

2019

Annual Report

Nationale-Nederlanden Levensverzekering Maatschappij N.V.



Annual Report contents

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Composition of the Boards

The composition of the Management Board and the Supervisory Board of Nationale-Nederlanden Levensverzekering Maatschappij N.V. as at 31 December 2019 was as follows:

Management Board

Composition as at 31 December 2019

M.F.M. (Michel) van Elk (1962), CEO and chair

P.J. (Patrick) Dwyer (1956), CFO

J.J. (Hans) Bonsel (1963), CRO

R.F.M. (Robin) Buijs (1970)

M.R. (Martijn) Hoogeweegen (1969)

A.G. (Annemieke) Visser-Brons (1970)

Supervisory Board

Composition as at 31 December 2019

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

D. (Delfin) Rueda (1964), vice-chair

J.H. (Jan-Hendrik) Erasmus (1980)¹

Resigned in 2020

J.H. (Jan-Hendrik) Erasmus (1980)¹

Appointed in 2020

J.W. (Hans) Schoen (1954)²

¹ Resignation as at 1 January 2020 by resignation letter.

² Appointment as at 21 January 2020 by the general meeting on 21 January 2020.

NN Group and NN Leven at a glance

NN Group

NN Group N.V. (NN Group) is an international financial services company, active in 18 countries, with a strong presence in a number of European countries and Japan. Our ambition is to be a company that truly matters in the lives of our stakeholders, for example by living our values: 'care, clear, commit'.

We are committed to helping people secure their financial futures, with strong products and services, and long-term relationships. With all our employees, NN Group offers retirement services, pensions, insurance, investments and banking products to approximately 18 million customers. NN Group's main brands are Nationale-Nederlanden, NN, NN Investment Partners, Movir, AZL, BeFrank and OHRA.

Our roots lie in the Netherlands, with a rich history that stretches over 175 years. NN Group became a standalone company on 2 July 2014. Since that date, our shares are listed and traded on Euronext Amsterdam under the listing name 'NN Group'.

Ongoing integration Delta Lloyd

In 2017, NN Group acquired Delta Lloyd group and started integrating activities in the Netherlands and Belgium. Since then we have reached a number of important milestones in the integration process of Delta Lloyd's asset management, banking and the insurance businesses. We have further integrated teams, systems and processes, increased efficiency, and introduced new products and services to meet our customers' needs. In addition, the rebranding of Delta Lloyd's products and services to Nationale-Nederlanden was completed in 2018 and the separate Collective Labour Agreements were harmonised into one new agreement in 2019. The successful integration of Delta Lloyd in the Netherlands and Belgium is one of NN Group's priorities.

NN Leven

Nationale-Nederlanden Levensverzekering Maatschappij N.V. (NN Leven) offers a range of group life and individual life insurance products. Its group life policies are primarily group pension products. NN Leven has three business units: Pension New Business, Pension Services and Individual Life Services. 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 and asset manager NN Investment Partners.

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.

NN Leven's business centres 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 1 January 2019, the legal merger between NN Leven and Delta Lloyd Leven became effective. Furthermore, on 8 January 2019, NN Leven acquired AEGON Pojišťovna a.s. (Aegon Czech) in the Czech Republic. As per 1 October 2019, NN Leven also entered into a cross border merger with Aegon Czech. For a more detailed disclosure, reference is made to Note 42 'Acquisitions and legal mergers'.

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

Financial Developments¹

Analysis of results²

Amounts in millions of euros	2019	2018
Investment margin	880	907
Fees and premium-based revenues	372	398
Technical margin	192	202
Operating income	1,444	1,507
Administrative expenses	421	446
DAC, amortisation and trail commissions	61	51
Expenses	482	497
Operating result	962	1,010
Non-operating items:	966	1,347
of which gains/losses and impairments	266	1,035
of which revaluations	909	453
of which market and other impacts	-209	-141
Special items	-57	-61
Results on divestments	5	56
Result before tax	1,876	2,352
Taxation	393	518
Net result	1,483	1,834

1 The comparative figures are adjusted in relation to the legal merger of NN Leven and Delta Lloyd Leven as per 1 January 2019.

2 In this table only the NN Leven share in the partially owned subsidiaries (Private Equity Investments II B.V. and REI Investment I B.V.) has been taken into account. Therefore only the 'Net result' reconciles with the 'Net result attributable to shareholder of the parent' in the Consolidated profit and loss account.

Key figures

Amounts in millions of euros	2019	2018
New sales life insurance (APE)	500	271
Value of new business (VNB)	16	10
Total administrative expenses	421	446
NN Leven Solvency II ratio ¹	213%	235%

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

The full-year 2019 operating result decreased to EUR 962 million from EUR 1,010 million in 2018. The decrease is due to lower private equity and special dividends, lower fees and premium-based revenues mainly due to the run-off of the individual life closed book as well as lower margins in the pension business, a lower technical margin and higher deferred acquisition costs (DAC), amortisation and trail commissions, partly offset by lower administrative expenses.

The full-year 2019 result before tax decreased to EUR 1,876 million compared with EUR 2,352 million in 2018. The decrease mainly reflects lower gains on the sale of government bonds.

The annual premium equivalent (APE) increased to EUR 500 million in 2019 from EUR 271 million in 2018, reflecting a higher volume of group pension contracts up for renewal as well as new business.

The value of new business (VNB) increased to EUR 16 million in 2019 from EUR 10 million in 2018.

The Solvency II ratio decreased to 213% in 2019 from 235% in 2018, impacted by market changes, lower Ultimate Forward Rate (UFR) and dividend payments.

Business developments

NN Leven continued to operate in a complex economic, business and regulatory environment in 2019. Low interest rates and increasing longevity over the past years have increased employers' funding costs for (guaranteed) pension schemes. This environment has encouraged a shift from defined benefit (DB) to defined contribution (DC) pension schemes.

NN Leven offers modern pension solutions in both DB and DC, with and without guarantees. This enables employers or clients to organise their retirement arrangements with a risk profile that meets their current needs. This product suite consists of a focused set of transparent and cost-efficient pension products, delivered through efficient IT platforms.

NN Leven seeks to manage its longevity exposure within its risk appetite, which is why we did the Chemours pension fund carve-out in conjunction with reinsuring the underlying longevity risk on a full indemnity base.

Strategy

The ambition of NN Leven is to offer products and services that are relevant to our customers and provide them in a personal and digital way. In line with this ambition, our customers can do business with us in the way they want. At the same time, we are teaming up with business partners and exploring the potential of ecosystems and platforms around themes relevant to our customers. Our increased scale and strong market position enable us to improve our customer experience, drive efficiency and deliver on cross-sell ambitions.

Our strategy is to deliver excellent customer experience, while meeting our expense reduction ambition. We have a proven track record in achieving our expense reduction targets whilst at the same time improving the client satisfaction.

For actively marketed products NN Leven aims at offering 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 an upcoming pension reform and a society where the influence of the individual is growing, we are building a company that truly matters to our stakeholders.

We see that the Group Pension new business shows continuation of the shift to insured DC and Premium Pension Institutions (PPIs), a DC only accumulation vehicle. One of the goals of NN Leven is to be the best DC provider. We cover the Dutch pension market from SMEs to corporates. We are in the process of creating one insured DC proposition provided by NN Leven, which combines elements from the former Delta Lloyd Leven and NN Leven DC products. The other proposition is provided by BeFrank PPI. BeFrank is the leading PPI in the Netherlands. In spite of the ongoing shift towards DC pension plans, we see that DB remains important for some of our customers. NN Leven continues to serve these customers with our DB proposition. DC adds to our guaranteed pension books as mature DC assets are converted to guaranteed direct pension annuities.

Our in-force strategy is to reduce expenses in line with the development of our portfolios and at the same time improving our customer service. Key actions are migrating policies from legacy to target systems, outsourcing IT and operations, and digitalising processes.

Report of the Management Board continued

NN Leven targets all segments and is market leader in both PPI and Group Pensions DB and DC markets. This strong base gives us the opportunity to attract new business in the shifting pension market. At the same time, we are innovating by teaming up with our clients and business partners as we explore the potential of data-driven, actionable insights around pension plans. Based on our large in-force client base we are able to develop highly relevant (benchmark) insights for our customers.

We focus on improving people's financial well-being and manage the assets entrusted to us by our customers, as well as our own assets, in a responsible way. We optimise our asset portfolio to improve risk return and capital generation.

In 2019, we have set a next big step in our Strategic Leadership Agenda (SLA). This refinement of the strategy helped to get a common understanding of our preferred future and the way to get there. In the SLA employees are being considered as one of the most important pillars of success in achieving our goals.

Delivering on strategy

In 2019 we continued our integration efforts. At the end of 2019 most Delta Lloyd Leven administration systems were connected to NN common systems (collection and disbursement, document management, technical platforms and customer data). One single intelligent call center solution is in place so our customers can contact us at one central phone number. For 2020 the focus will be on the further technical integration of both DL and NN IT infrastructures. Also, more contracts and policies will be migrated to target platforms. Operational activities will be more integrated and we will decommission DL IT systems.

NN Leven launched the Human Capital Planner in October 2019. This contributes to delivering relevant products and services to our customers. The Human Capital Planner aims to provide insight into (anonymous) behavioral data of pension participants regarding their pension related choices. Our goal is to launch more new service concepts aimed at employee well-being and activation.

BeFrank PPI was awarded the 2019 'Pensioenwijzer'. The 'Pensioenwijzer' award is granted by 'wijzer in geldzaken' to the provider that helps individuals best to make choices with regards to their retirement. BeFrank won because of its activation campaign that uses a personalised video to connect to the participant.

In our continuous exploration for new potential business we were pleased to announce in July the buyout of the Pension Fund Chemours, by taking over the accumulated pension rights of the former Chemours employees (pension fund carve-out). With a value of EUR 820 million this was the largest buyout for a pension insurer in 2019. It is also an important example that we offer products and services relevant for pension funds and its participants.

The advisor satisfaction has increased with +0.3 to 7.5. Trust in NN management among advisors continues to be high, however NN is behind some competitors in digital service and quality of administration areas. The employer and participant satisfaction levels are stable at 7.0 and 6.9 respectively.

Pension services executed our customer contact strategy according to plan. In 2019 we focused on going digital, with several initiatives. Pension services introduced online service portals for "moments-of-truth-processes", such as divorce. We also strongly increased the number of customers with a MijnNN account. Currently, end Q4 2019, 413,000 (26.7%) customers have an online account. All customers received a pension statement through their online account. This resulted in a substantial improvement in efficiency and customer satisfaction.

Investing in efficiency gains is an ongoing process. We have deployed robotics, improved the standardization and STP (straight through processing) on processes that cause most manual workloads. The results are an improved quality and a higher customer satisfaction at a lower cost.

In 2019, the strategy to create a sustainable long-term solution for all administration systems was further executed, with a successful achievement of the migration calendar. In December 2019 the first migration within pension services was successfully executed according to plan. Also, within individual life services we migrated nearly two million policies to our target platforms and we further leveraged on our outsourcing agreement with Infosys in 2019, enabling us to further reduce and variabilise our cost base.

On 8 January 2019 NN Leven acquired all outstanding shares in Aegon Czech. Aegon Czech focuses solely on individual life insurance business in the Czech Republic. It is integrated in the existing operational activities of the Czech branch of NN Leven. All insurance operations of the Czech branch are reinsured to NN Re Netherlands N.V. (NN Re). With approval of the relevant supervisory authorities on 1 October 2019 Aegon Czech was merged with NN Leven, where NN Leven is the acquiring entity and Aegon Czech ceased to exist as legal entity.

Transformation and innovation

NN Leven strives to become an organisation that continuously learns and optimises its operating model in order to best serve our customers and stakeholders. Our Agile Transition Programme has been embedded into our organisation as one of the key elements of the SLA. The key results of the programme are focused on creating a leaner, better and faster organisation with increased customer focus and employee satisfaction. This initiative includes all business lines and functions of NN Leven and is responsible for an agile mindset and the introduction of a uniform agile way of working. This transition is a multi-year programme. In 2019 we improved governance, portfolio management by linking operational activities to our strategic agenda and formalised the key agile roles of product owners and scrum master.

The previously mentioned launch of the Human Capital Planner is a good example of innovation and transformation towards an organisation that provides good value propositions to the customer in the area of 'workforce management'. This also implies co-operation with NN Non-life and NN Zorg. We are investing in robotisation, standardisation and extensive automation (straight through processing (STP)) of our operations. This is important to stay financially healthy with large open and closed books with long run-off periods.

Report of the Management Board continued

As part of NN Group we aim to innovate our business and industry. A key focus is to increase our connectivity. We increased the number of administrations linked to the 'basisregistratie personen' (BRP) so our clients no longer need to provide NN with change requests that we can automatically derive. In parallel we also improved our digital infrastructure so that more of our clients have the opportunity to link their salary administration package to our pension administration further decreasing the need for manual delivery of changes.

In 2019 we focused on going digital, with several initiatives related to MijnNN. We will continue to digitalise and customise the participant portal.

Within Individual Life a number of pilots were conducted to learn and experiment with innovative solutions. For instance, we have successfully tested the use of a robot to call customers with late payments. We are enabling digital payment solutions via portals and email to our customers.

Our employees

Our employees help customers to secure their financial future. To fulfil this purpose, we base our work on three core values: care, clear, commit. These values express what we hold dear, what we believe in and what we aim for. They guide, unite and inspire us. And they are brought to life through our day-to-day work.

Our values, 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 single NN employee is responsible and accountable for living up to them. More information is available in the 'Who we are' section of www.nn-group.com.

NN Leven wants to help people secure their financial futures based on excellent service and long-term relationships. We offer our customers value for money. We create transparent, easy to understand products and we empower our customers with the knowledge and tools they need to make sound financial decisions.

NN Leven delivers continuous improvement. We learn from complaints. Customer journeys are used to adjust processes in line with customers' feedback and expectations.

At NN Leven, people truly matter. We genuinely believe we can better serve our customers and achieve our business goals if our people are encouraged to put their different talents, personalities and expertise to work. We know that we can only be the insurance company we want to be if our people are skilled, motivated and energised by their work. Their personal success is our common success. This requires a culture that welcomes and respects all people, and focuses on empowerment, accountability, learning agility and cooperation.

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 order to increase the employability of our employees various initiatives have been introduced and implemented. The installation of a resource board and the implementation of our IT retraining programme MakeltWork are examples of these initiatives. Our Talent Management and Strategic Workforce planning help us in attracting and retaining talents. In order to stay fit for the future we introduced a new Leadership profile in 2019. This profile focusses on the role leaders have in our quick changing environment.

We see a positive trend in our employee engagement. In 2019 our employee engagement increased from a 6.5 (November 2018) score to a 6.8 (November 2019).

At NN Leven the number of employees decreased from 3,116 in 2018 to 2,833 in 2019. Of these employees 60% are male and 40% female.

Our role in society

At NN Leven we aim to be a positive force in the lives of our customers. We believe this also includes taking responsibility for the well-being of society at large and supporting the communities in which we operate.

NN Leven contributes to society by purchasing goods and services from suppliers in the communities where we operate, as well as by managing our direct environmental footprint. Our values guide us in fulfilling our role as a good corporate citizen. NN Leven strives – in its daily actions and decision-making – to strike a balance between financial interest and the impact on our society and the environment. We take our role in society seriously. Activities range from financial education to health and well-being initiatives. They 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.

The 'Rapportage van het Intern Toezicht 2019' concerning the Pension Fund Governance on the so called 'rechtstreeks verzekerde regelingen' was approved in the Supervisory Board meeting on 26 March 2020. 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.

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 broader 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.

Report of the Management Board continued

A few initiatives of NN Leven in 2019:

- Collaboration with the Ministry of Social Affairs & Employment campaign "look further": equal opportunities
- Head sponsor "Rotterdamse Zakenvrouw 2019"
- Head sponsor Partner Women in Tech 2019
- Partner Start-up Event 2019
- Sponsor Pride 2019 and workshop & discussions CONFAB
- Catalyst Roundtable - Engaging Men as Inclusion Advocates
- Interview for action plan "Living together and Integration"
- Participation career coach JINC

In the field of responsible investing, NN Leven wants to invest its customers' assets in a responsible manner. This involves for example active asset management, with environmental and social aspects, good governance integrated in our investment processes, and offering socially responsible investment funds and custom solutions for responsible investments.

Risk management

For information regarding risk management reference is made to Note 44 'Risk management'.

Capital and liquidity management

For information on liquidity and financing, reference is made to Note 45 '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 we can. NN Leven reached out to all individual customers who purchased unit linked products in the past ('activeren').

The formal process for reaching out to customers initiated by the AFM for the sector was completed by NN Leven on 31 December 2017. In 2019 the AFM confirmed that NN Leven has fulfilled their obligations towards customers pertaining to customer reach out.

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 2019, the portfolio of NN Leven comprised approximately 340,000 active policies (which include approximately 130,000 policies issued by Delta Lloyd Leven (now NN Leven)). In a limited number of cases (less than 950 (including approximately 250 settlements in connection with policies issued by Delta Lloyd Leven)), 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 37 '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.

Conclusions 2019 and going forward

In 2019, NN Leven managed to reduce expenses whilst improving the customer experience. Commercially we were able to maintain our leading position in the Dutch market. We have continued our efforts to improve efficiency on current processes and have further strengthened our customer focus.

Since the beginning of 2020, the coronavirus (COVID-19) has been unfortunately affecting people and businesses around the world. Like other companies, NN Leven is exposed to the challenges resulting from the spread of the coronavirus. Looking ahead, the macroeconomic environment remains very uncertain. We are observing disruption in the global financial markets as both stock markets and interest rates have declined significantly. At the time of writing this report, the full impact of the coronavirus outbreak is not yet clear. We are taking the necessary measures aimed at safeguarding the interests and the wellbeing of all our stakeholders.

Corporate governance

Board composition

NN Leven aims to have an adequate and balanced composition of the Management Board and Supervisory Board (Boards). Annually, the Supervisory Board assesses the composition of the Boards. NN Leven aims to have a gender balance by having at least 30% men and at least 30% women amongst the members of the Management Board and the Supervisory Board. In 2019, the composition of the Supervisory Board met the above-mentioned gender balance. Following the appointment of Mr. J.W. Schoen as member of the Supervisory Board on 21 January 2020, the above-mentioned gender balance continued to be met. As NN Leven needs to balance several relevant selection criteria when composing the Boards and no vacancies occurred in 2019, the composition of the Management Board did not meet the above-mentioned gender balance in 2019. NN Leven will continue to strive for an adequate and balanced composition of the Boards in future appointments, by taking into account all relevant selection criteria including but not limited to gender balance, executive experience, experience in corporate governance and experience in the political and social environment.

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. NN Group has its own Audit Committee that satisfies all the statutory requirements concerning its composition, organisation and tasks. The Supervisory Board assumes the responsibility of the Audit Committee.

More information about the Audit Committee of NN Group can be found at www.nn-group.com and in the NN Group 2019 Financial Report.

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 financial statements.

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 financial statements 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 financial statements 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 financial statements

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

External auditor

On 29 May 2019, the general meeting of NN Group reappointed KPMG Accountants N.V. 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 Accountants N.V. as external auditor of NN Leven for the financial years 2020 through 2022.

The external auditor attended the meeting of the Supervisory Board on 26 March 2019.

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

Code of Conduct for Insurers

All members of the Dutch Association of Insurers are obliged to comply with the Code of Conduct for Insurers. In June 2011, NN Leven signed up to the revised Code of Conduct for Insurers. The Code of Conduct is elaborated by the integration of the Governance Principles on 9 December 2015. The Code of Conduct for Insurers 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).

Rotterdam, 26 March 2020

The Management Board

Nationale-Nederlanden Levensverzekering Maatschappij N.V.

Consolidated balance sheet

Amounts in thousands of euros, unless stated otherwise

Consolidated balance sheet¹

As at 31 December	notes	2019	2018
Assets			
Cash and cash equivalents	2	178,295	1,182,204
Financial assets at fair value through profit or loss:	3		
– investments for risk of policyholders		23,347,321	19,937,370
– non-trading derivatives		9,693,226	4,621,939
– designated as at fair value through profit or loss		351,612	251,805
Available-for-sale investments	4	70,341,063	65,034,691
Loans	5	34,529,886	33,272,571
Reinsurance contracts	15	1,522,415	1,533,562
Associates and joint ventures	6	5,407,058	4,833,432
Real estate investments	7	2,570,931	2,355,445
Property and equipment	8	85,068	838
Intangible assets	9	67,164	3,275
Deferred acquisition costs	10	239,870	228,408
Deferred tax assets	27	0	1,390,618
Other assets	11	5,260,051	4,061,626
Total assets		153,593,960	138,707,784
Equity			
Shareholder's equity (parent)		23,925,039	16,702,106
Minority interests		926,849	840,694
Undated subordinated loan		800,000	800,000
Total equity	12	25,651,888	18,342,800
Liabilities			
Subordinated debt	13	1,177,210	1,204,700
Other borrowed funds	14	218,316	714,849
Insurance and investment contracts	15	113,371,306	108,812,694
Financial liabilities at fair value through profit or loss:	16		
– non-trading derivatives		2,612,037	1,680,894
Deferred tax liabilities	27	3,113,652	2,689,457
Other liabilities	17	7,449,551	5,262,390
Total liabilities		127,942,072	120,364,984
Total equity and liabilities		153,593,960	138,707,784

References relate to the notes starting on page 15. These form an integral part of the Consolidated annual accounts.

¹ The comparative figures are adjusted in relation to the legal merger of NN Leven and Delta Lloyd Leven as per 1 January 2019. For more information regarding the legal merger reference is made to Note 42 'Acquisitions and legal mergers'.

Consolidated profit and loss account

Consolidated profit and loss account

For the year ended 31 December	notes	2019	2018
Gross premium income	18	4,361,891	3,528,597
Investment income	19	2,954,684	3,773,153
– gross fee and commission income		57,666	72,526
– fee and commission expenses		-130,861	-142,143
Net fee and commission income	21	-73,195	-69,617
Valuation results on non-trading derivatives	22	377,819	173,859
Foreign currency results		24,857	1,200
Share of result from associates and joint ventures	6	601,240	487,688
Other income	20	30,244	74,349
Total income		8,277,540	7,969,229
– gross underwriting expenditure		9,550,726	4,586,116
– investment result for risk of policyholders		-3,588,723	604,429
– reinsurance recoveries		-197,386	-171,217
Underwriting expenditure	23	5,764,617	5,019,328
Intangible amortisation and other impairments		18	0
Staff expenses	24	250,995	262,988
Interest expenses	25	156,228	81,005
Other operating expenses	26	229,790	253,245
Total expenses		6,401,648	5,616,566
Result before tax		1,875,892	2,352,663
Taxation	27	330,058	452,200
Net result		1,545,834	1,900,463
Net result attributable to:			
Shareholder of the parent		1,483,315	1,833,819
Minority interests		62,519	66,644
Net result		1,545,834	1,900,463

Consolidated statement of comprehensive income

Consolidated statement of comprehensive income

For the year ended 31 December

	2019	2018
Net result	1,545,834	1,900,463
Items that may be reclassified subsequently to the profit and loss account:		
– unrealised revaluations property in own use	2,968	5,872
– unrealised revaluations available-for-sale investments and other	3,539,745	169,104
– realised gains/losses transferred to the profit and loss account	-250,425	-834,097
– changes in cash flow hedge reserve	4,103,615	770,966
– deferred interest credited to policyholders	-836,302	-143,318
– exchange rate differences	4,921	-442
Total other comprehensive income	6,564,522	-31,915
Total comprehensive income	8,110,356	1,868,548
Comprehensive income attributable to:		
Shareholder of the parent	8,024,201	1,554,442
Minority interests	86,155	314,106
Total comprehensive income	8,110,356	1,868,548

Reference is made to Note 27 '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	2019	2018
Result before tax		1,875,892	2,352,663
Adjusted for:			
- depreciation		6,622	4,007
- deferred acquisition costs and value of business acquired		-77,138	8,018
- underwriting expenditure (change in insurance liabilities)		-187,846	-944,935
- realised results and impairments of available-for-sale investments		-266,829	-1,004,990
- other		-155,815	-343,532
Taxation paid		-301,351	-48,270
Changes in:			
- non-trading derivatives		744,642	133,876
- other financial assets at fair value through profit or loss		-127,793	-9,096
- other assets		-992,871	520,880
- other liabilities		2,107,361	-39,720
Net cash flow from operating activities		2,624,874	628,901
Investments and advances:			
- associates and joint ventures	6	-515,809	-1,357,566
- available-for-sale investments	4	-5,049,518	-4,546,514
- real estate investments	7	-120,046	-205,968
- equipment	8	-52	-18
- investments for risk of policyholders		-3,441,118	-3,406,241
- loans		-4,757,213	-6,134,513
Disposals and redemptions:			
- associates and joint ventures	6	490,875	261,632
- available-for-sale investments	4	4,762,255	6,243,492
- real estate investments	7	1,173	1,570,933
- equipment	8	133	2,250
- investments for risk of policyholders		3,713,253	3,732,057
- loans		2,570,580	3,198,370
- other investments	9	177	0
Net cash flow from investing activities		-2,345,310	-642,086
Proceeds from other borrowed funds	14	18,653	1,067,048
Repayments of other borrowed funds	14	-515,186	-562,138
Dividend paid	12	-740,000	-700,000
Coupon on undated subordinated loan		-46,940	-46,940
Net cash flow from financing activities		-1,283,473	-242,030
Net cash flow		-1,003,909	-255,215
Cash and cash equivalents at beginning of the period	2	1,182,204	1,437,419
Net cash flow		-1,003,909	-255,215
Cash and cash equivalents at end of the period		178,295	1,182,204

Included in Net cash flow from operating activities:

For the year ended 31 December		2019	2018
Interest received		2,772,707	2,669,646
Interest paid		-168,530	-103,600
Dividend received		458,963	649,637

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 2019	22,689	3,228,030	13,451,387	16,702,106	840,694	800,000	18,342,800
Unrealised revaluations property in own use	0	0	2,968	2,968	0	0	2,968
Unrealised revaluations available-for-sale investments and other	0	0	3,516,109	3,516,109	23,636	0	3,539,745
Realised gains/losses transferred to the profit and loss account	0	0	-250,425	-250,425	0	0	-250,425
Changes in cash flow hedge reserve	0	0	4,103,615	4,103,615	0	0	4,103,615
Deferred interest credited to policyholders	0	0	-836,302	-836,302	0	0	-836,302
Exchange rate differences	0	0	4,921	4,921	0	0	4,921
Total amount recognised directly in equity (Other comprehensive income)	0	0	6,540,886	6,540,886	23,636	0	6,564,522
Net result	0	0	1,483,315	1,483,315	62,519	0	1,545,834
Total comprehensive income	0	0	8,024,201	8,024,201	86,155	0	8,110,356
Changes in the composition of the group and other changes	0	0	-26,063	-26,063	0	0	-26,063
Dividend	0	0	-740,000	-740,000	0	0	-740,000
Coupon on undated subordinated loan	0	0	-35,205	-35,205	0	0	-35,205
Balance at 31 December 2019	22,689	3,228,030	20,674,320	23,925,039	926,849	800,000	25,651,888

	Share capital	Share premium	Reserves	Total Shareholder's equity (parent)	Minority interest	Undated subordinated loan	Total equity
Balance at 1 January 2018	22,689	3,228,030	12,623,547	15,874,266	526,588	800,000	17,200,854
Unrealised revaluations property in own use	0	0	5,872	5,872	0	0	5,872
Unrealised revaluations available-for-sale investments and other	0	0	-78,358	-78,358	247,462	0	169,104
Realised gains/losses transferred to the profit and loss account	0	0	-834,097	-834,097	0	0	-834,097
Changes in cash flow hedge reserve	0	0	770,966	770,966	0	0	770,966
Deferred interest credited to policyholders	0	0	-143,318	-143,318	0	0	-143,318
Exchange rate differences	0	0	-442	-442	0	0	-442
Total amount recognised directly in equity (Other comprehensive income)	0	0	-279,377	-279,377	247,462	0	-31,915
Net result	0	0	1,833,819	1,833,819	66,644	0	1,900,463
Total comprehensive income	0	0	1,554,442	1,554,442	314,106	0	1,868,548
Changes in the composition of the group and other changes	0	0	8,603	8,603	0	0	8,603
Dividend	0	0	-700,000	-700,000	0	0	-700,000
Coupon on undated subordinated loan	0	0	-35,205	-35,205	0	0	-35,205
Balance at 31 December 2018	22,689	3,228,030	13,451,387	16,702,106	840,694	800,000	18,342,800

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'.

1 Accounting policies

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 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'.

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.

Changes in IFRS-EU effective in 2019

IFRS 16 'Leases'

IFRS 16 'Leases' is effective for NN Leven as of 1 January 2019. IFRS 16 contains a new accounting model for lessees. Under IFRS 16, the net present value of operating lease commitments is recognised on the consolidated 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. Until 2018, the operating lease commitments were disclosed as an off-balance commitment, but not recognised in the balance sheet.

The implementation of IFRS 16 as at 1 January 2019 did not impact shareholders' equity and net result of NN Leven. A right of use asset and a lease liability were recognised in the balance sheet. At 31 December 2019 a right of use asset of EUR 44 million is presented under Property and equipment (1 January 2019: EUR 47 million) and EUR 38 million under Real estate investments (1 January 2019: EUR 38 million). A lease liability of EUR 82 million is presented under Other liabilities (1 January 2019: EUR 85 million). IFRS 16 is not expected to have a significant impact on shareholders' equity and net result of NN Leven going forward. For existing lease contracts at 1 January 2019, NN Leven applied the modified retrospective approach for implementing IFRS 16 and, therefore, the comparative figures have not been amended.

Upon implementation of IFRS 16, lease liabilities were measured at the present value of the remaining lease payments, discounted at the incremental borrowing rate (as at 1 January 2019: 2.8% for all lease contracts). The right of use asset was recognised at an amount equal to the lease liability. There were no significant differences between the operating lease commitments disclosed in the 2018 NN Leven Consolidated annual accounts and the amounts used to determine the lease liabilities under IFRS 16. NN Leven elected not to 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.

Upcoming changes in IFRS-EU

IFRS 9 'Financial Instruments'

IFRS 9 'Financial Instruments' was issued by the IASB in July 2014. IFRS 9 replaces most of the current 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.

Classification and measurement

The classification and measurement of financial assets under IFRS 9 will depend on NN Leven's business model and the instrument's contractual cash flow characteristics. These may result in financial assets being recognised at amortised cost, at fair value through other comprehensive income (equity) or at fair value through profit or loss.

Notes to the Consolidated annual accounts continued

In many instances, the classification and measurement under IFRS 9 will be similar to IAS 39, although changes in classification will occur. The classification of financial liabilities remains unchanged.

Impairment

The recognition and measurement of impairments under IFRS 9 is intended to be more forward-looking than under IAS 39. The new impairment requirements will apply to all financial assets measured at amortised cost and at fair value through other comprehensive income (equity). 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.

Hedge accounting

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.

IFRS 9 is effective as of 2018. However, in September 2016 the IASB issued an amendment to IFRS 4 'Insurance Contracts' (the 'Amendment'). This Amendment addresses the issue arising from the different effective dates of IFRS 9 and the new standard on accounting for insurance contracts (IFRS 17). The Amendment allows applying a temporary exemption from implementing IFRS 9, so that it can be implemented together with IFRS 17. This exemption is only available to entities whose activities are predominantly connected with insurance.

