



Annual Report VIVAT NV 2018

Zwitserleven



actiam

VIVAT

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In 2018, VIVAT made strong progress on its strategic agenda. We were able to grow premium income in our focus areas (Pensions and Property & Casualty), lower our cost base again by 4% and further re-risk our investment portfolio. P&C managed its combined ratio below 100% again, including the impact of the severe January storm. These positive developments contributed to a higher net underlying result. As an insurer, VIVAT makes important choices every day that have far-reaching influence on the world of tomorrow. With the assets we manage on behalf of our clients, we can and want to exercise our influence on that world, to safeguard it for future generations.

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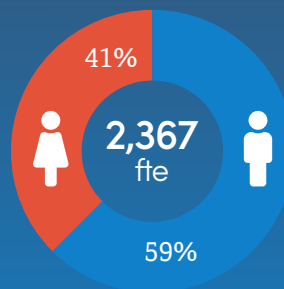
Ron van Oijen, CEO VIVAT

About VIVAT

Offices



Employees



Customers



> 2.5 million

Mission: VIVAT makes your financial choices easy

Our Brands

Zwitserleven

Reaal

actiam

 **nowGO**

Reaal
Dier&Zorg

ROUTE
MOBIEL

Our Performance

Gross Premium Income

▼ **2,842** mln EUR

2017: 2,923 mln EUR

Total Operating Costs

▼ **370** mln EUR

2017: 386 mln EUR

Solvency II

▲ **192%**

2017: 162%

Net Result IFRS

▼ **-284** mln EUR

2017: -116 mln EUR

Net Underlying Result

▲ **239** mln EUR

2017: 172 mln EUR

Total Assets

▼ **55,674** mln EUR

2017: 56,742 mln EUR

Other Milestones

★ 5 Star Money View Award for Zwitserleven PPI

Individual Life made good progress with automation and cost reduction thanks to **Pega**

🎓 VIVAT trained **37** new Data Analysts

📱 nowGo Travel Insurance Voted as Best Buy

🏆 ACTIAM wins VWD Cash Public Award

💉 Sickness absence down from 5.1 to **3.8%**

📈 Portfolio Growth P&C **8.7%**

🌐 Updated CSR Policy: SDGs leading

☂️ Combined Ratio P&C down to **96.8%**

📊 New Business Life Corporate up from 18% to **20.4%**

🏆 Reaal Commercial Nominated for Gouden Loeki Award

👍 Zwitserleven Retention Rate up from 67% to **88%**

CSR Statement: VIVAT provides long-term value creation

Four Strategic Themes for the Business

VIVAT has defined four key themes for the whole company. These themes are embedded in execution and change of VIVAT:



Customer Centricity



Data



Digitalisation



Innovation

Key Figures

In € millions	2018	2017 ¹	2016 ²	2015	2014
> Ratios					
Regulatory solvency II VIVAT	192% ³	162%	175%	161% ⁴	-
Net underlying result					
Life Corporate	113	60	35		
Individual Life	136	133	156		
Property & Casualty	8	-	-26		
Asset Management	-7	1	-2		
Holding	-11	-22	-2		
Net underlying result VIVAT	239	172	161⁵		
Net result IFRS					
Life Corporate	-406	-239	79	69	-613
Individual Life	133	160	159	120	100
Property & Casualty	16	2	-48 ⁶	-81	-110
Asset Management ⁷	-7	1	-2	6	11
Holding and other	-20	-40	-20	-5	-
VIVAT	-284	-116	168	109	-612
Profit or loss					
Net premium income	2,791	2,872	2,447	2,418	2,898
Investment income	1,524	1,450	2,794	1,319	1,469
Investment income for account of policyholders	-387	429	902	648	2,159
Total income (including other income components)	3,941	4,890	6,020	4,375	6,534
Total expenses	4,199	5,065	5,790	4,234	7,349
Result before taxation	-258	-175	230	141	-815
Taxation	26	-59	62	32	-203
Net result IFRS VIVAT	-284	-116	168	109	-612
Statement of financial position					
Total assets	55,674	56,742	57,801	60,328	60,525
Investments	38,656	38,683	38,294	36,727	36,648
Investments for account of policyholders	11,989	13,138	14,251	14,377	14,559
Loans and advances due from banks	1,566	1,814	960	999	321
Total equity	3,541	3,547	3,699	3,451	2,015
Insurance liabilities	46,283	46,794	47,617	46,457	46,646
Subordinated debt	863	1,016	1,047	872	887
Amounts due to banks	1,358	1,643	1,353	1,378	1,754

¹ Comparative figures (investments, investments for account of policyholders, investment income and investment income for account of policyholders) have been restated for comparison purposes. Reference is made to the notes in section 6.1.2 Changes in policies, presentation and estimates for the consolidated financial statements.

² The comparative figures 2016 (net result, investment income, total income, result before taxation, taxation, total assets and total equity) have been adjusted due to changes in policies and presentation in 2017.

³ Regulatory Solvency II ratio is not final until filed with the regulator.

⁴ Regulatory Solvency II ratio is based on Day 1 figures.

⁵ In 2016 the operating segments of VIVAT were adjusted, following the implementation of the new strategy. As a result, the net underlying result is only presented for 2016 and onwards.

- ⁶ As of 2017 designated parts of the disability insurance liabilities, which previously were measured using locked-in interest rates, are measured using current market interest rates. The comparative figures affected have been adjusted. The impact on profit or loss after taxation in 2016 is a gain of € 18 million.
- ⁷ As part of the restructuring of SNS REAAL Group, VIVAT NV acquired all shares in ACTIAM NV from SNS REAAL NV on 1 July 2014. This acquisition was a result of the disentanglement of the insurance business given that ACTIAM NV primarily manages investments for the insurance business. In 2016 the operating segment ACTIAM was adjusted to the segment Asset Management.

VIVAT and VIVAT NV

In this annual report, we use the name 'VIVAT NV' when referring to the company financial statements of VIVAT NV. For the consolidated financial statements of the insurance business as a whole, we use the name 'VIVAT'.

The VIVAT Report of the Executive Board, as referred to in section 2:391 of the Dutch Civil Code includes the following chapters: 2018 at a glance (chapter 1), Key figures, Message from the Executive Board (chapter 2), Strategy and Developments (chapter 3), the Executive Board (chapter 4.1), the Supervisory Board (chapter 4.2) and Remuneration (chapter 4.4).



Zwitserleven helps people to make proper arrangements for their financial future. The promise of the Zwitserleven brand is not a policy, but a carefree feeling, better known as 'Het Zwitserleven Gevoel' – a feeling that comes with knowing that your finances are well taken care of.

Zwitserleven

2. Message from the Executive Board of VIVAT NV

Dear stakeholders,

As an insurance company, VIVAT has a great responsibility. It is our role to protect our clients' belongings and to safeguard their future income. Therefore, everything we do is in some way related to our customers – from our sustainable investments and innovating our internal organisation to collaborating with start-ups and developing new easy to use products. It has made us redefine our mission: *VIVAT makes your financial choices easy.*

To live up to this mission, we need to have a solid modus operandi and I am glad to report that VIVAT has made strong progress on its strategic agenda. In 2018, we were able to grow premium income in our focus areas (Pensions and Property & Casualty), lower our cost base again by 4% and further re-risk our investment portfolio. P&C managed its Combined Ratio below 100% again, including the impact of the severe January storm. These positive developments contributed to a higher net underlying result.

In December 2018, a longevity reinsurance transaction was signed which lowered our Solvency Capital Requirement. Together with the issuance of € 300 million Restricted Tier 1 notes in June 2018 and an increase of the Volatility Adjustment (VA) in 2018, VIVAT's Solvency II ratio (based on the standard model) increased significantly to 192%. Capital generation was still limited in 2018, but it was improving and further re-risking will help to increase this over time. Nevertheless, some of our successful capital management efforts, for example longevity reinsurance and hedging, do create volatility in the net result IFRS in the short term.

All of our product lines saw positive developments in 2018. Life Corporate increased its customer

retention rate from 67% last year to 88% in 2018, and its market share new business increased from 18% to 20.4%. Individual Life succeeded in lowering its costs, had only a limited decline of the portfolio in a shrinking market and made good progress on redesigning and automating its customer processes to replace manual workflows. P&C managed its Combined Ratio below 100% for the second year in a row and grew the portfolio by 9% in a flat and competitive market. Assets under management increased by 4% at ACTIAM, also supported by our differentiating ESG and Impact Investing capabilities. The asset manager was rewarded with high scores in the 2018 survey of the Principles for Responsible Investment (PRI) underpinning the fact that ACTIAM is a frontrunner in responsible investing.

Innovation continues to be key in VIVAT's strategy. We apply smart innovative technologies and methods in combination with rich and varied data sources to enable cost effective operations, levels of personalisation and new business models that satisfy changing customer needs. A good example was the launch of the location based travel insurance by our on demand platform Vigi. We also made good progress in the field of digitalisation and we deployed initiatives across the product lines to improve the Straight Through Processing (STP) ratio. Furthermore, several initiatives to improve data management were rolled-out and VIVAT successfully developed new data science initiatives.

We also have tightened and redefined our Corporate Social Responsibility (CSR) policy in 2018. As an insurer, VIVAT makes important choices every day that have far-reaching influence on the world of tomorrow. In fact, with the assets we manage on behalf of our clients, we can and want to exercise

our influence on that world, to safeguard it for future generations. Therefore, based on a survey among our stakeholders and the global sustainability agenda of the United Nations – the Sustainable Development Goals (SDGs) – we have formulated the following three priorities to guide our actions: 1) we have a sustainable customer relationship, 2) we invest responsibly, and 3) we run our business efficiently and sustainably. We are keen to contribute, via investments and involvement, to an inclusive and sustainable world for today and tomorrow.

Our efforts in the field of sustainability were once again recognised by the Fair Insurance Guide according to our consistently high rankings in different themes in recent surveys. In line with our sustainability policy, we have ended the variable remuneration in our new Collective Labour Agreement (CLA) which became effective as of 1 July 2018. Zwitserleven successfully launched its sustainable investment funds proposition. Our sustainable asset manager, ACTIAM, was rewarded with two Thomson Reuters Lipper fund awards which we believe proves that responsible investing adds value.

The strategic review regarding the ownership of VIVAT by Anbang is in progress. Once a final outcome of this review has been concluded by the shareholder, this will be communicated.

VIVAT remains committed to executing its strategy, focussing on innovation, further reducing the cost base and optimising the investment portfolio. The efforts of our committed employees will help to continuously serve the needs of our customers and stakeholders.

Amstelveen, the Netherlands, 25 March 2019

On behalf of the Executive Board of VIVAT NV,
Ron van Oijen, Chief Executive Officer





Insuring is probably not people's favorite activity. At Reaal they understand that. Yet it is nice if things are well organised. Reaal is happy to help. They do so for over hundred years and for approximately 1.8 million customers.



3. Strategy and Developments

3.1. About VIVAT

VIVAT is an insurance company with strong positions in the Dutch Life and Non-Life markets. Through its main brands Zwitserleven and Reaal and the direct label nowGo, VIVAT provides pension, life, property & casualty and disability insurances. VIVAT also offers asset management services via its asset manager ACTIAM.

In 2018, VIVAT generated € 2,842 million in gross written premiums (GWP), which makes VIVAT one of the top 5 insurance companies in the Netherlands.

VIVAT's main offices are located in Amstelveen and Alkmaar, smaller offices are situated in Utrecht and Rotterdam. The office in Assen will be closed in May 2019.

VIVAT NV is a holding company with no material, direct business operations, but does employ all personnel and services of the business with staff support. The principal assets of VIVAT NV are the equity interests it holds in its operating subsidiaries. VIVAT NV is organised into four product lines. In the chart below the product lines structure is translated into the legal structure of VIVAT.

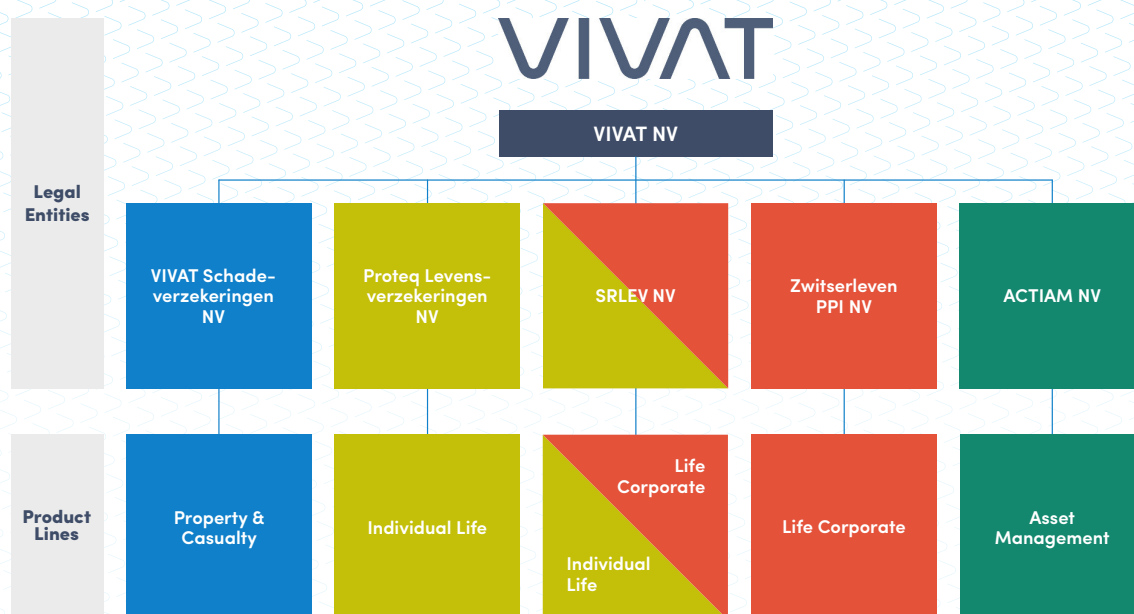


Figure 1: Structure VIVAT

Anbang Group Holdings Co. Limited, an indirect subsidiary of Anbang Insurance Group Co., Ltd., is the sole shareholder of VIVAT NV. Since February 2018 the China Insurance Regulatory Commission (CIRC) has temporarily taken over management of Anbang. During this interim period, the far majority of the Anbang shares are temporarily held by the Chinese

Insurance Security Fund (CISF), a non-governmental industrial fund.

