investments and performed the following procedures:

- We evaluated the NN Leven's processes and controls governing the valuation of non-listed investments.

- We inspected the supporting valuation documents prepared by management's internal and external valuation experts.
- KPMG valuation specialists assisted us in challenging the appropriateness of the models and methodologies used by management in calculating fair values of mortgages. We tested the source data used and assessed the appropriateness of critical valuation parameters. Our valuation specialists independently calculated whether the fair value for the mortgage portfolio as a whole as determined by management is within the acceptable fair value range.
- We involved our real estate valuation specialists in the substantive audit procedures of selected high-risk real estate investments. We evaluated the objectivity, independence and professional competence of external valuators engaged by management. We inspected the valuation reports obtained, tested the source data used and the calculations made and challenged significant assumptions such as the gross initial yield/discount rate and estimated rental values.
- We tested and challenged management's valuation of private equity and private debt investments by critically reviewing the minutes of the meetings of management with the external fund managers, we tested the timeliness of such meetings and performed back testing procedures to determine the reliability of the fair value estimates provided by the external fund managers. We compared the movements in the valuations for the period with available external market data and performed back testing on the prior year estimates, e.g., by reconciliation of valuations to annual accounts of investments or comparison to sales results.
- We assessed the disclosures in the annual accounts.

Our observation

The results of our testing were satisfactory and we consider the fair value of illiquid investments to be appropriate. We observed that valuation uncertainties in real estate increased as a limited number of transactions took place to support the estimated yield levels. We refer to note 30 of the annual accounts in which the real estate valuation uncertainties that exist as at 31 December 2022 are disclosed.

Unit-linked exposure

Description

Holders of unit-linked products sold in the Netherlands, or consumer protection organisations on their behalf, have filed claims or initiated legal proceedings against NN Leven and may continue to do so. A negative outcome of such claims and proceedings, settlements or any other actions to the benefit of the customers by other insurers or sector-wide measures, may affect the (legal) position of NN Leven and could result in substantial financial losses for NN Leven as and when compensation would be required. The Management Board assessed the financial consequences of these legal proceedings under both the EU-IFRS and the Solvency II reporting framework and concluded that these cannot be reliably measured, estimated and/or quantified at this point.

Due to the potential significance and judgement that is required to assess the developments relevant to these claims and proceedings we considered this a key audit matter.

Independent auditor's report continued

Our response

- We assessed NN Leven's processes and controls with respect to the unit-linked exposures.
- We inspected and assessed supporting legal documentation and discussed on a quarterly basis the evolving legal risks and proceedings with the legal counsel and its internal legal advisors. Our assessment took into account the NN Leven's specific developments such as the Supreme Court's answers relating to collective proceedings initiated by the Vereniging Woekerpolis.nl against Nationale-Nederlanden and the judgement in the Wakkerpolis case by the District Court of Rotterdam on 20 July 2022, as well as broader market developments, including the impact, if any, of verdicts issued up to the date of this audit opinion.
- We obtained lawyers letters of the external lawyers engaged by NN Leven in relation to the collective cases Woekerpolis.nl, Consumentenbond and Wakkerpolis to support our assessment of management judgment on the accounting treatment and disclosures for related risks exposures. We assessed the professional competency and capability of these external lawyers.
- We assessed the unit-linked disclosure on contingent liabilities in note 38 Legal proceedings of the annual accounts.

Our observation

We concur with the Management Board's conclusion that it is not possible to reliably estimate or quantify the NN Leven's overall exposure at this time and consider the disclosure in note 38 to be appropriate.

Solvency II disclosure

Description

Solvency II information as included in notes 45 of the annual accounts is an important disclosure about the regulatory capital position of the NN Leven. The calculation of the Solvency II ratio is complex and requires significant management judgement. NN Leven applies the Partial Internal Model (PIM) as approved by DNB to calculate the Solvency Capital Requirement (SCR). Given the importance of the Solvency II capital position, the reporting complexities, the significance of management judgements and assumptions on the outcome of the ratio, the significant measurement uncertainties and related sensitivities we identified the adequacy of the Solvency II disclosure as a key audit matter.

Our response

We obtained an understanding of NN Leven's application and implementation of the Solvency II directive. With the assistance of our own actuarial specialists, we performed the following audit procedures:

We assessed the adequacy of the quantitative and qualitative Solvency II disclosures. In this context we also assessed the preparation of the Solvency II sensitivity disclosures and tested the accuracy thereof.

We assessed the effectiveness of internal controls over the Solvency Capital Requirement (SCR) calculations and the Group's modelling and assumption (change) approval processes.

We tested controls over the calculations of the market value balance sheet, Own Funds and SCR for them to be prepared in accordance with the Solvency II directive and in accordance with the PIM as approved by DNB.

We assessed the follow up to the terms and conditions set by DNB in relation to the approval of the PIM-Major Model Changes.

We assessed and challenged the rationale, implementation and impact of material changes to models and assumptions used to determine the value of best estimate insurance liabilities and SCR, including the diversification effect included in the Group's PIM.

We assessed the appropriateness of economic and non-economic assumptions used for the calculations of the market value balance sheet, Own Funds and SCR, based on market observable data, company and industry data, comparison of management judgements made to current and emerging market practices. This included the substantiation by management of the loss absorbing capacity of deferred taxes and the inflation expectations for the expense assumptions.

We assessed the quality of the risk management function and actuarial function for their involvement with the Solvency II reporting. We made inquiries with the Actuarial Function Holder report 2022, which sets out conclusions on the reliability and adequacy of the technical provisions as at 31 December 2022 under Solvency II.