NN Leven's activities are predominantly connected with insurance as defined in this Amendment as more than 90% of liabilities are connected with insurance activities. Liabilities connected with insurance activities of NN Leven include insurance liabilities within the scope of IFRS 4, certain investment contract liabilities and other liabilities relating to insurance entities and activities. NN Leven qualified for the temporary exemption at the reference date (31 December 2015) and continues to qualify for the temporary exemption.

NN Leven applies the temporary exemption and, therefore, NN Leven expects to implement IFRS 9 together with IFRS 17.

The Amendment 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 28 'Fair value of financial assets and liabilities' and in Note 44 'Risk management'. These disclosures reflect the current business models and the current accounting choices and interpretations. These may therefore change when IFRS 9 and IFRS 17 are implemented.

IFRS 17 'Insurance Contracts'

IFRS 17 'Insurance Contracts' was issued in May 2017. IFRS 17 covers the recognition and measurement, presentation and disclosure of insurance contracts and replaces the current IFRS 4. IFRS 17 will fundamentally change the accounting for insurance liabilities and DAC for all insurance companies, including NN Leven and its subsidiaries. The published but not EU-endorsed IFRS 17 includes 1 January 2021 as the effective date.

NN Leven's current accounting policies for insurance liabilities and DAC under IFRS 4 are largely based on the pre-IFRS accounting policies in the relevant local jurisdictions. IFRS 17 provides a comprehensive model (the general model) for insurance contracts, supplemented by the variable fee approach for contracts with direct participation features that are substantially investment-related service contracts and the premium allocation approach mainly for short-duration contracts (typically certain non-life insurance contracts).

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 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) recognised in the balance sheet that is equal to the unearned profit in the insurance contract at issue and is subsequently recognised as result in the profit and loss account over the remaining life of the portfolio
- Certain changes in the insurance liability are adjusted against the CSM and thereby recognised in the profit and loss account over the remaining life of the portfolio
- The effect of changes in discount rates is recognised either in the profit and loss account or in equity (OCI)
- The presentation of the profit and loss account and the disclosures in the Notes will change fundamentally

IFRS 17 must be implemented retrospectively with amendment of comparative figures. However, several simplifications may be used on transition.

Notes to the Consolidated annual accounts continued

NN Leven will implement IFRS 17 together with IFRS 9 (see above). NN Leven initiated an implementation project and has been performing high-level impact assessments. In June 2019 the IASB issued the Exposure Draft 'Amendments to IFRS 17' in which it proposed various changes to the current published IFRS 17. In March 2020, the IASB announced their decision to set the effective date of IFRS 17 and IFRS 9 for insurance companies at 1 January 2023. NN Leven expects that the implementation of IFRS 9 and IFRS 17 will result in significant changes to its accounting policies and will have a significant impact on shareholder's equity, net result, presentation and disclosure.

Interest rate benchmark reform

In September 2019 the IASB issued an amendment to IAS 39 and IFRS 7 in relation to the interest rate benchmark reform. These amendments eliminates the impact, if any, of the interest rate benchmark reform on derivatives qualifying for hedge accounting under IFRS. The amendments are effective as of 2020. Almost all hedge accounting applied by NN Leven relates to interest rate risk based on Euribor. The calculation method of Euribor changed during 2019 and Euribor will continue to be used after the benchmark reform. As a result, NN Leven expects that Euribor will continue to exist as a benchmark and does not anticipate replacing Euribor in its interest rate risk management and related hedge accounting. Therefore, the implementation of the amendments are not expected to have an impact on NN Leven.

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.

Critical accounting policies

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 a further discussion of the application of these accounting policies, reference is made to the applicable notes to the Consolidated annual accounts and the information 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'.

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 either at the segment level or at a level below. 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.

Notes to the Consolidated annual accounts continued

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 related to these items 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 insurance liabilities, net of DAC (the net insurance liabilities), is evaluated each reporting period. The test involves comparing the established insurance liabilities 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 independent, 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 28 '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 independent 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.

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 28 '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.

Notes to the Consolidated annual accounts continued

'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 38 '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.

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.

Notes to the Consolidated annual accounts continued

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 28 '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.

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.

Notes to the Consolidated annual accounts continued

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 36 '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 44 '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 is 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 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 the NN CDC Pensioenfond on a contractual 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.

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.

Notes to the Consolidated annual accounts continued

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. All interest income and expenses from non-trading derivatives are classified as interest income and interest expenses in the profit and loss account. Changes in the 'clean fair value' are included in 'Valuation results on non-trading 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.

Accounting policies for specific items

Financial assets and liabilities at fair value through profit or loss (Notes 3 and 16)

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. 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.

Notes to the Consolidated annual accounts continued

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 4)

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 investment income in the profit and loss account 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 5)

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 6)

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.

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.

Notes to the Consolidated annual accounts continued

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 7)

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 either by an independent valuer or internally. 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 8)

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'.

Intangible assets (Note 9)

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'.

Notes to the Consolidated annual accounts continued

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 10)

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 13 and 14)

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 15)

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. 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.

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.

Notes to the Consolidated annual accounts continued

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 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, net of unamortised interest rate rebates and DAC (the net insurance liabilities), is evaluated at each reporting period. The test involves comparing the established net insurance liability 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. The best estimate assumption for mortality takes into account both data from the CBS mortality tables for the Dutch population and data from the insured portfolio of NN Leven. 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.

If the net insurance liabilities are determined to be more than adequate no reduction in the net 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 17)

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 18)

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.

Notes to the Consolidated annual accounts continued

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 Cash and cash equivalents

Cash and cash equivalents

	2019	2018
Cash and bank balances	171,645	349,282
Short term deposits	6,650	4,620
Money market funds	0	828,302
Cash and cash equivalents	178,295	1,182,204

Deposits included under cash and cash equivalents only represent deposits that are available on demand.

NN Leven invests in several types of money market funds, some qualifying as cash equivalents and some as investments. Short-term investments in money market funds are presented as cash equivalents only if these are highly liquid and quoted in an active market and have low investment risk.

3 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

	2019	2018
Investments for risk of policyholders	23,347,321	19,937,370
Non-trading derivatives	9,693,226	4,621,939
Designated as at fair value through profit or loss	351,612	251,805
Financial assets at fair value through profit or loss	33,392,159	24,811,114

Investments for risk of policyholders

	2019	2018
Equity securities	22,404,454	18,999,451
Debt securities	101,276	97,800
Loans and receivables	841,591	840,119
Investments for risk of policyholders	23,347,321	19,937,370

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

Non-trading derivatives

	2019	2018
Derivatives used in:		
- hedges of net investments in foreign operations	1,193	559
- fair value hedges	37,719	0
- cash flow hedges	7,072,696	3,157,949
Other non-trading derivatives	2,581,618	1,463,431
Non-trading derivatives	9,693,226	4,621,939

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

Designated as at fair value through profit or loss

	2019	2018
Equity securities	322,633	248,516
Debt securities	27,438	0
Other	1,541	3,289
Designated as at fair value through profit or loss	351,612	251,805

4 Available-for-sale investments

Available-for-sale investments

	2019	2018
Equity securities	6,357,495	5,179,030
Debt securities	63,983,568	59,855,661
Available-for-sale investments	70,341,063	65,034,691

Notes to the Consolidated annual accounts continued

Changes in available-for-sale investments

	Equity securities		Debt securities		Total	
	2019	2018	2019	2018	2019	2018
Available-for-sale investments - opening balance	5,179,030	6,271,555	59,855,661	60,981,102	65,034,691	67,252,657
Additions	1,052,461	569,142	3,997,057	3,977,372	5,049,518	4,546,514
Amortisation	0	0	-245,453	-266,066	-245,453	-266,066
Transfers and reclassifications	-15,000	-193,109	0	21,351	-15,000	-171,758
Changes in unrealised revaluations	765,158	-170,206	4,372,837	122,493	5,137,995	-47,713
Impairments	-60,436	-50,381	0	0	-60,436	-50,381
Disposals and redemptions	-710,539	-1,249,178	-4,051,716	-4,994,314	-4,762,255	-6,243,492
Exchange rate differences	-984	1,204	31,055	13,723	30,071	14,927
Changes in the composition of the group and other changes	147,805	3	24,127	0	171,932	3
Available-for-sale investments - closing balance	6,357,495	5,179,030	63,983,568	59,855,661	70,341,063	65,034,691

Transfers and reclassifications in 2019 and 2018 are a result of transfers of investments in real estate funds from available-for-sale investments to associates and joint ventures.

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

Total exposure to debt securities

	2019	2018
Available-for-sale investments	63,983,568	59,855,661
Loans	1,225,876	1,447,721
Available-for-sale investments and Loans	65,209,444	61,303,382
Investments for risk of policyholders	101,276	97,800
Designated as at fair value through profit or loss	27,438	0
Financial assets at fair value through profit or loss	128,714	97,800
Total exposure to debt securities	65,338,158	61,401,182

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	
	2019	2018	2019	2018	2019	2018
Government bonds	48,296,191	44,156,893	0	0	48,296,192	44,156,893
Corporate bonds	9,651,504	9,912,297	0	0	9,651,504	9,912,297
Financial institution bonds	5,045,158	5,707,132	0	0	5,045,158	5,707,132
ABS portfolio	990,715	79,339	1,225,876	1,447,721	2,216,593	1,527,060
Debt securities - Available-for-sale investments and Loans	63,983,568	59,855,661	1,225,876	1,447,721	65,209,447	61,303,382

Available-for-sale equity securities

	2019	2018
Listed	4,195,435	3,259,744
Unlisted	2,162,060	1,919,286
Available-for-sale equity securities	6,357,495	5,179,030

5 Loans

Loans

	2019	2018
Loans secured by mortgages	23,828,559	23,068,769
Unsecured loans	7,725,163	6,917,904
Asset backed securities	1,225,876	1,447,721
Loans related to savings mortgages	1,810,222	1,940,312
Policy loans	8,918	10,237
Other	136	141
Loans - before loan loss provisions	34,598,874	33,385,084
Loan loss provisions	-68,988	-112,513
Loans	34,529,886	33,272,571

Notes to the Consolidated annual accounts continued

Changes in Loans secured by mortgages

	2019	2018
Loans secured by mortgages – opening balance	23,068,769	21,247,060
Additions/ origination	2,851,688	3,715,366
Redemption	-1,242,076	-1,784,728
Amortisation	-150,945	-163,323
Transfers to/from assets/liabilities	-240	36,370
Disposals	-1,112	0
Impairments and write-offs	-2,380	-2,129
Changes in the composition of the group and other changes	-695,145	20,153
Loans secured by mortgages – closing balance	23,828,559	23,068,769

Changes in Loan loss provisions

	2019	2018
Loan loss provisions - opening balance	112,513	106,385
Write-offs	-51,830	-3,252
Recoveries	738	-1,973
Increase/decrease in loan loss provisions	7,567	-8,600
Changes in the composition of the group and other changes	0	19,953
Loan loss provisions - closing balance	68,988	112,513

NN Leven applies an interest rate pricing system for mortgage loans based on risk-based pricing with multiple risk premium categories, whereby the interest rate for a mortgage loan is set depending on the loan-to-valuation (LTV) ratio. In the past, mortgage loans were eligible to move into another risk premium category only on the interest reset date. In the second quarter of 2018 a change to this pricing system was announced, under which a mortgage loan can move into another (lower) risk premium category during the fixed interest rate term if the LTV has decreased due to an increase of the value of the house and/or repayment of the mortgage loan. The amended pricing system allows for the adjustment of the mortgage interest rate by moving to a lower risk premium category automatically following (partial) repayment of the loan principal, also taking into account (p)repayments that have already been made, and/or upon request following a proven revaluation of the relevant mortgaged asset. This amended pricing system represents a modification of the outstanding mortgage loans under IFRS. The related impact on the balance sheet value of outstanding mortgage loans of EUR 30 million was recognised as a charge in the profit and loss account in 2018.

6 Associates and joint ventures

Associates and joint ventures (2019)

	Interest held (%)	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
Vesteda Residential Fund FGR	24	1,466,754	7,332,518	1,312,873	954,700	102,900
CBRE Dutch Office Fund FGR	19	361,042	2,663,539	720,364	404,679	61,304
CBRE Retail Property Fund Iberica L.P.	50	265,394	615,874	84,022	77,613	32,978
CBRE Dutch Retail Fund FGR	20	217,511	1,600,671	529,188	59,566	39,720
CBRE UK Property Fund PAIF	10	182,156	1,890,120	0	26,689	0
CBRE Dutch Residential Fund FGR	10	200,224	2,024,491	55,720	255,263	28,588
CBRE Property Fund Central and Eastern Europe F.G.R.	50	62,057	169,729	45,615	36,496	8,444
Parcom Buy Out Fund IV B.V.	100	88,545	89,288	298	17,667	7,590
Parcom Investment Fund III B.V.	100	90,630	90,630	0	14,796	1,082
Allee center Kft	50	128,533	276,691	19,625	36,924	8,450
CBRE European Industrial Fund C.V.	19	151,014	1,145,304	370,078	169,017	32,680
Lazora S.I.I. S.A.	22	204,848	1,434,761	507,847	154,089	41,872
DPE Deutschland II B GmbH & Co KG	35	117,104	377,705	47,332	16,241	264
Fiumaranuova s.r.l.	50	100,811	238,453	36,427	17,347	8,865
Boccaccio - Closed-end Real Estate Mutual Investment Fund	50	92,574	249,190	64,042	17,346	4,248
Dutch Student and Young Professional Housing fund FGR	49	112,761	296,341	67,710	43,057	9,051
CBRE Dutch Retail Fund II FGR	10	74,441	759,493	15,083	18,083	10,636
Parcom Buy-Out Fund V CV	21	95,811	481,365	26,302	17,673	5,179
Achmea Dutch Health Care Property Fund	27	119,136	445,754	10,156	50,005	4,979
Robeco Bedrijfsleningen FGR	26	112,352	433,999	358	11,253	1,264
Delta Mainlog Holding GmbH & Co. KG	50	60,842	122,355	671	15,887	1,677
Siresa House S.L.	49	95,866	511,872	314,210	55,994	53,195
the Fizz Student Housing Fund SCS	50	82,871	226,530	59,114	17,851	5,887
Dutch Urban Living Venture FGR	42	71,177	220,904	49,888	16,972	1,061
Parquest Capital II B FPCL	29	53,435	190,169	4,807	891	7,357
DPE Deutschland III (Parallel) GmbH & Co	17	56,447	340,513	1,373	18,056	1,279
NRP Nordic Logistic Fund AS	42	190,144	453,921	2,004	57,551	9,753
Other		552,578				
Associates and joint ventures		5,407,058				

Notes to the Consolidated annual accounts continued

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 367 million of associates and joint ventures with an individual balance sheet value of less than EUR 50 million and EUR 186 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.

Associates and joint ventures (2018)

	Interest held (%)	Balance sheet value	Total assets	Total liabilities	Total income	Total expenses
Vesteda Residential Fund FGR	24	1,328,624	7,332,518	1,818,307	1,131,900	102,900
CBRE Dutch Office Fund FGR	28	456,272	1,883,339	248,541	333,203	48,641
CBRE Retail Property Fund Iberica L.P.	33	280,941	976,959	137,577	162,590	41,228
CBRE Dutch Retail Fund FGR	20	223,229	1,590,517	495,183	77,355	35,943
Parcom Investment Fund II B.V.	100	68,872	68,872	0	79,430	302
CBRE UK Property Fund PAIF	10	176,057	1,837,507	0	145,331	18,518
CBRE Dutch Residential Fund FGR	10	181,989	1,803,520	14,051	279,023	28,326
CBRE Property Fund Central and Eastern Europe F.G.R.	50	66,911	197,482	63,660	122,708	14,314
Parcom Buy Out Fund IV B.V.	100	49,551	49,695	144	65,254	1,298
Parcom Investment Fund III B.V.	100	76,338	79,685	3,347	-1,633	120
Allee center Kft	50	120,723	260,273	18,827	35,844	8,262
CBRE European Industrial Fund C.V.	19	137,930	1,057,573	349,513	126,130	28,802
Lazora S.I.I. S.A.	22	163,629	1,083,037	342,634	88,000	26,026
DPE Deutschland II B GmbH & Co KG	35	91,724	293,200	31,527	27,662	188
Fiumaranuova s.r.l.	50	101,791	238,841	34,851	21,152	8,586
Boccaccio - Closed-end Real Estate Mutual Investment Fund	50	88,878	242,300	64,544	11,923	4,487
Dutch Student and Young Professional Housing fund FGR	49	95,562	253,483	59,724	24,629	5,165
CBRE Dutch Retail Fund II FGR	10	76,088	774,293	13,413	29,487	12,915
Parcom Buy-Out Fund V CV	21	53,760	260,176	8,597	12,223	2,019
Achmea Dutch Health Care Property Fund	25	83,865	338,965	0	40,260	4,696
Robeco Bedrijfsleningen FGR	25	80,412	323,928	0	9,282	1,108
Delta Mainlog Holding GmbH & Co. KG	50	56,388	113,388	612	9,089	31
Siresa House S.L.	49	78,156	389,178	228,032	49,593	54,422
the Fizz Student Housing Fund SCS	50	78,269	223,710	65,591	7,394	6,392
Other		617,473				
Associates and joint ventures		4,833,432				

Changes in Associates and joint ventures

	2019	2018
Associates and joint ventures - opening balance	4,833,432	3,426,353
Additions	515,809	1,357,566
Disposals	-490,875	-261,632
Transfer to/from Available-for-sale investments	0	198,868
Share in change in equity (revaluations)	617	54,451
Share of results	601,240	487,688
Dividends received	-207,041	-426,194
Exchange rate differences	5,607	-2,122
Changes in the composition of the group and other changes	148,269	-1,546
Associated and joint ventures - closing balance	5,407,058	4,833,432

Transfers to/from available-for-sale investments mainly relate to the transfer of certain investments in real estate funds to associates and joint ventures due to an increase in level of influence.

Disposals mainly relate to the sale of investments in real estate funds.

Notes to the Consolidated annual accounts continued

7 Real estate investments

Changes in Real estate investments

	2019	2018
Real estate investments - opening balance	2,355,445	3,505,963
Additions	120,046	205,968
Disposals	-1,173	-1,570,933
Transfer to/from property in own use	0	15,230
Transfer to/from Other assets	2,595	2,324
Fair value gains/(losses)	52,233	197,147
Depreciation	-7	0
Changes in the composition of the group and other changes	41,792	-254
Real estate investments - closing balance	2,570,931	2,355,445

The total amount of rental income recognised in the profit and loss account for the year ended 31 December 2019 is EUR 146 million (2018: EUR 175 million). The Real estate investments include properties that are leased (ground lease). At 31 December 2019, the corresponding right of use assets amounts to EUR 38 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 2019 is EUR 46 million (2018: EUR 55 million).

Real estate investments by year of most recent appraisal

In percentages	2019	2018
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

	2019	2018
Real estate investments	2,570,931	2,355,445
Investments - available-for-sale	985,749	719,880
Associates and joint ventures	4,631,270	4,234,657
Property and equipment - property in own use	40,932	790
Other assets - Property obtained from foreclosures	0	760
Total Real estate exposure	8,228,882	7,311,532

Furthermore, the exposure is impacted by third-party interests, leverage in funds and off-balance commitments, resulting in an overall exposure to real estate of EUR 8.2 billion (2018: EUR 7.2 billion). Reference is made to Note 44 'Risk management'.

8 Property and Equipment

Property and Equipment

	2019	2018
Property in own use	40,932	790
Equipment	149	48
Property and equipment owned	41,081	838
Right of use assets	43,987	0
Property and equipment	85,068	838

Notes to the Consolidated annual accounts continued

Changes in Property in own use

	2019	2018
Property in own use – opening balance	790	10,316
Transfers to/from real estate investments	0	-15,230
Revaluations	710	8,054
Disposals	0	-2,250
Depreciation	0	-100
Changes in the composition of the group and other changes	39,432	0
Property in own use – closing balance	40,932	790
Gross carrying value	41,057	915
Accumulated depreciation, revaluations and impairments	-125	-125
Net carrying value	40,932	790
Revaluation surplus – opening balance	7,458	54
Revaluation in year	710	7,404
Released in year	3,737	0
Revaluation surplus – closing balance	11,905	7,458

Changes in Equipment

	Data processing equipment		Fixtures and fittings and other equipment		2019	Total 2018
	2019	2018	2019	2018		
Equipment – opening balance	21	6	27	15	48	21
Additions	0	6	52	12	52	18
Disposals	-17	0	-116	0	-133	0
Depreciation	-12	-7	-111	0	-123	-7
Changes in the composition of the group and other changes	85	16	218	0	303	16
Exchange rate differences	1	0	1	0	2	0
Equipment – closing balance	78	21	71	27	149	48
Gross carrying value	262	172	182	27	444	199
Accumulated depreciation	-184	-151	-111	0	-295	-151
Net carrying value	78	21	71	27	149	48

Changes in Right of use assets - Property

	2019	2018
Right of use assets – opening balance	0	0
Depreciation	-4,070	0
Changes in the composition of the group and other changes	48,057	0
Right of use assets – Closing balance	43,987	0
Gross carrying value	48,057	0
Accumulated depreciation	-4,070	0
Net carrying value	43,987	0

9 Intangible assets

Changes in Intangible assets (2019)

	Value of business acquired	Software	Other	Total
Intangible assets - opening balance	0	3,275	0	3,275
Amortisation	-14,318	-2,404	-18	-16,740
Exchange rate differences	859	0	0	859
Disposals	0	-177	0	-177
Changes in the composition of the group and other changes	80,103	-203	47	79,947
Intangible assets - closing balance	66,644	491	29	67,164
Gross carrying value	81,114	36,863	47	118,024
Accumulated amortisation	-14,470	-36,372	-18	-50,860
Net carrying value	66,644	491	29	67,164

The value of business acquired and other intangible assets relate to the acquisition in the Czech Republic in 2019. Reference is made to Note 42 'Acquisitions and legal mergers'.

Notes to the Consolidated annual accounts continued

Changes in Intangible assets (2018)

	Value of business acquired	Software	Other	Total
Intangible assets - opening balance	0	7,175	0	7,175
Amortisation	0	-3,900	0	-3,900
Intangible assets - closing balance	0	3,275	0	3,275
Gross carrying value	0	37,243	0	37,243
Accumulated amortisation	0	-33,968	0	-33,968
Net carrying value	0	3,275	0	3,275

10 Deferred acquisition costs

Changes in Deferred acquisition costs

	2019	2018
Deferred acquisition costs - opening balance	228,408	236,637
Capitalised	40,401	19,537
Amortisation	-32,057	-27,555
Disposals	2,500	0
Exchange rate differences	618	-211
Deferred acquisition costs - closing balance	239,870	228,408

The capitalised acquisition costs in 2019 and 2018 are mainly related to the Czech business.

11 Other assets

Other assets

	2019	2018
Insurance and reinsurance receivables	408,818	526,255
Property obtained from foreclosures	0	760
Income tax receivable	123,108	133,758
Accrued interest and rents	1,095,241	1,147,662
Other accrued assets	104,145	142,375
Cash collateral amounts paid	417,931	490,299
Other	3,110,808	1,620,517
Other assets	5,260,051	4,061,626

Other contains EUR 3,024 million (2018: EUR 1,411 million) of current accounts with NN Group companies.

Insurance and reinsurance receivables

	2019	2018
Receivables on account of direct insurance from:		
- policyholders	296,373	487,335
- intermediaries	2,824	-1,166
Reinsurance receivables	109,621	40,086
Insurance and reinsurance receivables	408,818	526,255

The allowance for uncollectable insurance and reinsurance receivables amounts to EUR 3,071 thousand as at 31 December 2019 (2018: EUR 5,172 thousand). The receivable is presented net of this allowance.

12 Equity

Total equity

	2019	2018
Share capital	22,689	22,689
Share premium	3,228,030	3,228,030
Revaluation reserve	13,476,219	6,940,254
Currency translation reserve	-49,249	-54,170
Other reserves	7,247,350	6,565,303
Shareholder's equity (parent)	23,925,039	16,702,106
Minority interests	926,849	840,694
Undated subordinated notes	800,000	800,000
Total equity	25,651,888	18,342,800

Notes to the Consolidated annual accounts continued

Share capital

	Shares (in number)		Ordinary shares	
	2019	2018	2019	2018
Authorised share capital	22,689,015	22,689,015	113,445	113,445
Unissued share capital	18,151,212	18,151,212	90,756	90,756
Issued share capital	4,537,803	4,537,803	22,689	22,689

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 as at 31 December 2019, 4,537,803 shares have been issued and fully paid up.

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.

The revaluation reserve, share of associates reserve (included in Other reserves) and currency translation reserve cannot be freely distributed. For information on the share of associates reserve reference is made to the Parent company annual accounts.

Share premium

	2019	2018
Share premium - opening balance	3,228,030	3,228,030
Share premium - closing balance	3,228,030	3,228,030

Changes in Revaluation reserve (2019)

	Property revaluation reserve	Available-for-sale reserve	Cash flow hedge reserve	Total
Revaluation reserve - opening balance	5,926	2,433,512	4,500,816	6,940,254
Unrealised revaluations	2,968	3,516,109	0	3,519,077
Realised gains/losses transferred to the profit and loss account	0	-250,425	0	-250,425
Changes in cash flow hedge reserve	0	0	4,103,615	4,103,615
Deferred interest debited/credited to policyholders	0	-836,302	0	-836,302
Revaluation reserve - closing balance	8,894	4,862,894	8,604,431	13,476,219

Changes in Revaluation reserve (2018)

	Property revaluation reserve	Available-for-sale reserve	Cash flow hedge reserve	Total
Revaluation reserve - opening balance	54	3,489,285	3,730,544	7,219,883
Unrealised revaluations	5,872	-78,358	0	-72,486
Realised gains/losses transferred to the profit and loss account	0	-834,097	0	-834,097
Changes in cash flow hedge reserve	0	0	770,966	770,966
Deferred interest debited/credited to policyholders	0	-143,318	0	-143,318
Changes in the composition of the group and other changes	0	0	-694	-694
Revaluation reserve - closing balance	5,926	2,433,512	4,500,816	6,940,254

Deferred interest credited to policyholders reflects the change in the deferred profit sharing liabilities (net of deferred tax). References are made to Note 15 'Insurance and investment contracts, reinsurance contracts'.

Changes in Currency translation reserve

	2019	2018
Currency translation reserves - opening balance	-54,170	-53,728
Changes in the composition of the group and other changes	0	0
Exchange rate differences for the period	4,921	-442
Currency translation reserves - closing balance	-49,249	-54,170

Notes to the Consolidated annual accounts continued

Changes in Other reserves (2019)

	Retained Earnings	Share of associates reserve	Total
Other reserves - opening balance	5,897,118	668,185	6,565,303
Net result for the period	1,483,315	0	1,483,315
Transfer to/from Share of associates reserve	-491,720	491,720	0
Dividend	-740,000	0	-740,000
Coupon on undated subordinated notes	-35,205	0	-35,205
Changes in the composition of the group and other changes	-26,063	0	-26,063
Other reserves - closing balance	6,087,445	1,159,905	7,247,350

Changes in Other reserves (2018)

	Retained Earnings	Share of associates reserve	Total
Other reserves - opening balance	4,823,089	634,303	5,457,392
Net result for the period	1,833,819	0	1,833,819
Transfer to/from Share of associates reserve	-33,882	33,882	0
Dividend	-700,000	0	-700,000
Coupon on undated subordinated notes	-35,205	0	-35,205
Changes in the composition of the group and other changes	9,297	0	9,297
Other reserves - closing balance	5,897,118	668,185	6,565,303

In accordance with the NN Group annual accounts only the non-distributable reserves are recognised in the Share of associate reserve. As a consequence the results from previous years are reclassified to other reserves for both 2019 and the comparative figures.

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 2019 net result of EUR 1,483 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 mergers during 2017 the loan is owned by NN Group.

In 2019, coupon payments on the undated subordinated notes of EUR 35 million after tax (2018: EUR 35 million after tax) have been distributed out of the Other reserves.

13 Subordinated debt

Subordinated debt

Interest rate	Year of Issue	Due date	First call date	Notional amount		Balance sheet value	
				2019	2018	2019	2018
5.600%	2014	10-Feb-44	10-Feb-24	600,000	600,000	600,000	600,000
9.000%	2012	29-Aug-42	29-Aug-22	500,000	500,000	577,210	604,700
Subordinated debt				1,100,000	1,100,000	1,177,210	1,204,700

On 10 February 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.

On 29 August 2012, Delta Lloyd Leven successfully issued a new benchmark EUR 500 million subordinated loan transaction. This loan is callable at par value after 10 years and every quarter thereafter (subject to regulatory approval). The coupon is fixed at 9.000% per annum for the first 10 years and will be floating thereafter.

Notes to the Consolidated annual accounts continued

14 Other borrowed funds

Other borrowed funds

	2019	2018
Other borrowed funds - opening balance	714,849	209,939
Additions	18,653	1,067,048
Disposals	-515,186	-562,138
Other borrowed funds - closing balance	218,316	714,849

Under Note 45 'Capital and liquidity management' an overview of the internal borrowing facilities is disclosed.

15 Insurance and investment contracts, reinsurance contracts

Insurance and investment contracts, reinsurance contracts

	Liabilities net of reinsurance		Reinsurance contracts		Insurance and investment contracts	
	2019	2018	2019	2018	2019	2018
Non-participating life policy liabilities	34,630,731	35,673,393	114,947	54,644	34,745,678	35,728,037
Participating life policy liabilities	46,401,599	45,299,186	840,678	990,216	47,242,277	46,289,402
Liabilities for (deferred) profit sharing and rebates	7,020,220	5,836,004	0	0	7,020,220	5,836,004
Life insurance liabilities excluding liabilities for risk of policyholders	88,052,550	86,808,583	955,625	1,044,860	89,008,175	87,853,443
Life insurance liabilities for risk of policyholders	22,814,564	19,441,824	566,790	488,702	23,381,354	19,930,526
Life insurance liabilities	110,867,114	106,250,407	1,522,415	1,533,562	112,389,529	107,783,969
Investment contracts for risk of company	981,777	1,028,725	0	0	981,777	1,028,725
Investment contracts liabilities	981,777	1,028,725	0	0	981,777	1,028,725
Insurance and investment contracts, reinsurance contracts	111,848,891	107,279,132	1,522,415	1,533,562	113,371,306	108,812,694

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.