3.2. VIVAT's Strategy

In 2018, VIVAT has reviewed and simplified its mission: *VIVAT makes your financial choices easy*.

To generate attractive returns and to achieve this mission, VIVAT has set itself three main goals:

- > Customer advocacy
- > Profitable growth
- > Cost discipline

These goals are interconnected: only when VIVAT stays relevant to its customers we can expect to grow, and for this growth to be profitable in the highly competitive markets in which VIVAT operates, we must continue to be vigilant on cost. Keeping our cost base under control allows us to offer competitive pricing to our customers. And only by growing we can sustain the continuous investments needed to respond to changing customer needs. Meeting our goals will result in a healthy and sustainable level of capital generation and an attractive return for our shareholders and for society.

Company-wide Priorities

To meet our goals, VIVAT has set several company-wide priorities:

Customer advocacy

1. Develop seamless customer experiences starting from customer needs (life events)
 - > Omni-channel sales and (self) service
2. Review and develop product offerings against changing customer needs and market developments
 - > Simple and easy to understand
 - > Transparent pricing and fair conditions
3. Continued investment in relationships with our distribution partners

Profitable growth

4. Relentless focus on improving all components of the Combined Ratio in Non-Life and the Value New Business margin in Life & Pensions (e.g. use of data & advanced analytics for risk selection and price setting)

5. Balancing volume and value to achieve optimal levels of capital generation
6. Continued re-risking of the investment portfolio whilst safeguarding a solid solvency ratio

Cost discipline

7. Increase efficiency by implementing digital technologies throughout the value chain:
 - > Build state-of-the-art digital sales & (self) service capabilities for all our brands and channels (direct and indirect)
 - > Achieve operational excellence through digitisation of (back end) processes using both proven and innovative technologies such as Customer Relations Management (CRM), Business Process Management (BPM), chatbots and robotics
 - > Digitisation of customer communications

Across these priorities we apply smart innovative technologies and approaches in combination with rich and varied data sources to enable cost effective operations, levels of personalisation, long term value creation and new business models that satisfy changing customer needs.

Strategic Themes for the Business

To achieve the above mentioned goals, VIVAT has formulated four key themes for our product lines:

- > Customer centricity
- > Data
- > Digitalisation
- > Innovation

Customer Centricity means that we put the interest of the customer first. This will help us with our goal Customer Advocacy. So will using (smart) data, by which we can improve our products and offerings in the interest of our customers. Digitalisation of our (back end) processes will help us be more cost effective. Lastly, by innovating our products and especially the way we develop them, we are able to answer more quickly to the ever changing customer needs. Each product line has specific activities within these four themes that will help VIVAT move forward.

3.3. Corporate Social Responsibility

Corporate Social Responsibility starts with our mission: *VIVAT makes your financial choices easy*. It encourages us to use simple and comprehensible products for our customers. We do this as a member of society at large and with a view to the longer term: as an insurer, the choices we make now are important for covering the protection of our customers' property and for future income generation. *We value the importance of sustainability and focus on the long term value creation*. In the interests of our customers and those of their children, in the interests of our neighbors, of ourselves and of all those others we do not know.

This is all done in a dynamic context. The world around is in a constant state of flux: just think of the climate agreement, the fair allocation of labour, scarcity of water, land use through deforestation, monoculture and the suppression of biodiversity, the consequences of extreme weather, segregation in society and access to affordable insurance for everyone, to mention just a few factors.

For VIVAT and its brands, these are pressing social developments and topics, with no easy solutions to hand, although they certainly have an impact on our strategy: business practices and trade. We not only want to be but also must actively working on finding solutions to developments in society. These solutions may lie in the way we invest, proactively

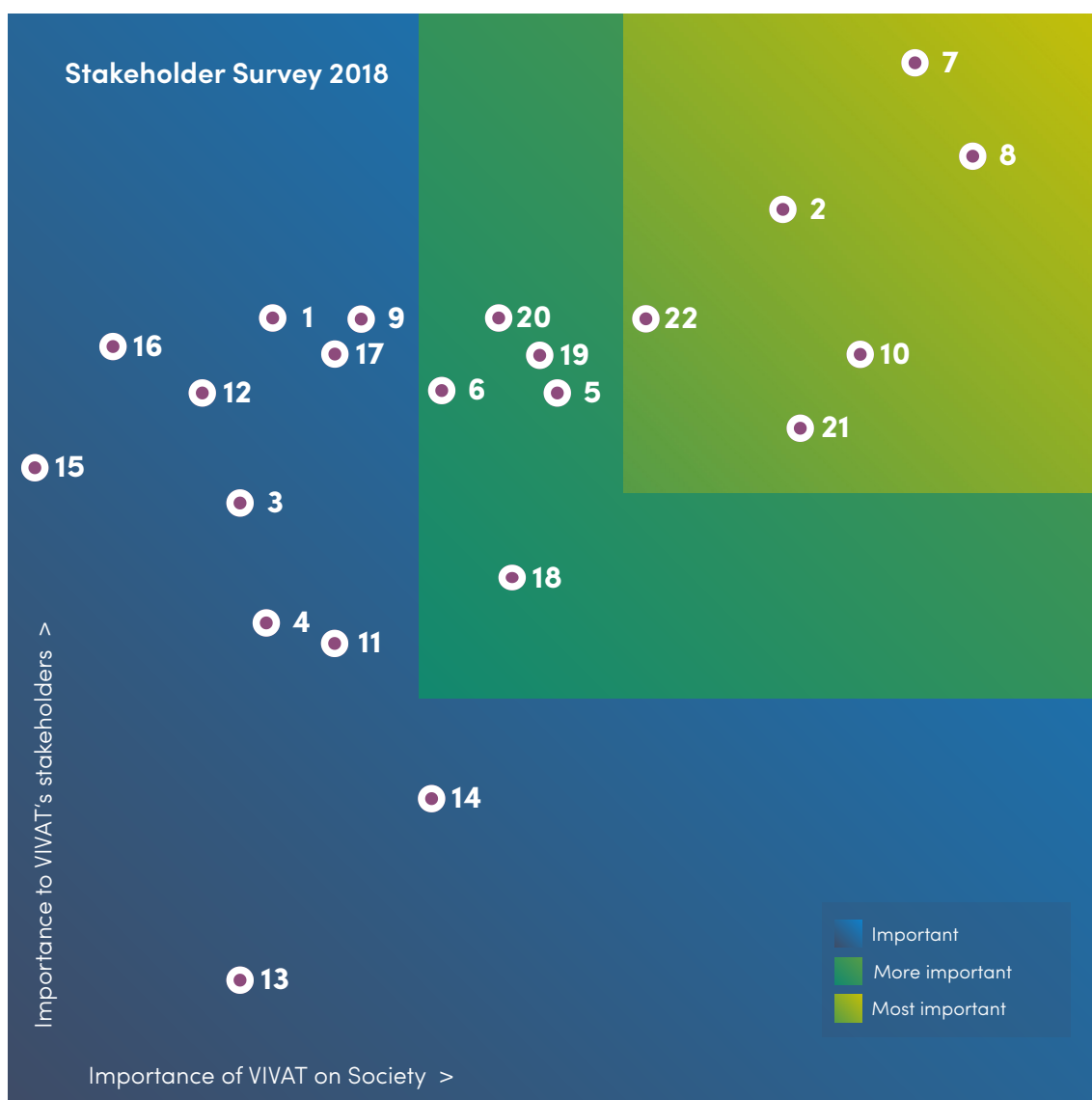
coming up with ideas and working on keeping casualty as well as life insurance products affordable into the foreseeable future, partly by introducing greater circularity and rediscovering the utility function of old. And we're not doing this in isolation. We must address these challenges alongside our stakeholders – our customers, intermediaries, government authorities and civil society.

Therefore, we at VIVAT are in touch with our surroundings, drawing input to help determine the course we take. As an example, VIVAT undertook a survey in 2018 among a broad representative sample of our stakeholders. We used the results to help update our strategy, along with our underlying targets and priorities.

The survey helped us to bring focus to our strategy, priorities and Corporate Social Responsibility (CSR) programme. These areas came out as being the most relevant:

1. Investing responsibly (#7)
2. Solvency (#8)
3. Being a good employer (#2)
4. Responsible pension (#10)
5. Permanent employability (#22)
6. Sustainable use of land (#21)

Of course, this does not mean that other topics are not relevant for us to pay attention to. On the contrary, the aim of this periodical survey is to follow trends and keep our focus sharp.



All Material Topics

1. Appropriate and simple products	12. Minimise paper use by digitisation
2. Being a good employer	13. Animal Welfare
3. Diversity and Inclusion	14. Innovation
4. Strict selection of customers on integrity and sustainability	15. Pro-activity in customer contact
5. Products with added value for our customers	16. Ease of purchase of products
6. Sustainable procurement	17. Climate-neutral operations
7. Investing responsibly	18. Sustainable energy generation
8. Solvency	19. Circularity / stimulate reuse of products
9. Sustainable results for the organisation	20. Reduction of CO ₂ emission by 50% in 2040
10. Responsible pension	21. Sustainable use of land and preservation of nature
11. Financial self-sufficiency of customers	22. Sustainable employability

3.3.1. Our Three Strategic Priorities

Based partly on the survey of our stakeholders and the global sustainability agenda of the United Nations – the Sustainable Development Goals (SDGs) – we have formulated the following three (CSR) priorities to guide our actions, which also take into consideration the strategic themes for the product lines.



The UN Sustainable Development Goals

1. We have a Sustainable Customer Relationship

VIVAT and its brands are not interested in earning fast money. We enter into a relationship with customers and intermediaries for the long term. We do this by developing simple and honest products that can be understood by everyone. Open, accessible and without small print. Hence our mission: *VIVAT makes your financial choices easy.* Increasingly, VIVAT is actively seeking contact with customers to help them take preventive measures to prevent damage. With this priority we contribute to SDG 12: Responsible Consumption and Production.

2. We Invest Responsibly

For VIVAT, creating returns from premiums entrusted to us and ensuring a better world go hand

in hand. In both cases we create value for the long term. Through investments and involvement we want to contribute to an inclusive, sustainable world, without making concessions to the financial yield. With this priority we contribute to SDG 15: Life on Land.

3. We Run our Business Efficiently and Sustainably

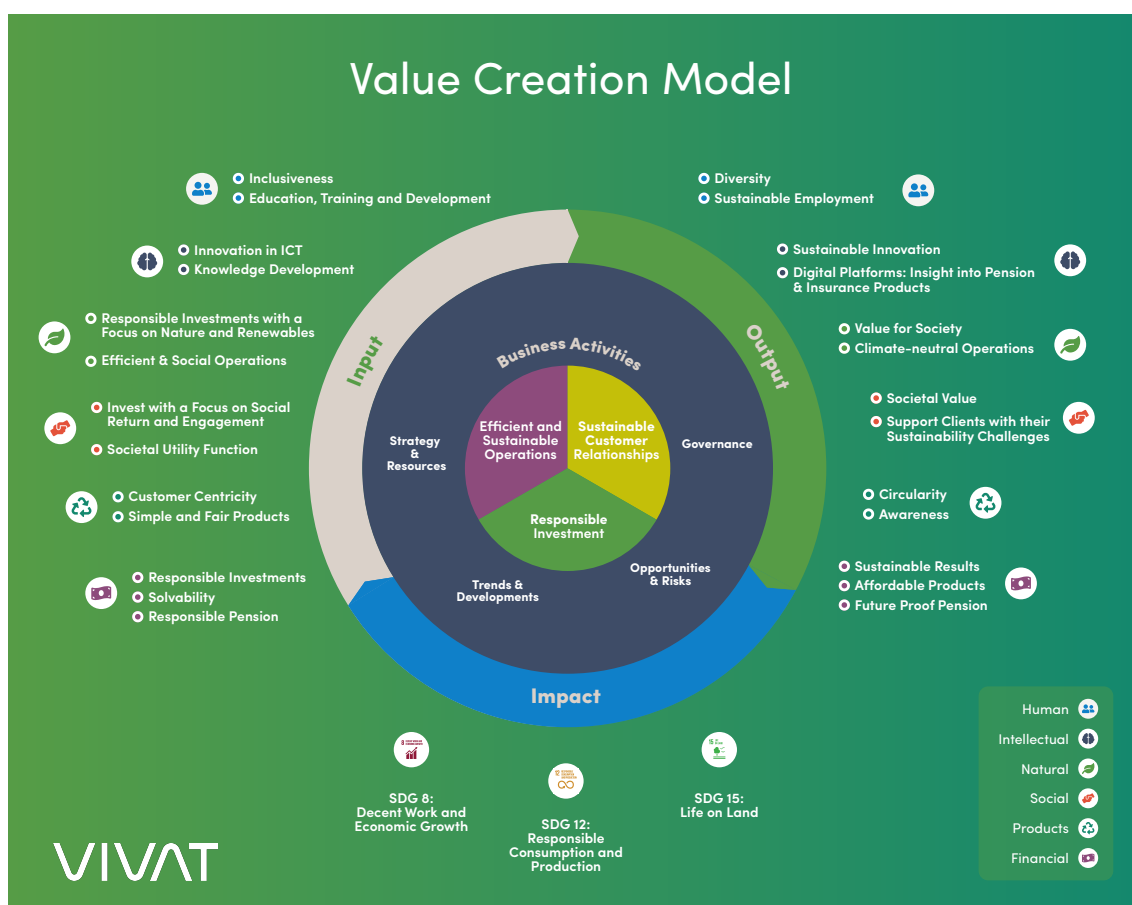
VIVAT wants to limit the impact of our own business operations. That is why we take climate-neutral and circular measures in the areas of housing, mobility, energy and waste. In the partnership with suppliers and partners, we are increasingly looking for companies that share the same objectives. We cannot do this without vital employees, who are flexible, employable and forward-looking. With this priority we contribute to SDG 8: Decent Work and Economic Growth.