We verified the accuracy of the calculations of the market value balance sheet used to determine Own Funds for selected balance sheet items, using our own actuarial specialists and alternative actuarial methods, if applicable.

We assessed and challenged the internally prepared analysis of the movements in the Solvency II capital position during the year and sensitivities reported as at 31 December 2022 and discussed the outcome with the NN Leven's actuaries and Actuarial Function Holder.

Our observation

We considered the Solvency II disclosure in note 45 to be adequate.

Report on the other information included in the annual report

In addition to the annual accounts and our auditor's report thereon, the annual report contains other information. Additionally, other information includes the annual review.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the annual accounts and does not contain material misstatements; ad contains the information as required by Part 9 of Book 2 of the Dutch Civil Code report and other information.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the annual accounts or otherwise, we have considered whether the other information contains material misstatements.

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KPMG

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 annual accounts.

The Management Board 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 General Meeting of Shareholders as auditor of NN Leven. on 28 May 2015, as of the audit for the year 2016 and have operated as statutory auditor ever since that financial year. We were reappointed by the General Meeting of Shareholders on 19 May 2022 to continue to serve NN Leven as its external auditor for the financial years 2023-2025.

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.

Description of responsibilities regarding the annual accounts

Responsibilities of the Management Board and the Supervisory Board for the annual accounts

The Management Board is responsible for the preparation and fair presentation of the annual accounts in accordance with Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Management Board is responsible for such internal control as management determines is necessary to enable the preparation of the annual accounts that are free from material misstatement, whether due to fraud or error. In that respect the Management Board under supervision of the Supervisory Board is responsible for the prevention and detection of fraud and non-compliance with laws and regulations, including determining measures to resolve the consequences of it and to prevent recurrence.

As part of the preparation of the annual accounts, the Management Board is responsible for assessing the NN Leven's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Management Board should prepare the annual accounts using the going concern basis of accounting unless the Management Board either intends to liquidate NN Leven or to cease operation, or has no realistic alternative but to do so.

The Management Board should disclose events and circumstances that may cast significant doubt on NN Leven's ability to continue as a going concern in the annual accounts.

The Supervisory Board is responsible for overseeing NN Leven's financial reporting process.

Independent auditor's report continued

Our responsibilities for the audit of the annual accounts

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 based on these annual accounts. 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 annual accounts is located at the website of de 'Koninklijke Nederlandse Beroepsorganisatie van Accountants' (NBA, Royal Netherlands Institute of Chartered Accountants) at eng_oob_01.pdf (nba.nl). This description forms part of our auditor's report.

Amstelveen, 29 March 2023

KPMG Accountants N.V.

F.M van den Wildenberg RA

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Appropriation of result and other information

Appropriation of result

The result is appropriated pursuant to article 21 of the articles of association of NN Leven, the relevant stipulations of which state that the appropriation of result shall be determined by the General Meeting having heard the advice of the Management Board and the Supervisory Board. Reference is made to Note 13 'Equity' of the Consolidated annual accounts for the proposed appropriation of result.

Other information

NN Leven has a branch office (NN Životní pojišťovna N.V., pobočka pro Českou republiku) which is located in the Czech Republic. NN Životní pojišťovna N.V., pobočka pro Českou republiku, as a foreign branch of NN Leven, is part of NN Leven, and therefore all liabilities of NN Životní pojišťovna N.V are integral part of the liabilities of NN Leven. All insurance activities from NN Životní pojišťovna N.V. are reinsured to NN Re, without any consequences for the policyholders of NN Životní pojišťovna N.V.

Contact and legal information

Contact us

Nationale-Nederlanden Levensverzekering Maatschappij N.V.
Weena 505
3013 AL Rotterdam

PO Box 796, 3000 AT Rotterdam
The Netherlands
Internet: www.nn.nl
Commercial register number 24042211

Nationale-Nederlanden Levensverzekering Maatschappij N.V. is part of NN Group N.V.

Disclaimer

Small differences are possible in the tables due to rounding. Certain of the statements in this 2022 Annual Report 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, without limitation: (1) changes in general economic conditions, in particular economic conditions in NN Leven's core markets, (2) the effects of the Covid-19 pandemic and related response measures, including lockdowns and travel restrictions, on economic conditions in countries in which NN Leven operates, on NN Leven's business and operations and on NN Leven's employees, customers and counterparties, (3) changes in performance of financial markets, including developing markets, (4) consequences of a potential (partial) break-up of the euro or European Union countries leaving the European Union, (5) changes in the availability of, and costs associated with, sources of liquidity as well as conditions in the credit markets generally, (6) the frequency and severity of insured loss events, (7) changes affecting mortality and morbidity levels and trends, (8) changes affecting persistency levels, (9) changes affecting interest rate levels, (10) changes affecting currency exchange rates, (11) changes in investor, customer and policyholder behaviour, (12) changes in general competitive factors, (13) changes in laws and regulations and the interpretation and application thereof, (14) changes in the policies and actions of governments and/or regulatory authorities, (15) conclusions with regard to accounting assumptions and methodologies, (16) changes in ownership that could affect the future availability to NN Leven of net operating loss, net capital and built-in loss carry forwards, (17) changes in credit and financial strength ratings, (18) NN Leven's ability to achieve projected operational synergies, (19) catastrophes and terrorist-related events, (20) adverse developments in legal and other proceedings and (21) the other risks and uncertainties detailed in the Risk management section and/or contained in recent public disclosures made by NN Group and/or related to NN Group.

Any forward-looking statements made by or on behalf of NN Leven in this Annual Report speak only as of the date they are made, and, NN Leven 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 buy, any securities.