Changes in Life insurance liabilities

	Net life insurance liabilities ¹		Net liabilities for risk of policyholders ²		Reinsurance contracts		Life insurance liabilities	
	2019	2018	2019	2018	2019	2018	2019	2018
Life insurance liabilities - opening balance	86,808,583	87,841,061	19,441,824	20,150,835	1,533,562	1,631,515	107,783,969	109,623,411
Current years liabilities	2,670,837	1,885,155	1,361,197	1,421,313	7,141	9,397	4,039,175	3,315,865
Deferred interest credited to policyholders	1,153,582	-143,998	0	0	0	0	1,153,582	-143,998
Prior year liabilities								
-benefit payments to policyholders	-4,811,708	-4,853,069	-1,377,545	-1,376,986	-120,782	-36,349	-6,310,037	-6,266,404
-interest accrual and changes in fair value of liabilities	1,937,275	1,924,842	0	0	7,089	7,380	1,944,364	1,932,222
-valuation changes for risk of policyholders	0	0	3,588,700	-604,465	0	0	3,588,700	-604,465
-effect of changes in other assumptions	610	1,422	-3,052	-1,192	0	0	-2,442	230
Exchange rate differences	9,156	-2,369	7,686	-3,870	-122	101	16,720	-6,138
Other changes ³	284,215	155,539	-204,245	-143,811	95,528	-78,482	175,498	-66,754
Life insurance liabilities - closing balance	88,052,550	86,808,583	22,814,564	19,441,824	1,522,415	1,533,562	112,389,529	107,783,969

¹ Net of reinsurance and liabilities for risk of policyholders.

² Net of reinsurance.

³ Other changes include 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 4.2% (2018: 1.8% to 4.2%).

The reinsurance mainly concerns:

- reinsurance of the insurance operations of the branch in the Czech Republic.
- reinsurance of the Fokker contract.
- reinsurance of the longevity risk.

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 2019, the total reinsurance exposure including reinsurance contracts and receivables from reinsurers (presented in Note 11 'Other assets') amounts to EUR 1,633 million (2018: EUR 1,574 million).

Notes to the Consolidated annual accounts continued

Changes in Investment contracts

	2019	2018
Investment contracts - opening balance	1,028,725	1,087,233
- payments to contract holders	-73,568	-78,750
- interest accrual	26,620	20,242
Investment contracts - closing balance	981,777	1,028,725

16 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

	2019	2018
Derivatives used in:		
- fair value hedges	179,426	524,057
- cash flow hedges	371,129	188,839
- hedges of net investments in foreign operations	3,401	84
Other non-trading derivatives	2,058,081	967,914
Non-trading derivatives	2,612,037	1,680,894

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

17 Other liabilities

Other liabilities

	2019	2018
Other taxation and social security contributions	25,786	10,277
Deposits from reinsurers	1,436,045	1,263,182
Lease liabilities	82,479	0
Accrued interest	133,352	118,164
Costs payable	48,403	88,653
Amounts payable to brokers	3,533	3,360
Amounts payable to policyholders	909,796	752,252
Reorganisation provisions	0	3,068
Other provisions	17,030	14,551
Amounts to be settled	408,432	702,274
Cash collateral amounts received	4,088,080	2,000,857
Other	296,615	305,752
Other liabilities	7,449,551	5,262,390

In 2019, no additions to the existing reorganisation provisions were recognised (2018: EUR 5 million). During 2019 EUR 3 million was charged to the reorganisation provisions for the cost of workforce reductions (2018: EUR 12 million).

18 Gross premium income

Premiums written – net of reinsurance

	Gross		Reinsurance		Net of reinsurance	
	2019	2018	2019	2018	2019	2018
Insurance for risk of insurer	2,816,317	2,089,130	89,085	91,474	2,727,232	1,997,656
Insurance for risk of policyholders	1,545,574	1,439,467	118,786	70,995	1,426,788	1,368,472
Total	4,361,891	3,528,597	207,871	162,469	4,154,020	3,366,128

The gross premium income increased to EUR 4,362 million in 2019 from EUR 3,529 million in 2018 due to a new large contract (single premiums of EUR 812 million).

Notes to the Consolidated annual accounts continued

Gross premium income (2019)

	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	233,858	42,549	191,309	232,505	113,301	119,204
– with profit sharing	374,103	44,699	329,404	0	0	0
	607,961	87,248	520,713	232,505	113,301	119,204
Group						
– without profit sharing	72,905	0	72,905	1,106,297	0	1,106,297
– with profit sharing	524,308	1,792	522,516	0	0	0
	597,213	1,792	595,421	1,106,297	0	1,106,297
Total regular premiums	1,205,174	89,040	1,116,134	1,338,802	113,301	1,225,501
Single premiums						
Individual						
– without profit sharing	66,192	0	66,192	126,584	5,485	121,099
– with profit sharing	156,491	45	156,446	0	0	0
	222,683	45	222,638	126,584	5,485	121,099
Group						
– without profit sharing	1,178,813	0	1,178,813	80,188	0	80,188
– with profit sharing	209,647	0	209,647	0	0	0
	1,388,460	0	1,388,460	80,188	0	80,188
Total Single premiums	1,611,143	45	1,611,098	206,772	5,485	201,287
Total Gross premium income	2,816,317	89,085	2,727,232	1,545,574	118,786	1,426,788

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 (2018)

	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	248,907	41,878	207,029	309,476	67,085	242,391
– with profit sharing	414,999	46,751	368,248	0	0	0
	663,906	88,629	575,277	309,476	67,085	242,391
Group						
– without profit sharing	63,950	0	63,950	1,011,827	0	1,011,827
– with profit sharing	625,434	1,551	623,883	0	0	0
	689,384	1,551	687,833	1,011,827	0	1,011,827
Total regular premiums	1,353,290	90,180	1,263,110	1,321,303	67,085	1,254,218
Single premiums						
Individual						
– without profit sharing	96,431	0	96,431	26,090	3,910	22,180
– with profit sharing	161,810	1,294	160,516	0	0	0
	258,241	1,294	256,947	26,090	3,910	22,180
Group						
– without profit sharing	247,104	0	247,104	92,074	0	92,074
– with profit sharing	230,495	0	230,495	0	0	0
	477,599	0	477,599	92,074	0	92,074
Total Single premiums	735,840	1,294	734,546	118,164	3,910	114,254
Total Gross premium income	2,089,130	91,474	1,997,656	1,439,467	70,995	1,368,472

Geographical segmentation of gross premium income

	2019	2018
Netherlands	4,162,537	3,376,639
Other EU member states	199,354	151,958
Total	4,361,891	3,528,597

Notes to the Consolidated annual accounts continued

Reference is made to Note 23 'Underwriting expenditure' for disclosure on reinsurance ceded.

19 Investment income

Investment income

	2019	2018
Interest income from investments in debt securities	1,223,738	1,249,816
Interest income from loans:		
- mortgage loans	622,863	561,168
- unsecured loans	178,467	185,208
- policy loans	504	698
- other	135,797	75,344
Interest income from Investment in debt securities and loans	2,161,369	2,072,234
Realised gains/losses on disposal of available-for-sale debt securities	189,813	769,281
Realised gains/losses and impairments of available-for-sale debt securities	189,813	769,281
Realised gains/losses on disposal of available-for-sale equity securities	91,313	284,886
Impairments of available-for-sale equity securities	-60,436	-50,381
Realised gains/losses and impairments of available-for-sale equity securities	30,877	234,505
Interest income on non-trading derivatives	176,076	148,814
Increase/decrease in loan loss provisions	-7,567	8,599
Income from real estate investments	99,970	119,128
Dividend income	251,921	223,443
Change in fair value of real estate investments	52,225	197,149
Investment income	2,954,684	3,773,153

20 Other income

The purchase consideration of Aegon Czech was in total EUR 28 million lower than the net assets acquired; the difference represents negative goodwill. This negative goodwill is recognised in Other income in the profit and loss account. For more information on the acquisition of Aegon Czech, reference is made to Note 42 'Acquisitions and legal mergers'. The negative goodwill of EUR 28 million is offsetted by an expense of EUR 28 million due to reinsurance through NN Re. This is further described in Note 23 'Underwriting expenditure' and Note 40 'Related parties'.

In 2018 the result on divestments of EUR 56 million (included in Other income) reflects the recognition of an additional divestment result (before tax) related to the sale of NN Leven's former subsidiary Orange Life (formerly ING Life Korea). Also included in the Other income in 2018 is the release of insurance liabilities of EUR 20 million for which no obligations exists anymore.

21 Net fee and commission income

Net fee and commission income

	2019	2018
Asset management fees	62,414	70,868
Insurance brokerage and advisory fees	-5,660	1,003
Other	912	655
Gross fee and commission income	57,666	72,526
Asset management fees	-123,327	-129,533
Commission expenses and other	0	-1,298
Insurance brokerage and advisory fees	-7,534	-11,312
Fee and commission expenses	-130,861	-142,143
Net fee and commission income	-73,195	-69,617

Notes to the Consolidated annual accounts continued

22 Valuation results on non-trading derivatives

Valuation results on non-trading derivatives

	2019	2018
Change in fair value of derivatives relating to:		
- fair value hedges	-767,786	-344,145
- cash flow hedges (ineffective portion)	10,616	14,614
- other non-trading derivatives	362,565	147,201
Net result on non-trading derivatives	-394,605	-182,330
Change in fair value of assets and liabilities (hedged items)	768,447	344,148
Valuation results on assets and liabilities designated as at fair value through profit or loss (excluding trading)	3,977	12,041
Valuation results on non-trading derivatives	377,819	173,859

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. 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 largely offset by changes in insurance contract liabilities, which are included in 'Underwriting expenditure'. Reference is made to Note 23 'Underwriting expenditure'.

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 30 'Derivatives and hedge accounting'.

23 Underwriting expenditure

Underwriting expenditure

	2019	2018
Gross underwriting expenditure:		
- before effect of investment result for risk of policyholder	5,962,003	5,190,545
- effect of investment result for risk of policyholder	3,588,723	-604,429
Gross underwriting expenditure	9,550,726	4,586,116
Investment result for risk policyholders	-3,588,723	604,429
Reinsurance recoveries	-197,386	-171,217
Underwriting expenditure	5,764,617	5,019,328

The investment income and valuation results regarding investments for risk of policyholders is EUR 3,589 million (2018: EUR -604 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

	2019	2018
Reinsurance and retrocession premiums	207,871	162,469
Gross benefits	5,854,194	5,903,561
Reinsurance recoveries	-197,386	-171,217
Change in life insurance liabilities	-233,699	-1,001,374
Costs of acquiring insurance business	51,679	35,100
Other underwriting expenditure	9,172	15,557
Profit sharing and rebates	46,166	66,507
Other changes in investment contract liabilities	26,620	8,725
Underwriting expenditure	5,764,617	5,019,328

At the end of each year, a settlement is made which ensures that any remaining assets and liabilities and remaining P&L results from the Czech business in the NN Leven annual accounts are transferred to NN Re. Based upon this settlement, an expense of EUR 28 million is recognised. The expense of EUR 28 million is related to the negative goodwill with regard to the acquisition of Aegon Czech. The expense is accounted under Other underwriting expenditure. The negative goodwill is recognised in Other income. Reference is made to Note 40 'Related parties'.

Gross benefits

	2019	2018
Surrenders	1,070,796	1,128,208
Payments upon maturity	1,950,554	1,846,374
Payments upon death	189,951	265,626
Annuities and other periodic payments	2,615,401	2,646,816
Other	27,492	16,537
Gross benefits	5,854,194	5,903,561

Notes to the Consolidated annual accounts continued

Costs of acquiring insurance business

	2019	2018
Changes in deferred acquisitions costs	8,566	8,618
Brokerage fee	42,991	26,415
Other commissions	122	67
Costs of acquiring insurance business	51,679	35,100

Profit sharing and rebates

	2019	2018
Distributions on account of interest or underwriting results	7,688	26,038
Bonuses added to policies ¹	38,478	40,469
Profit sharing and rebates	46,166	66,507

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 52 million (2018: EUR 35 million). This includes amortisation and unlocking of DAC of EUR 32 million (2018: EUR 28 million) and the net amount of commissions paid of EUR 60 million (2018: EUR 27 million) and commissions capitalised in DAC of EUR 40 million (2018: EUR 20 million).

The total amount of commission paid and commission payable amounted to EUR 58 million (2018: EUR 42 million). This includes the commissions recognised in 'costs of acquiring insurance business' of EUR 60 million (2018: EUR 27 million) referred to above and commissions recognised in 'Other underwriting expenditure' of EUR -2 million (2018: EUR 15 million). Other underwriting expenditure also includes reinsurance commissions paid of EUR 6 million (2018: EUR -0.2 million).

24 Staff expenses

Staff expenses

	2019	2018
Salaries	126,368	127,480
Variable salaries	4,269	4,269
Pension costs	25,174	27,475
Social security costs	19,943	18,491
Share-based compensation arrangements	549	572
External staff costs	67,933	76,349
Education	2,171	2,929
Other staff costs	4,588	5,423
Staff expenses	250,995	262,988

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 from Czech 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 (NN CDC Pensioenfond). 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

	2019	2018
Netherlands - average number of employees on full-time equivalent basis	1,897	2,064
Rest of Europe - average number of employees on full-time equivalent basis	25	32
Number of employees	1,922	2,096

Remuneration of Management Board and Supervisory Board

Reference is made to Note 41 '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.

Notes to the Consolidated annual accounts continued

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)	
	2019	2018	2019	2018
Share awards outstanding - opening balance	21,408	25,926	33.05	29.32
Granted	16,333	19,059	39.10	36.00
Performance effect	0	0	0.00	0.00
Vested	-19,196	-23,507	35.02	31.49
Forfeited	-1,215	-70	27.68	29.43
Share awards outstanding - closing balance	17,330	21,408	36.63	33.05

In 2019, 12,422 share awards of NN Group shares (2018: 12,806) were granted to the members of the Management Board of NN Leven. 3,911 share awards of NN Group shares (2018: 6,253) were granted to other employees of NN Leven.

As at 31 December 2019 the share awards of NN Group shares consist of 17,330 share awards (2018: 21,408) relating to equity-settled share based payment arrangements and no shares awards of 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 2019 total unrecognised compensation costs related to share awards amount to EUR 212 thousand (2018: EUR 259 thousand). These costs are expected to be recognised over an average period of 1.4 years (2018: 1.4 years).

25 Interest expenses

Interest expenses

	2019	2018
Interest expenses on non-trading derivatives	50,084	7,295
Interest on lease liability	3,011	0
Other interest expenses	103,133	73,710
Interest expenses	156,228	81,005

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

In 2019, total interest income and total interest expenses for items not valued at fair value through profit or loss were EUR 2,163 million and EUR 103 million respectively (2018: EUR 2,071 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	2019	2018
Investment income	19	2,337,445	2,221,048
Interest expenses on non-trading derivatives		-50,084	-7,295
Interest on lease liability		-3,011	0
Other interest expenses		-103,133	-73,710
Total net interest income		2,181,217	2,140,043

26 Other operating expenses

Other operating expenses

	2019	2018
Depreciation of property and equipment	4,192	111
Amortisation of software	2,404	3,900
Computer costs	62,961	73,263
Office expenses	13,208	16,622
Travel and accommodation expenses	2,258	2,540
Advertising and public relations	5,932	9,132
External advisory fees	24,758	21,510
Addition/(releases) of provision for reorganisation and relocations	-652	4,431
Allocated staff expenses head office support functions	19,356	23,071
Allocated staff expenses services	48,889	50,414
Other	46,484	48,251
Other operating expenses	229,790	253,245

Notes to the Consolidated annual accounts continued

Other

'Other' also includes redundancy costs of EUR 21 million (2018: EUR 25 million), recharged by NN Group to NN Leven. The provision is reported on NN Group Level.

Employees from Czech 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'.

Due to the introduction of IFRS 16 (refer to note 1 'Accounting policies') lease amounts that were included in the line 'other' in 2018, were recognised in 2019 in the line 'Depreciation of property and equipment'.

Fees of auditors

Reference is made to Note 47 '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 and a report of factual findings to external parties.

27 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 receivable amounts to EUR 123,108 thousand (2018: EUR 133,758 thousand receivable). It concerns tax receivable NN Group for the most recent quarter. Reference is made to Note 11 'Other assets' and Note 17 'Other liabilities'.

Deferred tax (2019)

	Net liability 2018	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2019 ¹
Investments	2,012,029	336,565	-57,764	-2,946	83	2,287,967
Real estate investments	700,557	0	71,524	-4,615	-10	767,456
Acquisition costs	31,933	0	1,886	9,948	172	43,939
Fiscal equalisation reserve	276	0	0	-276	0	0
Depreciation	-6	0	-61	6	0	-61
Insurance liabilities	-1,999,742	-317,518	-98,123	-1	-112	-2,415,496
Cash flow hedges	1,141,734	1,247,065	0	110	0	2,388,909
Other provisions	-28,576	0	458	27,860	-3	-261
Receivables	-791	0	196	-101	-10	-706
Loans	35,369	2,010	0	-39,379	0	-2,000
Unused tax losses carried forward	-637,775	0	615,315	998	0	-21,462
Other	43,831	-2,247	-16,501	40,254	30	65,367
Deferred tax	1,298,839	1,265,875	516,930	31,858	150	3,113,652
Presented in the balance sheet as:						
Deferred tax liabilities	2,689,457					3,113,652
Deferred tax assets	-1,390,618					0
Deferred tax	1,298,839					3,113,652

¹Positive amounts are liabilities, negative amounts are assets

Notes to the Consolidated annual accounts continued

Deferred tax (2018)

	Net liability 2017	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2018 ¹
Investments	2,916,959	-514,090	-104,344	-286,440	-56	2,012,029
Real estate investments	277,307	0	21,821	401,429	0	700,557
Acquisition costs	37,558	0	-5,602	0	-23	31,933
Fiscal equalisation reserve	337	0	-61	0	0	276
Depreciation	-10	0	4	0	0	-6
Insurance liabilities	-3,419,931	287,443	1,132,680	0	66	-1,999,742
Cash flow hedges	1,220,906	-79,172	0	0	0	1,141,734
Other provisions	-2,566	0	-26,010	0	0	-28,576
Receivables	-894	0	96	0	7	-791
Loans	35,369	0	0	0	0	35,369
Unused tax losses carried forward	-26,626	0	-612,367	1,218	0	-637,775
Other	30,641	-3,281	17,745	-1,257	-17	43,831
Deferred tax	1,069,050	-309,100	423,962	114,950	-23	1,298,839

Presented in the balance sheet as:

Deferred tax liabilities	2,811,942	2,689,457
Deferred tax assets	-1,742,892	-1,390,618
Deferred tax	1,069,050	1,298,839

¹ Positive amounts are liabilities, negative amounts are assets.

In 2018 and 2019, changes to the tax valuation of certain insurance liabilities in the Netherlands were implemented. These changes impacted the deferred tax on insurance liabilities and the (deferred tax on) tax losses carried forward. There was no impact on total deferred tax.

The portion of the deferred tax liabilities, that relates to REI Investment I B.V. and is not part of the fiscal unity, amounts to EUR 110,576 thousand (a liability) (2018: EUR 87,317 thousand (a liability)).

Deferred tax on unused tax losses carried forward

	2019	2018
Total unused tax losses carried forward	229,664	2,662,141
Unused tax losses carried forward not recognised as a deferred tax asset	-152,874	-126,403
Unused tax losses carried forward recognised as a deferred tax asset	76,790	2,535,738
Average tax rate	27.9%	25.2%
Deferred tax asset	21,462	637,775

Total unused tax losses carried forward analysed by term of expiration

	No deferred tax asset recognised		Deferred tax asset recognised	
	2019	2018	2019	2018
More than 5 years but less than 10 years	0	0	0	2,442,812
Unlimited	152,874	126,403	76,790	92,926
Total	152,874	126,403	76,790	2,535,738

Deferred tax assets are recognised for temporary deductible differences. For tax losses carried forward and unused tax credits, deferred tax assets are recognised only to the extent that realisation of the related tax benefit is probable.

Taxation on result

	2019	2018
Current tax	-186,869	28,238
Deferred tax	516,927	423,962
Taxation on result	330,058	452,200

Notes to the Consolidated annual accounts continued

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

	2019	2018
Result before tax	1,875,892	2,352,663
Weighted average statutory tax rate	25.0%	24.9%
Weighted average statutory tax amount	468,251	586,450
Participation exemption	-103,144	-95,070
Other income not subject to tax and other	-4,846	-11,494
Expenses not deductible for tax purposes	-4,143	764
Impact on deferred tax from change in tax rates	-9,592	-17,841
Deferred tax benefit from previously not recognised amounts	8,319	0
Tax for non recognised losses	1,537	0
Write down/reversal of deferred tax assets	462	0
Adjustments to prior periods	-26,786	-10,609
Effective tax amount	330,058	452,200
Effective tax rate	17.6%	19.2%

The weighted average statutory tax rate for 2019 did not change significantly from that of 2018.

In 2019, the effective tax rate of 17.6% was lower than the weighted average statutory tax rate of 25.0% in 2019. This is mainly a result of tax exempt results of associates and participations.

In 2018, the Dutch corporate income tax rates were reduced. This implied that the corporate tax rate in 2019 would remain 25%, but that the tax rate for 2020 would become 22.55% and for 2021 and subsequent years 20.5%. As a result, the deferred tax assets and liabilities of NN Leven were remeasured in 2018 to the expected new tax rates. As most of NN Leven's deferred tax assets and liabilities are expected to materialise over a long period, the largest part of the deferred tax position was remeasured to the 20.5% rate that would apply as of 2021. The net impact of the tax rate change in 2018 was EUR 242 million (positive), of which 13 million (positive) was recognised in the profit and loss account.

In 2019, these enacted corporate tax rates have been amended, so that the tax rate for 2020 will remain at 25% (instead of 22.55%) and for 2021 21.7% (instead of 20.5%). The impact of this amendment is recognised in 2019. In addition, the 2019 tax charge is impacted by the difference between the estimated realisation in future years (with different tax rates) that was used in 2018 versus the updated actual/estimated realisation in 2019. The combined impact related to the 2018 and 2019 tax rate changes in the 2019 profit and loss account was EUR 10 million (positive).

Taxation on components of other comprehensive income

	2019	2018
Unrealised revaluations property in own use	-994	-1,514
Unrealised revaluations Available for sale investment and other	-397,450	331,728
Realised gains/losses transferred to profit and loss account	59,029	183,016
Changes in cash flow hedge reserve	-1,245,204	81,688
Deferred interest credited to policyholders	317,518	-287,443
Income tax	-1,267,101	307,475

28 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.

Notes to the Consolidated annual accounts continued

Fair value of financial assets and liabilities

	Estimated fair value		Balance sheet value	
	2019	2018	2019	2018
Financial assets				
Cash and cash equivalents	178,295	1,182,204	178,295	1,182,204
Financial assets at fair value through profit or loss:				
– investments for risk of policyholders	23,347,321	19,937,370	23,347,321	19,937,370
– non-trading derivatives	9,693,226	4,621,939	9,693,226	4,621,939
– designated as at fair value through profit or loss	351,612	251,805	351,612	251,805
Available-for-sale investments	70,341,063	65,034,691	70,341,063	65,034,691
Loans	37,281,857	34,095,920	34,529,886	33,272,571
Financial assets	141,193,374	125,123,929	138,441,403	124,300,580
Financial liabilities				
Subordinated debt	1,266,806	1,273,060	1,177,210	1,204,700
Other borrowed funds	201,614	708,497	218,316	714,849
Investment contracts for risk of company	1,019,980	1,042,942	981,777	1,028,725
Financial liabilities at fair value through profit or loss:				
– non-trading derivatives	2,612,037	1,680,894	2,612,037	1,680,894
Financial liabilities	5,100,437	4,705,393	4,989,340	4,629,168

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.

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 2019.

Fair value of financial assets - SPPI assessment

	SPPI compliant assets		SPPI non-compliant assets		SPPI assessment not applicable	
	2019	2018	2019	2018	2019	2018
Cash and cash equivalents	0	0	0	0	178,295	1,182,204
Financial assets at fair value through profit or loss:						
– investments for risk of policyholders	0	0	0	0	23,347,321	19,937,370
– non-trading derivatives	0	0	0	0	9,693,226	4,621,939
– designated as at fair value through profit or loss	0	0	0	0	351,612	251,805
Available-for-sale investments	63,685,681	59,062,022	2,620,006	1,720,085	4,035,376	4,252,584
Loans	37,127,694	33,925,645	145,245	160,075	8,918	10,200
Financial assets	100,813,375	92,987,667	2,765,251	1,880,160	37,614,748	30,256,102

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. Substantial trading markets do not exist for all financial instruments, therefore 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 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.

Notes to the Consolidated annual accounts continued

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.

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 (2019)

	Level 1	Level 2	Level 3	Total
Financial assets				
Investments for risk of policyholders	22,400,415	144,872	802,034	23,347,321
Non-trading derivatives	16,999	9,676,227	0	9,693,226
Financial assets designated as at fair value through profit or loss	212,575	139,037	0	351,612
Available-for-sale investments	53,693,583	15,432,572	1,214,908	70,341,063
Financial assets	76,323,572	25,392,708	2,016,942	103,733,222
Financial liabilities				
Non-trading derivatives	3,058	2,599,887	9,092	2,612,037
Financial liabilities	3,058	2,599,887	9,092	2,612,037

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Methods applied in determining the fair value of financial assets and liabilities carried at fair value (2018)

	Level 1	Level 2	Level 3	Total
Financial assets				
Investments for risk of policyholders	18,439,947	709,150	788,273	19,937,370
Non-trading derivatives	28,491	4,593,448	0	4,621,939
Financial assets designated as at fair value through profit or loss	139,177	112,628	0	251,805
Available-for-sale investments	47,391,716	16,659,623	983,352	65,034,691
Financial assets	65,999,331	22,074,849	1,771,625	89,845,805
Financial liabilities				
Non-trading derivatives	11,834	1,643,682	25,378	1,680,894
Financial liabilities	11,834	1,643,682	25,378	1,680,894

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.

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 (2019)

	Investments for risk of policyholders	Non-trading derivatives	Available-for-sale investments	Total
Level 3 Financial assets - opening balance	788,273	0	983,352	1,771,625
Amounts recognised in the profit and loss account	20,457	0	-54,754	-34,297
Revaluation recognised in other comprehensive income (equity)	0	0	-2,462	-2,462
Purchase	0	0	318,193	318,193
Sale	-6,696	0	-9,443	-16,139
Maturity/settlement	0	0	-14,020	-14,020
Exchange rate differences	0	0	-5,958	-5,958
Level 3 Financial assets - closing balance	802,034	0	1,214,908	2,016,942

Notes to the Consolidated annual accounts continued

Changes in Level 3 Financial assets (2018)

	Investments for risk of policyholders	Non-trading derivatives	Available-for-sale investments	Total
Level 3 Financial assets - opening balance	803,186	163,436	1,203,314	2,169,936
Amounts recognised in the profit and loss account	-3,569	0	73,456	69,887
Revaluation recognised in other comprehensive income (equity)	0	0	-87,608	-87,608
Purchase	0	0	48,830	48,830
Sale	-11,344	-163,436	-41,042	-215,822
Maturity/settlement	0	0	-93,463	-93,463
Other transfers and reclassifications	0	0	-186,214	-186,214
Transfers into Level 3	0	0	65,328	65,328
Exchange rate differences	0	0	751	751
Level 3 Financial assets - closing balance	788,273	0	983,352	1,771,625

Transfers into Level 3 and reclassification

Reclassification in 2018 mainly relate to the transfer of certain investments in real estate funds to associates and joint ventures due to an increase in level of influence. Reference is made to Note 6 'Associates and joint ventures' for more information.

Changes in Level 3 Financial liabilities (2019)

	Non-trading derivatives
Level 3 Financial liabilities - opening balance	25,378
Amounts recognised in the profit and loss account	5,269
Sale	-10,778
Transfers out of Level 3	-10,777
Level 3 Financial liabilities - closing balance	9,092

Changes in Level 3 Financial liabilities (2018)

	Non-trading derivatives
Level 3 Financial liabilities - opening balance	3,585
Amounts recognised in the profit and loss account during the year	10,778
Purchase	11,100
Transfers out of Level 3	-85
Level 3 Financial liabilities - closing balance	25,378

Level 3 – Amounts recognised in the profit and loss account during the year (2019)

	Held at balance sheet date	Derecognised during the period	Total
Financial assets			
Investments for risk of policyholders	20,457	0	20,457
Available-for-sale investments	-54,754	0	-54,754
Amounts recognised in the profit and loss account during the year	-34,297	0	-34,297
Financial liabilities			
Non-trading derivatives	5,269	0	5,269
Financial liabilities	5,269	0	5,269

Level 3 – Amounts recognised in the profit and loss account during the year (2018)

	Held at balance sheet date	Derecognised during the period	Total
Investments for risk of policyholders	-3,569	0	-3,569
Available-for-sale investments	-4,767	78,223	73,456
Amounts recognised in the profit and loss account during the year	-8,336	78,223	69,887
Financial liabilities			
Non-trading derivatives	10,778	0	10,778
Financial liabilities	10,778	0	10,778

Level 3 Financial assets at fair value

Financial assets measured at fair value in the balance sheet as at 31 December 2019 of EUR 103,733 million (2018: EUR 89,846 million) include an amount of EUR 2,017 million (1.9%) that is classified as Level 3 (2018: EUR 1,772 million (2.0%)). Changes in Level 3 are disclosed above in the table 'Level 3 Financial assets'.

Notes to the Consolidated annual accounts continued

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 2,017 million (2018: EUR 1,772 million), Level 3 investments EUR 802 million (2018: EUR 788 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 2019 (2018: nil).

Available-for-sale investments

The remaining EUR 1,215 million (2018: EUR 983 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 121 million (2018: EUR 98 million), being approximately 0.49% (before tax) (2018: 0.68% (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 2019 of EUR 9 million (2018: EUR 25 million) relates to non-trading derivative positions. These derivatives are used to for the longevity hedge. Reference is made to Note 30 'Derivatives and hedge accounting' for more information.