3.3.2. How We Create Value

Our value chain consists of the activities and processes that allow us to offer life and property & casualty insurance products. These put us in the positions of employer, collaborative partner, neighbour, customer and investor.

Value Creation Model

Our value creation model shows the various sources (financial, produced, intellectual, human, social & relationships and nature) that we use to achieve our strategic targets and the values that we add with our core activities.



VIVAT Value Creation Model

How We Translate Strategies into Actions and Objectives

Our CSR policy forms an integral element of our corporate strategy. When we formulated the CSR policy, we built on VIVAT's existing vision statement.

VIVAT chose to adopt the UN SDGs as guidance for the further development of an integrated CSR policy for our business practices. This involved

highlighting the most relevant of them that are appropriate in the context of the vision statement and the CSR statement. These are shown below in an illustration based on the clusters of VIVAT's customers, their investments & assets and internal corporate housekeeping.

The strategic CSR priorities are linked to the SDGs we have chosen, and these in turn are linked to the underlying tactical topics that flesh out the policy.

Mission Statement	VIVAT makes your financial choices easy						
CSR Statement	VIVAT provides long-term value creation						
SDGs	12 RESPONSIBLE CONSUMPTION AND PRODUCTION SDG 12 – Responsible Consumption and Production	15 LIFE ON LAND SDG 15 – Life on Land	8 DECENT WORK AND ECONOMIC GROWTH SDG 8 – Decent Work and Economic Growth				
Strategic CSR Priorities	We Have a Sustainable Client Relationship		We Invest Responsibly		We Have Efficient and Sustainable Business Operations		
Tactical Themes	Suitable and Simple	Pro Active and Preventive	Responsible Investment Policy		Sustainable Result	Good Employment Practices	Climate-neutral Business Operations
Operation	Sustainable Innovation	Value Proposition	Exclusion Principles	Active Shareholdership	Financial Strength	Inclusion	Circular Economy
	Language and Convenience	Insight into Pension	ESG Data Integration	Impact	Acceptance Policy	Sustainable Deployability	Energy Measures

The MVO Matrix above shows a complete illustration of the operational topics

One example of an operational topic is the acceptance policy for business customers. VIVAT has taken some fundamental steps in entering commercial customer relationships for pensions. Business customers who wish to buy in their pensions from VIVAT are assessed based on an exhaustive list of ESG points. The results of this determine whether we conclude and/or extend administration agreements. Administration is done step-by-step, to ensure that it is controlled and meticulous. After evaluation, further lines will gradually be cast, in the direction of VIVAT's property & casualty insurance.

Another aspect is active shareholder status and impact. VIVAT can make a difference with the assets we manage for our customers. Our convictions persuade us that we have to offer solutions for social challenges as well as purely financial returns. We use a range of methods to achieve this:

- exerting influence as a shareholder (engagement and voting)
- integrating sustainability factors into investment decisions and rewarding front runners
- excluding certain entities from investments
- collaborating with other investors and organisations

What Challenges do we Face?

VIVAT can perceive challenges in many different areas. These are some of the important ones.

- The impacts of climate change on VIVAT's business practices and solvency. The link to SDG 13 Climate Action is a relevant one. The focus here is on improving awareness in relation to the mitigation of climate change. How can VIVAT, in conjunction with its customers and business sectors, achieve a package of measures to maintain a degree of control over losses to products and assets for business customers?
- VIVAT is keen to provide a carefree future for its pension customers in a world that makes a difference. Therefore, our brand Zwitserleven has decided to invest 20% of the share portfolio of the unit-linked pension portfolio into a new impact fund set up by ACTIAM. This fund invests specifically in several UN SDGs and reports on the results it attains. The investment here exceeds €300 million. We will be introducing a sustainable policy for the remaining 80% during 2019.
- VIVAT is keen on achieving the integration of gender equality (SDG 5) and a reduction of inequalities (SDG 10) as part of the tactical topic 'decent work and economic growth' under SDG 8. This includes the support adopted by VIVAT for the inclusivity of LGBTI topics. How will VIVAT roll out the inclusivity, from company

culture to monitoring and reporting, in a way that does justice to the social responsibility stemming from the intrinsic values or from legislation and covenants?

3.3.3. Sustainable Customer Relationship

Fair and Transparent Service

Customer Centricity is essential for VIVAT's success. It is one of our four strategic pillars. We strive to earn and maintain the trust of our customers by being fair and transparent in our customer approach. This way of thinking and working is embedded in our business.

In doing so, we apply the criteria of cost efficiency, usefulness, reliability and comprehensibility as prescribed by the regulator, the Dutch Authority for the Financial Markets (AFM).

In previous years, the AFM has tested whether insurance companies are succeeding in treating customers fairly. The regulator has published these scores for Treating Customers Fairly (TCF) on a yearly basis. Since the AFM has not given scores on TCF to any financial institution regarding the year 2018, VIVAT cannot report any scores.

Customer Loyalty and Customer Satisfaction NPS

VIVAT monitors customer loyalty and satisfaction within our company. As a leading indicator for Customer Centricity, the Net Promoter Score (NPS) is an important KPI within VIVAT. NPS measures the willingness to recommend the VIVAT brands to friends and family, providing a broad perspective on how our customers value the overall relationship with us. Based on the NPS survey results, our customers can be categorised in to different groups: 'Promoters', 'Passives' or 'Detractors'.

NPS is measured on a continuous basis among the various customer segments (e.g. both private and business customers, and per product line). As a result, an overall VIVAT score is derived and

reported quarterly, in order to monitor the progress and gain insights in the areas for improvement.

In 2018, the VIVAT NPS has increased (+6, compared to end of year 2017), driven by a higher percentage of 'Promoters' and lower percentage of 'Detractors'. Specifically the Employer customer segment within Life Corporate demonstrated a sharp increase in NPS performance.

Net Promoter Score

	2018	2017
VIVAT	-24	-30
Individual Life	-38	-41
Life Corporate	-29	-40
Property & Casualty	-14	-14

Customer Satisfaction

In addition to NPS, the customer satisfaction is measured among the various customer segments. These scores reflect the level of customer satisfaction on a scale from 1 to 10 (1 = extremely dissatisfied, 10 = extremely satisfied). The results help to understand how the overall service is perceived by our customers, identifying drivers for improvement in key customer service processes.

In line with the stronger NPS performance, the VIVAT customer satisfaction score has increased to 7.3 (2017: 7.1). The average satisfaction score at productline level varies between 7.1 (Life Corporate and Individual Life) and 7.5 for Property & Casualty customers.

Customer Satisfaction

	2018	2017
VIVAT	7.3	7.1
Individual Life	7.1	7.1
Life Corporate	7.1	7.2
Property & Casualty	7.5	7.6

Customer Privacy and Data Protection

VIVAT has to maintain a large amount of data for a very long time. We are bound to secure customer data and data about our interactions with our

customers, in particular with regards to their life, pension and disability products. VIVAT not only needs to make sure that we serve our customers well and respect their privacy, but we also have to be able to provide evidence that over the span of our often long term relationship with our clients, we adequately perform our duty of care and fulfilled all our legal requirement such as tax filings and regular Sanction List scans.

With that in mind, data protection and the privacy of customer data are of key importance for VIVAT. Customers can trust that their personal data are in safe hands with VIVAT. That is why we have implemented certain policies to protect customer data and customer privacy. The privacy statements as published on the websites of VIVAT and our brands describe the categories of data VIVAT collects, the purposes of the collection of these data and how customers may access such data. Customers can contact VIVAT with requests related to that data. VIVAT also has a policy to handle data leakages to minimise possible damage to customers. The appointed Data Protection Officer is responsible for monitoring compliance with the law (e.g. GDPR).

In 2018, a privacy programme was in place to ensure that VIVAT would become compliant with the GDPR. Within this programme a split was made between certain affairs that had to be in place on or before May 25th (plateau 1) and thereafter (plateau 2). Due to key decisions by the Executive Board the design, existence and operation of the most crucial elements of the GDPR are in place, including a plan of action on how to address outstanding gaps. Nevertheless, some changes still have to be performed. A governance framework with Privacy Champions (reporting to their local management) and key controls has been developed to ensure structural accountability going forward. In 2018, 146 data breaches were reported to NFR of which 14 have been reported to the Dutch Data Protection Authority. For more information relating to non-financial risks we refer to paragraph 7.9.4.

3.3.4. Responsible Investing

Investment Principles

Our Fundamental Investment Principles are foremost based on international treaties, conventions and best practices, including the UN Global Compact (see appendix for a comprehensive list of the international mechanisms we consult). Because these international mechanisms are considered universal, the standards underlying our Fundamental Investment Principles go beyond personal and cultural differences. In our investment policies, we take social discussions and the nature and extent of social consensus into account. Compliance with our principles will be assessed based on two main criteria:

1. Repeated or systematic involvement in activities covered by our principles, as well as failure to sufficiently remedy such involvement.
2. Inadequate preparedness to prevent this involvement from occurring in the future. A company is considered to have taken insufficient measures to prevent ongoing or future involvement, when either of the following conditions is met:
 - a) The company lacks coherent management systems, which include the following components:
 - > Management principles;
 - > An operational policy through which these principles are implemented;
 - > Adequate procedures to assess, mitigate and address risks;
 - > Systems for monitoring and tracking risks and risk management steps, as well as implementation of the operational policy;
 - > Sufficient training and education to help staff, subcontractors and suppliers in the adequate implementation and execution of the policies;
 - > Mechanisms to encourage frequent feedback to management; and
 - > Regular (public) reporting.
 - b) The company demonstrates no credible implementation and/or enforcement of above-mentioned management systems.

As a responsible investor, VIVAT will evaluate whether to exclude companies once it becomes clear that we will not be able to persuade them to change their behaviour. Thus, prior to exclusion, we assess whether engagement may be a helpful tool in remedying any real or potential violation. If engagement is not an option or not successful, the ultimate consequence may be exclusion from our investment universe.

When we do decide to exclude a company and investments have already been made, these assets will be sold at short notice. This may also apply to companies that are not directly involved in violations of the Fundamental Investment Principles, but whose behaviour or activities raise serious ethical questions. In 2018, the majority of companies that our asset manager ACTIAM has excluded (about 30%) were based on the Environment Principle, 24% of the exclusions were based on the principle 'Customer and Product Integrity', and 23% were based on the principle 'Weapons'.

In 2018 we have had numerous proactive engagements with companies. In terms of our strategic themes, about 45% of our proactive engagements were focussed on our theme Climate, 21% on Animal Welfare, 15% on Water, and 14% on Land. When it comes to responsive engagement according to our principles: about 80% of our responsive engagements targeted the environment.

Human Rights

The UN Guiding Principles on Business and Human Rights, endorsed unanimously by the UN Human Rights Council in June 2011, underline the corporate responsibility to respect human rights. This responsibility, which is also affirmed in Principles 1 and 2 of the UN Global Compact, requires companies to avoid causing or contributing to adverse human rights impacts through their own activities, and to prevent, mitigate or remedy human rights impacts directly linked to their operations, products or services.

The responsibility of entities to respect human rights refers, as a minimum, to the core

internationally recognised human rights, contained in the International Bill of Rights (composed of the 1948 Universal Declaration of Human Rights, the 1966 International Covenant on Civil and Political Rights, and the 1966 International Covenant on Economic, Social and Cultural Rights). Depending on the circumstances, entities may need to consider additional universal human rights standards, for instance relating to the protection of the human rights of specific groups, such as indigenous peoples, women, persons with disabilities, and migrant workers and their families.

VIVAT supports these views on companies' human rights responsibilities and considers violations of these international mechanisms to be in violation of our principles.

These principles are included in Our Acceptance Policy for Business Customers. Business partners who want to purchase their pension from VIVAT are tested on the basis of a comprehensive list of sustainability criteria (ESG points). To keep the execution controlled and careful, we choose to further implement this policy step-by step. After evaluating the acceptance policy, we plan to implement this acceptance policy to the pension and non-life insurance policies of VIVAT. We have developed this policy in order to mitigate (reputational) risks related to human rights violations by our customers. We recognise the potential negative impact of human rights violations at our customers for our business.

We diligently assess our corporate customers as part of our acceptance process. In this we follow an underwriting framework in which our team is trained. Additionally, we have established committees to analyse special risks that require further approval. We run quality samples in which we randomly select cases for further review. This process is part of our key control governance framework. If we do not mitigate these risks, these could have an impact on our reputation and therefore our license to operate.

Going forward, VIVAT is looking into further incorporation of data protection and customer privacy. It will also help us in the development of an adequate measure.

Anti-corruption and Bribery

VIVAT considers involvement in corruption (forms of corruption include: bribery, extortion, fraud, collusion, money laundering, embezzlement illegal political contributions, nepotism and certain facilitation payments), as defined by the following mechanisms, to be in violation of our principles:

- > UN Convention Against Corruption, 2003
- > OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, 1997
- > OECD Guidelines for Multinational Enterprises
- > Principle 10 of the UN Global Compact
- > Sanctiewet en regeling toezicht sanctiewet 1977

VIVAT takes a zero-tolerance approach to corruption and bribery. On an annual basis VIVAT assesses, by means of a VIVAT wide systematic integrated risk analysis, several corruption and bribery risks which include the analysis of integrity risks regarding:

1. accepting (implicit) favours from suppliers or stakeholders,
2. accepting or providing gifts and hospitality, which inappropriately affecting the independence of employees, VIVAT or third parties, and
3. in general the sensitivity for corruption of a close stakeholders (e.g. intermediary, insurance broker, start-up).

Beside of specific corruption and bribery integrity risks, VIVAT also assesses to corruption related integrity risks like conflict of interests and internal fraud on an annual basis.