EUR 9 million relates to longevity hedges closed by NN Leven. It is estimated that a 5% increase in mortality assumptions for these longevity hedges reduces result and equity before tax by EUR 17 million and a 5% decrease in mortality assumptions increases result and equity before tax by EUR 16 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 (2019)

	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents	178,295	0	0	178,295
Loans	0	2,470,039	34,811,818	37,281,857
Financial assets	178,295	2,470,039	34,811,818	37,460,152
Financial liabilities				
Subordinated debt	621,195	645,611	0	1,266,806
Other borrowed funds	0	199,244	2,370	201,614
Investment contracts for risk of company	0	0	1,019,980	1,019,980
Financial liabilities	621,195	844,855	1,022,350	2,488,400

Notes to the Consolidated annual accounts continued

Methods applied in determining the fair value of financial assets and liabilities carried at amortised cost (2018)

	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents	1,182,204	0	0	1,182,204
Loans	0	2,988,187	31,107,733	34,095,920
Financial assets	1,182,204	2,988,187	31,107,733	35,278,124
Financial liabilities				
Subordinated debt	624,580	648,480	0	1,273,060
Other borrowed funds	0	705,442	3,055	708,497
Investment contracts for risk of company	0	0	1,042,942	1,042,942
Financial liabilities	624,580	1,353,922	1,045,997	3,024,499

29 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' 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	
	2019	2018	2019	2018
Real estate investments	2,570,931	2,355,445	2,570,931	2,355,445
Property in own use	40,932	790	40,932	790
Fair value of non-financial assets	2,611,863	2,356,235	2,611,863	2,356,235

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

Methods applied in determining the fair value of non-financial assets (2019)

	Level 1	Level 2	Level 3	Total
Real estate investments	0	0	2,570,931	2,570,931
Property in own use	0	0	40,932	40,932
Non-financial assets	0	0	2,611,863	2,611,863

Methods applied in determining the fair value of non-financial assets (2018)

	Level 1	Level 2	Level 3	Total
Real estate investments	0	0	2,355,445	2,355,445
Property in own use	0	0	790	790
Non-financial assets	0	0	2,356,235	2,356,235

Changes in Level 3 Non-financial assets (2019)

	Real estate investments	Property in own use
Level 3 Non-financial assets - opening balance	2,355,445	790
Purchase	120,046	0
Revaluation recognised in equity during the year	0	710
Sale	-1,173	0
Amounts recognised in the profit and loss account during the year	52,233	0
Changes in the composition of the group and other changes	44,380	39,432
Level 3 Non-financial assets - closing balance	2,570,931	40,932

Changes in Level 3 Non-financial assets (2018)

	Real estate investments	Property in own use
Level 3 Non-financial assets - opening balance	3,505,963	10,316
Purchase	205,968	0
Revaluation recognised in equity during the year	0	7,386
Sale	-1,570,933	-2,250
Amounts recognised in the profit and loss account during the year	197,147	568
Changes in the composition of the group and other changes	17,300	-15,230
Level 3 Non-financial assets - closing balance	2,355,445	790

Notes to the Consolidated annual accounts continued

Level 3 – Amounts recognised in the profit and loss account during the year non-financial assets (2019)

	Held at balance sheet date	Derecognised during the year	Total
Real estate investments	52,233	0	52,233
Property in own use	0	0	0
Level 3 - Amounts recognised in the profit and loss account during the year non-financial assets	52,233	0	52,233

Level 3 – Amounts recognised in the profit and loss account during the year non-financial assets (2018)

	Held at balance sheet date	Derecognised during the year	Total
Real estate investments	58,355	138,792	197,147
Property in own use	-72	640	568
Level 3 - Amounts recognised in the profit and loss account during the year non-financial assets	58,283	139,432	197,715

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, capitalisation of income methods and/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. 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.

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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:

	Fair value	Valuation technique	Current rent/m2	ERV/m2	Net initial yield (%)	Vacancy (%)	Average lease term in years
The Netherlands							
Office	152,425	DCF	324 - 334	330 - 340	4.0	5	7.3
Industrial	63,600	DCF	51 - 53	51 - 54	4.3 - 4.4	0	6.0
France							
Office	194,080	DCF	501 - 615	498 - 608	0.0 - 4.0	67	8.7
		Income					
Industrial	116,270	Capitalisation	35 - 51	34 - 56	1.7 - 5.4	3	4.4
Industrial	143,040	DCF	41 - 84	42 - 67	0.0 - 7.4	6	2.2
Residential	123,439	Comparison	253 - 273	253 - 273	4.5 - 5.0	3	n/a
Belgium							
Retail	130,310	DCF	54 - 362	97 - 357	3.6 - 7.5	4	3.4
Industrial	26,580	DCF	45	43	6.0	0	1.0
		Income					
Office	4,099	Capitalisation	227	196	7.0	0	2.0
Germany							
Industrial	211,900	DCF	45 - 105	42 - 81	4.5 - 7.4	8	3.6
Retail	288,000	DCF	173 - 351	171 - 327	4.3 - 4.8	0	6.8
Italy							
Retail	250,470	DCF	170 - 814	170 - 800	-8.9 - 6.7	3	7.3
Spain							
Retail	264,500	DCF	192 - 257	202 - 254	5.7 - 7.4	4	4.5
Industrial	139,733	DCF	27 - 89	24 - 85	1.0 - 7.6	10	1.5
Denmark							
Residential	166,397	DCF	207 - 231	275 - 287	3.9 - 4.0	1	0.0
Industrial	19,509	DCF	153	114	5.5	0	20.0
Poland							
Retail	93,500	DCF	163	164	7.3	4	2.8
Real estate under construction and other	183,079						
Total Real estate	2,570,931						

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.

30 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 instrument 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.

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

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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 -9 million as per 31 December 2019 (2018: EUR -15 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 2019, NN Leven recognised EUR 4,104 million (2018: EUR 771 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 2019 is EUR 11,011 million (2018: EUR 5,663 million) gross and EUR 8,604 million (2018: EUR 4,501 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 11 million income (2018: EUR 14 million expense) which was recognised in the profit and loss account.

As at 31 December 2019, the fair value of outstanding derivatives designated under cash flow hedge accounting was EUR 6,702 million (2018: EUR 2,969 million), presented in the balance sheet as EUR 7,073 million (2018: EUR 3,157 million) positive fair value under assets and EUR 371 million (2018: EUR 188 million) negative fair value under liabilities.

Included in 'Interest income' and 'Interest expenses on non-trading derivatives' is EUR 176 million (2018: EUR 156 million) and EUR 50 million (2018: EUR 8 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 2019, NN Leven recognised EUR -768 million (2018: EUR -344 million) of fair value changes on derivatives designated under fair value hedge accounting in the profit and loss account. This amount was offset by EUR 768 million (2018: EUR 344 million) fair value changes recognised on hedged items. This resulted in EUR nil million (2018: nil) net accounting ineffectiveness recognised in the profit and loss account. As at 31 December 2019, the fair value of outstanding derivatives designated under fair value hedge accounting was EUR -142 million (2018: EUR -524 million), presented in the balance sheet as EUR 37 million (2018: nil) positive fair value under assets and EUR 179 million (2018: EUR 524 million) negative fair value under liabilities.

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31 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 (2019)

	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	178,295	0	0	0	0	0	178,295
Financial assets at fair value through profit or loss:							
– investments for risk of policyholders ²	0	0	0	0	0	23,347,321	23,347,321
– non-trading derivatives	1,557	34,822	45,979	218,208	9,390,307	2,353	9,693,226
– designated as at fair value through profit or loss	0	0	0	1,541	0	350,071	351,612
Available-for-sale investments	188,628	145,142	1,233,217	13,573,050	48,843,552	6,357,474	70,341,063
Loans	107,543	80,152	753,728	2,712,098	30,876,365	0	34,529,886
Reinsurance contracts	29,847	27,953	90,433	456,102	429,505	488,575	1,522,415
Intangible assets	989	1,918	7,815	25,878	30,564	0	67,164
Deferred acquisition costs	1,568	3,172	14,814	107,040	113,098	178	239,870
Deferred tax assets	0	0	0	0	0	0	0
Other assets	1,473,214	334,727	3,447,933	4,046	131	0	5,260,051
Remaining assets (for which maturities are not applicable) ³	0	0	0	0	0	8,063,057	8,063,057
Total assets	1,981,641	627,886	5,593,919	17,097,963	89,683,522	38,609,029	153,593,960

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 (2018)

	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	1,182,204	0	0	0	0	0	1,182,204
Financial assets at fair value through profit or loss:							
– investments for risk of policyholders ²	0	0	0	0	0	19,852,370	19,852,370
– non-trading derivatives	662	16,924	30,738	47,089	4,526,526	0	4,621,939
– designated as at fair value through profit or loss				3,289		248,516	251,805
Available-for-sale investments	214,390	278,555	1,112,815	11,580,131	46,669,769	5,264,031	65,119,691
Loans	179,241	78,657	587,534	4,622,728	27,804,411	0	33,272,571
Reinsurance contracts	17,970	18,150	60,797	307,689	640,254	488,702	1,533,562
Intangible assets	91	182	819	2,183	0	0	3,275
Deferred acquisition costs	1,163	2,390	11,789	84,393	128,673	0	228,408
Deferred tax assets	0	0	0	4,483	1,386,135	0	1,390,618
Other assets	1,939,392	453,526	1,658,196	6,620	3,913	-21	4,061,626
Remaining assets (for which maturities are not applicable) ³	0	0	0	0	0	7,189,715	7,189,715
Total assets	3,535,113	848,384	3,462,688	16,658,605	81,159,681	33,043,313	138,707,784

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.

32 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. 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 44 'Risk management' for a description on how liquidity risk is managed.

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Liabilities by maturity (2019)

	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	500,000	600,000	0	77,210	1,177,210
Other borrowed funds	0	0	714	204,018	13,584	0	0	218,316
Financial liabilities at fair value through profit or loss:								
– non-trading derivatives	34,727	256,108	169,517	1,254,423	4,195,484	0	-3,298,222	2,612,037
Financial liabilities	34,727	256,108	170,231	1,958,441	4,809,068	0	-3,221,012	4,007,563
Insurance and investment contracts	295,155	641,102	2,647,050	12,704,996	73,759,434	23,323,569	0	113,371,306
Deferred tax liabilities	0	0	0	0	2,904,871	208,781	0	3,113,652
Other liabilities	5,638,014	144,634	129,167	562,990	940,327	34,419	0	7,449,551
Non-financial liabilities	5,933,169	785,736	2,776,217	13,267,986	77,604,632	23,566,769	0	123,934,509
Total liabilities	5,967,896	1,041,844	2,946,448	15,226,427	82,413,700	23,566,769	-3,221,012	127,942,072
Coupon interest due on financial liabilities ³	-1,032	-97	-1,526	-1,666	0	0	0	-4,321

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 13 '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 (2018)

	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	500,000	600,000	0	104,700	1,204,700
Other borrowed funds	0	0	500,000	205,416	9,433	0	0	714,849
Financial liabilities at fair value through profit or loss:								
– non-trading derivatives	23,425	469,421	178,899	391,688	1,675,204	0	-1,057,743	1,680,894
Financial liabilities	23,425	469,421	678,899	1,097,104	2,284,637	0	-953,043	3,600,443
Insurance and investment contracts	592,481	633,432	2,404,192	13,586,538	71,721,124	19,874,927	0	108,812,694
Deferred tax liabilities	0	190	398	74,989	2,432,437	181,443	0	2,689,457
Other liabilities	3,808,722	25,362	106,079	265,088	599,557	457,582	0	5,262,390
Non-financial liabilities	4,401,203	658,984	2,510,669	13,926,615	74,753,118	20,513,952	0	116,764,541
Total liabilities	4,424,628	1,128,405	3,189,568	15,023,719	77,037,755	20,513,952	-953,043	120,364,984
Coupon interest due on financial liabilities ³	-1,980	-174	-2,863	-10,682	0	0	0	-15,699

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 13 '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.

33 Assets not freely disposable

The assets not freely disposable relate primarily to investments of nil (2018: 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 34 'Transferred, but not derecognised financial assets'.

34 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.

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Transfer of financial assets not qualifying for derecognition

	2019	2018
Transferred assets at carrying value		
Available-for-sale investments	11,641,172	11,860,249
Associated liabilities at carrying value		
Other borrowed funds	202,555	202,555

35 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 (2019)

Balance sheet line item	Financial instrument	Gross financial assets	Gross financial liabilities offset in the balance sheet	Net financial assets 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	9,687,633	0	9,687,633	-2,140,332	-4,044,326	3,502,975
Financial assets at fair value through profit or loss		9,687,633	0	9,687,633	-2,140,332	-4,044,326	3,502,975
Available-for-sale	Other	145,533	0	145,533	-61,172	-18,169	66,191
Investments		145,533	0	145,533	-61,172	0	66,191
Total financial assets		9,833,166	0	9,833,166	-2,201,504	-4,062,495	3,569,166

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements (2018)

Balance sheet line item	Financial instrument	Gross financial assets	Gross financial liabilities offset in the balance sheet	Net financial assets 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	4,621,371	0	4,621,371	-1,342,714	-1,801,827	1,476,830
Financial assets at fair value through profit or loss		4,621,371	0	4,621,371	-1,342,714	-1,801,827	1,476,830
Available-for-sale	Other	153,213	0	153,213	-40,402	-41,740	71,071
Investments		153,213	0	153,213	-40,402	-41,740	71,071
Total financial assets		4,774,584	0	4,774,584	-1,383,116	-1,843,567	1,547,901

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (2019)

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	2,469,013	0	2,469,013	-2,140,332	-325,034	3,646
Financial liabilities at fair value through profit or loss		2,469,013	0	2,469,013	-2,140,332	-325,034	3,646
Other items where offsetting is applied in the balance sheet		85,766	0	85,766	-61,172	-22,896	1,698
Total financial liabilities		2,554,779	0	2,554,779	-2,201,504	-347,930	5,344

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Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements (2018)

Balance sheet line item	Financial instrument	Gross financial liabilities	Related amounts not offset in the balance sheet				
			Gross financial assets offset in the balance sheet	Net financial liabilities in the balance sheet	Financial instruments	Cash and financial instruments collateral	Net amount
Non-trading derivatives	Derivatives	1,562,272	0	1,562,272	-1,342,714	-218,946	612
Financial liabilities at fair value through profit or loss		1,562,272	0	1,562,272	-1,342,714	-218,946	612
Other items where offsetting is applied in the balance sheet		123,498	0	123,498	-40,402	-82,464	632
Total financial liabilities		1,685,770	0	1,685,770	-1,383,116	-301,410	1,244

36 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 (2019)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Commitments	198,722	592,586	1,403,960	1,604,033	91,379	386,100	4,276,780
Contingent liabilities and commitments	198,722	592,586	1,403,960	1,604,033	91,379	386,100	4,276,780

Contingent liabilities and commitments (2018)

	Less than 1 month	1–3 months	3–12 months	1–5 years	Over 5 years	Maturity not applicable	Total
Commitments	561,936	491,127	1,438,543	733,294	41,926	572,371	3,839,197
Contingent liabilities and commitments	561,936	491,127	1,438,543	733,294	41,926	572,371	3,839,197

The commitments mainly concern mortgage offers issued, investment-related liabilities (Private Equity Investments II B.V. and REI Investment I B.V.) and future rental commitments. 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 1,068 million (2018: EUR 1,787 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.

In November 2016, a loan agreement was signed with Nationale-Nederlanden Interfinance B.V. (NNIF). The facility had a notional amount of EUR 250 million. In June 2018, the terms of the loan were amended and the notional amount was increased to EUR 1,000 million.

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 payable by NN Group at the end of 2019 amounts to EUR 45,599 (2018: EUR 1,464 payable).

37 Legal proceedings

General

NN Leven 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. The criticism on unit-linked products led to the introduction of compensation schemes by Dutch insurance companies that have offered unit-linked products. In 2008 and 2010, NN Leven reached

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agreements with consumer protection organisations to offer compensation to unit-linked policyholders. The agreements with the consumer protection organisations are not binding to policyholders, and consequently, do not prevent individual policyholders from initiating legal proceedings against NN Leven.

On 29 April 2015, the European Court of Justice issued its ruling 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. Although the European Court does not decide on the applicable standards in specific cases and solely provides clarification on the interpretation of the applicable European directive, the ruling of the European Court of Justice has given clarification on this question of legal principle which is also the subject of other legal proceedings in the Netherlands. 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 NN policyholders, individually initiated so-called 'collective actions' 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 premiums. Woekerpolis.nl has lodged an appeal with the Court of Appeal in The Hague against the ruling of the District Court in Rotterdam. A ruling from the Court of Appeal in The Hague is expected in the course of the first half of 2020.

Consumentenbond alleges that NN Leven failed to adequately inform policyholders on cost charges, risk premium for life insurance cover and the leverage and capital consumption effect and that NN Leven provided misleading capital projections. Consumentenbond requests 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 27 March 2019, the District Court in Rotterdam issued an interim ruling in first instance. The District Court concluded that NN Leven has complied with information requirements prescribed by law and regulations applicable at the time, but also considered that this does not necessarily mean that the costs are agreed upon (wilsovereenstemming) with the customer. As such, the District Court requested NN Leven to provide further information on certain cost components and the agreement thereon. A ruling from the District Court in Rotterdam is expected in the course of the first half of 2020.

The claim from Wakkerpolis primarily concentrates on the recovery of initial costs for policyholders and refers to a ruling of the Kifid in an individual case against NN Leven. In this case, the Kifid's Committee of Appeal ruled that there is no contractual basis for charging initial costs and that the insurer is obliged to warn against the leverage and capital consumption effect. In its ruling of 22 June 2017, the Appeals Committee concluded that NN Leven, at the time of selling the unit-linked insurance product, should have provided more information to this individual customer than was prescribed by the laws and regulations applicable at that time. In the ruling in the collective action initiated by Woekerpolis.nl, the District Court in Rotterdam reached a different conclusion than the Appeals Committee of the Kifid. The Court's judgment is in line with NN Leven's view, that the provision of information needs to be assessed against the laws and regulations and norms applicable at the time of concluding the unit-linked insurance policy. A ruling from the District Court in Rotterdam is expected in the course of the first half of 2020.

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 risk premium was 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, (f) the policy conditions were unfair, or (g) the costs charged or the risk premium 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.

Notes to the Consolidated annual accounts continued

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 NN Leven 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 exposures at this time.

Dispute on reinsurance agreement

NN Leven has reinsured with another insurance company part of the exposure on certain insured pension obligations. Although the reinsurance agreement was never signed by parties, NN Leven's counterparty performed under the agreement for many years. The counterparty acknowledged the existence of a reinsurance arrangement, but disputes the applicability of fundamental aspects of the reinsurance agreement. NN Leven started legal proceedings in 2019, which are ongoing. The potential outcome of the legal proceedings is uncertain. A provision was recognised in 2019 for the current best estimate of the potential negative impact to NN Leven.

38 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	
		2019	2018
REI Investment I B.V.	The Hague, the Netherlands	87%	87%
REI Diaphane Fund FGR	The Hague, the Netherlands	87%	87%
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	86%
Private Equity Investments B.V.	The Hague, the Netherlands	95%	97%
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	100%	100%
Korea Investment Fund B.V.	The Hague, the Netherlands	100%	100%
Private Debt Investments B.V.	The Hague, the Netherlands	100%	100%
Delta Lloyd Vastgoed Ontwikkeling B.V.	Amsterdam, the Netherlands	100%	100%

Notes to the Consolidated annual accounts continued

Principal subsidiaries of REI Investment I B.V.

Subsidiary	Statutory place	Proportion of ownership interest held by REI Investment I B.V.	
		2019	2018
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%
Delta Lloyd Life Invest (Belgium) N.V.	Brussels, Belgium	100%	0%
Grupo Berkley Tres S.L.	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 Madrid Logistics S.L.U.	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 Mariendalsvej ApS	Copenhagen, Denmark	100%	100%
Bodio 2 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 Kaiserkai GmbH & Co KG	Frankfurt, Germany	0%	95%
REI Germany Bergkirchen B.V.	The Hague, the Netherlands	100%	100%
REI Logistics Bergkirchen GmbH & Co KG	Frankfurt, Germany	94%	94%
REI Kaiserkai PM GmbH	Frankfurt, Germany	0%	100%
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	Paris, France	100%	100%
INS Bonneuil S.C.I.	Paris, France	100%	100%
Seratna S.C.I.	Paris, France	100%	100%
INS Investment France S.C.I.	Paris, France	100%	100%
INS II S.C.I.	Paris, France	100%	100%
INS III S.C.I.	Paris, France	100%	100%
INS Jonage S.C.I.	Paris, France	100%	100%
INS Criquebeuf S.C.I.	Paris, France	100%	100%
INS Pusignan S.C.I.	Paris, France	100%	100%
INS MER	Paris, France	100%	100%
INS Saint Priest	Paris, France	100%	100%
INS Saint-Vulbas S.C.I.	Paris, France	100%	100%
INS Satolas	Paris, France	100%	100%
REI France Logistics S.A.S.	Paris, France	100%	100%
Brie Logistique S.A.S.	Paris, France	100%	100%
Chelles S.A.S.	Paris, France	100%	100%
Les Arpajons S.A.S.	Paris, France	100%	100%
Logistique Portefeuille S.A.S.	Paris, France	100%	100%
Marolles 91 S.A.S.	Paris, France	100%	100%
France Campus Acrueil S.N.C.	Paris, France	100%	100%
France Campus Bagneux S.N.C.	Paris, France	100%	100%
France Campus Holding S.A.S.	Paris, France	100%	100%
France Campus Massy S.N.C.	Paris, France	100%	100%
France Campus AIX S.N.C.	Paris, France	100%	100%
France Campus Levallois S.N.C.	Paris, France	100%	100%
INS Holding Levallois S.A.S.	Paris, France	100%	100%
France Campus Guyancourt SNC	Paris, France	100%	0%
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 Interinvest XII B.V.	The Hague, the Netherlands	100%	100%

Notes to the Consolidated annual accounts continued

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

39 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, equity and loan 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 5 '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 classified as unsecured loans that are not originated or managed by NN Leven for an amount of EUR 1,626 million (2018: 1,168 million).

NN Leven has significant influence over some of its real estate investment funds as disclosed in Note 6 'Associates and joint ventures'.

40 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 B.V.: reference is made to Note 24 'Staff expenses'.
- Transactions with NN Group concerning the payment of taxes as NN Group heads the fiscal unity. Reference is made to Note 36 'Contingent liabilities and commitments'.
- Transactions relating to the remuneration of board members. Reference is made to Note 41 'Key management personnel compensation'.
- The management of financial instruments takes place via a management agreement with NN Investment Partners Holdings N.V.
- Facility services carried out by group companies.
- Transactions relating the sale of the mortgage portfolios of EUR 24 million from NN Leven to Hypenn RMBS I B.V. and EUR 216 million to Nationale-Nederlanden Schadeverzekering Maatschappij N.V. and EUR 530 million to NN Insurance Belgium N.V. (NN Belgium).
- The derivatives transactions are conducted mainly via NNIF. The unrealised revaluations of derivatives recognised in the result of NN Leven for the 2019 financial year amount to EUR 419 million (2018: EUR 293 million).
- Loan with NNIF of EUR 500 million is repaid during 2019.

Reinsurance activities through NN Re

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

At the end of December 2019 agreement was reached with NN Re on the conditions how to include the Aegon Czech business in the existing reinsurance contract concerning NN Leven's Czech operations. The reinsurance contract transfers, as from the acquisition date, all results and risks from the Aegon Czech business to NN Re. NN Leven received EUR 43 million in the form of a reinsurance commission with regard to Aegon Czech, from NN Re.

Notes to the Consolidated annual accounts continued

At the end of each year, a settlement is made which ensures that any remaining assets and liabilities and remaining P&L results from the Czech business in the NN Leven annual accounts are transferred to NN Re. Based upon this settlement, an expense of EUR 28 million is recognised. The expense of EUR 28 million is related to the negative goodwill with regard to the acquisition of Aegon Czech. The expense is recognised in Other underwriting expenditure. The negative goodwill is recognised in Other income.

Given that the Czech branch reported a positive result of EUR 10.1 million (2018: EUR 15.9 million), an expense of EUR 9.7 million (2018: EUR 16 million) under the reinsurance contract is recognised in the result of NN Leven. The difference of EUR 0.4 million (2018: EUR 0.1 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 1,099 million (2018: EUR 994 million).

Transaction with NN Belgium

NN Belgium received EUR 530 million mortgages from NN Leven and in return NN Belgium offered real estate and equity securities to NN Leven. The nominal value of the mortgages was EUR 490 million which resulted in an income of EUR 40 million in the profit and loss account of NN Leven.

Income and expenses from NN Leven recharged to NN Group companies

	Parent companies		Other group companies			Total
	2019	2018	2019	2018	2019	2018
Expenses	40	0	21,219	21,278	21,259	21,278
Investment income	0	0	1,030,657	206,332	1,030,657	206,332
Income and expenses from NN Leven recharged to NN Group companies	40	0	1,051,876	227,610	1,051,916	227,610

Income and expenses from NN Group companies recharged to NN Leven

	Parent companies		Other group companies			Total
	2019	2018	2019	2018	2019	2018
Expenses	56,675	60,938	305,033	267,359	361,708	328,297
Investment income	20,380	4,235	23,420	82,801	43,800	87,036
Income and expenses from NN Group companies recharged to NN Leven	77,055	65,173	328,453	350,160	405,508	415,333

Financial assets and liabilities with related parties

	Parent companies		Other group companies			Total
	2019	2018	2019	2018	2019	2018
Financial assets						
Financial assets at fair value through profit or loss:						
– non-trading derivatives	0	0	3,980,131	2,178,481	3,980,131	2,178,481
Loans	0	0	138,242	198,528	138,242	198,528
Other assets	2,902,546	1,427,519	276,737	189,053	3,179,283	1,616,572
Financial assets	2,902,546	1,427,519	4,395,110	2,566,062	7,297,656	3,993,581
Financial liabilities						
Subordinated loan	600,000	600,000	0	0	600,000	600,000
Other borrowed funds	0	0	13,390	509,237	13,390	509,237
Financial liabilities at fair value through profit or loss:						
– non-trading derivatives	0	0	599,977	724,800	599,977	724,800
Other liabilities	34,279	37,488	1,451,491	1,052,058	1,485,770	1,089,546
Financial liabilities	634,279	637,488	2,064,858	2,286,095	2,699,137	2,923,583

41 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 Board¹

	2019	2018
Fixed compensation:		
- base salary	1,888	1,860
- pension costs ²	155	160
- individual saving allowance ²	321	334
Variable compensation:		
- upfront cash	190	232
- upfront shares	190	232
- deferred cash	190	232
- deferred shares	190	232
Other benefits	358	354
Fixed and variable compensation	3,482	3,636

¹ Reference is made to Composition of the Boards during 2019 on page 3.

² The pension costs consist of an amount of employer contribution (EUR 155 thousand) and an individual savings allowance (EUR 321 thousand, which is 28,4% of the amount of base salary above EUR 107,593 for the period between January and June and 23,3% of the amount of base salary above EUR 107,593 for the period between July and December).

The Management Board members were eligible for a range of other emoluments, such as health care insurance, lifecycle saving scheme 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.

The NN Leven Supervisory Board members do not receive compensation for their activities. The Supervisory Board members hold remunerated (board) positions within NN Group but not within NN Leven. Their remuneration is part of the allocation of head quarter expenses and they do not receive any (additional) allowances for their role as Supervisory Board members.

The total remuneration, as disclosed in the table above (2019: EUR 3,482 thousand), includes all variable remuneration related to the performance year 2019. 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 2019 and therefore included in 'Total expenses' in 2019, relating to the fixed expenses of 2019 and the vesting of variable remuneration of earlier performance years, is EUR 3,362 thousand (2018: EUR 3,567 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 general principles underpinning the NN Group Remuneration Framework are (amongst others) as follows:

- Enhance focus on the long term interest of NN Group and the interests of customers
- Align with company values, business strategy and risk appetite
- Promote and align risk management
- Comply with and support the spirit of the (inter)national regulations on remuneration policies
- Aim to avoid improper treatment of customers and employees
- Create a balanced compensation mix with a reduced emphasis on variable compensation
- Claw back and hold back arrangements
- Attract and retain talented personnel

The variable remuneration is linked to clear targets. These targets are for a large part non-financial.

Loans and advances to key management personnel

	Amount outstanding		Average interest rate		Repayments	
	2019	2018	2019	2018	2019	2018
Management Board members	886	909	5.3%	4.9%	23	22
Supervisory Board members	0	0			0	0
Loans and advances to key management personnel	886	909			23	22

The loans and advances provided to members of the Management and Supervisory Board consist of mortgage loans. The total amount of redemptions of these mortgage loans during 2019 was EUR 23 thousand (2018: EUR 22 thousand).

Notes to the Consolidated annual accounts continued

42 Acquisitions and legal mergers

Legal merger with Delta Lloyd Leven:

On 1 January 2019, the legal merger between NN Leven and Delta Lloyd Leven became effective. This merger was between companies with the same parent ('under common control'). IFRS 3 Business combinations is not applicable for common control transactions. As a result of this merger, Delta Lloyd Leven ceased to exist as a separate entity and NN Leven acquired all assets and liabilities of Delta Lloyd Leven under universal title of succession as at 1 January 2019. The main reasons for the merger are to be able to operate as one life insurer on the Dutch market and realise administrative and regulation cost savings. The merger is accounted for at the book values of the assets and liabilities as included in the NN Group Consolidated annual accounts. As the merger is accounted for at existing book values, no goodwill or new intangible assets are recognised.

Reconciliation of Consolidated balance sheet 31 December 2017 to 1 January 2018:

Consolidated balance sheet As at 31 December	Delta Lloyd			
	NN Leven	Leven	Eliminations	1/1/2018
	1/1/2018	1/1/2018	1/1/2018	1/1/2018
Assets				
Cash and cash equivalents	200,837	1,124,204	0	1,325,041
Financial assets at fair value through profit or loss:				
- investments for risk of policyholders ¹	12,868,777	7,768,930	85,000	20,722,707
- non-trading derivatives	2,660,914	1,696,576	0	4,357,490
- designated as at fair value through profit or loss	282,945	0	0	282,945
Available-for-sale investments ¹	48,797,505	18,539,158	-85,000	67,251,663
Loans	19,596,214	10,922,982	-14,558	30,504,638
Reinsurance contracts	1,151,150	480,365	0	1,631,515
Associates and joint ventures	3,417,387	139,524	-138,836	3,418,075
Real estate investments	2,226,793	1,258,863	0	3,485,656
Equipment	22	10,316	0	10,338
Intangible assets	7,175	0	0	7,175
Deferred acquisition costs	236,637	0	0	236,637
Deferred tax assets	0	1,741,439	0	1,741,439
Other assets	2,531,597	1,634,733	0	4,166,330
Total assets	93,977,953	45,317,090	-153,394	139,141,649
Equity				
Shareholder's equity (parent)	15,202,686	682,499	-10,918	15,874,267
Minority interests	665,424	0	-138,836	526,588
Undated subordinated loan	450,000	350,000	0	800,000
Total equity	16,318,110	1,032,499	-149,754	17,200,855
Liabilities				
Subordinated debt	600,000	629,176	0	1,229,176
Other borrowed funds	209,939	0	0	209,939
Insurance and investment contracts	71,326,558	39,384,087	0	110,710,645
Financial liabilities at fair value through profit or loss:				
- non-trading derivatives	1,229,750	424,682	0	1,654,432
Deferred tax liabilities	2,001,839	809,154	0	2,810,993
Other liabilities	2,291,757	3,037,492	-3,640	5,325,609
Total liabilities	77,659,843	44,284,591	-3,640	121,940,794

¹ Reclassification to align group contract of Delta Lloyd Leven with accounting principles of NN Leven.