The outcome of the integrity risk analysis serves as a basis for a risk based approach to corruption and the corresponding mitigating actions. The VIVAT

risk policy on corruption and bribery is the foundation of the mitigation actions and include provisions regarding risk analysis on corruption and bribery, screening of employees, due diligence of third parties, gifts, hospitality and donations requirements, financial record keeping requirements, gifts, hospitality, donations and sponsoring and inhouse training and internal communications.

In order to guarantee the integrity of VIVAT and its staff and to combat corruption and bribery, VIVAT tests the integrity of all potential employees through pre-employment screening. Senior management will also be subject to an additional screening on financial antecedents. VIVAT has a pre-employment screening policy in place. The pre-employment screening process is controlled by specific key controls and management controls. A due diligence will be executed to cover persons or entities associated with the party to which payments will be made or by which acts will be performed for or on behalf of VIVAT. VIVAT has a procurement policy in place which the due diligence requirements within Procurement. The due diligence process is controlled by specific management controls. VIVAT keeps financial records and has appropriate internal controls in place which can be used to collect evidence for the business reason making payments to third parties or by associated persons who act for or on behalf of VIVAT.

VIVAT has a Code of Conduct in place with rules of conduct concerning bribery, avoiding conflicts of interests, gifts and side activities. Training on this policy and the Code of Conduct form part of the induction process for all new employees. All existing employees will receive regular, relevant training on how to implement and adhere to this policy and the Code of Conduct. Senior management procurement, account management, marketing and communication departments will receive additional communication to emphasise their responsibility towards the policy on corruption and bribery.

In order to foster the reporting of (potential) incidents concerning corruption and/or bribery, VIVAT has an online incident hotline and whistleblowing

procedures in place. Key risk indicators have been identified to monitor and report on incidents. These relate to, amongst others, the number of fraud incidents reported and the number of major security incidents. VIVAT reports all high-risk incidents, including corruption and bribery incidents, to the Executive Board and Supervisory Board. In 2018 no incidents of corruption and/or bribery were reported. Compliance monitors risk-based the effectiveness and the implementation of the provisions in the policy on corruption and bribery, considering its suitability, adequacy and effectiveness of its measures to provide assurance that the measures are effective in countering corruption and bribery.

Anti-money Laundering

VIVAT assesses risks regarding money laundering, terrorism financing and sanctions on a yearly base, by means of a systematic integrated risk assessment. The outcome of the integrity risk analyses serves as a basis for a risk-based approach of mitigating actions, including policies, controls, reporting and training and awareness. Compliance monitors risk based the effectiveness and the implementation of the provisions in the respective policies.

In VIVAT's efforts to ensure compliance with applicable laws and regulations, instances of non-compliance occur. At present, these instances include Sanction and Anti money laundering regulation compliance which are shared with the regulators including a timely action plan to address and resolve current and future instances.

Environment

VIVAT wants to make our investments measurable in terms of its sustainable impact, thus we can steer on positive impact based on our insights with tangible targets. We do this via calculating the carbon emissions and water footprints of key investments funds of ACTIAM.

ACTIAM does not wish to be involved in activities that cause serious environmental damage through pollution, biodiversity loss, or the depletion of natural resources. We seek guidance from the

following instruments of international environmental norms and best practices, as well as environmental laws and regulations, when determining whether a company is in violation with our principles.

- > Rio Declaration on Environment and Development, 1992
- > The Earth Charter, 2000
- > Principle 7 of the UN Global Compact
- > IFC Performance Standards on Social & Environmental Responsibility
- > The Paris Agreement under the UNFCCC, 2015

Companies unwilling to phase out the most carbon-intensive assets, products or processes could be in violation of our principles. Criteria to determine whether companies are in violation of our principles, as well as distinct best practice guidelines, are further specified in ACTIAM's position papers. For instance, ACTIAM does not invest in companies that have over 15% of their total revenue resulting from thermal coal. Furthermore, our guidelines prohibit us from investing in companies involved in particularly harmful activities including mountaintop removal mining, riverine tailings disposal, illegal logging, and extraction activities in protected areas. Such areas include those covered by the International Union for the Conservation of Nature (IUCN) Protected Areas Categories I through IV, the 1972 UNESCO World Heritage Convention, and the 1971 Ramsar Convention on Wetlands.

VIVAT takes its responsibility regarding the environment and acknowledges that harming the environment can have a negative impact on business in the near future. The recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) will be taken into account and in the coming year(s) we will try to include climate related risks in our risk approach.

The data of 2018 regarding the responsible investments of ACTIAM have not yet been validated and can therefore not be included in this annual report. After validation the data will be published on the webpage of ACTIAM.

Life on Land

Within our investment policy, VIVAT has chosen to focus on Sustainable land use. Sustainable land management is about minimising land degradation, restoring affected areas and making optimal use of land and its resources. Therefore, we look at international developments and activities that have a large impact on land quality. Topics we address are deforestation, pollution and the growing demand for food as well as the resulting environmental and crucial social consequences.

Our asset manager ACTIAM has a range of instruments to achieve our objectives. Through a policy of shareholder engagement, either through dialogue or voting at general meetings of shareholders, we aim to encourage behavioural change at the companies in which we invest and challenge companies to:

- Provide insight into their land use (risks, opportunities and impact), make sustainable land management an integral part of their operations, and be open about the results.
- Respect people, animals and the environment, both at and around the production location and in the wider supply chain.
- Contribute to new and innovative technologies for sustainable land management and food production.
- Respect land rights.

3.3.5. Efficient and Sustainable Business

For VIVAT it is important to minimise the negative impact of our own business operations. Being climate neutral is one of our main objectives. We have translated this into two operational themes: energy measures and the circular economy.

Energy Management of our own Operations

In 2018, VIVAT has established a stable energy consumption. We used a hundred percent green gas and electricity, as we have done in the years before and still do up to this day. In 2018 we started working on improvements to make our Torenburg office more

energy efficient by connecting the seasonal thermal energy storage (STES) to the data storage rooms and using the cooling from the STES towards the data storage rooms and the heat vice versa.

Energy Consumption of Office

	2018	2017
Energy consumption kWh per FTE	1,496	1,766
Energy consumption kWh per m ²	87	100

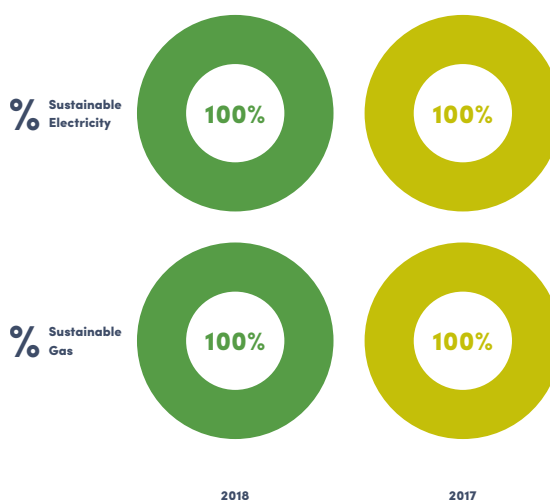
Share of Green Energy Offices

% of total	2018	2017
% Sustainable electricity	100%	100%
% Sustainable gas	100%	100%

Carbon Emissions (tonnes) Carbon Emission

	2018	2017
Business travel and commuting	4,405	4,698
Operations	107	89
Net emissions	4,512	4,787
Gross emissions ¹	6,589	7,550

¹ Gross emissions would be VIVAT's emissions using 0% sustainable electricity.



% Sustainability Electricity and Gas

Energy Management in VIVAT's Supply Chain

All our suppliers are requested to comply with VIVAT's General Procurement Terms and Conditions. By agreeing with these terms and conditions,

suppliers declare that they have taken steps or are in the process of taking steps to minimise their ecological footprint (including CO₂ emissions, paper consumption, energy consumption and waste) and have implemented or are in the process of implementing similar sustainable procurement terms and conditions in their own organisation.

Our activities to work towards climate neutrality go beyond the offices in which we operate ourselves. Via our investment properties we aim to make a significantly larger impact. We do so by focussing on three angles: organising campaigns to raise awareness towards the rental parties of properties, making properties more sustainable by moving towards a minimum of C Energy Label, and looking for sustainable carbon-neutral alternatives for traditional energy sources. These measures have resulted in a 19.4% drop in energy consumption in 2018 versus our 2015 baseline. Our gross carbon emissions have dropped 5.9% over the same period.

Circular Economy

Besides the integration of circular buildings that has been done and is still ongoing within the VIVAT properties, VIVAT wants our Life Insurance services to contribute to a circular economy by working on recuperation in kind. An example is that we steer on optimising the number of car recoveries via existing recovery networks (Schadegarant and Glasgarant). For car insurance we have set our target to have more than 90% recovery in kind.

3.4. Our Main Brands

3.4.1. Zwitserleven

Zwitserleven was founded in 1901 and has become one of the leading pension insurers in the Netherlands. Zwitserleven offers wealth accumulation products 'for later'. Zwitserleven has been awarded repeatedly for having the most sustainable investment policy in the Netherlands.

3.4.2. Reaal

Reaal offers Life and Non-life insurance products. Reaal improves the financial resilience of customers by helping them make well-considered choices about their financial situation.

3.4.3. nowGo

VIVAT's digital channel nowGo enables customers to buy smart and simple products directly online. Fast, completely tailored and at a competitive price. NowGo focusses on three segments: car, travel and living.

3.4.4. ACTIAM

ACTIAM is an alternative investment funds manager in accordance with the Dutch Financial Supervision Act. ACTIAM manages the assets of VIVAT's insurance entities and of listed and non-listed investment funds, pension funds, insurance companies and corporate clients in Europe.

3.5. Our Product Lines

3.5.1. Life Corporate

VIVAT's Life Corporate product line offers pension solutions for business customers under the brand Zwitserleven. The employees of our customers can choose from a range of products to secure their financial future.

Responsible Pension

Life Corporate has formulated the following mission statement: *Caring for customers and helping them realise their dreams in a sustainable and responsible way.* In the strategy house of Life Corporate this is translated in 'helping our customers into a carefree future in a world that is worth living in'.

In every decision that is being made with regard to our propositions, the clients' interests are specifically taken into account. We make sure that customers have insight (a good understanding of the product or service and their own situation). We provide customers with a certain amount of freedom (they have choices to adapt the proposition to their needs). And we make sure the proposition is sustainable (future proof and or adaptable to any changing needs in the future).

We take special care that the assets related to the pensions are invested in a responsible way. Most of the assets of Life Corporate are being managed by the product line Asset Management (ACTIAM). We adhere to their ESG philosophy and in 2018 we have even taken steps to improve the sustainable nature of the funds that the Defined Contribution premiums are invested in. An example is our real estate fund that has made a shift in its portfolio to investing only in real estate with a minimal energy Label C. Furthermore, we have decided to invest 20% of our clients' equity portfolio in an impact fund that positively supports the social development goals of the UN.

Objectives for 2018

The primary goal for 2018 was to continue working on higher customer satisfaction. By training our staff to improve their understanding of the needs of our customers, we set out to be able to make better offerings. The priorities therefore remained to further improve business processes and further strengthen the long-term relationships with employees, employers and intermediaries. Life Corporate also continued to optimise existing products and develop new propositions.

Achievements in 2018

Further Optimisation of a Flexible and Effective Organisation

In 2018 we benefited from downsizing our administration systems to only two systems in 2017. This allowed a swift completion of implementing the new Dutch pension age of 68 in the first quarter of 2018. Zwitserleven reduced the overall targeted service level for implementing pension contracts with 40%, from ten weeks to six weeks. The actual performance was within service level. Furthermore, customers now have a single point of entry and are supported by authorised and responsible account teams. All this has increased the customer satisfaction for both employers and their employees, and intermediaries. Investment in digitisation resulted in improved Service Level Reports, hence an improved service level for employers. Other deliverables are a new portal for participant communication and quotations in English.

Business and Acquisition

Just as last year in March, VIVAT acquired a pension portfolio (pension fund) that significantly increased our cash-inflow. But even without the acquisition, Life Corporate managed to realise growth in 2018. We increased our customer retention rate from 67% last year to 88% in 2018, and the market share new business from 18% to 20.4%.

Relationship Management Events

In the first half year of 2018 VIVAT organised several events for customers and relations. At the InFinance Day, we shared our vision on the future of pensions with intermediaries. Furthermore, we organised our annual Pension Event, that was attended by almost three hundred visitors. During regional events in the second half year, we informed intermediaries about the ambitions of Zwitserleven, our investment strategy, new Lifecycles and much more. Finally, we successfully organised two events for participants who are about to retire, to give them information about the things they can expect when they actually retire.

In March 2018, VIVAT employees have voluntarily participated in the 'Fix je Risk'-programme, initiated

by the Dutch Association of Insurers and the Ministry of Finance. Various insurance professionals within VIVAT, including ceo Ron van Oijen, visited classrooms to teach children at primary schools about insurances.

New and Enhanced Products

In 2018, Life Corporate introduced two new products within the brand Zwitserleven:

1. Zwitserleven Investing (*Zwitserleven Beleggen*) offers customers more control over their financial future, by giving them the possibility to easily invest in sustainable funds (managed by ACTIAM). Customers can participate directly and online, starting with a minimum amount of only € 50.
2. Zwitserleven also introduced a new travel insurance (managed by our P&C product line) with complementary services, such as hiring a local guide and arranging for a pet sitter. For these services we worked closely together with the start-ups WithLocals and Petbnb.

It demonstrates that we always try to offer our customers something extra, also with our existing products.

In 2018, the earlier developed product *Financieel Vitaal* was scaled up and renamed *Mijn Zwitserleven*, which was launched in January 2019. This online tool enables pension members to be fully in charge of their financial situation at retirement. *Mijn Zwitserleven* provides them with insight into their financial situation and enables them to immediately supplement their pension in case of a shortage and to purchase online pension (execution-only) at retirement – a unique service among Dutch pension insurers. If customers have any other wishes, the online portal enables them to get extra advice through 'an advisor in your area'.