Reconciliation of 2018 profit and loss account of NN Leven:

Consolidated profit and loss account For the year ended 31 December	Delta Lloyd			
	NN Leven	Leven	Eliminations	2018 Total 2018
	2018	2018	2018	2018
Gross premium income	2,279,322	1,249,275		3,528,597
Investment income	3,181,642	590,247	1,264	3,773,153
- gross fee and commission income	22,089	50,437		72,526
- fee and commission expenses	-105,994	-36,149		-142,143
Net fee and commission income	-83,905	14,288	0	-69,617
Valuation results on non-trading derivatives	159,065	14,794	0	173,859
Foreign currency results and net trading income	4,524	-3,324	0	1,200
Share of result from associates and joint ventures	370,761	116,927	0	487,688
Other income	49,671	24,678	0	74,349
Total income	5,961,080	2,006,885	1,264	7,969,229

Notes to the Consolidated annual accounts continued

- gross underwriting expenditure	3,304,231	1,281,885		4,586,116
- investment result for risk of policyholders	339,264	265,165		604,429
- reinsurance recoveries	-144,339	-26,878		-171,217
Underwriting expenditure	3,499,156	1,520,172	0	5,019,328
Staff expenses	208,555	54,434	-1	262,988
Interest expenses	46,949	34,058	-2	81,005
Other operating expenses	189,698	63,546	1	253,245
Total expenses	3,944,358	1,672,210	-2	5,616,566
Result before tax	2,016,722	334,675	1,266	2,352,663
Taxation	207,109	244,775	316	452,200
Net result	1,809,613	89,900	950	1,900,463
Net result attributable to:				
Shareholder of the parent	1,731,194	89,900	12,725	1,833,819
Minority interests	78,419	0	-11,775	66,644
Net result	1,809,613	89,900	950	1,900,463

Reconciliation of Consolidated balance sheet 31 December 2018 to 1 January 2019:

Consolidated balance sheet As at 31 December	Delta Lloyd Leven		Eliminations	
	NN Leven 1/1/2019	1/1/2019		
Assets				
Cash and cash equivalents	243,410	938,794	0	1,182,204
Financial assets at fair value through profit or loss:				
- investments for risk of policyholders ¹	12,148,766	7,703,604	85,000	19,937,370
- non-trading derivatives	2,833,188	1,788,751	0	4,621,939
- designated as at fair value through profit or loss	251,805	0	0	251,805
Available-for-sale investments ¹	45,817,916	19,301,775	-85,000	65,034,691
Loans	22,575,199	10,712,348	-14,976	33,272,571
Reinsurance contracts	1,073,213	460,349		1,533,562
Associates and joint ventures	3,696,932	1,278,604	-142,104	4,833,432
Real estate investments	2,281,404	74,041	0	2,355,445
Equipment	48	790	0	838
Intangible assets	3,275	0	0	3,275
Deferred acquisition costs	228,408	0	0	228,408
Deferred tax assets	4,483	1,386,135	0	1,390,618
Other assets	2,574,141	1,422,694	64,791	4,061,626
Total assets	93,732,188	45,067,885	-92,289	138,707,784
Equity				
Shareholder's equity (parent)	15,570,946	1,141,129	-9,969	16,702,106
Minority interests	982,798	0	-142,104	840,694
Undated subordinated loan	450,000	350,000	0	800,000
Total equity	17,003,744	1,491,129	-152,073	18,342,800
Liabilities				
Subordinated debt	600,000	604,700	0	1,204,700
Other borrowed funds	716,533	0	-1,684	714,849
Insurance and investment contracts	69,932,720	38,879,974	0	108,812,694
Financial liabilities at fair value through profit or loss:				
- non-trading derivatives	1,143,696	537,198	0	1,680,894
Deferred tax liabilities	1,880,977	808,480	0	2,689,457
Other liabilities	2,454,518	2,746,404	61,468	5,262,390
Total liabilities	76,728,444	43,576,756	59,784	120,364,984

¹ Reclassification to align group contract of Delta Lloyd Leven with accounting principles of NN Leven.

The 2018 Delta Lloyd Leven annual accounts were accounted at the local Delta Lloyd Leven accounting principles.

	2018	2019
The total equity of Delta Lloyd Leven in the opening balance of the merged entity	1,032,499	1,491,129
The total equity of Delta Lloyd Leven in the 2018 local annual accounts	1,928,490	2,745,484
The total adjustment due to differences in accounting principles	-895,991	-1,254,355

Notes to the Consolidated annual accounts continued

Further specification of the differences between the local Delta Lloyd Leven accounting principles and the accounting principles for the merged entity:

	2018	2019
Loans:	459,995	406,072
The loans are valued at amortised cost for both Delta Lloyd Leven 2018 annual accounts and the local NN Leven accounting principles. The adjustment is caused by the different purchase or issue date. For Delta Lloyd Leven this is the historical purchase or issue price and for NN Leven this is the fair value at the moment of the takeover of Delta Lloyd Group (1 April 2017).		
Subordinated loan (internal NN Group loan):	350,000	350,000
According to the local NN Leven accounting principles the internal subordinated loan with NN Group is classified as equity. In the Delta Lloyd Leven 2018 annual accounts the loan was classified under liabilities.		
Subordinated loan (external loans):	-157,859	-128,398
The subordinated loans are valued at amortised cost for both Delta Lloyd Leven 2018 annual accounts and the local NN Leven accounting principles. The adjustment is caused by the different purchase date. For Delta Lloyd Leven this is the historical purchase or issue price and for NN Leven this is the fair value at the moment of the acquisition of Delta Lloyd Group (1 April 2017).		
Insurance and investments contracts:	-1,960,535	-2,281,885
The insurance and investments contracts for Delta Lloyd Leven 2018 annual accounts were based on the current economic market view and current assumptions. According to local NN Leven accounting principles these values of the contracts are based on historical cost price. The historical cost price is based on market rates and assumptions of the day on the acquisition of Delta Lloyd Group.		
Deferred tax:	419,202	419,448
This is the deferred tax over the adjustments as disclosed in this overview.		
Other balance items:	-6,794	-19,592
These are the adjustments on the remaining balance items.		
Total adjustment:	-895,991	-1,254,355

Acquisition of and legal merger with Aegon Czech:

Acquisition:

In the first quarter of 2019, NN Leven acquired all issued and outstanding ordinary shares of Aegon's Life Insurance business in the Czech Republic. Included below is an overview of the transaction, the rationale for the transaction, the accounting at the acquisition date and certain additional disclosures on the acquisition.

Overview of transaction

In August 2018, NN Leven announced that it had reached an agreement to acquire Aegon's Life Insurance business in the Czech Republic for a total consideration of EUR 53 million. The transaction was closed on 8 January 2019.

This transaction is in line with NN Leven's strategy to achieve profitable growth and value creation. This acquisition is expected to strengthen NN Leven's position in the Life insurance market and its distribution network in the Czech Republic.

Accounting at the acquisition date

The acquisition date for the acquired businesses by NN Leven for acquisition accounting under IFRS is 8 January 2019. On this date, NN Leven acquired 100% of the ordinary shares of the relevant entities and thus obtained control. NN Leven used 1 January 2019 as a proxy for the acquisition date for practical reasons. As a result, the businesses are included in the NN Leven consolidation as of 1 January 2019.

The values of certain assets and liabilities acquired as at 1 January 2019 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 and the acquisition accounting at fair value as required under IFRS. The difference relates mainly to the valuation of insurance liabilities.

At the acquisition date, the fair value as defined by IFRS of the Insurance liabilities was calculated. The fair value of insurance liabilities differs from the book value as previously reported. The fair value of the insurance liabilities was determined based on the estimated price that a market participant would charge to assume the insurance liabilities of the businesses in an orderly transaction at the measurement date. In arriving at the fair value of the insurance liabilities, future cash flows were estimated using current best estimate actuarial assumptions. Relevant observable input data was used as far as possible. These estimated future cash flows were discounted using a current market rate to reflect the time value of money. Subsequently a risk margin was added for the compensation that a market participant would require for assuming the risks and uncertainties relating to these insurance liabilities. This compensation was calculated using the cost of capital approach.

Whilst the determination of the fair value of the insurance liabilities involved estimates and expert judgement, there are no elements in the valuation where using reasonably supportable alternative assumptions would have had a material impact on NN Leven.

In accordance with IFRS 4 and in line with NN Leven's accounting policies, NN Leven opted to recognise the difference between the fair value and the existing book value of the insurance liabilities as an asset (VOBA) and to report the Liabilities for insurance contracts in the balance sheet at the existing book values.

No significant acquisition intangibles (other than VOBA) were recognised and no significant adjustments were made to the valuation of assets and liabilities other than insurance liabilities.

Notes to the Consolidated annual accounts continued

The fair value of the total purchase consideration was EUR 53 million. This was fully paid in cash.

Cash flow on acquisition

	Acquisition date
Cash paid to acquire shares	-53,209
Cash in company acquired	5,734
Cash flow on acquisition	-47,475

Acquisition date fair values of the assets and liabilities acquired

	Acquisition date
Assets	
Cash and cash equivalents	5,734
Financial assets at fair value through profit or loss:	
– investments for risk of policyholders	96,445
Non-trading derivatives	39
Available-for-sale investments	16,148
Loans	21,457
Reinsurance contracts	1,528
Intangible assets	80,409
Deferred tax assets	738
Other	6,638
Total assets	229,136
Liabilities	
Insurance and investment contracts	127,281
Deferred tax liabilities	10,950
Other	9,420
Total liabilities	147,651
Net assets acquired	81,485
Fair value of purchase consideration	53,209
Fair value of net assets acquired	81,485
Difference	-28,276

The purchase consideration paid was in total EUR 28 million lower than the net assets acquired; the difference represents negative goodwill. This negative goodwill is recognised in Other income in the profit and loss account immediately. The negative goodwill of EUR 28 million is offsetted by an expense of EUR 28 million due to reinsurance through NN Re. Reference is made to Note 40 'Related parties'.

The (negative) goodwill is not taxable.

Legal merger:

NN Leven and Aegon Czech entered into a cross border legal merger effective as per 1 October 2019, as a result of which merger NN Leven acquired all assets and liabilities of Aegon Czech under universal succession of title and Aegon Czech ceased to exist. The activities of Aegon Czech are combined with NN Czech. The main reasons for the merger and integration of activities are to strengthen the market position on the Czech life insurance market and synergies advantages.

The legal merger is accounted retrospectively in the annual accounts as per 1 January 2019. This merger was under common control. IFRS 3 Business combinations is not applicable for common control transactions. NN Leven applied book value accounting for this transaction.

Other information

	Acquisition date
Total income recognised in profit and loss since date of acquisition	38,758
Net profit recognised in profit and loss since date of acquisition	1,187

No significant acquisition-related costs were recognised on this transaction.

As 1 January 2019 is used as the date of acquisition and, therefore, the results of the acquired businesses are included in the NN Leven consolidation for the full period, no separate disclosure is relevant for the amounts that would have been recognised if the transaction had occurred at the start of the year.

The financial assets acquired do not include any significant receivables, other than investments in debt securities.

There were no significant contingent liabilities related to the businesses that were recognised at the date of acquisition.

Notes to the Consolidated annual accounts continued

43 Subsequent events

Corona virus/Covid-19

Since early 2020, the spread of the coronavirus is causing significant disruption to society, impacting NN Leven, its employees, its customers and its suppliers. Financial markets have been severely impacted by significant decreases in interest rates and equity prices and spread widening in the period up to the date of this report. Governments and central banks worldwide are responding to this crisis with aid packages and further supporting measures. At the date of this report, the depth and length of this crisis is unknown.

NN Leven is constantly monitoring the developments and the (potential) impact on NN Leven. The most significant risks that NN Leven is facing in this context are related to the financial markets (including interest rates, equity prices and spreads), insurance risk (including mortality and policyholder behaviour) and operational risk (continuity of business processes). The notes to the annual accounts already include extensive disclosure on the exposure to such risks; there are no indications that these disclosures are no longer valid. At the date of this report, it is too early to determine the structural impact of the coronavirus on results, capitalisation and longer term assumptions, if any.

Also the amount and profitability of new sales may be impacted but, at the date of this report, it is too early to assess any (potential) impact.

NN Leven has established a business continuity plan to help ensure the continuity of its businesses, the well being of its staff and its capability to support its customers, whilst maintaining financial and operations resilience.

Dividend distribution

In March 2020, NN Leven made a dividend distribution of EUR 195 million from the Other reserves to its shareholder NN Nederland. The solvency ratio per year end 2019 has not been adjusted for this dividend payment.

44 Risk management

Introduction

Risk management is fundamental to insurance and investment management. Appropriate risk management enables NN Leven to meet obligations towards clients, regulators and other stakeholders. Accepting and managing risk is an integral part of NN Leven's business: having the right functions and systems in place to manage risks is important.

NN Leven's risk management structure and 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 and governance system is embedded in the organisational layers of NN Leven.

NN Leven's risk management system includes its integration into NN Group's strategic planning cycle, the management information generated and a granular risk assessment. NN Leven has defined and categorised its generic inherent risk types in a mutually exclusive and collectively exhaustive risk taxonomy and subsequently expressed its appetite for these risk types in three key risk appetite statements.

Per January 2019, the legal merger between NN Leven and Delta Lloyd Levensverzekering became effective. During 2019, the Czech operations of former Aegon Czech were included in the Czech branch after the legal merger of Aegon Czech into NN Leven. The activities and the related financial risks of these activities are reinsured with NN Re. The business of Aegon Czech is included in the reinsurance treaty since the merger. As all risks of the Czech branch are reinsured, it is not included in this Risk management paragraph.

Unless otherwise stated, the amounts are in millions of euros.

Risk management structure and governance system

In order to have effective and integrated risk management, NN Leven has implemented the NN Group Operating Model together with the NN Group Governance and the Three Lines of Defence Model.

Risk Management Governance

Management Board

The Management Board is responsible for ensuring that NN Leven has adequate internal risk-management and control systems in place so that it is aware, in good time, of any material risks run by NN Leven, and that these risks can be managed properly. The Management Board retains responsibility for NN Leven's risk management. The Management Board entrusts the day-to-day management and the overall strategic direction of the Company, including the management structure, operation and effectiveness of NN Leven's internal risk management and control systems, to the Asset and Liability (ALCO), Non-financial Risk (NFRM), and Model (MoC) committees.

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.

Risk Policy framework

NN Leven's risk policy framework ensures that all risks are managed consistently and that NN Leven as a whole operates within set risk tolerances. The policies/minimum standards focus on risk measurement, risk management and risk governance. To ensure that policies are efficient and effective they are governed by the risk committee structure. Potential waivers to the policies have to be approved through the Management Board of NN Group or its delegated member.

Notes to the Consolidated annual accounts continued

NN Leven Operating Model

NN Leven may independently perform all activities that are consistent with the strategy of NN Group and the approved (three year) business plan (the 'Business Plan') as long as they are consistent with the internal management and risk/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 board members and support function head(s) at Head Office. Particularly when NN Leven wishes to deviate from applicable policies or standards, its Business Plan or when there is reason to believe that NN Leven's financial position and/or reputation may be materially impacted.

The Chief Executive Officer (CEO) is responsible for:

- Financial performance, as well as the business and operational activities, and as such the risk and control, in their respective areas;
- Execution in these areas of any strategies that conform to the strategic framework of NN Group;
- Ensuring that the business is run in compliance with laws and regulations, NN Group policies and standards and internal controls;
- Fulfilling the statutory responsibilities;
- Maintaining a sound control framework and operating in accordance with NN Group's values;
- Sustainability of NN Leven in the long term;
- Sharing best practices across NN Group.

The CEO is primarily responsible for the communication of risk-related topics to the NN Group Management Board and NN Leven's Supervisory Board. Regular interaction between Head Office and the NN Leven risk function takes place with respect to, inter alia, product approval, mandate approval, risk limit setting, risk reporting, Own Risk and Solvency Assessment, policy setting and implementation monitoring, model and assumption review and validation.

Three lines of defence concept

The three lines of defence concept is implemented throughout NN Leven's risk management structure and governance. It 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 ratified by the Supervisory Board and cascaded throughout NN Leven.

First line of defence: The CEO of NN Leven and the other Management Board members with primary accountability for the performance, sales, operations, investments, compliance and related risks affecting the business. They underwrite the (insurance) products that reflect local needs and thus know their customers and are well-positioned to act in both the customer's and NN Group's best interest.

Second line of defence: Independent oversight and support functions with a major role for the risk management, model validation, actuarial, compliance and legal functions. The responsibilities of the oversight functions include:

- Developing the policies, standards, guidance and charters for their specific risk and control area;
 - Encouraging and objectively challenging/monitoring sound risk management throughout the organisation and coordinating the reporting of risks;
 - Supporting the first line of defence in making proper risk-return trade-offs; and
 - Escalation power in relation to business activities that are judged to present unacceptable risks to NN Leven.
- **Third line of defence:** Corporate Audit Services (CAS) provides independent assurance on the effectiveness of NN's business and support processes, including governance, quality of risk management and quality of internal controls. They assess first line of defence activities as well as second line of defence activities.

Control and Support Functions - Second line of defence

Risk Management Function

The CRO steers an independent risk organisation which supports the first line in their decision-making, but also has sufficient countervailing power to prevent excessive risk taking. The CEO is primarily responsible for the communication of risk-related topics to the NN Group Management Board and Supervisory Board. The Supervisory Board is responsible for supervising the Board and the general affairs of the Company and its business and providing advice to the Board. The NN Leven Chief Risk Officer is member of the NN Leven Board and reports hierarchically to the NN Leven CEO and functionally to the NN Group CRO.

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;
- 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;
- Testing the design and effectiveness of the control framework within NN Leven;
- Reporting of NN Leven's risks, as well as the processes and internal business 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.

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 his tasks respectively to the Head of Enterprise Risk Management, Head of Operational Risk Management, Head of Risk Management and the Actuarial Function Holder.

The Model Validation Function

The Model Validation Function aims to ensure that the Cash Flow models and Risk models are fit for their intended purpose. 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 by the NN Group Model Committee depending on materiality. The findings of the Model Validation Function are regularly reported to the NN Leven Model Committees. These committees are responsible for modelling policies, processes, methodologies, and parameters which are applied within NN Leven. Furthermore, the Model Validation Function carries out validations of risk and valuation models in particular those related to Solvency II. Any changes to models that have an impact larger than pre-set materiality thresholds require approval from either the Group CRO and Group Chief Financial Officer (CFO) or the NN Group Management Board.

Model validation is not a one-off assessment, but an ongoing process whereby the reliability of the model is verified at different stages during its lifecycle: at initiation, before approval, when the model has been redeveloped or modified, and on a regular basis based on a yearly planning discussed and agreed with model development. It is not only a verification of the mathematics and/or statistics of the model but encompasses both a quantitative and qualitative assessment of the model. Accordingly, the validation process encompasses a mix of developmental evidence assessment, process verification and outcome analysis.

The validation cycle is based on a five-year period, whereby at least once every five years a model in scope will be independently validated. In general, the (re)validation frequency relates to the relative materiality of the models in scope.

Compliance Function

To effectively manage business conduct risk, the Management Board has a Compliance Function which is headed by the Head of Legal & Compliance with delegated responsibility for day-to-day management of the Compliance Function to the Head of Compliance. The Compliance Function is positioned independently from the business it supervises. This independent positioning is warranted by the need for independent reporting, unrestricted access to senior management and structural periodic meetings with the CEO.

Within NN Leven's broader risk framework, the purpose of the Compliance Function is to:

- Understand and advocate integrity-related rules, regulations and laws for the effective management of business conduct risk; proactively work with and advise the business to manage business conduct risk throughout NN Leven's products' life cycle and our business' activities to meet stakeholder expectations;
- Develop and enhance tools to strengthen the three lines of defence to detect, communicate, manage and 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 reporting on business conduct risk.

The Head of Legal & Compliance reports hierarchically to the CEO and functionally to the General Counsel of NN Group. The Head of Compliance as key function holder reports functionally to the Chief Compliance Officer of NN Group.

Notes to the Consolidated annual accounts continued

Actuarial Function

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 Supervisory Board in relation to Actuarial related topics. This contributes to an enhanced perception of customers, regulators and investors of 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 (primarily Solvency II, but also IFRS), underwriting and reinsurance arrangements and proactively advise the business to manage the risk of unreliable and inadequate technical provisions. This is done by:

- Conducting independent reviews of technical provisions and reporting on findings;
- Providing an opinion on the underwriting policy;
- Providing an opinion on reinsurance arrangements;
- Presenting a formal report to the NN Leven Board at least once a year;
- Contributing actively to Risk Management, particularly in ensuring consistency between assumptions set to calculate technical provisions and Solvency Capital Requirements (SCR).

Control and Support functions – Third line of defence

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 Management Board of NN Group and approved by the Audit Committee of the NN Group Supervisory Board, under the ultimate responsibility of this Supervisory Board. CAS independently assesses the effectiveness of the design and the quality of procedures and control measures of the organisation. CAS is an essential part of the governance structure of NN Leven.

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

The General Manager and staff of CAS are authorised to:

- Obtain without delay, from General managers within NN Leven, 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 and 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 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 Executive Board of NN Group 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 of NN Group and functionally to the chair of the Audit Committee. On a day-to-day basis the General Manager of CAS reports to the CEO of NN Group.

Risk Management System

The risk management system is not intended to be a sequential process but has been instead designed as a dynamic and integrated system. The system comprises of three important and interrelated components:

- A **risk control cycle**, embedded in
- An appropriate **organisation**, with
- A comprehensive **risk appetite framework**



Figure 1: the risk control cycle

Notes to the Consolidated annual accounts continued

The business environment 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.

Every employee has a role in identifying risk in their area of responsibility, the role of the management is to decide how to manage risk. 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. With risk management, we do not try to predict the future but instead pro-actively prepare for a wide range of scenarios.

Risk control cycle

NN Leven’s risk control cycle consists of four steps. The cycle starts with business processes that support the setting and realisation of business and risk objectives. The latter results in a risk strategy: risk appetite, policies and standards. The next steps of the cycle are to identify and assess the risks that need to be managed, followed by effective mitigation through controls and continuous monitoring effectiveness of controls, including reporting of risk levels.

The risk control cycle, combined with the Business Plan/financial control cycle and performance management/HR cycle, enables realisation of business objectives through ensuring NN Leven operates within the risk appetite.

Risk Strategy – Risk Appetite Framework

Risk appetite is the key link between NN Leven’s strategy, the capital plan and regular risk management as part of Business Plan execution. Accordingly, NN Leven’s risk appetite, and the corresponding risk tolerances (limits and thresholds), are established in conjunction with the business strategy and both aligned to the overall ambitions.

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 are not hard limits, but inform risk tolerances, contributing to avoiding unwanted or excessive risk taking, and aim to optimise use of capital. Risk tolerances are the qualitative and quantitative boundaries (limits and thresholds) consistent with the risk appetite statements.

NN Leven expresses its risk appetite via three key risk appetite statements, which are then internally detailed further into ten sub-statements, relevant risk tolerances, controls and reporting:

NN Group's Strategic priorities	Risk Appetite Statement	Description	Risk Appetite sub-Statement
 Innovate our business and industry <hr/> Value-added products and services	Strategic Challenges (Shaping the business)	We manage our portfolio of businesses on a risk-return basis to meet our strategic objectives whilst considering the interests of all stakeholders.	Managing Strategy
 Disciplined Capital Allocation	Strong Balance Sheet (Running the business - financially)	We limit our losses to own funds to a predefined limit after a 1-in-20 year event and do not want to be a forced seller of assets when markets are distressed.	Solvency, Liquidity
 Agile and cost-efficient operating model	Sound Business Performance (Running the business - operationally)	We conduct our business with the NN Group Values at heart and treat our customers fairly. We aim to avoid human or process errors in our operations and to limit the impact of any errors.	Employee Conduct and Business Culture, Sound Business Conduct, Customer Suitability, Operational Risks & Losses, Reliable Reporting, Business Continuity Management, IT Risks

Risk Taxonomy

NN Leven has defined and categorised its generic risk landscape in a mutually exclusive and collectively exhaustive risk taxonomy as outlined below. The risk taxonomy consists of approximately 50 main risk types clustered in six risk types mapped to the risk appetite statements.

Notes to the Consolidated annual accounts continued

For the use in day-to-day risk management, the main risk types are further split into approximately 150 sub risk types.

Risk Appetite Statement	Risk Types	Description
Strategic Challenges (Shaping the business)	Emerging Risks	Risks related to future external uncertainties that could pose a threat to the businesses of NN Leven.
	Strategic Risks	Risks related to unexpected changes to the business profile and the general business cycle as envisaged during strategic decision-making.
Strong Balance Sheet (Running the business - financially)	Market Risks	Risks related to (the volatility of) financial and real estate markets. This includes Liquidity risk.
	Counterparty Default Risk	Risk related to the failure to meet contractual debt obligations
	Non-Market Risks	Risks related to the products NN Leven sells.
Sound Business Performance (Running the business - operationally)	Non-Financial Risks	Risks related to people, inadequate or failed internal processes, including information technology and communication systems and/or external events.

Key Risk Tolerances

Risk Appetite Statement	Risk Types	Description
		Various metrics related to the Business Plan.
Strategic Challenges (Shaping the business)	License to operate	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.
Strong Balance Sheet (Running the business financially)	Financial	<p>Solvency II ratio: the ratio of Eligible Own Funds (EOF) to Solvency Capital Requirement (SCR). NN Group aims to capitalise NN Leven adequately at all times. To ensure adequate capitalisation, NN Leven manages its commercial capital levels (on the SII ratio) in accordance with the risk associated with the business activities, with lower bound limit of 130%.</p> <p>Solvency II ratio sensitivities: NN Leven monitors the changes for both EOF and SCR under various predefined scenarios,</p> <p>Interest rate risk limits: NN Leven has implemented limits and tolerances for interest rate risk exposures.</p> <p>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 issuer (corporate and sovereign), asset type and country of risk.</p>
Sound Business Performance (Running the business - operationally)	Reputation Operations	Annual Loss Expectancy and materiality: Tolerances on potential yearly loss, reputation impact, financial reporting accuracy.

Risk appetite statements are implemented within the business through the use of risk tolerances and limits. Risk policies and procedures provide specific risk tolerances and limits within all relevant risk categories in line with the risk appetite statements.

Risk Assessment & Control

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

Notes to the Consolidated annual accounts continued

Risk Appetite Statement	Risk Class	Risk Assessment and main mitigation technique
Strategic Challenges (Shaping the business)	Emerging Risks	Scenario analysis and contingency planning
	Strategic Risks	Scenario analysis and business planning
Strong Balance Sheet (Running the business – financially)	Market Risks	NN internal model; NACA, ALM studies, SAA, limit structure, Derivatives
	Counterparty Default Risk	NN internal model; limit structure
	Non-Market Risks	NN internal model; PARP, limit structure, reinsurance
Sound Business Performance (Running the business – operationally)	Non-Financial Risks	Risk footprints; business, assurance and key controls, control testing, incident management

As part of the regular ‘Own Risk and Solvency Assessment’, a bottom-up full scope risk assessment is performed at least annually. Risk control activities are proportional to the risks arising from the activities and processes to be controlled. It is management’s responsibility to promote appropriate risk control activities, based on risk identification and risk appetite, by ensuring that all employees are aware of their role in the risk management system.

Own Risk and Solvency Assessment (ORSA)

NN Leven prepares an ORSA at least once a year. 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. Stress testing examines the effect of exceptional but plausible scenarios on the capital position of NN Leven. Stress testing can also be initiated outside 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.

Product Approval and Review Process (PARP)

The PARP has been developed to enable effective design, underwriting, and pricing of all 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 considers 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.

New Asset Class Approval (NACA) and investment mandate process

NN Leven maintains a NACA for approving investments in new asset classes. 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.

Non-financial risks

Business conduct, operations and continuity & security risks and related second order potential reputation impact are monitored in their mutual relationship as ‘Non-Financial Risk’ (NFR). NFRs are identified, assessed, mitigated, monitored and reported in the overall risk-control cycle within NN Leven. Key NFRs are included into the quarterly risk reporting.

Responsible Investment Framework policy and restricted list

NN Leven has a policy framework in place to ensure that our assets are invested responsibly. Amongst others, the policy includes requirements to systematically incorporate Environmental, Social and Governance (ESG) factors into the investment process. 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 monitoring

The risk profile is monitored against the risk appetite, risk assessments and the risk limits derived from the risk appetite. Results, including deficiencies, conclusions and advices, are to be reported regularly to the management board. Action shall be taken by management when monitoring indicates that risks are not adequately controlled.

Notes to the Consolidated annual accounts continued

Risk Appetite Statement	Risk Reporting and Monitoring
Strategic Challenges (Shaping the business)	Actively monitor and manage our products, distribution channels and organisation, as well as key performance and risk drivers of our business. Monitor alignment of investments with the Restricted List. This function is performed by Corporate Citizenship at NN Group.
Strong Balance Sheet (Running the business – financially)	Monitor financial risks on our balance sheet via our Solvency II capital position. Monitor our capacity to meet our payment and collateral obligations, even under severe liquidity stress scenarios.
Sound Business Performance (Running the business operationally)	Monitor alignment with applicable laws and regulations, NN Group policies and standards. Actively monitor and manage employee conduct and foster a business culture demonstrating that we live the NN values Accept but limit losses from non-financial risk and therefore manage to agreed tolerances.

Risk reporting

On a quarterly basis, the Management Board and the Supervisory Board of NN Leven are presented with an Own Funds – Solvency Capital Requirement (OF/SCR) Report and an Enterprise Risk Management Report. The first report aims to provide an overview of the quarterly Solvency II capital position and development. The latter report is to provide one consistent, holistic overview of the risks of NN Leven. It focuses on comparing current risk levels to our risk appetite and aims to encourage forward looking risk management.

It builds on the following quarterly reports:

- Risk reports (e.g. Interest rate risk report, Insurance and Financial Risk report, Effective Control Framework report);
- Liquidity report;
- Own Funds/SCR report.

In the risk reporting process NN Leven also reports the Solvency II ratio sensitivities assessing the changes in various scenarios for both EOF and SCR. The size and type of the shocks applied for each sensitivity is decided by the NN Group Management Board.

Solvency II own funds and SCR reporting is the NN Leven equivalent to the Value at Risk. Solvency II ratio sensitivities are therefore the alternative analysis for market risk sensitivities versus IFRS sensitivities according to IFRS 7 Financial Instruments: Disclosures.

Recovery planning

NN Leven has determined a set of measures for early detection of, and response to a financial or non-financial crisis should it occur. These include monitoring indicators which are expected to provide early-warning of emerging crises, advance preparation of options to raise or release capital, allocation of roles and responsibilities in case of a crisis, and other practical arrangements that may be required depending on the type of crisis. The Management Board is responsible for the Preparatory Crisis Plan and the update of the report is performed by the first line of defence.

Risk profile

Partial Internal Model (PIM)

The SCR constitutes a risk-based capital buffer which is calculated based on actual risks on the balance sheet. Under Solvency II, the SCR is defined as the loss in basic own funds resulting from a 1-in-200 year adverse event over a one-year period. The internal risk capital framework is a combination of internal model and standard formula components. The largest component uses internally developed methodologies for modelling the market, business and insurance risks to determine the solvency position for reporting and NN Group consolidation purposes. The capital requirement for operational risk is based on the standard formula approach.

The choice for a PIM is based on the conviction that an internal model approach can better reflect the specific assets and therefore the market risk in the portfolio of NN Leven e.g. sovereign and other credit spread risks. In addition, the approach to the most significant non-market risks within NN Leven such as longevity (trend uncertainty) and expense risk (closed block treatment) can be better tailored to the specific portfolio characteristics.

Assumptions and limitations

Risk-free rate and volatility adjustment:

The assumptions regarding the underlying risk-free curve are crucial in discounting future cash flows when calculating the market values of assets and liabilities. For liabilities, NN Leven applies the methodology provided by EIOPA for the risk-free rate including the credit risk adjustment (CRA) and the ultimate forward rate (UFR). Where approved by the regulator, the risk-free rate is adjusted with the Volatility Adjustment (VOLA) for the calculation of own funds.

Valuation assumptions – replicating portfolios:

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

Notes to the Consolidated annual accounts continued

Diversification and correlation assumptions:

As for any integrated financial services provider offering variety of products across different business segments, diversification is key to NN Leven's 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 this correlation effects into account when aggregating results at NN Leven risk categories.

Where possible, correlation parameters are derived from 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. Based on these correlations, industry-standard approaches such as Gaussian copula or VaR-CoVaR are used to determine the dependency structure of quantifiable risks.

Model limitations:

NN Leven's PIM resulted from balancing between (1) an easy-to-communicate 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 wide variety of NN Leven's assets and liabilities, the PIM is more complex than the standard formula.

Inherent model limitations related to the calibration of a 1-in-200 year stress event for a full spectrum of market and non-market risks include the use of limited historical data to determine a distribution of forward looking risk factor stresses as well as the use of modelling assumptions and expert judgement.

Non-quantifiable risks such as strategic, reputational and model 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 agree mitigating actions required.

Solvency II ratio of NN Leven

The following table shows the NN Leven Solvency II ratio as per 31 December 2019 and 31 December 2018 respectively, with for 2018 the numbers of NN Leven and former Delta Lloyd Leven presented separately and based on the merged company.

	2019	2018 merged ¹	2018>NNL	2018)DLL
Eligible Own Funds (EOF)	12,520	11,872	8,744	3,074
Solvency Capital Requirement (SCR)	5,864	5,052	3,430	1,707
Solvency II ratio (EOF/SCR)	213%	235%	255%	180%

¹ The merged company SCR leads to EUR 85 million additional diversification, which is resulting from EUR 99 million diversification from market risks and non-market risk plus EUR 5 million from Operational Risk and minus EUR 20 million from LACDT calculations.

Solvency Capital Requirement based on the Partial Internal Model

The SCR constitutes a risk based capital buffer, which is calculated based on actual risks on the balance sheet. Under Solvency II the SCR is defined as the loss in basic own funds resulting from a 1-in-200 year adverse event over a one-year period.

The following table shows the NN Leven SCR as of 31 December 2019 and 31 December 2018:

	2019	2018
Market risk	3,369	2,870
Counterparty default risk	64	98
Non-market risk	5,614	4,648
Diversification market – non-market risks	-2,099	-1,733
Total BSCR	6,948	5,883
Operational risk	492	453
Other	-58	-54
Solvency II SCR	7,382	6,282
LACDT	-1,518	-1,230
Total SCR	5,864	5,052

The breakdown of all the SCR risk types and explanations for the most important changes in the risk profile over the year of 2019 are presented in detail below. Overall the market risks increased primarily due to an increase in interest rate risk of EUR 499 million, however this was offset for a large part by diversification and less significant movements in other risks. The non-market risk increased because of the lower interest rate curve and the effect this has on longevity risk.

The loss-absorbing capacity of deferred taxes (LACDT) benefit increased by EUR 288 million primarily due to the higher SCR, reference is made to Note 27 'Taxation' in the annual accounts. In the above table, 'Other' includes loss-absorbing capacity of technical provisions (LACTP) and some minor non-modelled risks including those required by the regulator.

Notes to the Consolidated annual accounts continued

Main types of risks

As outlined above, the following principal types of risk are associated with NN Leven's business which are further discussed below:

Market, counterparty default and liquidity risk

- **Market risk:** the risk of potential losses due to adverse movements in financial market variables. Market risks include (i) equity risk; (ii) real estate risk; (iii) interest rate risk; (iv) credit spread risk; (v) foreign exchange risk; (vi) inflation risk; (vii) basis risk; and (viii) concentration risk;
- **Counterparty default risk:** the risk of potential losses due to unexpected default or deterioration in the credit rating of NN Leven's counterparties and debtors;
- **Liquidity risk:** the risk that NN Leven does not have sufficient liquid assets to meet its financial obligations when they become due and payable. This risk is not part of the SCR PIM.

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 return benefitting NN Group and its 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 a number of relevant policies within clearly defined and monitored limits, a framework that integrates ESG factors in the investment decision making, and the possibility of reducing downside risk through various hedging programmes.

Market risk capital requirements

	2019	2018
Interest rate risk	3,764	3,165
Equity risk	2,316	1,684
Spread risk	2,924	2,963
Real estate risk	1,315	1,139
FX risk	178	247
Inflation risk	117	205
Basis risk	96	84
Concentration risk	0	0
Diversification market risk	-7,340	-6,616
Market risk	3,369	2,871

The table below sets out NN Leven's asset class values as at 31 December 2019 and 2018.

Investment assets

	Market value 2019	% of total 2019	Market value 2018	% of total 2018
Fixed income	97,341	87%	91,633	87%
Government bonds and loans	48,604	43%	45,422	43%
Financial bonds and Loans	5,659	5%	5,328	5%
Corporate bonds and loans	14,925	13%	14,377	14%
Asset-backed securities	2,305	2%	1,622	2%
Mortgages ¹	25,547	23%	24,390	23%
Other retail loans	301	0%	494	0%
Non-Fixed income	14,589	13%	12,449	12%
Common & Preferred Stock	4,060	4%	3,105	3%
Private equity	797	1%	624	1%
Real estate	8,244	7%	7,201	7%
Mutual funds (money market funds excluded)	1,488	1%	1,519	1%
Money market instruments (money market funds included)²	45	0%	1,041	1%
Total investments	111,975	100%	105,123	100%

¹ Mortgages are at book value.

² Money market mutual funds are included in the Money Market Instrument.

As presented in the table, several key developments in the portfolio have occurred over the course of 2019. NN Leven continued to shift investments from low yielding asset classes to asset classes with an attractive risk return profile.

During 2019 NN Leven sold a portion of the government bonds in favour of additional investments in loans and mortgages in accordance with the strategic asset allocation (SAA). The increase in mortgages is due to additional investments in order to move towards the SAA. In general, total investments increased due to market developments. This is mainly due to decreased interest rates and spread tightening which increases the value of the fixed income portfolio.

The ABS portfolio increased due to new investments. The additional investments are done for our hedge accounting program that requires floating instruments. The increase in the equity portfolio is due to rising equity markets and new investments in line with the SAA.

Notes to the Consolidated annual accounts continued

Interest rate risk

Interest rate risk is defined as the possibility of having losses due to adverse changes in the risk-free interest rate curve used for discounting assets, and liabilities cash flows.

Exposure to interest rate risk arises from direct or indirect asset or liability positions that are sensitive to changes in the risk-free interest rate curve. NN Leven's SCR based on PIM does not include the change in value of the risk margin due to interest rate shocks. The market movements include higher VOLA, lower risk-free interest curve and credit spreads. It should be noted that the increase of the interest rate risk SCR also contributes to the increase of the diversification across market risks.

Risk profile

As shown in the 'Market risk capital requirements' table before, the Interest rate risk SCR of NN Leven based on PIM increased from EUR 3,165 million in 2018 to EUR 3,764 million in 2019. The increase is mainly caused by the decline of the interest rate and the decrease of the UFR (from 4.05% to 3.90%). Individual transactions (like new investment in loans and mortgages and sale of government bonds) are not considered to materially influence the interest rate position of NN Leven as NN Leven manages the interest rate position in line with its Interest Rate Hedge Policy to stay within the predefined limits.

Risk mitigation

The interest rate position indicates to what extent the expected liability cash flows can be covered by the expected asset cash flows. NN Leven's interest rate risk management focuses on matching asset and liability cash flows as much as possible. NN Leven manages its economic interest rate position by investing in long-term bonds and interest rate swaps matching liability maturities.

Risk measurement

In discounting the EUR dominated asset cash flows, NN Leven uses the market swap curve. For the purpose of discounting EUR dominated liability cash flows, NN Leven uses a market swap curve minus credit risk adjustment plus the VOLA. The VOLA is treated as part of the credit spread risk. In line with Solvency II regulations, NN Leven extrapolates the EUR swap curve from the 20 year last liquid point onwards to the UFR. 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.

NN Leven's Solvency II ratio decreases when the interest rate reduces or UFR decreases. At the end of December 2019, the interest rate curve was significantly lower compared to the end of December 2018 and the UFR level decreased from 4.05% to 3.90%.

The sensitivity of the Solvency II ratio to changes in interest rates is monitored on a quarterly basis.

Solvency II ratio sensitivities for interest rate comprises a set of shocks, each of them is calculated independently as a stand-alone scenario: a parallel shift of the discount curve, a steepening scenario for the interest rate used to discount asset cash flows after the last liquid point and a change of the ultimate forward rate.

For 2019, the UFR under Solvency II was set at 3.90%. In 2020 it is 3.75%. A further decrease with 0.15% in 2021 is to be expected.

Equity risk

Equity risk is defined as the possibility of having losses in Solvency II own funds due to adverse changes in the level of the 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 31 December 2019 and 2018.

Equity assets

	2019	2018
Common & Preferred stock	4,060	3,105
Private equity	797	624
Mutual funds (money market funds excluded)	1,488	1,519
Total	6,344	5,249

The increase in market value of the Common & Preferred stock portfolio is driven by rising equity markets. Also, additional investments in line with the SAA during 2019 increased the portfolio. The increase in market value of the Private equity portfolio is driven by a higher valuation of the companies in our portfolio.

Risk mitigation

Exposure to equities provides additional diversification and up-side return potential in the asset portfolio of an insurance company with long-term illiquid liabilities. The concentration risk on individual issuers is mitigated under relevant 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 as well as a long calls to hedge the equity risk.

NN Leven monitors the sensitivity of the Solvency II ratio to changes in equity prices on a quarterly basis.

Notes to the Consolidated annual accounts continued

The SCR for Equity risk increased from EUR 1,684 million as at December 2018 to EUR 2,316 at December 2019 as the increase in market value automatically increases the required capital.

Risk measurement

NN Leven monitors the sensitivity of the Solvency II ratio to changes in equity prices on a quarterly basis.

Credit spread risk

Credit spread risk reflects the impact of credit spreads widening (or narrowing) due to changes in expectation of default, illiquidity and any other risk premiums priced into the market value of assets in scope, as listed below.

For the quantification of the credit spread risk, for the SCR calculation, NN Leven assumes no change to the VOLA 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 SCRs. This approach is approved by DNB, to ensure appropriate risk incentives on asset allocation decisions. 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 'Solvency Capital Requirement based on the Partial Internal Model' table before, the credit spread risk SCR of NN Leven based on PIM has decreased from EUR 2,963 million in 2018 to EUR 2,924 million in 2019. This is caused by lower interest rates and investments in mortgages.

Fixed-income bonds and loans by type of issuer

	Market value		Percentage	
	2019	2018	2019	2018
Government Bonds ¹	48,604	45,422	68%	68%
Asset-backed securities	2,305	1,622	3%	3%
Finance and insurance	5,659	5,328	8%	6%
Manufacturing	4,442	4,502	6%	7%
Utilities	1,904	1,940	3%	3%
Information	1,313	1,325	2%	2%
Real estate and Rental and leasing	1,326	1,139	2%	2%
Transportation and Warehousing	1,154	780	2%	1%
Others	4,786	4,692	7%	8%
Total	71,493	66,750	100%	100%

¹ Government Bonds includes Government loans

There are no large shifts between the issuer types. The increase in government bonds is driven by a steep decrease in market yields. The increase in ABS is due to additional investment need for the floating hedge accounting program.

The table below sets out the market value of NN Leven's assets invested in government bonds by country and maturity. During 2019 we see a steep increase in government bond exposure for most of the countries due to a decrease in market yields. Given the attractive yield, new investments have been done in US treasuries. The increase in 'Other' is caused by the investment in credits and CRE loans.

Market value of government bond and government loans 2019 by number of years to maturity

	Rating ¹	Market value of government bond and loans 2019 by number of years to maturity ²								Total
		0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	
France	AA	20	23	115	289	374	2,289	2,091	4,708	9,907
Germany	AAA	20	8	122	900	1,310	4,335	2,142	0	8,837
Netherlands	AAA	1	218	47	831	1,251	2,424	2,504	29	7,304
Austria	AA+	118	162	159	196	1,335	1,442	763	1,070	5,244
Belgium	AA-	111	0	326	300	984	1,420	1,772	0	4,913
Multilateral	AAA	1	12	186	165	493	1,022	661	14	2,554
United States	AAA	1	1	1	0	1	58	2,156	0	2,218
Spain	A-	1	0	0	78	97	685	1,252	0	2,112
Finland	AA+	142	37	0	0	466	11	973	0	1,628
Italy	BBB	0	0	0	0	688	122	161	0	971
Ireland	A+	0	0	0	29	110	164	154	0	456
Other - Above investment grade		7	81	319	47	939	750	0	-16	2,128
Other - Below investment grade		31	6	27	187	58	6	0	16	332
Total		451	548	1,302	3,023	8,106	14,727	14,627	5,821	48,604

¹ NN Group uses the second best rating of Fitch, Moody's and S&P to determine the credit rating label of its bonds.

² Based on legal maturity date.

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Market value of government bond and government loans 2018 by number of years to maturity

	Rating ¹	Market value of government bond and loans 2018 by number of years to maturity ²									Total
		0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+		
Germany	AAA	48	26	21	312	2,132	3,337	3,514	0	9,391	
France	AA	0	20	24	306	443	2,154	1,802	3,835	8,583	
Netherlands	AAA	45	48	317	779	1,385	2,399	2,833	30	7,837	
Austria	AA+	74	123	180	217	1,615	1,541	681	900	5,331	
Belgium	AA-	7	115	0	519	1,079	1,297	1,580	0	4,597	
Multilateral	AAA	57	1	12	222	605	967	577	11	2,452	
Spain	A-	1	1	0	0	138	635	1,038	0	1,811	
Finland	AA+	43	147	39	27	485	10	886	0	1,638	
Italy	BBB	0	0	0	0	194	496	178	0	868	
Ireland	A+	0	0	0	0	140	154	127	0	422	
Portugal	BBB-	0	0	0	0	333	74	0	0	407	
Other - Above investment grade		16	37	102	336	430	714	193	0	1,829	
Other - Below investment grade		7	31	2	98	101	2	15	0	256	
Total		298	548	696	2,817	9,081	13,781	13,426	4,776	45,422	

¹ NN Group uses the second best rating of Fitch, Moody's and S&P to determine the credit rating label of its bonds.

² Based on legal maturity date.

The table below sets out the market value of non-government fixed-income securities (excluding mortgages and derivatives) by rating and maturity. The AAA securities are primarily asset-backed securities.

Market value non-government bond securities and non-government loans (2019)

	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+	N.A.	Total
AAA	58	176	123	247	395	886	664	1,318	0	3,866
AA	187	487	344	288	512	257	130	85	0	2,291
A	548	470	1,087	1,780	1,169	75	248	75	0	5,451
BBB	554	915	1,033	2,950	2,040	709	437	75	0	8,714
BB	57	149	159	684	706	23	16	2	0	1,796
B	0	28	5	70	133	0	0	0	0	237
CCC	0	1	4	11	0	0	0	0	0	17
CC	0	0	0	0	0	0	0	0	0	0
C	0	20	0	0	0	0	0	0	0	20
D	0	0	0	0	0	14	0	0	0	14
No rating available	3	0	0	1	29	127	0	71	0	231
Total	1,408	2,247	2,756	6,031	4,984	2,091	1,495	1,626	0	22,637

Market value non-government bond securities and non-government loans (2018)

	Market value of non-government bond securities and loans 2018 by number of years to maturity									
	0-1	1-2	2-3	3-5	5-10	10-20	20-30	30+	N.A.	Total
AAA	48	11	76	241	348	306	667	819	0	2,516
AA	129	190	452	384	378	179	92	109	0	1,913
A	356	512	503	1,937	1,577	51	282	134	0	5,353
BBB	669	648	862	2,317	3,200	609	743	158	0	9,207
BB	80	80	203	690	772	11	6	17	0	1,859
B	0	0	25	19	99	0	0	0	0	144
CCC	0	0	1	2	0	0	0	0	0	3
CC	0	0	0	0	0	0	0	0	0	0
C	0	0	29	0	0	15	0	0	0	44
D	0	0	0	0	0	0	0	0	8	8
No rating available	-1	0	0	0	0	33	135	113	0	280
Total	1,282	1,441	2,152	5,591	6,375	1,205	1,925	1,350	8	21,327

The corporate bonds and commercial lending increased slightly. An increase in commercial lending is in line with the SAA. The increase in AAA investments is mainly driven by additional investments in ABS. Other changes are driven by redemptions and market developments.

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The table below sets out NN Leven's loans and debt securities by market value per credit rating as at 31 December 2019 and 2018 respectively.

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

	Fair value	Fair value	Book value	Book value
	2019	2018	2019	2018
AAA	24,067	21,744	23,836	21,570
AA	25,108	23,159	25,066	23,129
A	8,728	8,288	8,678	8,209
BBB	10,692	10,932	10,625	10,931
BB	2,052	2,080	2,025	2,096
B	297	194	298	196
CCC	17	3	18	4
CC	0	0	0	0
C	20	44	19	47
D	22	1	22	1
No rating available	244	298	244	298
Mortgages ¹	25,547	24,390	25,547	24,148
Other Retail Loans	301	494	301	494
Total	97,095	91,633	96,679	91,128

¹ Mortgages at fair value refer to all mortgages using the same criteria of and aligned with the mortgages figure in the Investment Assets table.

The increase in total loans and debt securities is mainly driven by market developments and additional investments in mortgages, which is in line with the SAA.

Mortgages

For the mortgage portfolio, the required capital is included in the credit spread risk module. The credit spread risk module captures the effect on own funds when the mortgage spread (difference valuation curve and risk free curve) changes.

The Loan-to-Value (LTV) for residential mortgages is based on the net average loan to property indexed value; NN Leven stands at 72% (2018: 75%), due to the high proportion of interest-only mortgages. Since the change in the Dutch tax regime in 2014 with regards to mortgage interest deductibility, a shift from interest-only mortgages to annuity and linear payment type mortgages has been observed. The inherent credit risk is compensated primarily by means of the underlying property, but also through the inclusion of mortgages guaranteed by the Nationale Hypotheek Garantie (NHG) and other secondary covers like savings, investments and life insurance policies. Mortgages with NHG accounted for 30% (2018: 29%) at NN Leven at the end of 2019.

Credit quality: NN Leven mortgage portfolio, outstanding¹

	2019	2018
Performing mortgage loans not past due	23,016	21,992
Performing mortgage loans past due	184	261
Non-performing mortgage loans ²	90	160
Total	23,290	22,413
Provisions for performing mortgage loans	4	3
Provisions for non-performing mortgage loans	10	14
Total	14	17

¹ The figures in the table contain mortgages originated by NN Bank. Mortgages sourced via third party managers (EUR 1.451 million as at 31 December 2019 and EUR 1.191 million as at December 2018) are not included in the table.

² The non-performing loans include "unlikely to pay" mortgage loans, which may not be past due.

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 loan is classified as Unlikely To Pay (UTP) for the other credit risk related reasons. A loan is re-categorised as a performing loan again when the amount past due has been paid in full.

The performing mortgage loans past due and non-performing mortgage loans decline due to the better payment behaviour on the existing portfolio.

Collateral on mortgage loans¹

	2019	2018
Carrying value	23,291	22,414
Indexed collateral value of real estate	36,084	33,327
Savings held ²	988	1,107
NHG guarantee value ³	5,830	5,541
Total cover value + NHG guarantee capped carrying value ⁴	23,239	22,309
Net exposure	52	105

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 and investment 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.

Notes to the Consolidated annual accounts continued

The carrying value increased due to additional investments in mortgages to conform SAA. Collateral value increased further in line with the development in the Dutch housing market of increasing appreciation rates in 2019.

Risk mitigation

NN Leven aims to maintain a low-risk, well diversified fixed-income portfolio. NN Leven has a policy of maintaining a high quality investment grade portfolio while avoiding large risk concentrations. In order to reduce the credit spread risk, NN Leven has increased its investments in non-listed and own-originated assets. The concentration risk on individual issuers is managed using rating-based issuer limits on one single name.

In 2016, NN Leven started a spread lock programme. The goal of this programme is to maintain the spread level of the underlying government bonds to prevent the spread moving into unattractive levels. The entered spread locks reduced the spread exposures on French, Dutch and German bonds. Some German and Dutch spread locks have been settled during the last quarter of 2019, although some French spread locks have been cash settled while the underlying bonds have been kept in portfolio. At the end of 2019 the entered spread locks in the portfolio have a total face value of EUR 1.2 billion.

Risk measurement

NN Leven has exposure to government, corporate and financial debt, and is exposed to spread changes to these instruments. Furthermore, the VOLA in valuation of liabilities introduces an offset to the valuation changes on the asset side. The Solvency II sensitivities for spread changes are monitored on a quarterly basis. The sensitivities entail three possible scenarios: spread widening for AAA rated government bonds, spread widening for non-AAA rated government bonds, and spread widening for corporate bonds. For all scenarios, a parallel widening of the spread curves of +50bps is assumed. There is a corresponding translation of the spread widening on asset valuations on the VOLA in each of the scenarios.

Government bonds shocks are applied to the following asset classes: government bonds and government linked instruments (sub-sovereigns and supranational). Corporate bonds shocks are applied to the following asset classes: corporate bonds (financials and non-financials), mortgages, covered bonds, subordinated bonds, asset backed securities and loans.

Real estate risk

Real estate risk is defined as the possibility of having losses due to adverse changes in the level of real estate valuation. Exposure to real estate risk arises from direct or indirect asset positions that are sensitive to real estate returns. With the long-term nature of the liabilities of NN Leven, illiquid assets such as real estate play an important role in the strategic allocation.

Risk profile

Real estate assets are presented excluding forward commitments. NN Leven's real estate exposure increased from EUR 7,201 million as at 31 December 2018 to EUR 8,244 million as at 31 December 2019.

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 assets per category as at 31 December 2019 and 2018, respectively.

Real estate assets per category¹

	Market value	Book value	Market value	Book value
	2019	2019	2018	2018
Investment Property	8,232	8,232	7,188	7,188
Mutual Funds - Property	11	11	11	11
Plant and equipment (for own use)	0	0	0	0
Property (for own use)	2	2	2	2
Total	8,244	8,244	7,201	7,201

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

Risk mitigation

The concentration risk on individual issuers is mitigated using relevant investment mandates. There are no hedge instruments available to further manage this risk.

Risk measurement

NN Leven monitors the sensitivity of the Solvency II ratio to changes in the value of real estate on a quarterly basis. The increase in SCR capital for Real Estate is a result of several transactions and market revaluation.

Foreign exchange risk

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

Risk profile

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

Notes to the Consolidated annual accounts continued

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.

Risk measurement

The SCR for own account for foreign exchange risk based on PIM decreased from EUR 247 million to EUR 178 million at year end 2019. This was due to a decrease of exposure in emerging market currency which is not hedged, new exposure in USD and EUR of which USD is fully hedged (EUR -61 million).

Inflation risk

NN Leven has written group pension contracts under which pension benefits are indexed in line with the Dutch or European inflation rate. Part of this inflation risk is hedged by inflation-linked derivative instruments. Furthermore, NN Leven expenses are sensitive to inflation risk.

Risk profile

NN Leven expenses are sensitive to inflation risk as a result of, for example, increasing wages. The expenses included in the IFRS Reserve Adequacy Test (RAT) and Solvency II best estimate are also sensitive to inflation risk.

Inflation linked group contracts often include caps on the maximum inflation level that is covered.

Risk measurement

Expense inflation is included in the expense risk calculations. In the PIM inflation risk is recognized as a separate risk module. As per Q4 2019 the required capital for inflation risk is EUR 117 million, while in 2018 the risk was EUR 205 million. The decrease is a result of a model update with an impact of EUR -90 million. Other effects like change in inflation rates and the effect of 2 extra inflation linked swaps bought in Q4 2019 do offset each other. This is the remaining risk after considering the reducing risk from the inflation linked swaps and bonds NN Leven has on its balance sheet to mitigate the inflation risk.

Risk mitigation

NN Leven hedges part of the inflation risk that relates to the inflation guaranteed liabilities using inflation linked swaps. These instruments are used to offset the inflation risk included in the liabilities (i.e. the inflation linked group contracts).

Basis risk

Basis risk can occur when the underlying asset or liability behaves differently than the related hedge instrument, which results in a loss.

Risk profile

The SCR for basis risk slightly increased from EUR 84 million in 2018 to EUR 96 million at year end 2019. The increase is caused by increased volatility in the markets and widening of credit spreads in the hedge for the separate account business.

Risk mitigation

Basis risk is mitigated by ensuring that hedge instruments are selected to mimic the underlying exposure as good as possible.

Counterparty default risk

Counterparty default risk (CDR) is the risk of loss of investments due to unexpected default, or deterioration in the credit standing, of the counterparties and debtors (including reinsurers) of NN Leven. The SCR for CDR is primarily based on the associated issuer's probability of default (PD) and the estimated loss-given-default (LGD) on each individual asset combined with diversification across assets.

The CDR module covers any credit exposures which are not covered in the spread risk sub-module. For each counterparty, the CDR module takes account of the overall counterparty risk exposure pertaining to that counterparty. The exposures in CDR are derivatives, cash & deposits, money market funds and reinsurance.

Risk profile

In 2019, the total decrease of the CDR was EUR 34 million. The main driver is the settlement of Dasan Fund in Korea (EUR -33 million). Several other effects offset each other. Cash is the largest Type I exposure. Other sources of CDR include reinsurance and the claims on counterparties from over-the-counter derivatives. NN Leven exposure in Type II counterparty default includes policy holder debtor and 'past due' exposures.

Risk mitigation

NN Leven uses different credit risk mitigation techniques. For Over The Counter derivatives, the use of International Swaps and Derivatives Associations (ISDA) master agreements accompanied with credit support annexes is an important example of risk mitigation. Other forms of credit risk mitigation include reinsurance collateral. For cash and money market funds, limits per counterparty are put in place.

Risk measurement

In the CDR module, the CDR Type I is applicable to exposures which might not be diversified and where the counterparty is likely to be (externally) rated. The underlying model is the Ter Berg model (basis for Standard Formula under Solvency II).

The capital charges for the CDR Type I and Type 2 exposures form the basis for the respective capital treatment in the CDR module.

Notes to the Consolidated annual accounts continued

Market and credit risk: separate account

Separate account guaranteed group pension business

In the separate account pension portfolio, investments are held in separate accounts on behalf of the sponsor employer who concluded their contract with NN Leven. The separate account businesses are those in which the policyholder bears the majority of the market and credit risk.

Regardless of actual returns on these investments, NN Leven guarantees pension benefits for the beneficiaries under the contract. The value of the guarantee that NN Leven provides 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 increased from EUR 3.9 billion in 2018 to EUR 4.2 billion in 2019.
- Businesses in the separate account category is 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. For the purpose of 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 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 programmes.

However, in this note no distinction will be made in the risks of these accounts.

Risk mitigation

NN Leven currently hedges the value of the guarantees it provided under group pension contracts. For the purpose of hedging, the exposure under such guarantees is discounted at the swap curve without the extrapolation to the UFR. The hedge programme includes equity basket options, swaps and equity futures.

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.

NN Leven is responsible for maintaining sufficient liquidity levels to meet our 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.

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 on 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 possible collateral calls for its derivative position. The composition of the NN Leven derivative portfolio leads to the main liquidity risk being caused by rising interest rates, that will lead to outflow of cash to match the decreasing market value of its interest rate derivatives.

Risk mitigation

The Treasury Function at NN Leven is part of the Balance Sheet Management team. It is responsible for liquidity management. It is in close contact with NN Group and the Financial Risk Management teams.

Risk mitigation is performed on a daily basis. Main risk mitigating action is to hold minimum liquid funds in relation to possible collateral calls from interest rate changes. When considering (interest rate) hedging decisions the consequences on the minimum liquidity requirements are taken into account.

The risk from higher lapses of insurance policies is mitigated by clauses on the surrender value and tax considerations.

Risk measurement

The Liquidity Risk Management Standard measures liquidity risk through the gap between liquidity needs and liquidity sources compared to available liquid assets for sale. This is calculated for different time horizons and different levels of liquidity sources.

Notes to the Consolidated annual accounts continued

Non-market risk

The non-market risks are split in:

- **Insurance risk:** is the risk related to the events insured by NN Leven and comprise actuarial and underwriting risks such as mortality, longevity and morbidity, which result from the pricing and acceptance of insurance contracts;
- **Business risk:** is the risk related to the management and development of the insurance portfolio but exclude risks directly connected to insured events. Business risk includes policyholder behaviour risks and expense risks. Business risks can occur because of internal, industry, or wider market factors. Policyholder behaviour risk is the risk that policyholders use options available in the insurance contracts in a way that is different from that expected by NN Leven. Depending on the terms and conditions of the insurance policy, and the laws and regulations applicable to the policy, policyholders could have the option to surrender, change premiums, change investment fund selections, extend their contracts, take out policy loans, and make choices about how to continue their annuity and pension savings contracts after the accumulation phase, or even change contract details. Policyholder behaviour therefore affects the profitability of the insurance contracts. Changes in tax laws and regulations can affect policyholder behaviour, particularly when the tax treatment of products affects the attractiveness of these products for customers.

Risk profile

The table below presents the non-market risk SCR composition based on PIM at the end of 2019 and at the end of 2018 respectively. The main changes in the risk profile are explained in the subsequent section of this document.

Non-market risk capital requirements

	2019	2018
Insurance risk	5,233	4,271
Business risk	1,344	1,254
Diversification non-market risk	-963	-877
Non-market risk	5,614	4,648

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

Insurance risk capital requirements

	2019	2018
Mortality (including longevity)	5,233	4,271
Morbidity	43	40
Diversification insurance risk	-43	-40
Insurance risk	5,233	4,271

The SCR for insurance risk is mostly driven by mortality risk, in particular longevity risk.

Mortality risk includes all risks related to higher claims versus the best estimate, caused by mortality experience.

Longevity risk is the risk that insured persons live longer than expected due to mortality improvements. 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 is related to disability insurance products that pay out fixed amounts or reimburses losses (e.g. loss of income) related to a certain event or certain illness or disability. Morbidity risk is of marginal importance, as the disability products are only sold as riders to life insurance policies.

Risk mitigation

Proper pricing, underwriting, and diversification are the main risk mitigating actions for insurance risks.

Management of the insurance risks is done by ensuring that the terms and conditions of the insurance policies that NN Leven underwrites are correctly aligned with the intended policyholder benefits to mitigate the risk that unintended benefits are covered. This is achieved through NN Leven's underwriting standards, product design requirements, and product approval and review processes. In addition, insurance risks are managed through concentration and exposure limits and through reinsurance to reduce the own fund volatility. In 2019, NN Leven entered into a reinsurance contract for the Chemours pension fund buy-out that covers all mortality related risks of a specific portfolio insured persons, thus removing the longevity risk of this portfolio.

Notes to the Consolidated annual accounts continued

Risk measurement

Insurance risk is measured with the internal model. The valuation of the risk is mainly impacted by the decrease of interest rate and VOLA (from 24 bp to 7 bp). In 2019, model and assumptions update had an impact of EUR 26 million before diversification.

Morbidity risk decreased mainly due to a portfolio run-off.

Business risk

Business risks 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

Business risk capital requirements

	2019	2018
Persistency and calamity	205	191
Expense	1,298	1,208
Diversification business risk	-159	-145
Business risk	1,344	1,254

The increase of the business risk is dominated by the effect of decreased interest rates.

Total administrative expenses for NN Leven in 2019 amounted to EUR 421 million. Parts of these expenses are variable, depending on the size of the business and sales volumes, and parts are fixed and cannot immediately be adjusted to reflect changes in the size of the business.