Acknowledgements

Zwitserleven is proud to repeatedly get the acknowledgement for its products and investment policy. But we are also proud to get credited for our clear and comprehensible conditions. In 2018, the

Zwitserleven PPI (*Zwitserleven Nu Pensioen*) won the MoneyView Award (5 stars) for best product features for the SME market. *Zwitserleven Exclusief Pensioen* was ranked number 3 in the same category, being the best insured Defined Contribution product in the market. This reflects the significant growth of Zwitserleven PPI to € 300 million assets under management (with over 1.700 employers) which is well above the ambitious target.

Challenges

Life Corporate also faces challenges. The pension market is very competitive and margins are thin. Also the uncertainty around the ownership of VIVAT makes it more demanding to convince potential customers to choose for products in the Life Corporate product line.

3.5.2. Individual Life

Individual Life operates in the retail market. The portfolio of the Individual Life product line mainly consists of life annuity insurances, mortgage-related endowments, term-life insurances, funeral insurances and unit-linked insurances.

Objectives for 2018

In 2018 Individual Life set out to build on the strategic choices made in 2017. To meet the customer needs, our aims were to structurally and sustainably improve the business processes, to create more efficiency into our services and to optimise our product range. Furthermore, we aimed to increase revenue by strengthening the positioning of the products, capturing growth opportunities and to transform into a more digital and data driven organisation.

Achievements in 2018

Organisational Aspects

In 2018 we focussed mainly on Operational Excellence by continuing the Pega project, that started in 2017. In Pega we are redesigning and automating processes that were previously executed manually and in which the involvement of a person added no extra value. Eventually these manual workflows will all be replaced. The process for adding new customers was fully implemented into Pega during

the first quarter of 2018. Processes for ‘surrender’ and ‘maturity’ followed in August 2018 and were further improved and finetuned during the second half of 2018. Special attention was paid to comply with regulations and legislation. The most impactful ones were the privacy legislation, General Data Protection Regulation (GDPR), the Insurance Distribution Directive (IDD) and the Packaged Retail and Insurance based Investment Products (PRIIPS).

Because of the implementation of GDPR, Individual Life has reviewed its processes and implemented new or adjusted current steps. We have also rewritten communication items and updated contracts with external parties. As part of IDD implementation, Individual Life has finetuned communication towards its Distribution Partners.

At the beginning of 2018, the Investment-Linked insurance *Vermogensverzekering* was adjusted to meet the new European (PRIIPS) regulation. The Key Information Document (Essentiële-informatiedocument ‘EID’) was introduced and the coherent changes due to adjustments in Dutch laws regarding (pre)contractual information were implemented.

Products

VIVAT has a significant market share on life insurance products, e.g. Term Life. A new, more flexible term life tariff structure was developed in the beginning of 2018 and implemented in the second quarter. With this tariff VIVAT can bring more variety in the term-life products by introducing a range of product versions in the future and can target more specific client groups, with a short time to market.

In 2018, Individual Life introduced new ways to communicate with clients.

- A digital platform was introduced to inform clients about their expiring individual annuities (‘lijfrentes’). It holds generic information on the available options with their annuity and provides extra information on the Immediate Annuity offered by Individual Life.

- Also, a ‘funeral check’ was introduced for existing funeral clients, with a low insured capital. In a letter they were encouraged to review their funeral insurance, in order to see if it still met their needs. If not, they were able to make the necessary adjustments immediately.

Unit-linked Policies

Since 2013, a lot of effort was put into fulfilling the company’s obligations to activate clients to review their position regarding unit-linked insurances. In December 2017, AFM published the results of its investigation of the activation by insurers of pension or mortgage related policies. The AFM found several deficiencies in VIVAT’s activation efforts that VIVAT was required to resolve in the first quarter of 2018. After finalisation of the repair actions the AFM concluded that VIVAT had sufficiently addressed these issues.

VIVAT’s focus for the future will be to provide adequate continuous aftercare (‘doorlopende nazorg’) for all active unit-linked policies.

Challenges

Individual Life also faces challenges. The market for individual life insurance is already shrinking for years and is expected to continue to shrink going forward. It is of utmost importance to lower the costs every year in order to keep the costs per policy at the same level.

3.5.3. Property & Casualty

The product line Property and Casualty (P&C) offers property, casualty and disability insurances, mainly through the brand Reaal and partly through our online label nowGo.

VIVAT aims to grow the portfolio by providing our customers with clear products and fast services at a competitive price. VIVAT also aims to be the most innovative P&C insurer by collaborating with partners to offer innovative propositions for our customers and to improve our risk management by integrating data and using new ways to analyse these data. Therefore, P&C focuses on creating

sustainable profitable growth, while improving the Combined Ratio (COR) of the existing portfolio. VIVAT believes in continuous monitoring of the profitability of all segments in the portfolio by applying dynamic pricing in the renewal portfolio.

Objectives for 2018

While the P&C market remains highly competitive, the dynamics are changing. The market is consolidating and the attitude towards loss-making business appears to be changing, in the sense that insurers are no longer accepting losses. This is reflected in for example increasing premiums for motor insurances and the reduced underwriting capacity in the indirect channels.

In view of these market developments, one of the objectives is to increase profitability by raising premiums and to look for opportunities where other insurance companies are retracting. When identifying opportunities, the goal is always ‘margin over volume’.

P&C focuses on creating automated processes to improve customer satisfaction and reduce costs, while also integrating data solutions in our underwriting cycle to achieve profitable growth in the retail market.

For the commercial lines, the focus is on having knowledgeable staff that can act as a sparring partner for our distribution partners to help insure our customers in line with their risk and their needs.

Achievements in 2018

In 2018, P&C continued its strategy, which resulted in a Combined Ratio below 100% for the second year in a row. The underlying portfolio improved, and the result was achieved while absorbing the impact of the ‘Frederieke’ windstorm in January (€ 25.2 million gross and € 20 million net of reinsurance). Commercially, the portfolio grew with 8.7% in a flat market.

VIVAT profited from product improvements, IT rationalisation and our strong relationship with the intermediaries and Authorised Agents.

The growth was visible in all P&C channels, meaning that the authorised agent, co-insurance and banking channel continued their growth and that intermediary personal lines, commercial lines and digital have turned their declining trend to growth. This resulted in major increases of quotations, applications, mutations and claims. This extra work was absorbed by the same workforce due to process improvements and automation.

In the retail market P&C increased its efforts in data collection and analysis to improve the insurance technical cycle. In the Dynamic Pricing Programme, data are centralised, and more effective methods are being used for portfolio management and attracting new business. Furthermore, VIVAT and P&C started an Insurance Lab with Amsterdam Data Science, in which three PhD candidates investigate new data applications and techniques in risk modelling, fraud detection and customer acquisition. Customer satisfaction remained stable at -14, which means the highest score ever was consolidated.

The intermediary retail portfolio grew after years of decline. The new business was 233% higher than in 2017. The intermediary satisfaction increased from 6.6 to 7.0 in 2018.

In the commercial lines, P&C launched a new product package ('Bedrijven Totaal Pakket') at the end of 2017. In 2018 more products were added to the proposition and feedback was used to improve the proposition. To execute the strategy, specialised employees were attracted for both underwriting and claims management. This resulted in 66% higher new business than last year and an increase in intermediary satisfaction from 6.4 to 6.9.

We managed to further simplify the organisation by finalising the conversion of the intermediary portfolios to the target architecture. Also, P&C started preparing to centralise the activities performed at the office in Assen, that will be closed in the course of 2019. This will lead to a reduction of the number of VIVAT locations in 2019. These simplifications are designed to make P&C more flexible and agile

while also reducing costs to further improve our competitive position.

Looking forward, P&C expects climate change to have an impact on the P&C insurance market and on society. Therefore, we have made climate a key theme of our innovative agenda. P&C launched a climate challenge, in which several start-ups from all over the world could pitch their ideas on how to combat climate effects in a way that benefits both customers and insurers. VIVAT has started a collaboration with the winner of this challenge. P&C also actively notifies customers and gives tips to prevent damage to themselves or their belongings when bad weather is approaching.

Disability Insurance

The Disability portfolio managed to continue its strong results in 2018 thanks to a focus on prevention through the *Lijfwacht* programme and a clear strategy around claims aimed at helping the customer to reintegrate in a sustainable manner. This results in lower claims for the insurer and leads to satisfied customers. The NPS improved further to -7 and the goal is to have a positive NPS. Commercially, Disability ran several campaigns that ensured stable premium levels throughout 2018. The portfolio's decline slowed further and is almost stable in premium level.

Challenges

Property & Casualty also faces challenges. The market for P&C is highly competitive and some products are loss making for the market as a whole. The climate change will also have an impact on the P&C business as well as the introduction of new technologies.

3.5.4. Asset Management

The product line Asset Management offers a comprehensive range of investment funds and investment solutions that varies from responsible index investing to impact investing. The brand of the asset management product range is ACTIAM.

Objectives for 2018

Client satisfaction is a key indicator for a stable client base. Therefore, the main objective for 2018 and the coming years is to accelerate ACTIAM's growth and to further build the brand in the Netherlands, Belgium, Luxemburg and France. Besides this, maximising longer-term financial, environmental and social returns remains the overall goal of Asset Management. Another objective in 2018 was to further strengthen the current product offering and services considering market demand and regulatory developments.

Achievements in 2018

Accelerate growth and build brand

The book of business in terms of assets under management has grown to € 56 billion (December 2018). The ACTIAM retail fund range has grown to more than € 6 billion assets under management over the year. We have further built the ACTIAM brand via a dedicated salesforce in both the Netherlands and France. Moreover, ACTIAM was elected member of the Executive Committee Green Bond Principles of the International Capital Market Association. This has contributed to ACTIAM's thought leadership in responsible and impact investing.

Client satisfaction

Client satisfaction is measured and expressed in a quantitative score as well as via qualitative feedback. In consultation with clients, the feedback is translated into actions to continuously improve our services. Customer satisfaction overall was stable during the reporting period.

Maximising longer-term financial, environmental and social returns

ACTIAM funds were awarded on average 4 out of 5 stars by Morningstar. The Morningstar Rating is an external, independent benchmark that compares the risk-adjusted performance of a fund with other funds in the same Morningstar category.

In 2018, ACTIAM was involved in 226 individual engagements (executed both individual as well as via service provider) and 584 collaborative engagements, in which it was a lead investor for 50

companies. ACTIAM also supported engagement with 534 companies. 173 (of which 18 new) companies were excluded from investment due to noncompliance with our policies and a lack of willingness to change. The government bonds of 66 countries were excluded from the investment universe.

Non-financial Achievements

Biodiversity, which can be linked to SDG 14 (Life below Water) and SDG 15 (Life on Land), has been a key engagement theme during 2018. ACTIAM approached fifteen companies in Asia, Latin America and Europe on biodiversity issues. This concerned companies in the oil and gas, paper, food, metal and mining sectors. ACTIAM has joined the *EU Business @ Biodiversity Platform* that provides a unique forum for dialogue and policy interface to discuss the links between business and biodiversity at EU level.

Via so called 'green' bonds ACTIAM invests in the sustainable forestry projects of Caja Rural de Navarra – and therefore contributes to SDG 15. This cooperative Spanish bank offers financial services in three regions in Spain: the Basque Country, Navarra and La Rioja. With 42% of forest areas and biosphere reserves, the Navarra region has a lot of natural beauty. Sustainable forestry – protection, restoration and preservation of forests with respect for the rights of the local population and forest workers – is included as a separate financing category for the issue of the second green bond of this bank. Thanks to this green bond, the region has grown more than 400 hectares of forests.

ACTIAM also signed the *Bangladesh Declaration of Investors* to ensure that factories in Bangladesh are safe for garment workers (SDG 8). In the statement, the signatory investors expressed their concern about the rapid termination of the *Bangladesh Fire and Safety Accord* that was issued in 2013 to protect the health and safety of employees. Investors urged the government of Bangladesh to ask the Supreme Court for an approval to extend the agreement, until a national security regulator is set up that is fully equipped to uphold the mandate of the agreement.

ACTIAM has joined the UN PRI workgroup on plastic pollution in oceans and on land. The subject applies to all three of our focus themes – Climate, Land and Water – and affects many industries and companies. Within the working group, we will explore possible solutions and will investigate the role investors can play.

Further Strengthening Product Offering and Services

To invest in future growth, ACTIAM continues to invest in infrastructure robustness of data systems, portfolio management and ESG-tooling. We further strengthened our responsible investment policy and introduced a new sustainable fund range. In November 2018, ACTIAM decided to put investment restrictions on companies involved in tar sands and shale gas.

Being a pureplay responsible and impact investor, new investment solutions like *ACTIAM Global Equity Impact* were developed in relation to the Sustainable Development Goals of the United Nations (SDGs). These investment solutions screen the investment universe on a set of fundamental investment principles and the Planetary Boundaries in addition to the SDGs, among which SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production) and SDG 15 (Life on Land).

Also, a broader range of private debt impact investing (ACTIAM Energy Transition) is created in areas where ACTIAM holds strong and proven track records.

A relatively new (regulatory) development is integrating ESG related data, for example into portfolio management related scenario-analyses to make better informed decisions. ACTIAM has developed an ESG dashboard that provides insight in both financial returns and social impact, offering integrated portfolio information on items such as concentration risk, financial returns, water- and carbon footprint and Sustainable Development Goals (SDG) allocation.

Acknowledgement

ACTIAM was rewarded with high scores in the 2018 survey of the Principles for Responsible Investment (PRI). This year, ACTIAM achieved the highest possible score (A+) on no less than thirteen of fourteen modules. The remaining module received an A score. Other recognitions that built the brand were, among other: ‘Winner of the VWD Cash Public Award 2018’, ‘Winner of Lipper Group Awards 2018’ (Equity Large and Mixed Assets Large) and ‘Top 3 - Best fund house equity funds Morningstar 2018’.

Challenges

Asset Management also faces challenges. The market in which ACTIAM operates is very competitive, putting pressure on margins. This makes it challenging to expand the third party business which is relatively limited in scale compared to the captive assets under management.