Expense risk relates primarily to the fixed part of NN Leven’s expenses, and is the risk that future actual expenses per policy exceed the expenses assumed per policy. The majority of the expense risk is driven by expense level risk.

A significant portion of the fixed expense risk is incurred in the closed block operations. NN Leven is exposed to the risk that the expenses will not decrease by the same rate as the number of policies in the in-force book leading to a per policy expense increase.

Risk mitigation

Policyholder behaviour risks – such as persistency and calamity 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 choices policyholders are likely to make, will improve, thereby decreasing the risk of a mismatch between actual and assumed policyholder behaviour.

Ongoing initiatives are in place to manage expense risk throughout NN Leven where company targets are in place to reduce expenses, thus, lowering expense risk going forward. These initiatives seek to reduce expenses through the number of underlying contracts in place. This is particularly relevant for the closed-block business that can only reduce in number of contracts.

In addition to the mitigating actions described, proper pricing, underwriting, claims management, and diversification mitigate business risks.

Non-financial risk

- **Business operations risk:** the risk related to inadequate or failed internal processes, including information technology and communication systems;
- **Business continuity & security risk:** the risk of accidents or external events impacting continuation or security of (people or assets in) our business operations;
- **Business conduct risk:** the risk 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 internal processes (including as a result of fraud and other misconduct), systems failure (including information technology and communications systems), human error, and certain external events.

Notes to the Consolidated annual accounts continued

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 accounting risk:** the risk of human errors during general ledger/risk systems processing and subsequent financial reporting;
- **Information (technology) risk (including cyber-risk):** the risk of data (information) corruption, misuse or unavailability in IT systems, either through external causes (cybercrime) or internal causes. Cybersecurity is an integral part of NN Leven's risk management strategy;
- **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 emerging laws and regulations, 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's assets (including physically stored data/information) or NN Leven's offices.

Risk mitigation

Non-financial risk assessments are done based on historic data as well as on a forward looking basis in order to capture future risks. Once mitigating measures have been implemented and proven to be effective through monitoring and testing, the residual risk becomes the managed risk.

Mitigation of risks can be preventive in nature (e.g. training and education of employees, monitoring service providers for (out)sourced activities, 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 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. The Chief Information Officer (CIO) function, led by the Information & Infrastructure Security (IIS) team, ensures Business Continuity Management, Cyber risk management and Business Information Security via standardised, internationally accepted frameworks, norms and technical guidelines as the basis to manage information technology risk.

NN Leven conducts regular risk and control monitoring to assess and evaluate the effectiveness of key controls. It determines whether the risks are within the risk appetite and in line with ambition levels, policies and standards. The exposure of NN Leven to non-financial risks are regularly assessed through risk assessments and monitoring. After identification of the risks, each quantifiable risk is assessed as the likelihood of occurrence as well as 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 internal controls. Operational Risk Management, as part of the second line of defence, is responsible for providing management with an objective assessment of the effectiveness and efficiency of NN Leven risks and controls.

Risk measurement

The SCR for operational risk was EUR 492 million and EUR 453 million as of 31 December 2019 and 31 December 2018 respectively. The main cause for the increase are the decreased interest rates. The SCR is calculated based on the standard formula for Solvency II. As it is additive to the modelled SCR, it should be considered as net of diversification with other NN Leven risks.

Notes to the Consolidated annual accounts continued

Business conduct risk

Risk profile

Through NN Leven's retirement services, insurance and investments products, NN Leven is committed to help our customers secure their financial future. To fulfil this purpose, we base our work on three core values: care, clear, commit. Our 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 ethical standards in each of the markets in which it operates (business conduct risk). All employees are expected to adhere to these laws, regulations and ethical standards and management is responsible for embedding the compliance related rules. Compliance is therefore an essential ingredient of good corporate governance. NN Leven continuously enhances its business conduct risk management programme to ensure that NN Leven complies with international standards and laws.

Risk mitigation

NN Leven separates business conduct risk into three risk areas: sound business conduct (includes internal fraud), employee conduct and customer suitability. In addition to effective reporting systems, NN Leven has a whistle-blower 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 our values. NN Leven has policies and procedures regarding anti-money laundering, anti-terrorist financing, sanctions, anti-bribery and corruption, customer 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 or facilitation) involving those countries.

NN Leven performs a product approval and review process when developing 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 market situation, customer expectations, and regulatory activity. The Compliance Function and the business work closely together with the aim to anticipate changing customers' needs.

Risk measurement

Business conduct risk is considered to be part of the operational risk SCR and is therefore not specifically calculated.

45 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, including customers and shareholders. 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 funding of NN Leven, either internal or external. Capital and liquidity management at NN Leven is performed in close cooperation with NN Group.

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 Group Management Board for its subsidiaries on the basis of policy documents, guidelines and procedures.

The capital position of NN Leven is evaluated in three perspectives: the statutory position, the 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 (also referred to as capital creation) 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 and collateral requirements from derivative transactions. This leads to monitoring and managing on a long term and short term perspective. The long term perspective includes possible events that can impact our liquidity position within a period of one year. It includes (i) liquid assets – in some cases subject to a haircut- divided by (ii) the expected outflow including lapses in a severe stress scenario. The short term perspective is based on a one-day horizon and compares (i) directly available cash divided by (ii) a one-day shock in cash outflow because of collateral calls in the derivative portfolio.

Main events in 2019

During 2019 a total amount of EUR 740 million dividend was paid in four equal instalments of EUR 185 million in March, June, September and December.

All scheduled coupon payments on the subordinated liabilities were met during the year.

Notes to the Consolidated annual accounts continued

EIOPA reduced the UFR as from 1 January 2019 from 4.05% to 3.9%. Per year closing the UFR stands at 3.9%; on 1 January 2020 it is decreased further to 3.75%.

In December 2019 the Dutch Ministry of Finance announced that the corporate tax rate will decrease to 21.7% from 2021, instead of the previously announced 20.5%. This update has been applied to the year-end figures of 2019. The deferred tax position and LACDT are adjusted accordingly as per year-end 2019.

On 13 December 2018, NN Group announced that it has obtained approval from DNB to execute the legal mergers of (former) Delta Lloyd Leven into NN Leven. The legal merger became effective on 1 January 2019. As a result, (former) Delta Lloyd Leven ceased to exist as a separate legal entity and NN Leven assumed all assets and liabilities of former Delta Lloyd Leven, including its subordinated notes of EUR 500 million.

On 8 January 2019 NN Leven acquired all outstanding shares in Aegon Czech for a cash consideration paid out of existing cash resources. Aegon Czech is integrated in the existing operational activities of the Czech branch of NN Leven.

With approval of the relevant supervisory authorities, at 1 October 2019 Aegon Czech was merged with NN Leven, where NN Leven is the acquiring entity and Aegon Czech ceased to exist as legal entity.

At the end of December 2019 an agreement was reached with NN Re on the conditions how to include the Aegon Czech business in the existing reinsurance treaty concerning NN Leven's Czech operations. The reinsurance treaty transfers as from the acquisition date all results from the Aegon Czech business to NN Re, in exchange for a cash consideration that compensates NN Leven for all cash spent on Aegon Czech.

Events after year-end

In March 2020, NN Leven made a dividend distribution of EUR 195 million from the 'Other reserves' to its shareholder NN Nederland. The solvency ratio per year end 2019 has not been adjusted for this dividend payment.

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 'Wet financieel toezicht' (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.

NN Leven uses the Partial Internal Model (PIM) to calculate capital requirements under Solvency II. The initial regulatory approval of the model from the Dutch regulator (DNB) was received in December 2015. The PIM is subject to a strict governance, and parts of it may be subject to change.

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.

NN Leven is well capitalised at 31 December 2019 with a Solvency II ratio of 213% based on the PIM.

Facility Agreement

Nationale-Nederlanden Interfinance B.V. (NNIF) and NN Leven have a facility agreement in place, providing NN Leven for the possibility to borrow short term funds from NNIF up to a maximum amount of EUR 1,000 million. The available funds are dependent on the available liquidity in NNIF and its own liquidity requirements. The funds may only be used to provide for liquidity needs at NN Leven related to collateral calls resulting from its derivative position. Interest is based on EONIA. When the liquidity requirements of NNIF exceed certain thresholds, NN Leven is required to pay back (part of) the funds drawn under the facility.

Notes to the Consolidated annual accounts continued

Structure, amount and quality of Own Funds

Subordinated liabilities included in NN Leven eligible Own Funds for Solvency II reporting:

In the Eligible Own Funds of NN Leven there are four subordinated liabilities.

Interest rate	Year of issue	Notional amount	Due date	First call date	Own Funds tier	Fair value (dirty) 2019 ¹	Fair value (dirty) 2018 ¹
4.52% (quarterly)	2014	450 million	Perpetual	29 February 2020	Tier 1	453 million	455 million
7.6% (annual)	2016	350 million	Perpetual	31 December 2026	Tier 1	359 million	348 million
5.6% (annual)	2014	600 million	10 February 2044	10 February 2024	Tier 2	676 million	674 million
9.0% (annual)	2012	500 million	29 August 2042	29 August 2022	Tier 2	535 million	538 million

¹ As defined based on Solvency II valuation guidelines.

The 9.0% EUR 500 million loan is due to external counterparties. The other three subordinated loans are borrowed from NN Group N.V.

Eligible Own Funds and Solvency Capital Requirement (EUR, millions)

	2019	2018 ¹
Total equity	23,925	16,702
Elimination of deferred acquisition costs and other intangible assets	-307	-232
Valuation differences on assets	2,595	828
Valuation differences on liabilities, including insurance and investment contracts	-19,370	-9,125
Deferred tax effect on valuation differences	3,698	1,730
Excess assets/liabilities	10,541	9,903
Qualifying subordinated debt	2,023	2,016
Foreseeable dividends and distributions	-47	-47
Basic Own Funds	12,517	11,872
Non-eligible Own Funds	0	0
Eligible Own Funds to cover Solvency Capital Requirements (a)	12,517	11,872
Solvency Capital Requirements (b)	5,864	5,052
NN Leven Solvency II ratio (a/b)²	213%	235%

¹ The 2018 figures are based on the pro-forma numbers of the merged entity NN Leven and Delta Lloyd Leven. The merger took place as per 1 January 2019

² The Solvency ratio for 2019 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 on the basis of consolidated accounts excluding net Deferred Tax Asset is classified as Tier 1;
- The Own Funds generated by the net Deferred Tax Asset is classified as Tier 3;
- The perpetual subordinated debt is classified as (restricted) Tier 1;
- The 2042 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:

- 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.

Notes to the Consolidated annual accounts continued

Eligible Own Funds to cover Solvency Capital Requirement

	Available Own Funds	Eligibility restriction	Non-eligible Own Funds	Eligible Own Funds
2019				
Tier 1	10,465			10,465
Of which:				
- unrestricted Tier 1	9,653			9,653
- restricted Tier 1	812	Less than 20% Tier 1		812
Tier 2 + Tier 3	2,052	Less than 50% SCR		2,052
Tier 2	1,211			1,211
Tier 3	841	Less than 15% SCR		841
Total	12,517			12,517

	Available Own Funds	Eligibility restriction	Non-eligible Own Funds	Eligible Own Funds
2018				
Tier 1	9,983			9,983
Of which:				
- unrestricted Tier 1	9,180			9,180
- restricted Tier 1	803	Less than 20% Tier 1		803
Tier 2 + Tier 3	1,889	Less than 50% SCR		1,889
Tier 2	1,212			1,212
Tier 3	677	Less than 15% SCR		677
Total	11,872			11,872

Credit ratings

On 18 September 2019, S&P Global Ratings affirmed NN Leven's 'A' long-term issuer credit and insurer financial strength ratings with stable outlook.

Capital adequacy assessment

On 31 December 2019 the SCR based on the PIM is EUR 5,864 million. The application of the restrictions can be found in the table above. The amount of Eligible Own Funds to cover the SCR is EUR 12,517 million, leading to a Solvency II ratio of 213%. The capital position of NN Leven met all regulatory solvency requirements following the Solvency II directive throughout 2019.

Authorisation of the Consolidated annual accounts

The Consolidated annual accounts of NN Leven for the year ended 31 December 2019 were authorised for issue in accordance with a resolution of the Management Board on 26 March 2020. 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, 26 March 2020

The Management Board

M.F.M. (Michel) van Elk, CEO and chair

P.J. (Patrick) Dwyer, CFO

J.J. (Hans) Bonsel, CRO

R.F.M. (Robin) Buijs

M.R. (Martijn) Hoogeweegen

A.G. (Annemieke) Visser-Brons

The Supervisory Board

J.L. (Janet) Stuijt, chair

D. (Delfin) Rueda, vice-chair

J.W. (Hans) Schoen

Confirmed and adopted by the General Meeting, dated 29 May 2020.

Parent company balance sheet

Amounts in thousands of euros, unless stated otherwise

Parent company balance sheet

As at 31 December	notes	2019	2018
Assets			
Cash and cash equivalents	2	56,831	964,862
Financial assets at fair value through profit or loss:	3		
– investments for risk of policyholders		23,347,321	19,937,370
– non-trading derivatives		9,692,033	4,621,382
– designated as at fair value through profit or loss		768,768	714,764
Available-for-sale investments	4	69,210,187	64,136,058
Loans	5	33,841,382	32,720,796
Reinsurance contracts		1,522,415	1,533,562
Subsidiaries, associates and joint ventures	6	8,355,184	7,579,730
Real estate investments	7	84,175	66,076
Property and equipment	8	45,615	803
Intangible assets		67,164	3,275
Deferred acquisition costs		239,870	228,408
Deferred tax assets	16	0	1,382,554
Other assets	9	5,052,551	3,714,141
Total assets		152,283,496	137,603,781
Equity			
Shareholder's equity (parent)		23,925,039	16,702,106
Undated subordinated loan		800,000	800,000
Total equity	10	24,725,039	17,502,106
Liabilities			
Subordinated debt		1,177,210	1,204,700
Other borrowed funds	11	204,732	705,416
Insurance and investment contracts		113,371,306	108,812,694
Financial liabilities at fair value through profit or loss:			
– non-trading derivatives		2,608,687	1,680,894
Deferred tax liabilities	16	2,856,759	2,434,655
Other liabilities	12	7,339,763	5,263,316
Total liabilities		127,558,457	120,101,675
Total equity and liabilities		152,283,496	137,603,781

References relate to the notes starting on page 99. 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	2019	2018
Gross premium income		4,361,986	3,528,597
Investment income	13	2,740,841	3,507,765
– gross fee and commission income		42,260	59,088
– fee and commission expenses		-102,083	-111,305
Net fee and commission income	14	-59,823	-52,217
Valuation results on non-trading derivatives	15	381,567	177,866
Foreign currency results		29,152	1,067
Share of result from subsidiaries, associates and joint ventures	6	676,169	665,373
Other income		15,475	17,492
Total income		8,145,367	7,845,943
– gross underwriting expenditure		9,550,801	4,586,116
– investment result for risk of policyholders		-3,588,723	604,429
– reinsurance recoveries		-197,383	-171,217
Underwriting expenditure		5,764,695	5,019,328
Intangible amortisation and other impairments		18	
Staff expenses		243,809	255,047
Interest expenses		152,117	79,470
Other operating expenses		215,824	245,566
Total expenses		6,376,463	5,599,411
Result before tax		1,768,904	2,246,532
Taxation	16	285,589	412,713
Net result		1,483,315	1,833,819
Net result attributable to:			
Shareholder of the parent		1,483,315	1,833,819
Net result		1,483,315	1,833,819

Parent company statement of comprehensive income continued

Parent company statement of comprehensive income

For the year ended 31 December	2019	2018
Net result	1,483,315	1,833,819
Items that may be reclassified subsequently to the profit and loss account:		
- unrealised revaluations property in own use	556	5,872
- unrealised revaluations available-for-sale investments and other	3,448,971	41,118
- realised gains/losses transferred to the profit and loss account	-197,667	-962,321
- changes in cash flow hedge reserve	4,115,713	766,177
- deferred interest credited to policyholders	-836,302	-143,318
Total other comprehensive income	6,531,271	-292,472
Total comprehensive income	8,014,586	1,541,347
Comprehensive income attributable to:		
Shareholder of the parent	8,014,586	1,541,347
Total comprehensive income	8,014,586	1,541,347

Parent company statement of cash flows continued

Parent company statement of cash flows

For the year ended 31 December	notes	2019	2018
Result before tax		1,768,904	2,246,532
Adjusted for:			
- depreciation		6,609	4,000
- deferred acquisition costs and value of business acquired		-77,130	8,018
- underwriting expenditure (change in insurance liabilities)		-187,808	-944,935
- realised results and impairments of available-for-sale investments		-327,338	-930,583
- other		165,194	108,354
Taxation paid		-274,518	-141,311
Changes in:			
- non-trading derivatives		761,748	134,148
- other financial assets at fair value through profit or loss		-81,991	-40,827
- other assets		-1,300,202	379,783
- other liabilities		1,996,639	-7,659
Net cash flow from operating activities		2,450,107	815,520
Investments and advances:			
- subsidiaries, associates and joint ventures	6	-774,499	-1,501,604
- available-for-sale investments	4	-4,731,376	-4,497,667
- real estate investments	7	-18,330	-88,773
- equipment	8	-52	-1
- investments for risk of policyholders		-3,441,301	-3,406,241
- loans		-4,867,109	-6,226,276
Disposals and redemptions:			
- subsidiaries, associates and joint ventures	6	485,053	78,008
- available-for-sale investments	4	4,738,819	6,149,750
- real estate investments	7	0	1,442,940
- equipment	8	126	2,250
- investments for risk of policyholders		3,713,413	3,732,057
- loans		2,824,564	3,546,856
- other investments		178	0
Net cash flow from investing activities		-2,070,514	-768,701
Proceeds from other borrowed funds	11	0	1,050,000
Repayments of other borrowed funds	11	-500,684	-550,662
Dividend paid		-740,000	-700,000
Coupon on undated subordinated loan		-46,940	-46,940
Net cash flow from financing activities		-1,287,624	-247,602
Net cash flow		-908,031	-200,783
Cash and cash equivalents at beginning of the period	2	964,862	1,165,645
Net cash flow		-908,031	-200,783
Cash and cash equivalents at end of the period		56,831	964,862

Included in Net cash flow from operating activities:

For the year ended 31 December	2019	2018
Interest received	2,757,778	2,675,713
Interest paid	-163,931	-93,206
Dividend received	595,228	396,777

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 2019	22,689	3,228,030	943,063	12,508,324	16,702,106	800,000	17,502,106
Unrealised revaluations property in own use	0	0	0	556	556	0	556
Unrealised revaluations available-for-sale investments and other	0	0	44,136	3,404,835	3,448,971	0	3,448,971
Realised gains/losses transferred to the profit and loss account	0	0	0	-197,667	-197,667	0	-197,667
Changes in cash flow hedge reserve	0	0	0	4,115,713	4,115,713	0	4,115,713
Deferred interest credited to policyholders	0	0	0	-836,302	-836,302	0	-836,302
Total amount recognised directly in equity (Other comprehensive income)	0	0	44,136	6,487,135	6,531,271	0	6,531,271
Net result	0	0	0	1,483,315	1,483,315	0	1,483,315
Total comprehensive income	0	0	44,136	7,970,450	8,014,586	0	8,014,586
Changes in the composition of the group and other changes	0	0	0	-16,448	-16,448	0	-16,448
Transfer to/from Share of associates reserve	0	0	491,720	-491,720	0	0	0
Dividend	0	0	0	-740,000	-740,000	0	-740,000
Coupon on undated subordinated loan	0	0	0	-35,205	-35,205	0	-35,205
Balance at 31 December 2019	22,689	3,228,030	1,478,919	19,195,401	23,925,039	800,000	24,725,039

	Share capital	Share premium	Share of associates reserve	Reserves	Total Shareholder's equity (parent)	Undated subordinated loan	Total equity
Balance at 1 January 2018	22,689	3,228,030	996,106	11,645,516	15,892,341	800,000	16,692,341
Unrealised revaluations property in own use	0	0	0	5,872	5,872	0	5,872
Unrealised revaluations available-for-sale investments and other	0	0	-86,925	128,043	41,118	0	41,118
Realised gains/losses transferred to the profit and loss account	0	0	0	-962,321	-962,321	0	-962,321
Changes in cash flow hedge reserve	0	0	0	766,177	766,177	0	766,177
Deferred interest credited to policyholders	0	0	0	-143,318	-143,318	0	-143,318
Total amount recognised directly in equity (Other comprehensive income)	0	0	-86,925	-205,547	-292,472	0	-292,472
Net result	0	0	0	1,833,819	1,833,819	0	1,833,819
Total comprehensive income	0	0	-86,925	1,628,272	1,541,347	0	1,541,347
Changes in the composition of the group and other changes	0	0	0	3,623	3,623	0	3,623
Transfer to/from Share of associates reserve	0	0	33,882	-33,882	0	0	0
Dividend	0	0	0	-700,000	-700,000	0	-700,000
Coupon on undated subordinated loan	0	0	0	-35,205	-35,205	0	-35,205
Balance at 31 December 2018	22,689	3,228,030	943,063	12,508,324	16,702,106	800,000	17,502,106

'Reserves' include 'Revaluation reserve', 'Legal reserve', 'Retained earnings' and 'Unappropriated result'.

Notes to the Parent company annual accounts

1 Accounting policies

The Parent company 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.

Change to IFRS regulations:

In 2019, NN Leven has changed the presentation of the Parent company balance sheet and the Parent company profit and loss account from the reporting requirements of Part 9 of Book of the Dutch Civil Code to the reporting requirements according to the International Financial Reporting Standards as endorsed by the European Union (IFRS-EU). NN Leven has changed its presentation to better align with the presentation in the consolidated annual accounts and the other NN Group Dutch insurance entities. The change in presentation classifies some line items differently but this has no impact on Shareholder's equity, result and/or Other comprehensive income. The change in presentation mainly results in disclosures on a more aggregated level on the face of the Parent balance sheet and Parent profit and loss account. However the detailed information previously disclosed, remains available in the notes to the statements, that form an integral part of the Parent company accounts.

The change to the financial reporting requirements according to the IFRS regulations has no impact on the principles of valuation and determination of results with the exception of investments in subsidiaries, joint ventures and associates. These investments were recognised at net asset value and will be recognised in accordance with the accounting policies for the consolidated annual accounts, using the equity method of accounting. The change from net asset value to equity method has no impact on the balance sheet value, the equity, cash flow or result.

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 financial statement, 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.

2 Cash and cash equivalents

Cash and cash equivalents

	2019	2018
Cash and bank balances	50,181	131,940
Short term deposits	6,650	4,620
Money market funds	0	828,302
Cash and cash equivalents	56,831	964,862

3 Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss

	2019	2018
Investments for risk of policyholders	23,347,321	19,937,370
Non-trading derivatives	9,692,033	4,621,382
Designated as at fair value through profit or loss	768,768	714,764
Financial assets at fair value through profit or loss	33,808,122	25,273,516

Notes to the Parent company annual accounts continued

Investments for risk of policyholders

	2019	2018
Equity securities	22,404,454	18,999,451
Debt securities	101,276	97,800
Loans and receivables	841,591	840,119
Investments for risk of policyholders	23,347,321	19,937,370

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

Non-trading derivatives

	2019	2018
Derivatives used in:		
- fair value hedges	37,719	0
- cash flow hedges	7,072,696	3,181,396
Other non-trading derivatives	2,581,618	1,439,986
Non-trading derivatives	9,692,033	4,621,382

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

Designated as at fair value through profit or loss

	2019	2018
Equity securities	322,632	248,516
Debt securities	444,595	462,959
Other	1,541	3,289
Designated as at fair value through profit or loss	768,768	714,764

4 Available-for-sale investments

Available-for-sale investments

	2019	2018
Equity securities	5,226,618	4,280,397
Debt securities	63,983,569	59,855,661
Available-for-sale investments	69,210,187	64,136,058

Changes in available-for-sale investments

	Equity securities		Debt securities		Total	
	2019	2018	2019	2018	2019	2018
Available-for-sale investments - opening balance	4,280,397	5,131,687	59,855,661	60,981,102	64,136,058	66,112,789
Additions	734,271	520,295	3,997,105	3,977,372	4,731,376	4,497,667
Amortisation	0	0	-245,454	-266,066	-245,454	-266,066
Transfers and reclassifications	-15,000	-8,809	0	21,351	-15,000	12,542
Changes in unrealised revaluations	766,931	-162,924	4,372,841	122,493	5,139,772	-40,431
Impairments	-5,682	-45,614	0	0	-5,682	-45,614
Disposals and redemptions	-687,076	-1,155,436	-4,051,743	-4,994,314	-4,738,819	-6,149,750
Exchange rate differences	4,972	453	30,855	13,723	35,827	14,176
Changes in the composition of the group and other changes	147,805	745	24,304	0	172,109	745
Available-for-sale investments - closing balance	5,226,618	4,280,397	63,983,569	59,855,661	69,210,187	64,136,058

The total exposure to debt securities is included in the following balance sheet lines:

Total exposure to debt securities

	2019	2018
Available-for-sale investments	63,983,569	59,855,661
Loans	1,225,876	1,447,721
Available-for-sale investments and Loans	65,209,445	61,303,382
Investments for risk of policyholders	101,276	97,800
Designated as at fair value through profit or loss	444,595	462,959
Financial assets at fair value through profit or loss	545,871	560,759
Total exposure to debt securities	65,755,316	61,864,141

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	
	2019	2018	2019	2018	2019	2018
Government bonds	48,296,192	44,156,893	0	0	48,296,193	44,156,893
Corporate bonds	9,651,504	9,912,297	0	0	9,651,504	9,912,297
Financial institution bonds	5,045,158	5,707,132	0	0	5,045,158	5,707,132
ABS portfolio	990,715	79,339	1,225,876	1,447,721	2,216,591	1,527,060
Debt securities - Available-for-sale investments and Loans	63,983,569	59,855,661	1,225,876	1,447,721	65,209,446	61,303,382

Available-for-sale equity securities

	2019	2018
Listed	4,195,436	3,259,744
Unlisted	1,031,182	1,020,653
Available-for-sale equity securities	5,226,618	4,280,397

5 Loans

Loans

	2019	2018
Loans secured by mortgages	23,428,874	22,620,134
Unsecured loans	7,437,798	6,816,217
Asset backed securities	1,225,876	1,447,721
Loans related to savings mortgages	1,810,222	1,940,311
Policy loans	8,918	10,237
Other	135	141
Loans - before loan loss provisions	33,911,823	32,834,761
Loan loss provisions	-70,441	-113,965
Loans	33,841,382	32,720,796

Changes in Loans secured by mortgages

	2019	2018
Loans secured by mortgages – opening balance	22,620,134	20,752,462
Additions/ origination	2,847,230	3,707,507
Redemption	-1,196,081	-1,741,962
Amortisation	-143,532	-154,811
Transfers to/from assets/liabilities	-240	36,370
Disposals	-1,112	0
Impairments and write-offs	-2,380	-2,129
Changes in the composition of the group and other changes	-695,145	22,697
Loans secured by mortgages – closing balance	23,428,874	22,620,134

Changes in Loans loss provisions

	2019	2018
Loan loss provisions - opening balance	113,965	106,385
Write-offs	-51,829	-3,252
Recoveries	738	-1,973
Increase/decrease in loan loss provisions	7,567	-7,147
Other changes	0	19,952
Loan loss provisions - closing balance	70,441	113,965

Notes to the Parent company annual accounts continued

6 Subsidiaries, associates and joint ventures

Subsidiaries, associates and joint ventures (2019)

Name	Statutory seat	Interest held (%)	Balance sheet value
REI Investment I B.V.	The Hague, the Netherlands	87%	4,565,332
REI Diaphane Fund FGR	The Hague, the Netherlands	87%	1,125,881
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	221,834
Korea Investment Fund B.V.	The Hague, the Netherlands	100%	831
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	100%	52,340
Private Equity Investments B.V.	The Hague, the Netherlands	94%	550,902
Private Debt Investments B.V.	The Hague, the Netherlands	100%	538,226
Delta Lloyd Vastgoed Ontwikkeling B.V.	Amsterdam, the Netherlands	100%	8,336
Vesteda Residential Fund FGR	Amsterdam, the Netherlands	21%	1,254,706
Other			36,796
Subsidiaries, associates and joint ventures			8,355,184

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 (2018)

Name	Statutory seat	Interest held (%)	Balance sheet value
REI Investment I B.V.	The Hague, the Netherlands	87%	4,116,087
REI Diaphane Fund FGR	The Hague, the Netherlands	87%	1,197,902
Private Equity Investments II B.V.	The Hague, the Netherlands	86%	223,096
Korea Investment Fund B.V.	The Hague, the Netherlands	100%	139,948
Infrastructure Equity Investments B.V.	The Hague, the Netherlands	100%	52,212
Private Equity Investments B.V.	The Hague, the Netherlands	97%	353,425
Private Debt Investments B.V.	The Hague, the Netherlands	100%	250,282
Delta Lloyd Vastgoed Ontwikkeling B.V.	Amsterdam, the Netherlands	100%	76,264
Vesteda Residential Fund FGR	Amsterdam, the Netherlands	18%	1,129,560
Other			40,954
Subsidiaries, associates and joint ventures			7,579,730

Changes in Subsidiaries, associates and joint ventures

	2019	2018
Subsidiaries, associates and joint ventures - opening balance	7,579,730	5,974,301
Additions	774,499	1,501,604
Disposals	-485,053	-78,008
Transfer to/from Available-for-sale investments	0	71,443
Share in change in equity (revaluations)	-28,482	-62,415
Share of results	676,169	665,373
Dividends received	-453,257	-229,427
Changes in the composition of the group and other changes	291,578	-263,141
Subsidiaries, associates and joint ventures - closing balance	8,355,184	7,579,730

7 Real estate investments

Changes in Real estate investments

	2019	2018
Real estate investments - opening balance	66,076	1,258,863
Additions	18,330	88,773
Disposals	0	-1,442,940
Transfer to/from Other assets	0	15,230
Fair value gains/(losses)	-231	146,150
Real estate investments - closing balance	84,175	66,076

The total amount of rental income recognised in the profit and loss account for the year ended 31 December 2019 is EUR 0.8 million (2018: EUR 31 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 2019 is EUR 0.2 million (2018: EUR 9 million).