3.6. Our People

Our employees are key for putting our mission into practice. Being a business that serves the financial interests of others, we require a staff that is fully committed to this task. VIVAT is aiming to be a responsible employer by promoting sustainable employability (e.g. vitality, personal development) and sustainable employment relations (flexibility, diversity). Not being a responsible employer could impair our ability to continue our strategy and could also negatively impact the engagement and commitment of our employees. In addition, in the context of the strategic review process by Anbang, VIVAT has considered risks regarding our

employees, such as leaving of personnel and single points of knowledge, our ability to attract new staff and commitment of our employees. HR is monitoring these risks closely and will continue monitoring in 2019.

Customer centricity and a high-performance culture are central aspects of our company strategy. VIVAT has also an ambitious task to achieve more for our customers at lower costs.

Our Employees in Numbers

VIVAT employed 2,462 employees at the end of 2018 (2017: 2,542).

Key Figures VIVAT Human Resources

	2018	2017
Number of employees ¹	2,462	2,542
- of which internal	2,010	2,060
- of which external ²	452	482
Number of FTEs	2,367	2,466
- of which internal	1,983	2,022
- of which external	384	444
Ratio male-female	59% / 41%	58% / 42%
Female managers	27%	25%
Female members of senior management	25%	23%
Average length of service (years)	12.6	12.7
Average age (years)	44	43
Full-time/part-time ratio	71% / 29%	70% / 30%
Male / female ratio full-time	73% / 27%	72% / 28%
Male / female ratio part-time	24% / 76%	25% / 75%
Ratio permanent/temporary contract	93% / 7%	92% / 8%
Male / female ratio permanent	60% / 40%	60% / 40%
Male / female ratio temporary	61% / 39%	61% / 39%
Training costs (million)	€ 4.8	€ 3.4
Sickness absence	3.8%	5.1%
Percentage of employees that have sworn the bankers oath	97%	98%

¹ Number of redundant employees as per 31 December 2018 is 3 (31 December 2017: 58)

² Number of external employees is based on contractual hours

3.6.1. Employability

Employment Mobility

Mobility within VIVAT is encouraged and supported. Employees are being nominated for fulfilling internal vacancies at various levels, within their

product- of functional line or cross-over. In our Talent Review we identify employees for succession planning.

Personal Development

Due to regulations, all employees within the company who give advice to our clients need to have a Wft diploma (Wft stands for: Wet op het financieel toezicht) and need to continuously update their professional knowledge. Besides that, we challenge our employees with short articles and surveys with questionnaires about relevant topics within their scope, like compliance, life, insurance, etcetera. This is called PA (Permanent Actuality). Personal development is supported by a learning portal that provides a range of training courses and tools, including 360-degree feedback and a network of coaches.

According to VIVAT's Collective Labour Agreement, all VIVAT employees have an annual growth budget to spend on his/her personal development. In this way employees are in control of their own career and development. The annual budget can be spent on an education, course or workshop that adds value to one's employability. Employees can also reserve their budget for a maximum of three years to save up for a more expensive education.

Training and Education

Training and education continue to be important. Employees are offered the possibility to further develop their skills and knowledge in their own area of expertise as well as their ability to communicate and collaborate with colleagues in other departments. In our performance management cycle, we address personal development, and managers and employees have career development meetings. Furthermore, ongoing training is provided to keep employees up to date in accordance with the requirements of the Dutch Financial Supervision Act. The HR information system informs managers of the status of the necessary diplomas or professional qualifications of their staff.

In the Summer of 2018, VIVAT launched the VIVAT Summer School that enabled employees to enlist in free workshops and courses that were organised in the month of August. Over 1.500 employees participated in events with topics that varied from data, innovation and UX Design, to Agile Working,

Effective Writing, Communicating, Mindfulness and Growth Hacking.

Knowledge in the field of innovation and data is also obtained by means of partnerships and collaboration with start-ups and universities. Therefore, VIVAT has entered into partnerships with Startup Bootcamp and Innoleaps at B. Amsterdam for Innovation and with the Erasmus University Rotterdam and the Jheronimus Academy of Data Sciences (JADS) in Den Bosch for data education. Furthermore, talented students of the Rotterdam School of Management can do research within VIVAT on data analytics as well as digital business development.

In 2018, all senior management roles were revised and plotted in a new framework. For each role, a so-called 'Strategic success profile' was defined. This profile describes which competences, traits and drivers are needed to be successful in the specific role within VIVAT. All senior managers (above-CLA) were offered an assessment to identify their strengths and development potential. The assessments match the qualities of the individual versus the respective Strategic Success Profile. Each assessment was accompanied by managerial feedback and a development meeting with the responsible line manager and HR. Subsequently a development plan was made for each senior manager to further strengthen their qualities.

Succession Planning

VIVAT uses Career Development Meetings, the Talent Grid and the Mid-Year Review to ensure that critical positions within the company are always filled with competent employees. Succession planning helps VIVAT to ensure our continued success and it helps employees to be prepared for next steps. On a yearly basis we identify the critical positions and aim to make sure that we have employees on hand, ready and waiting to fill the new positions (now, in one to two years and in three to five years).

Vitality

To ensure the health of our employees and keep absences due to illness to a minimum, VIVAT works intensively together with external company doctors

and counsellors. In 2019 VIVAT will switch to a new health and safety service provider. VIVAT also offers sports facilities and encourages employees to adopt a healthy lifestyle. In 2018, due to focus among all managers and Human Resources the sickness figure decreased from 5.1% to 3.8%.

For the second consecutive year, VIVAT organised its own 'Week of job satisfaction' (Dutch: 'Week van het werkplezier'), instead of participating in the national 'Week of work stress'. It is VIVAT's belief that work should be fun. Therefore, all employees were encouraged to participate and learn how to deal with modern day work life: often rushed, full of deadlines, agreements and time pressure.

Because work-related stress is national disease number 1, recognising stress symptoms is very important. With workshops, information and other activities we raised awareness and gave tools to be more relaxed, energetic, fit and active during work.

Employee Satisfaction Survey

In 2018, VIVAT conducted an Employee Satisfaction Survey. Approximately 92% of the employees participated in the survey that was set up by Effectory, Europe's largest provider of employee feedback solutions. The outcome of the survey was shared on VIVAT and team level with all individual employees. Based on the outcome, each team was able to make plans on how to improve or maintain the satisfaction level.

3.6.2. Terms and Conditions of Employment

VIVAT's aim to be an appealing employer is reflected in the company's terms and conditions of employment. In 2018, VIVAT abolished variable

remuneration for VIVAT employees (except for the employees working for ACTIAM). This policy aims to avoid undesired incentives and ensures that customers are treated fairly in relation to employee remuneration.

The pensions of VIVAT employees have been accommodated with the Stichting Pensioenfonds SNS REAAL. This foundation reports independently and publishes its own annual report.

Diversity and Inclusion

VIVAT's employees can be described as experienced, high educated, loyal to the company and diverse. It is VIVAT's aim to have a workforce that reflects the composition of its customer base. This includes a good balance between male and female. However, for each vacancy we look at the best candidate for the position, regardless of gender, origin or age. Our management systems provide daily insight into the male-female ratio. In 2018 VIVAT drafted an 'equality policy' that sets the ambition to have at least 40% women in management positions in the future. Within the function groups we strive to have at least 40% woman or men in the nearby future. In its recruitment approach our HR department will pro actively search for people that will bring a more gender equal balance in the function groups.

Diversity in %

Female in %, by function group as at the end of the year	2018	2017
Executive Board	33.3%	28.6%
Supervisory Board	20.0%	20.0%
General Managers, Managing Directors, Directors	20.5%	16.0%
Unitmanagers, managers	28.0%	27.6%

Female in %, by function group as at the end of the year	2018	2017
Other staff	42.4%	42.9%

3.6.3. Recruitment

The vivat.jobs website, applicant tracking system and Artificial Intelligence (AI) job marketing solution, all launched in 2017, continue to perform well in conjunction with other external job marketing and employer branding initiatives. In 2018 we have further refined our interview processes, candidate attraction strategies and referral programme both internally and externally.

These initiatives have led to improved key recruitment metrics in terms of costs as well as time. We continue to review and adjust these initiatives, systems and processes incrementally to further improve recruitment return on investments.

We started integrating recruitment of temporary external hires into the recruitment process, to ensure consistency in quality of hire and a controlled and efficient hiring process.

It remains our goal to provide authentic content that reflects our main organisational goals and to provide insight into the exciting challenges our people tackle within their specific positions at VIVAT.

3.7. Financial Results

The Net Underlying Result (NUR) improved in 2018 by € 67 million to € 239 million compared to the same period in 2017 (€ 172 million). This was mainly driven by higher interest income on the interest derivatives portfolio, lower costs and lower interest expenses.

The net result IFRS 2018 decreased to -/- € 284 million. The negative net result IFRS is driven by a number of one-off items and additions to the LAT shortfall:

- the longevity reinsurance transaction (-/- € 97 million),
- adjustment of the net Deferred Tax Assets (DTA)-position due to a decrease in the tax rate in the coming years (-/- € 97 million),
- the tender offer on the SRLEV Tier 2 notes (-/- € 23 million),

- additions to the LAT shortfall originating from fair value movements (-/- € 309 million), which includes additions to the LAT shortfall due to fair value movements of interest and cash flows, the decrease in the UFR from 4.2% to 4.05% and the UFR drag.

VIVAT actively managed its balance sheet to release capital to continue the re-risking of the investment portfolio, thereby increasing capital generation potential. This resulted in 2018 in an increase of the investment income. In combination with other management actions it contributed to the increase of the Solvency II ratio. However, the hedging strategies in place and the longevity reinsurance transaction to free up capital create volatility in the net result IFRS in the short term.

The reconciliation of the NUR to net result IFRS is presented in the table below:

Reconciliation Net Underlying Result to Result IFRS

In € millions	2018	2017
Net Underlying Result VIVAT	239	172
1) Change LAT-shortfall Life in P&L	-309	-360
2) Other (un)realised changes in fair value of assets and liabilities	-20	57
3) One offs and Non-operating expenses and profits	-194	15
<i>DTA adjustment</i>	-97	-
<i>Longevity reinsurance¹</i>	-97	-
<i>Release legal claim</i>	-	15
Net result IFRS VIVAT	-284	-116

¹ In Annual Report VIVAT NV 2018, the longevity reinsurance transaction is presented as part of the LAT-shortfall.

The movement in the LAT was driven by additions to the LAT shortfall originating from fair value movements, the decrease in the UFR and the UFR drag.

Other (un)realised changes in fair value of assets and liabilities in 2018 were impacted by the tender offer of the SRLEV Tier 2 notes. This tender offer will lead to lower interest expenses going forward. The 2017 net result IFRS was mainly positively influenced by realised gains on equity investments and higher result on hedges.

One-offs and non-operating expenses and profits consist of non-recurring items (> € 10 million) of a non-operational nature. The longevity reinsurance transaction and the lowering of the DTA-position impacted this line item in 2018. In 2017 a release of a provision for a legal claim of € 15 million was also an element.

In € millions	2018	2017
> Result		
Premium Income	2,842	2,923
Direct Investment Income	1,254	1,212
Operating expenses	370	386
Net Underlying Result VIVAT	239	172
Net Result IFRS ¹	-284	-116

¹ Net Underlying Result consists of Net Result IFRS excluding changes in fair value of assets and liabilities (incl. LAT-shortfall) and non-recurring expenses (e.g. impairments).

Gross premium income decreased by 3% from €2,923 million to €2,842 million. This decrease was mainly due to differences in lump sum pension fund buy-outs in 2017 (€ 375 million) versus 2018 (€ 211 million). Excluding these contracts, premium income increased by € 84 million (3%), driven by Life Corporate and P&C. Individual Life premiums showed a limited decrease of 4% in 2018 in a consistently shrinking market. Lower regular premiums Individual Life were offset by a higher volume single premiums from Direct Annuities.

Direct investment income increased in 2018 compared to 2017, mainly due to an increase in interest income from the interest derivatives portfolio and a positive impact from re-risking activities.

Operating expenses fell by € 16 million (4%) compared to 2017. Additional costs for handling of the January storm, investments in ACTIAM and a focus on customer engagement and client processes were offset by further cost savings in 2018.

Financial Result per Segment Life Corporate

In € millions	2018	2017
> Result		
Gross Premium Income	1,259	1,366
Direct Investment Income	657	559
Operating expenses	97	112
Net Result IFRS	-406	-239
Net Underlying Result	113	60

Life Corporate had a strong commercial year. The customer retention rate increased from 67% in 2017 to 88% in 2018, and market share new business

increased from 18% to 20.4%. This resulted in an increase of 6% of the gross premium income compared to 2017, excluding the lump sum pension fund buy-outs in both years (€ 375 million in 2017 and € 211 million in 2018). The annual deposits of Zwitserleven PPI also showed a strong increase of 58% (YE 18: € 100 million). Including buy-outs, gross premium income decreased by 8% compared to 2017.

Lower operating expenses were mainly a result of lower internal and external staff costs following cost saving initiatives.

The NUR increased by € 53 million to € 113 million, primarily due to higher interest income from the interest derivatives portfolio (which also increased the direct investment income) and lower operating expenses.

The net result IFRS decreased to -/- € 406 million. Historically, all elements that effect the LAT shortfall of SRLEV NV are allocated to Life Corporate. Also the IFRS loss following the longevity reinsurance transaction was fully allocated to Life Corporate, as well as the majority of the adjustment of the Deferred Tax Asset. This results in a significant loss in the net result IFRS.

Individual Life

In € millions	2018	2017
> Result		
Gross Premium Income	849	886
Direct Investment Income	555	620
Operating expenses	92	95
Net Result IFRS	133	160
Net Underlying Result	136	133

Gross premium income decreased slightly in line with market developments, driven by a decrease in regular premiums, partly offset by an increase in single premium due to high production levels of direct annuities (DIL). Regular premiums declined due to the shrinking individual life market and strong competition from both insurers and banks, further accelerated by early surrenders.

Direct investment income decreased as a result of the shrinking investment portfolio and lower saving mortgages (with an opposite movement in technical claims and benefits).

Operating expenses were lower than 2017 due to realised costs savings. The costs related to the after-care of unit linked insurances amount to € 5 million.

The NUR increased by € 3 million to € 136 million, mainly due to a higher result on interest offset by a lower technical result mainly from surrenders and lower cost coverage following the decline in the insurance portfolio.

The net result IFRS decreased by € 27 million to € 133 million compared to 2017, mainly due to a lower result on interest as a result of the tender offer on the SRLEV Tier 2 notes.

Property & Casualty

In € millions	2018	2017
> Result		
Gross Premium Income	735	671
Direct Investment Income	12	15
Operating expenses	116	116
Net Result IFRS	16	2
Net Underlying Result	8	-
Combined Ratio (COR)	96.8%	99.0%

P&C also had a strong commercial year. Gross premium income increased by 10% in 2018 to € 735 million compared to 2017. This was due to growth in all areas of the portfolio and a release of the unearned premium reserve linked to authorised agents due to an improvement of in-depth portfolio data.

Direct investment income was lower compared to 2017 because of the lower yield on the investment portfolio as this portfolio mainly consists of AAA sovereign bonds and investments in money market funds.

Despite extra costs for the handling of the January storm and reorganisation expenses in 2018, operating expenses were equal to the previous year

supported by reducing office locations and other cost reduction activities.

The NUR was higher in 2018 due to cost reductions and an improved technical result from continuous efforts to improve underwriting and claim management. Despite the impact of the January storm (-/- € 15 million after reinsurance after tax), the technical result improved because of positive developments in the most recent accident years (mainly in Fire) and a release from the unearned premium reserve (net impact € 9 million) linked to authorised agents due to an improvement of in-depth portfolio data.

The net result IFRS improved by € 14 million, also supported by the increase in the technical result and higher realised gains on the sale of investments (€ 9 million).

The COR of 96.8% improved by 2.2 %-point compared to 2017. This improvement was driven by a lower expense ratio. In addition, the improvement is driven by a slightly improved claims ratio (net of reinsurance ratio). Excluding the storm in January 2018 the COR decreased by 4.9 %-points to 94.1%. The release from the unearned premium reserve had a positive impact on the COR of 1.7 %-points.

ACTIAM

In € millions	2018	2017
> Result		
Received fee and commission	67	79
Paid fee and commission	31	35
Net fee and commission income	36	44
Operating expenses	45	42
Net Result IFRS	-7	1
Net Underlying Result	-7	1
Assets under management (€ billions)	56.1	54.1

Net fee and commission income decreased to € 36 million in 2018. This was mainly the result of the outflow of funds related to a sister company of the former shareholder.

Operating expenses rose by € 3 million, primarily as a result of strategic investments in infrastructure

robustness related to data systems, portfolio management and ESG-tooling to support future growth for ACTIAM, both in the Netherlands and internationally.

Both the NUR and the net result IFRS decreased by € 8 million compared to 2017. This was due to lower net fees and commission income as well as higher operating expenses.

Assets under management increased to € 56.1 billion as a result of new inflows for the responsible funds, a larger captive mandate and market movements. The ACTIAM fund range grew to more than € 6 billion assets under management at the end of the year.

Holding

In € millions	2018	2017
> Result		
Direct Investment income	35	11
Operating expenses	20	23
Technical claims & benefits	-8	23
Other interest expenses	36	18
Net Result IFRS	-20	-40
Net Underlying Result	-11	-22

The net result IFRS in 2018 increased by € 20 million, mainly driven by external refinancing activities and changes in intercompany funding of subsidiaries. In 2017 the net result IFRS was negatively influenced by technical claims and benefits relating to the own pension contract. In 2018, the net result IFRS was negatively impacted by the DTA adjustment.

Operating expenses in 2018 were € 3 million lower. Lower expenses as a result of cost savings initiatives were partly offset by higher costs due to a different allocation of pension costs. At the consolidated level this pension costs allocation had no impact on VIVAT NV.

The increase of the NUR was mainly driven by external refinancing activities and changes in intercompany funding of the subsidiaries.

Balance sheet

Total assets of VIVAT decreased by € 1.1 billion to € 55.7 billion. The decrease in 2018 mainly consists of a decrease of investments for account of policyholders and third parties of € 1.1 billion and a decrease of loans and advances to banks of € 0.2 billion.

Investments (for own risk) remained stable in 2018. The inflow from the pension fund buy-out, a transfer from investments for the account of policyholders and the issuance of Restricted Tier 1 notes, was offset by the outflow of investments due to a declining Individual Life portfolio. Total assets decreased, mainly as a result of lower investments for account of policyholders. This movement was driven by lower value Unit Linked investments and declining Individual Life portfolio.

Total liabilities of VIVAT decreased by € 1.1 billion to € 52.1 billion. Insurance liabilities decreased in 2018 mainly as a result of a declining portfolio of Individual Life and a lower value of UL investments. This was partly offset by the single premium received from the pension fund buy-out and lower market interest rates resulting in a higher market value.

From the net proceeds of the € 300 million Restricted Tier 1 notes issuance (recorded in Equity), an amount of € 180 million (nominal € 150 million) was used for the tender offer of the subordinated SRLEV Tier 2 notes.

Amounts due to banks decreased mainly as a result of the partial settlement of repo agreements.

3.8. Risk and Capital Management

Risk and capital management is more extensively described in Chapter 7 'Managing Risks' in the consolidated financial statements.

Risk Management System

VIVAT implemented a consistent and efficient risk management system in which specific Solvency II

requirements such as the key functions and the Own Risk and Solvency Assessment (ORSA) are incorporated. It operates an integrated approach, with risk management integral part of the decision making process.

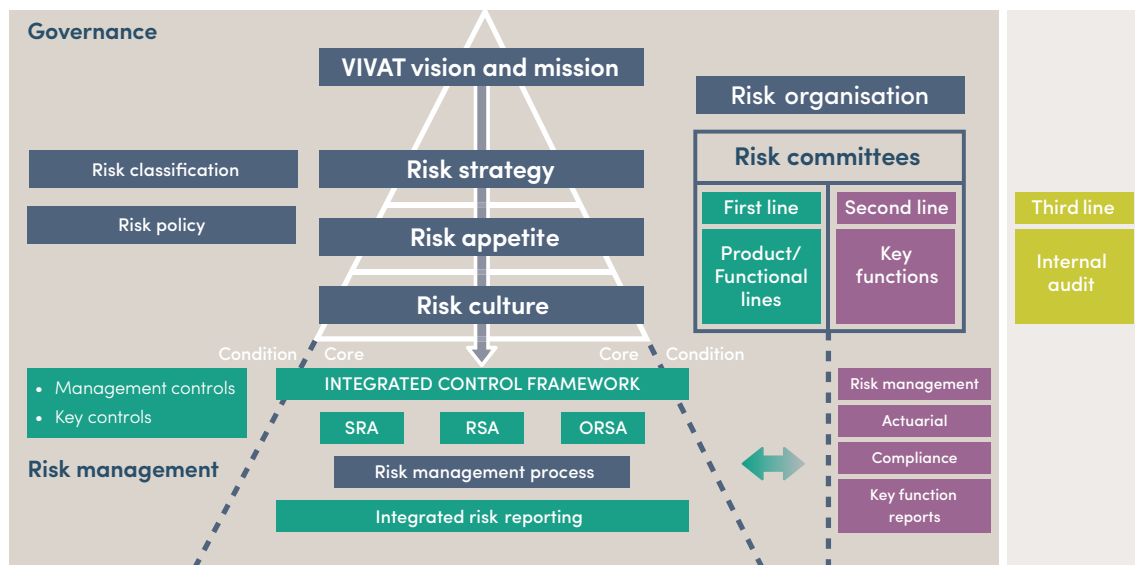


Figure 12: Risk Management

The core of the VIVAT Risk Management System consists of a Governance part and a Risk management part. In the governance part, starting from the VIVAT vision and mission and business strategy, the risk strategy and risk appetite are derived. The components risk policy, risk classification and risk organisation are necessary conditions to enable these strategic risk processes. To ensure an integrated approach the second line key functions and the business use the same risk classification, operations are covered by the risk appetite and are aligned by a policy structure. Decision making is in line with VIVAT's risk policy and risk appetite.

Risk Strategy

VIVAT has derived a risk strategy, a supporting set of objectives following from the VIVAT vision and mission to achieve the strategic goals. The risk

strategy is expressed in the risk appetite. As main principles VIVAT has defined a robust capital position, a sustainable capital generation and sound and controlled business operations. VIVAT provides guarantees for future payments to its customers and therefore VIVAT needs a strong capital position. The Executive Board would like to hold a buffer above regulatory capital requirement to absorb temporary volatility and provide more certainty to its customers.

Risk Appetite

The Risk Tolerance in the Risk Appetite is set yearly and is subsequently translated into practical risk objectives. Risk appetite is defined at VIVAT level. Subsequently it is developed in more detail on the individual legal entity level or specific Product or Functional lines in the form of individual

quantitative risk limits and qualitative constraints. The limits are measurable; the qualitative constraints are observable. When implementing the strategy, the Executive Board gives guidelines to the product lines for establishing Operational plans, taking into account the set risk appetite and corresponding limits. With those objectives and constraints as starting point, the product lines optimise risk and return by developing the best possible products and services.

Risk Culture

Culture and conduct in general play a vital role in steering a company, and specifically in adequate risk management. Both are considered standard elements in performance evaluation meetings and in annual performance objectives. VIVAT has awareness programmes in place that focus on how employees hold each other accountable for their conduct and how they can escalate matters if necessary. Furthermore, VIVAT ensures that senior management and employees on key functions are fit and proper to fulfill their job. Finally, VIVAT's remuneration policy discourages taking undesired and irresponsible risks focused on short-term profit and personal gain.

Risk Organisation

VIVAT implemented the 'Three Lines of Defence' control model (3LoD) including the Solvency II key functions and a risk committee governance structure. It contributes to the strengthening of the risk culture, taking responsibility for managing risks and internal control, and eventually to the further optimisation and integration of the risk management.

Integrated Control Framework

The Integrated Control Framework (ICF) contains a set of (management & process) controls and an analysis on operating effectiveness enabling management to adequately manage risks, following (strategic) objectives and VIVAT's risk appetite. The ICF was further strengthened in 2018 by focus on the governance, structural improvement of process design and increased analysis and reporting possibilities in GRC tooling. The governance was strengthened by installing an Operational Risk and

Compliance Committee at VIVAT level. Regarding process design initiatives were started to facilitate and strengthen process ownership for solid process and control design in which all risk and regulatory elements are incorporated. Also, good progress was made in 2018 in order to incorporate automated controls within the ICF.

Underwriting and ALM

VIVAT assesses underwriting risks by following the Product Approval and Review Process (PARP) for new or adjusted products and management of the existing portfolio. VIVAT mitigates underwriting risks primarily by means of diversification and reinsurance. The reinsurance programme is determined on the basis of risk assessments of the various portfolios, the size of the portfolios, the nature of the underwriting risks, the profit or loss, the risk appetite and the financial strength of the company. As part of optimizing the risk profile, VIVAT by her subsidiary SRLEV has entered into a full indemnity reinsurance contract to transfer longevity risk (a Quota Share Reinsurance agreement). The Solvency II ratio has been increased significantly by decreasing the longevity risk as part of life underwriting risk.

The Asset and Liability Management (ALM) policy covers the management of market risk, counterparty default risk and liquidity risk. The starting point for the ALM policy is the ALM study, which is drawn up annually. The ALM study seeks to find an optimum between risk and return within the preconditions that apply with regards to solvency, and laws and regulations, and is performed at the end of the year. This ALM study is used as a basis for defining a Strategic Asset Allocation (SAA), which is in turn used to translate specific investment activities into an investment plan and investment mandates for ACTIAM, taking into account the risk limits based on the Risk Appetite Statements (RAS), solvency, the tax position and the long-term risk exposure. Investments are made in accordance with the prudent person principle taking into account the interests of the policyholders. The prudent person principle is part of the ALM policy. Investments are made exclusively in assets and instruments whose

risks are properly identified, measured, monitored, managed, controlled and reported.

Developments

In 2018, VIVAT has focused on new opportunities and sustainability towards our clients. The strategic ambition to become an innovative insurer has led to several initiatives in products, services, methodologies and processes. This dynamic and change oriented environment, the announced strategic reorientation of Shareholder, new and changed legislation, combined with a continued focus on cost reduction and revenue models could influence operational and compliance risks. These risks are addressed, managed and monitored within the VIVAT risk framework to maintain a sound and controlled organization.

In order to realise more efficiency, VIVAT has defined the target IT landscape and non-target systems are made redundant. This rationalisation will continue in 2019. VIVAT is aware of the increasing strategic importance of collecting, managing and use of data, taking into account relevant legislation, e.g. GDPR. VIVAT has implemented a sustainable design for Data Governance to manage and monitor the diverse data related initiatives.

In 2018, VIVAT completed its model inventory and by that increased overview and insight into its model landscape. Within the Risk Model Landscape programme important steps towards lower model risk are taken by converting important SCR- and ALM-tooling. Ongoing model validations on reporting, (asset) valuation and pricing models, following a risk based approach, further increased model insight and provides guidance towards lower model risk.

Capital Position

VIVAT's Solvency II ratio increased from 162% to 192% in 2018. This increase was driven both by management actions and market developments.

The main items driving the change in the Solvency II ratio were:

- SRLEV executed a longevity re-insurance transaction in December 2018 that had a positive

impact of 13 %-points on the Solvency II ratio of VIVAT,

- VIVAT issued € 300 million Restricted Tier 1 notes in June 2018 and tendered € 150 million of SRLEV Tier 2 notes to optimise the capital position. Combined with the coupon payments on subordinated loans this added 7 %-points to the Solvency II ratio,
- an increase in market risk SCR, mainly due to the continued re-risking of the investment portfolio had a negative impact of 16 %-points on the Solvency II ratio,
- an increase in the Volatility Adjustment from 4 bps to 24 bps in 2018 given widening credit spreads in the VA reference portfolio. As VIVAT's investment portfolio has more high quality sovereign bond allocation than the VA reference portfolio, the impact of the spread widening on the investment portfolio was limited. Therefore overall market developments had a positive impact of 38 %-points on VIVAT's Solvency II ratio,
- Model improvements, which had a negative impact of 12 %-points.