Notes to the Parent company annual accounts continued

In percentages	2019	2018
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

	2019	2018
Real estate investments	84,175	66,076
Investments - available-for-sale	10,405	10,405
Associates and joint ventures	6,954,255	6,519,814
Property and equipment - property in own use	1,500	790
Other assets - Property obtained from foreclosures	0	760
Total Real estate exposure	7,050,335	6,597,845

8 Property and Equipment

Property and Equipment

	2019	2018
Property in own use	1,500	790
Equipment	128	13
Property and equipment owned	1,628	803
Right of use assets	43,987	0
Property and equipment	45,615	803

Changes in Property in own use

	2019	2018
Property in own use – opening balance	790	10,316
Transfers to/from other assets	0	-15,230
Revaluations	710	8,054
Disposals	0	-2,250
Depreciation	0	-100
Property in own use – closing balance	1,500	790
Gross carrying value	1,625	915
Accumulated depreciation, revaluations and impairments	-125	-125
Net carrying value	1,500	790
Revaluation surplus – opening balance	7,458	54
Revaluation in year	710	7,404
Revaluation surplus – closing balance	8,168	7,458

Changes in Equipment

	Data processing equipment		Fixtures and fittings and other equipment		Total	
	2019	2018	2019	2018	2019	2018
Equipment – opening balance	0	6	13	12	13	18
Additions	0	0	52	1	52	1
Disposals	-17	0	-109	0	-126	0
Depreciation	-6	-6	-111	0	-117	-6
Changes in the composition of the group and other changes	86	0	220	0	306	0
Equipment – closing balance	63	0	65	13	128	13
Gross carrying value	234	151	176	13	410	164
Accumulated depreciation	-171	-151	-111	0	-282	-151
Net carrying value	63	0	65	13	128	13

Notes to the Parent company annual accounts continued

Changes in Right of use assets - Property

	2019	2018
Right of use assets – opening balance	0	0
Depreciation	-4,070	0
Changes in the composition of the group and other changes	48,057	0
Right of use assets – Closing balance	43,987	0
Gross carrying value	48,057	0
Accumulated depreciation	-4,070	0
Net carrying value	43,987	0

9 Other assets

Other assets

	2019	2018
Insurance and reinsurance receivables	408,818	525,704
Property obtained from foreclosures	0	760
Income tax receivable	125,836	131,479
Accrued interest and rents	1,093,487	1,145,223
Other accrued assets	102,115	14,645
Cash collateral amounts paid	417,931	490,299
Other	2,904,364	1,406,031
Other assets	5,052,551	3,714,141

Other contains EUR 2,854 million (2018: EUR 1,329 million) of current accounts with NN Group companies.

Insurance and reinsurance receivables

	2019	2018
Receivables on account of direct insurance from:		
- policyholders	296,373	486,785
- intermediaries	2,824	-1,166
Reinsurance receivables	109,621	40,085
Insurance and reinsurance receivables	408,818	525,704

The allowance for uncollectable insurance and reinsurance receivables amounts to EUR 3,071 thousand as at 31 December 2019 (2018: EUR 5,376 thousand). The receivable is presented net of this allowance.

10 Equity

Equity

	2019	2018
Share capital	22,689	22,689
Share premium	3,228,030	3,228,030
Revaluation reserve	13,303,671	6,743,506
Share of associates reserve	1,478,919	943,063
Legal reserves	491	3,275
Retained earnings and unappropriated result	5,891,239	5,761,543
Shareholder's equity (parent)	23,925,039	16,702,106
Undated subordinated loan	800,000	800,000
Total equity	24,725,039	17,502,106

Share of associates reserve

	2019	2018
Unrealised revaluations within consolidated group companies	179,053	204,646
Currency translation reserve	-49,249	-54,171
Reserve for non-distributable retained earnings of associate	1,159,905	668,185
Revaluations on investment property and certain participations recognised in income	189,210	124,403
Share of associates reserve	1,478,919	943,063

Notes to the Parent company annual accounts continued

11 Other borrowed funds

Other borrowed funds

	2019	2018
Other borrowed funds - opening balance	705,416	206,078
Additions	0	1,050,000
Disposals	-500,684	-550,662
Other borrowed funds - closing balance	204,732	705,416

12 Other liabilities

Other liabilities

	2019	2018
Other taxation and social security contributions	63,898	43,454
Deposits from reinsurers	1,436,045	1,263,182
Lease liabilities	44,564	0
Accrued interest	131,227	115,550
Costs payable	3,423	49,260
Amounts payable to brokers	3,533	3,360
Amounts payable to policyholders	909,796	752,252
Reorganisation provision	0	3,068
Other provisions	15,952	13,469
Amounts to be settled	408,432	702,274
Cash collateral amounts received	4,088,080	2,000,857
Other	234,813	316,590
Other liabilities	7,339,763	5,263,316

13 Investment income

Investment income

	2019	2018
Interest income from investments in debt securities	1,234,902	1,263,362
Interest income from loans:		
- mortgage loans	618,159	554,984
- unsecured loans	172,836	192,724
- policy loans	504	698
- other	128,083	75,155
Interest income from Investment in debt securities and loans	2,154,484	2,086,923
Realised gains/losses on disposal of available-for-sale debt securities	189,813	769,281
Realised gains/losses and impairments of available-for-sale debt securities	189,813	769,281
Realised gains/losses on disposal of available-for-sale equity securities	91,313	206,462
Impairments of available-for-sale equity securities	-5,682	-45,614
Realised gains/losses and impairments of available-for-sale equity securities	85,631	160,848
Interest income on non-trading derivatives	176,076	148,814
Increase/decrease in loan loss provisions	-7,567	7,146
Income from real estate investments	664	21,253
Dividend income	141,971	167,350
Change in fair value of real estate investments	-231	146,150
Investment income	2,740,841	3,507,765

Notes to the Parent company annual accounts continued

14 Net fee and commission income

Net fee and commission income

	2019	2018
Asset management fees	47,009	56,765
Insurance brokerage and advisory fees	-5,660	2,151
Other	911	-138
Gross fee and commission income	42,260	58,778
Asset management fees	-100,760	-110,739
Commission expenses and other	-1,323	-256
Fee and commission expenses	-102,083	-110,995
Net Fee and commission income	-59,823	-52,217

15 Valuation results on non-trading derivatives

Valuation results on non-trading derivatives

	2019	2018
Change in fair value of derivatives relating to:		
- fair value hedges	-767,787	-344,145
- cash flow hedges (ineffective portion)	10,616	14,614
- other non-trading derivatives	366,313	151,208
Net result on non-trading derivatives	-390,858	-178,323
Change in fair value of assets and liabilities (hedged items)	768,448	344,148
Valuation results on assets and liabilities designated as at fair value through profit or loss (excluding trading)	3,977	12,041
Valuation results on non-trading derivatives	381,567	177,866

16 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 receivable amounts to EUR 125,836 thousand (2018: EUR 131,479 thousand receivable). It concerns tax receivable NN Group for the most recent quarter. Reference is made to Note 9 'Other assets' and Note 12 'Other liabilities'.

Deferred tax (2019)

	Net liability 2018	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2019 ¹
Investments	2,014,853	336,566	-57,557	-2,191	82	2,291,753
Real estate investments	443,476	0	64,571	-5,728	0	502,319
Acquisition costs	31,933	0	1,880	10,011	115	43,939
Fiscal equalisation reserve	276	0	0	-276	0	0
Depreciation	-6	0	-61	6	0	-61
Insurance liabilities	-1,999,742	-317,518	-98,123	-1	-112	-2,415,496
Cash flow hedges	1,141,734	1,247,065	0	110	0	2,388,909
Other provisions	-28,576	0	459	27,859	-2	-260
Receivables	-791	0	196	-102	-9	-706
Loans	35,369	2,010	0	-39,379	0	-2,000
Unused tax losses carried forward	-610,703	0	610,703	0	0	0
Other	24,278	98	-16,503	40,457	32	48,362
Deferred tax	1,052,101	1,268,221	505,565	30,766	106	2,856,759
Presented in the balance sheet as:						
Deferred tax liabilities	2,434,655					2,856,759
Deferred tax assets	-1,382,554					0
Deferred tax	1,052,101					2,856,759

¹ Positive amounts are liabilities, negative amounts are assets.

Notes to the Parent company annual accounts continued

Deferred tax (2018)

	Net liability 2017	Changes through equity	Changes through net result	Changes in the composition of the group and other changes	Exchange rate differences	Net liability 2018 ¹
Investments	2,878,218	-503,001	-102,206	-258,102	-56	2,014,853
Real estate investments	0	0	0	443,476	0	443,476
Acquisition costs	37,558	0	-5,602	0	-23	31,933
Fiscal equalisation reserve	337	0	-61	0	0	276
Depreciation	-10	0	4	0	0	-6
Insurance liabilities	-3,419,931	287,443	1,132,680	0	66	-1,999,742
Cash flow hedges	1,220,906	-79,172	0	0	0	1,141,734
Other provisions	-2,566	0	-26,010	0	0	-28,576
Receivables	-894	0	96	0	7	-791
Loans	35,369	0	0	0	0	35,369
Unused tax losses carried forward	0	0	-610,703	0	0	-610,703
Other	7,833	-1	17,720	-1,256	-18	24,278
Deferred tax	756,820	-294,731	405,918	184,118	-24	1,052,101

Presented in the balance sheet as:

Deferred tax liabilities	2,498,259	2,434,655
Deferred tax assets	-1,741,439	-1,382,554
Deferred tax	756,820	1,052,101

¹ Positive amounts are liabilities, negative amounts are assets.

In 2018 and 2019, changes to the tax valuation of certain insurance liabilities in the Netherlands were implemented. These changes impacted the deferred tax on insurance liabilities and the (deferred tax on) tax losses carried forward. There was no impact on total deferred tax.

Deferred tax on unused tax losses carried forward

	2019	2018
Total unused tax losses carried forward	0	2,442,812
Unused tax losses carried forward recognised as a deferred tax asset	0	2,442,812
Average tax rate	25.0%	25.0%
Deferred tax asset	0	610,703

Total unused tax losses carried forward analysed by term of expiration

	No deferred tax asset recognised		Deferred tax asset recognised	
	2019	2018	2019	2018
More than 5 years but less than 10 years	0	0	0	2,442,812
Total	0	0	0	2,442,812

Deferred tax assets are recognised for temporary deductible differences. For tax losses carried forward and unused tax credits, deferred tax assets are recognised only to the extent that realisation of the related tax benefit is probable.

Taxation on result

	2019	2018
Current tax	-219,977	6,795
Deferred tax	505,566	405,918
Taxation on result	285,589	412,713

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

	2019	2018
Result before tax	1,768,904	2,246,532
Weighted average statutory tax rate	25.0%	24.9%
Weighted average statutory tax amount	441,504	560,393
Participation exemption	-171,852	-189,498
Other income not subject to tax and other	36,058	13,946
Expenses not deductible for tax purposes	-383	1,225
Impact on deferred tax from change in tax rates	-18,382	26,647
Adjustments to prior periods	-1,356	0
Effective tax amount	285,589	412,713
Effective tax rate	16.1%	18.4%

The weighted average statutory tax rate for 2019 did not change significantly from that of 2018.

Notes to the Parent company annual accounts continued

In 2019, the effective tax rate of 16.1% was lower than the weighted average statutory tax rate of 25.0% in 2019. This is mainly a result of tax exempt results of associates and participations.

In 2018, the Dutch corporate income tax rates were reduced. This implied that the corporate tax rate in 2019 would remain 25%, but that the tax rate for 2020 would become 22.55% and for 2021 and subsequent years 20.5%. As a result, the deferred tax assets and liabilities of NN Leven were remeasured in 2018 to the expected new tax rates. As most of NN Leven's deferred tax assets and liabilities are expected to materialise over a long period, the largest part of the deferred tax position was remeasured to the 20.5% rate that would apply as of 2021. The net impact of the tax rate change in 2018 was EUR 202 million (positive), of which 24 million (negative) was recognised in the profit and loss account.

In 2019, these enacted corporate tax rates have been amended, so that the tax rate for 2020 will remain at 25% (instead of 22.55%) and for 2021 21.7% (instead of 20.5%). The impact of this amendment is recognised in 2019. In addition, the 2019 tax charge is impacted by the difference between the estimated realisation in future years (with different tax rates) that was used in 2018 versus the updated actual/estimated realisation in 2019. The combined impact related to the 2018 and 2019 tax rate changes in the 2019 profit and loss account was EUR 18 million (positive).

Taxes on components of other comprehensive income

	2019	2018
Unrealised revaluations property in own use	-154	-1,514
Unrealised revaluations Available for sale investment and other	-397,451	553,394
Realised gains/losses transferred to profit and loss account	59,029	-49,246
Changes in cash flow hedge reserve	-1,247,270	79,540
Deferred interest credited to policyholders	317,518	-287,443
Income tax	-1,268,328	294,731

17 Other

Assets not freely disposable

For further explanation of the assets that are not freely disposable reference is made to Note 33 '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 36 'Contingent liabilities and commitments' in the Consolidated annual accounts.

Related parties

For further explanation of the related parties reference is made to Note 40 'Related parties' in the Consolidated annual accounts.

18 Subsequent events

For subsequent events of NN Leven reference is made to Note 43 '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 2019 were authorised for issue in accordance with a resolution of the Management Board on 26 March 2020. 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, 26 March 2020

The Management Board

M.F.M. (Michel) van Elk, CEO and chair

P.J. (Patrick) Dwyer, CFO

J.J. (Hans) Bonsel, CRO

R.F.M. (Robin) Buijs

M.R. (Martijn) Hoogeweegen

A.G. (Annemieke) Visser-Brons

The Supervisory Board

J.L. (Janet) Stuijt, chair

D. (Delfin) Rueda, vice-chair

J.W. (Hans) Schoen

Confirmed and adopted by the General Meeting, dated 29 May 2020.

Independent auditor's report



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 2019 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. ("NN Leven") as at 31 December 2019 and of its result and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the annual accounts 2019 of NN Leven, based in Rotterdam as set out on pages 10 to 109 of the Annual Report.

The annual accounts comprise:

- 1 the consolidated and parent company balance sheet as at 31 December 2019;
- 2 the following consolidated and parent company statements for 2019: 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 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).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Audit approach

Summary

Materiality
— Materiality of EUR 105 million (2018: EUR 100 million).
— Based on core equity: shareholder's equity minus revaluation reserve (1%)

Group audit
— 96% of core equity, 99% of total assets and 92% of profit before tax covered by audit procedures performed by group audit team and by component auditors

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Independent auditor’s report continued



Key audit matters
— Valuation of insurance contract liabilities and the Reserve Adequacy Test (RAT)
— Unit-linked exposure
— Solvency II disclosure
— Merger with Delta Lloyd Levensverzekering N.V. as at 1 January 2019

Opinion
Unqualified

Materiality

Based on our professional judgement we determined the materiality for the annual accounts as a whole at EUR 105 million (2018: EUR 100 million). The materiality is determined with reference to core equity (shareholder’s equity minus revaluation reserves) and amounts to 1% (2018: 1%). We continue to consider core equity as the most appropriate benchmark based on our assessment of the general information needs of users of the annual accounts of a life insurance company. 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 unadjusted misstatements in excess of EUR 5 million (2018: EUR 5 million), which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

NN Leven is a wholly owned subsidiary of NN Group N.V. (“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 38). The financial information of the subsidiaries is included in the 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. This resulted in a coverage of 96% of core equity, 99% of total assets and 92% of profit before tax.

For the remaining group entities, we performed analytical procedures at the aggregated group level in order to corroborate our assessment that there are no significant risks of material misstatement within these remaining group entities.

All subsidiaries in scope for group reporting are audited by KPMG member firms. Based on the group audit instructions, the auditors cover significant areas including the relevant risks of material misstatement and they report the information required for the group audit team. We discussed the audit work performed with the different audit teams and performed file reviews.

The audit of some disclosures in the annual accounts and certain accounting topics have been performed with assistance of the NN Group audit team. The accounting matters on which audit procedures are performed with assistance of the NN Group audit team include, but are not limited to group financing, personnel and other administrative expenses in The Netherlands, certain elements of the Solvency II calculations (SCR), corporate income tax for the Dutch fiscal unity and claims and litigation.

By performing the procedures mentioned above, 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.

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Independent auditor’s report continued



Audit scope in relation to fraud

In accordance with the Dutch Standards on Auditing we are responsible for obtaining a high (but not absolute) level of assurance that the annual accounts taken as a whole are free from material misstatement, whether caused by fraud or error.

In determining the audit procedures we use the evaluation of management in relation to fraud risk management (prevention, detection and response), including ethical standards to create a culture of honesty, and to compliance with laws and regulations.

As part of our risk assessment process we have evaluated events or conditions that indicate an incentive or pressure to commit fraud or provide an opportunity to commit fraud ('fraud risk factors') to determine whether fraud risks are relevant to our audit. During this risk assessment we made use of our own forensic specialist. We communicated identified fraud risks throughout our team and remained alert to any indications of fraud throughout the audit.

In accordance with the auditing standards we evaluated the following fraud risk that is relevant to our audit:

- management override of controls (presumed risk).

The presumed fraud risk related to revenue recognition is not applicable for NN Leven.

Our audit procedures included an evaluation of the design, implementation as well as the operating effectiveness of internal controls relevant to mitigate this risk and substantive audit procedures, including detailed testing of high risk journal entries and evaluation of management bias.

As part of our evaluation of any instances of fraud, we inspected the compliance reports and follow up by management.

We communicated our risk assessment and audit response to management and the Supervisory Board. Our audit procedures differ from a specific forensic fraud investigation, which investigation often has a more in-depth character.

Our procedures to address the fraud risk did not result in the identification of a key audit matter.

We do note that our audit is based on the procedures described in line with applicable auditing standards and are not primarily designed to detect fraud.

Audit scope in relation to non-compliance with laws and regulations

We have evaluated facts and circumstances in order to assess laws and regulations relevant to the company.

We identified areas of laws and regulations that could reasonably be expected to have a material effect on the annual accounts based on our general understanding and sector experience, through discussion with management and evaluating the policies and procedures regarding compliance with these laws and regulations.

We communicated identified laws and regulations throughout our team and remained alert to any indications of non-compliance throughout the audit. The potential effect of these laws and regulations on the annual accounts varies considerably.

- Firstly, the company is subject to laws and regulations that directly affect the annual accounts, including financial reporting, Solvency II and taxation. We assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items. For Solvency II we refer to Key Audit Matter 3, 'Solvency II disclosure'. Our procedures related to tax included the assessment of the appropriate accounting for the changes in future tax rates in The Netherlands.
- Secondly, the company is subject to many other laws and regulations where the consequences of non-compliance could have an indirect material effect on amounts recognized or disclosures provided in the annual accounts, or both, for instance through the imposition of fines or litigation.

We identified the following areas as most likely to have such an indirect effect:

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Independent auditor’s report continued



- Wet financieel toezicht (wft);
- data privacy regulation (GDPR).

Auditing standards limit the required audit procedures to identify non-compliance with laws and regulations that have an indirect effect to inquiry of relevant management and inspection of regulatory and legal correspondence. Through these procedures, we did not identify any additional actual or suspected non-compliance other than those previously identified by the company in each of the above areas. We considered the effect of actual or suspected non-compliance as part of our procedures on the related annual account items.

Our procedures to address compliance with laws and regulations did not result in the identification of a key audit matter.

We do note that our audit is not primarily designed to detect non-compliance with laws and regulations and that management is responsible for such internal control as management determines is necessary to enable the preparation of the annual accounts that are free from material misstatement, whether due to errors or fraud, including compliance with laws and regulations.

The more distant non-compliance with indirect laws and regulations (irregularities) is from the events and transactions reflected in the annual accounts, the less likely the inherently limited procedures required by auditing standards would identify it. In addition, as with any audit, there remained a higher risk of non-detection of irregularities, as these may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the 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.

In comparison to our 2018 audit opinion, we included one new key audit matter related to the merger with Delta Lloyd Levensverzekering N.V.

1. Valuation of insurance contract liabilities and the Reserve Adequacy Test (RAT)

Description

NN Leven has insurance (and investment) contract liabilities of EUR 113 billion representing 89% of its total liabilities. The valuation of the insurance (and investment) contract liabilities involves judgement over uncertain future outcomes, mainly the ultimate settlement value of long-term liabilities, both in the insurance contract liabilities as reported in the balance sheet and in the RAT.

The RAT is performed in order to confirm that the insurance contract liabilities, net of deferred acquisition cost, are adequate in the context of the expected future cash flows. The RAT in respect of the individual and group pension business requires the application of significant management judgement in setting the assumptions related to longevity, expense and reinvestment rate.

Given the financial significance and the level of judgement required, we considered this a key audit matter.

Our response

Our audit approach included testing both the effectiveness of internal controls around determining insurance contract liabilities and the RAT as well as substantive audit procedures.

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Independent auditor's report continued



Our procedures over internal controls focused on controls around the adequacy of policyholder data, the governance and controls around assumption setting and the review procedures performed on the RAT by the actuaries of NN Leven.

In our audit we also considered the process around the internal validation and implementation of the models used to determine the valuation of the insurance contract liabilities and the RAT.

With the assistance of our own actuarial specialists, the substantive audit procedures we performed included:

- Assessment of the appropriateness of assumptions used in the valuation of the individual life and pension contracts by reference to company and industry data and expectations of investment returns, future longevity and expense developments;
- Assessment of the appropriateness of the data, assumptions and methodologies applied in the RAT. We performed specific procedures in response to the changes in market interest rates during 2019 and the implications for RAT testing;
- Analysis of developments in actuarial results and movements in reserve adequacy during the year and corroborative inquiries with management and the actuaries of NN Leven in that regard;
- Evaluation of the robustness of management's substantiation that the insurance contract liabilities are adequate as at 31 December 2019.

Our observation

Overall we found that management estimated the valuation of the insurance contract liabilities, net of deferred acquisition costs, acceptably. We refer to Note 15 of the annual accounts.

We note that the unrealised revaluations on available for sale investments backing the insurance contract liabilities are recorded in shareholder's equity and represent a significant part of the revaluation reserve. This unrealised revaluation reserve increased significantly in 2019 as a result of market interest rate movements during the year. To the extent that available for sale investments are being sold, the excess in the reserve adequacy would decrease accordingly. If these unrealised revaluations were to be fully realised, the capital gains would only be partly available to shareholders, since a significant portion of the gains would be required to strengthen the insurance contract liabilities in order to remain adequate. We refer to Note 1 of the annual accounts.

2. Unit-linked exposure

Description

Holders of unit-linked products, or consumer protection organisations on their behalf, have filed claims or initiated legal proceedings against NN Group and/or 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 relating to the compensation. Management 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 or quantified at this point.

Due to the potential significance and management judgement that is required to assess the developments relevant to these claims and proceedings, we considered this a key audit matter.

Our response

Our audit procedures primarily consisted of the following:

- Assessment of the governance, processes and internal controls with respect to the unit-linked exposures within NN Leven;

Independent auditor’s report continued



- Inspection of the documentation and a discussion about the unit-linked exposures with management and its internal legal advisor. These procedures took into account the NN Group’s specific developments as well as broader market developments in 2019;
- Obtaining lawyers letters of the external lawyers that are engaged by the company in relation to the defence in the so-called collective cases (Woekepolis.nl, Consumentenbond and Wakkerpolis). We assessed the professional competency, capability and objectivity of these external lawyers. We used the lawyers letters to obtain external confirmation over management’s judgements in relation to the related (collective) exposures;
- Assessment of the recognition and measurement requirements to establish provisions under NN Leven’s EU-IFRS accounting principles and the Solvency II framework for the calculation of the Solvency II ratio;
- Evaluation of the unit-linked disclosure in Note 37 Legal proceedings of the annual accounts, where we focused on adequacy of the disclosure of the related risks and management’s judgements.

Our observation

Overall we found that management’s assessment that the financial consequences of the unit-linked exposure cannot be reliably measured and therefore the fact that no provision is recognised in the 31 December 2019 balance sheet (for both EU-IFRS and Solvency II) to be sufficiently substantiated.

We considered the disclosure of the exposure in Note 37, which describes the related risks and management judgements in compliance with the relevant accounting requirements, to be adequate.

3. Solvency II disclosure

Description

Solvency II information is considered to be an important addition to the information provided on an EU-IFRS basis.

The Own Funds and Solvency Capital Requirement (SCR) are the main metrics of the Solvency II prudential reporting framework. The calculation of both metrics is complex and highly judgmental and is based on assumptions which are affected by (future) economic, demographic and political conditions. The assumptions used relate to risks regarding interest, mortality, longevity, morbidity, lapse and expense as well as the diversification between these risks. The calculations also take into consideration taxation after shock (loss absorbing capacity of deferred tax).

NN Leven uses the approved Partial Internal Model (PIM) to calculate the capital requirements under Solvency II. Disclosure of the determination of the metrics, applied assumptions and sensitivity (including the use of the Volatility Adjustment and Ultimate Forward Rate) are considered relevant information for understanding the Solvency II metrics.

Given the importance of this legislation for NN Leven and complexity of the application and estimates to determine the Solvency II ratio, we determined the adequacy of the Solvency II disclosure to be a key audit matter.

Our response

We obtained an understanding of the company’s application and implementation of the Solvency II directive. In designing our audit approach we have set a separate materiality for the audit of the Solvency II capital position. The materiality level applied is EUR 105 million (2018: EUR 100 million).

We have assessed the design and operating effectiveness of the internal controls over the Solvency II Capital Requirement calculations, including the company’s methodology, model and assumption approval processes (including the follow up to the terms and conditions set by DNB in relation to the 2018 approval of the PIM-Major Model Change) and analytical controls. These internal controls covered, amongst other:

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- whether the calculations of the market value balance sheet, Own Funds and SCR were accurate and prepared in accordance with the Solvency II directive and in accordance with the PIM as approved by DNB;
- the appropriateness of assumptions used for the calculations of market value balance sheet, Own Funds and SCR, based on market observable data, company and industry data, comparison of judgements made to current and emerging market practice;
- the adequacy of the quantitative and qualitative disclosures of the Solvency II Capital Requirements including disclosure on interpretation of legislation and related uncertainty;
- the functioning of the Solvency II key functions on risk management and actuarial function.

Based on the outcome of our assessment of the effectiveness of the internal controls, we performed amongst others the following substantive procedures:

- Verifying 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 and valuation specialists;
- Verifying the accuracy and completeness of data used to calculate the best estimate liability and SCR;
- Assessing the appropriateness of evidence used and judgement applied in assumption setting by NN Leven for both the best estimate liability and the SCR. This included the evaluation of the substantiation of the loss absorbing capacity of deferred tax in the recoverability test. We performed detailed procedures to verify that these calculations correctly took into account changes in the Dutch tax legislation that were enacted in December 2019;
- Analysing the outcome of the internally prepared calculations and analysis of the movements in the Solvency II capital position during the year as at 31 December 2019 and discussing the outcome with the actuaries of NN Leven;
- Verifying the reconciliation between the disclosures in the annual accounts to the output of the internal reporting on Solvency II. This also includes reconciliation of input for the market value balance sheet used for Own Funds with other fair value disclosures in the annual accounts;
- Verifying that the Solvency II disclosure refers to the fact that the Solvency II ratio is not final until filed with the Regulator, DNB. We refer to Note 45.

Our observation

Overall we found that the calculation of the Solvency II Own Funds and SCR in the capital and risk management disclosures are acceptable in the context of the annual accounts.

We refer to Notes 44 and 45 of the annual accounts.

4. Merger with Delta Lloyd Levensverzekering N.V. as at 1 January 2019

Description

After the acquisition of Delta Lloyd N.V. by NN Group in 2017, an integration process started to incorporate the Delta Lloyd business into the NN activities. An important step in this process was the legal merger of Delta Lloyd Levensverzekering N.V. (Delta Lloyd Leven) into NN Leven as at 1 January 2019, and as a consequence that Delta Lloyd Leven ceased to exist and NN Leven acquired all assets and liabilities. The impact of the merger has been disclosed in Note 42 of the annual accounts.

Given the importance of this merger for NN Leven and the impact on the annual accounts 2019, we determined the adequacy of the disclosures on this merger to be a key audit matter.

Our response

KPMG Accountants N.V. was the auditor of the 2018 financial statements of Delta Lloyd Leven based on their own accounting policies and also performed the audit of the 2018 figures used for consolidation purposes by NN Group, which figures were based on the NN Group accounting policies. The figures of

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Delta Lloyd Leven as at 31 December 2018 based on the NN Group accounting policies are the basis for the acquisition accounting by NN Leven as at 1 January 2019.

In respect of this merger we took notice of the formal legal documents and the approval of the Dutch Central Bank (DNB).

NN Leven prepared the accounting papers on technical topics resulting from this merger accounting, related to:

- Presentation of the 2018 figures for comparison purposes, including the Delta Lloyd Leven figures 2018, so that the financial reporting include the figures of the merged entities as of 1 January 2018;
- Disclosure of the adjustments made to the valuation of assets and liabilities based on Delta Lloyd Leven accounting principles that resulted in the figures on NN accounting principles;
- Changes in the composition of the elements of shareholder’s equity of NN Leven due to the merger;
- Harmonization of differences in presentation of insurance contracts, subordinated loans and investment returns by NN Leven and Delta Lloyd Leven in line with the NN accounting principles.

We have discussed these accounting papers with management of NN Leven and verified that the proposed changes met the IFRS requirements. We verified the accuracy of calculations made regarding adjustments to the Delta Lloyd Leven accounting principles. We verified the disclosures on this merger in the annual accounts. We refer to Note 42.

Our observation

Overall we found the accounting of the merger properly prepared and documented. We considered the disclosure of the merger in Note 42 of the annual accounts 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.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the annual accounts and does not contain material misstatements; and
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the annual accounts or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the annual accounts.

The Management Board of NN Leven 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

On 30 June 2015 the Annual General Meeting of Shareholders of NN Leven appointed us as the auditor of NN Leven for the financial years 2016 through 2019.

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.

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Independent auditor's report continued



Description of responsibilities regarding the annual accounts

Responsibilities of the Management Board and the Supervisory Board for the annual accounts

The Management Board of NN Leven is responsible for the preparation and fair presentation of the annual accounts in accordance with EU-IFRS and with Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Management Board is responsible for such internal control as the Management Board determines is necessary to enable the preparation of the annual accounts that are free from material misstatement, whether due to errors or fraud.

As part of the preparation of the annual accounts, the Management Board is responsible for assessing the company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Management Board should prepare the annual accounts using the going concern basis of accounting unless the Management Board either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so. The Management Board should disclose events and circumstances that may cast significant doubt on the company's ability to continue as a going concern in the annual accounts.

The Supervisory Board is responsible for overseeing the company's financial reporting process.

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 on the basis of 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 the 'Koninklijke Nederlandse Beroepsorganisatie van Accountants' (NBA, Royal Netherlands Institute of Chartered Accountants): at: http://www.nba.nl/ENG_oob_01. This description forms part of our independent auditor's report.

Utrecht, 26 March 2020

KPMG Accountants N.V.

W. Teeuwissen RA

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 12 '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.

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: <http://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 2019 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) changes in performance of financial markets, including developing markets, (3) consequences of a potential (partial) break-up of the euro or European Union countries leaving the European Union, (4) changes in the availability of, and costs associated with, sources of liquidity as well as conditions in the credit markets generally, (5) the frequency and severity of insured loss events, (6) changes affecting mortality and morbidity levels and trends, (7) changes affecting persistency levels, (8) changes affecting interest rate levels, (9) changes affecting currency exchange rates, (10) changes in investor, customer and policyholder behaviour, (11) changes in general competitive factors, (12) changes in laws and regulations and the interpretation and application thereof, (13) changes in the policies and actions of governments and/or regulatory authorities, (14) conclusions with regard to accounting assumptions and methodologies, (15) changes in ownership that could affect the future availability to NN Leven of net operating loss, net capital and built-in loss carry forwards, (16) changes in credit and financial strength ratings, (17) NN Leven's ability to achieve projected operational synergies, (18) catastrophes and terrorist-related events, (19) adverse developments in legal and other proceedings and (20) 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.

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