Ineligible own funds decreased from € 428 million at YE 2017 to € 47 million at YE 2018 driven by the € 150 million tender offer on Tier 2 notes and a lower net DTA position mainly due to the announced decrease in the Dutch corporate tax rate and the increase of the Volatility Adjustment.

SRLEV's Solvency II ratio increased from 158% to 188% in 2018. In general, the drivers of SRLEV's increase in its Solvency II ratio were similar to those that applied to VIVAT. The main differences were capital flows. The issuance of € 300 million Restricted Tier 1 notes impacted VIVAT only. In September 2018, SRLEV received a € 200 million capital injection from VIVAT with a positive impact of 10 %-points on the Solvency II ratio of SRLEV. This injection did not impact VIVAT's Solvency II ratio.

VIVAT's organic capital generation in 2018 was still limited, mainly due to UFR unwinding and the low expected asset returns caused by a low exposure to market risks. The result of re-risking activities in

2018 has not been fully incorporated in the figures. Together with further re-risking activities, capital generation is expected to improve going forward.

Solvency II position

In € millions/percentage	VIVAT		SRLEV	
	2018 ¹	2017 ²	2018 ¹	2017 ²
Total eligible own funds	4,635	3,780	4,000	3,246
Consolidated group SCR	2,412	2,327	2,127	2,061
Solvency II ratio	192%	162%	188%	158%

¹ Regulatory Solvency II ratio is not final until filed with the regulator

² Figures as filed with the regulator

Capital Management

Capitalisation refers to the extent to which VIVAT and its underlying legal entities have buffer capital available to cover unforeseen losses and to achieve the strategic objectives of the company. VIVAT manages its capitalisation within limits set in the Risk Appetite Statement. Annually target setting happens in the Operational Plan culminating in a Capital & Funding Plan. Monthly and quarterly forward looking monitoring enables VIVAT taking timely action if capitalisation would deteriorate. VIVAT assesses its capitalisation regularly with respect to level and quality in the ORSA and with respect to risk / return in the ALM Study.

VIVAT aims for a robust and strong capital position in accordance to its risk profile, which contributes to both the confidence that clients have in the institution and access to financial markets. VIVAT deems a solvency ratio between 140% and 200% as a normal going concern level. The objective of the Capital Policy is to ensure that there is sufficient capital to fulfill obligations towards policyholders and meet requirements. The second objective of the Capital Policy is to ensure capital is used as efficiently and flexibly as possible to facilitate the implementation of VIVAT's strategy.

A Recovery Plan exists which describes the procedure that applies in a contingency situation. A contingency situation is a situation in which a capital deficit arises, or threatens to arise, which poses a direct threat to the going concern of VIVAT. In its Risk Appetite Statements, VIVAT has defined

specific triggers that determine whether a contingency situation exists.

The ORSA is an integral part of VIVAT's management control cycle. It is input for the operational plan and capital management and is used in determining the risk appetite. The ORSA 2018 concludes that VIVAT's risk profile is well reflected in the SCR standard formula and Solvency is adequate.

Solvency II

Under Solvency II, the supervision of the risks to which an insurer is exposed and the management of those risks play a central role. The financial requirements reflect the risks to which insurers are exposed. Moreover, Solvency II aims to be in line with market developments and the internal risk management systems used by insurers.

VIVAT discloses its solvency position and financial condition on a Solvency II basis by means of public reports as required by law. Solvency II applies to the supervised insurance entities and also to the consolidated activities of VIVAT.

VIVAT calculates its position under Solvency II using the standard formula, applying the Volatility Adjustment (VA) and thus making use of the possibility of applying long-term guarantee measures. VIVAT does not apply the Matching Adjustment.

The internal risk limit for the Solvency II capital ratio on VIVAT level amounts to 140%. When determining the Solvency II capital ratio, the loss absorbing

capacity of deferred tax assets may be set off against the Solvency Capital Requirement. Tax offsetting (Loss Absorbing Capacity of Deferred Taxes) in the SCR is applied at 0% for VIVAT and its legal entities, except for legal entities with a net Deferred Tax Liability (net DTL). In these cases tax offsetting equals the net DTL-position.

The classification of the hybrid capital of VIVAT NV and SRLEV NV (outstanding on 31 December 2018) into Tier 1 and Tier 2 capital is based on the transitional measures contained in the level 1 regulations, and aligned with DNB.

Managing Sensitivities of Regulatory Solvency

In addition to underwriting risks, important market risks are interest rate risk and spread risk (credit spreads). Sensitivity to interest rates is measured by means of a parallel movement in the yield curve.

The Ultimate Forward Rate (UFR) of 4.05% prescribed by the European Insurance and Occupational Pensions Authority (EIOPA) also introduces a risk. Over the course of time, the positive valuation effect of the UFR reduces, which puts downward pressure on the trend in solvency in the future. EIOPA decided to yearly decrease the UFR starting in 2018 with 0.15% per year. This will have a negative impact on solvency and IFRS results.

The solvency of the Life Insurance portfolio is sensitive to changes in the parameters used for calculating the market value of insurance liabilities. These relate to mortality risk, longevity risk, expense risk and surrender risk, since these insurance risks proved to have most impact on the calculation of SCR. The Non-Life business is sensitive to changes in the disability rates, claims and loss ratios.

Quantitative information about risks and related sensitivities for both Solvency II and IFRS have been described in chapter 7 'Managing Risks' in the consolidated financial statements.



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4. Corporate Governance

VIVAT NV is a public limited company. Anbang Group Holdings Co. Limited holds 100% of the shares in VIVAT NV. VIVAT has a two-tier board structure consisting of an Executive Board (EB) and a Supervisory Board (SB).

VIVAT is a matrix organisation with both product and functional lines focusing on sustainable profitable growth. The governance model of VIVAT reflects this matrix organisation with product lines being sponsored by various board members and functional lines included in the various product line management teams. This allows control at the level of management teams facilitating the product lines, risk and finance to work together at this level. At the level of the board, sponsorship by each EB member of product and functional lines ensure that they are closely involved in the business of the company.

4.1. The Executive Board

The Executive Board is responsible for the strategy and management of the company. The Executive Board as of 31 December 2018 consists of the following:

Composition, Appointment and Role

Name	Nationality	Position	Date of appointment
J.J.T. (Ron) van Oijen	Dutch	Chief Executive Officer	14 March 2016
Y. (Yinhua) Cao	Chinese	Chief Financial Officer	23 October 2015
L. (Lan) Tang	British	Chief Risk Officer	26 July 2015
W.M.A. (Wendy) de Ruiter-Lörx	Dutch	Chief Commercial Officer	24 May 2016
X.W. (Xiao Wei) Wu	Chinese	Chief Transformation Officer	26 July 2015
J.C.A. (Jeroen) Potjes	Dutch	Chief Operating Officer	24 May 2016

J.J.T. (Ron) van Oijen (1961) is chief executive officer. He obtained a master's degree in actuarial science at the University of Amsterdam, followed by an advanced management programme at the Wharton Business School. Van Oijen started his career at Aegon and ING in the Netherlands. He subsequently worked as chief executive officer of ING Life and ING Bank in the Czech Republic and Slovakia for four years. In Seoul and Hong Kong he led the large ING Life branches in India, Thailand and South Korea as regional chief executive officer, after which he was appointed as chief executive officer of AIA Thailand. Van Oijen is also a member of the board of the Association of Insurers, Chairman of the Supervisory

Board of football club NEC and president of the Royal Actuarial Association of the Netherlands.

Y. (Yinhua) Cao (1975) is chief financial officer. He holds a bachelor's degree in international finance from the Shanghai University of Economics and Finance. Cao started his career in the financial service sector at PricewaterhouseCoopers in 1998. He was the lead audit partner for large insurance companies and asset management companies, and as the lead partner, he was also involved in various finance and solvency consulting programmes for insurers. His last position with PricewaterhouseCoopers was the partner of the financial service group. At Anbang, he commenced as managing director of

Anbang Asset Management Hong Kong and finance director of the Anbang Insurance Group. Cao is also a member of the financial and economic committee of the Association of Insurers.

L. (Lan) Tang (1974) is chief risk officer of the Executive Board. He holds a bachelor's degree in engineering from Beijing University of Aeronautics and Astronautics and a master's degree in actuarial science from Central University of Finance and Economics in Beijing. Tang is a qualified actuary of the United Kingdom. He worked as a consulting actuary for an actuarial consulting firm in London, after which he worked for a global actuarial consulting firm in Hong Kong and an accounting firm in China. In 2010, he started working as chief actuary of Anbang Life, where his last position was deputy general manager and chief actuary of Anbang Life. Tang is also chairman of Fidea NV, as well as a member of the supervisory boards of ACTIAM Beleggingsfondsen NV, RZL Beleggingsfondsen NV and Zwitserleven Beleggingsfondsen. He is also a non-executive director of Bank Nagelmackers NV.

W.M.A. (Wendy) de Ruiter-Lörx (1973) is chief commercial officer of the Executive Board. She holds a master's degree in business economics from Erasmus University Rotterdam. She also completed a master's in management & organisation at TIAS Business School in Tilburg. She started her career at ING and Nationale Nederlanden, where she worked for fifteen years, fulfilling various managerial roles in operations and product and process management at both Nationale Nederlanden and ING Bank. Her most recent position at Nationale Nederlanden was that of director of retail clients. De Ruiter-Lörx joined Reaal Life as a unit manager in 2012. Two years later, she was appointed director of Reaal's life business in charge of life policies and mortgages. De Ruiter-Lörx is a member of the distribution committee of the Association of Insurers.

X.W. (Xiao Wei) Wu (1980) is chief transformation officer of the Executive Board. She holds a bachelor's degree in international finance from the University in Fudan, China, and a master's degree in business administration from China Europe International

Business School in Shanghai. She worked as associate principal at McKinsey Shanghai, for the insurance sector in Asia. In 2012, Wu commenced at the Anbang group of companies and subsequently worked as director of strategy, director of IT and director of risk. She also was director at Hexie Health, and Anbang Annuity Insurance, both part of Anbang. Wu is non-executive member and chairwoman of Anbang Belgium Holding NV and Bank Nagelmackers NV.

J.C.A. (Jeroen) Potjes (1965) is chief operating officer of the Executive Board. He holds a master's degree in econometrics from Erasmus University Rotterdam as well as a doctorate in economics from the same university. Potjes joined ING Verzekeringen in 1992; he started out at the head office before being assigned to Japan between 1997 and 2001 and to Hong Kong until 2008; in Hong Kong, he served as chief financial officer of the insurance business and asset manager of ING Asia Pacific. He returned to the Netherlands in 2008, when he became responsible for the risk management practices of the global insurance business of ING and subsequently NN Group. During this period, Potjes also sat on the supervisory board of ING Re, ING's reinsurance business. Potjes joined Anbang in 2015, one of his roles being that of non-executive director of Anbang Belgium Holding NV. Potjes is also a member of the committee life insurance of the Association of Insurers and a member of the board of SIVI, member of the Supervisory Committee of Zwitserleven PPI and chairman of the Supervisory Board of NV Pensioen ESC (Curacao).

Governing Rules

VIVAT adheres to the Code of Conduct of Insurers 2018.

VIVAT is required by law to have at least 30% men or 30% women on the board of directors. VIVAT aims to have at least 40% men or 40% women on the Executive Board in the future. In case of a vacancy, we will always aim to find the best candidate for the position. When more candidates show equal qualities, we will give preference to the person that will help us reach the intended gender balance. Currently

the VIVAT Executive Board is composed of four men (67%) and two women (33%). Similar requirements apply to the Supervisory Board, which have been included in chapter 4.3.

The governing rules of VIVAT are set out in the articles of association and regulations of the Executive Board of VIVAT. Under the articles of association and regulations, certain decisions of the Executive Board are subject to the approval of its shareholder and/or the Supervisory Board of the relevant company or companies. The members of the Executive Board of VIVAT NV are the same as the management board members of SRLEV NV, VIVAT Schadeverzekeringen NV and Proteq Levensverzekeringen NV.

As part of the continuing education programme of VIVAT, the Executive Board members participate in

various education sessions. These sessions are sometimes attended together with the Supervisory board members or with senior management of VIVAT and are provided by internal and external speakers. The continuing education programme this year included sessions such as Customer Centricity, Data & Analytics, New Recovery & Resolution Tools and IFRS 17.

VIVAT NV is a public limited company. Anbang Group Holdings Co. Limited holds 100% of the shares in VIVAT NV. The Chinese regulator China Insurance Regulatory Committee (CIRC) announced on 23 February 2018 that it is temporarily taking over the management of Anbang. VIVAT has taken notice of this.

4.2. The Supervisory Board

Composition, Appointment and Role

Name	Nationality	Position	Date of appointment
M.W. (Maarten) Dijkshoorn	Dutch	Chairman	23 December 2016
M.R. (Miriam) van Dongen	Dutch	Member	26 July 2015
M. (Ming) He	American	Member	26 July 2015
K. (Kevin) Shum	British	Member	26 July 2015
P.P.J.L.M.G. (Pierre) Lefèvre	Belgian	Member	26 July 2015

M.W. (Maarten) Dijkshoorn was appointed as chairman of the Supervisory Board on 23 December 2016. He is a member of the remuneration and nomination committee, a member of the risk committee and a member of the audit committee. Dijkshoorn has worked in the financial services industry for more than forty years. From 2002 to 2009, Dijkshoorn was chief executive officer and chief operational officer of Eureka BV (Achmea). Prior to that, Dijkshoorn held various management functions within Nationale-Nederlanden for twenty-five years. He was, until recently, supervisory board member of PGGM, Monuta and MediRisk, and he was chairman of the supervisory board of de Goudse Verzekeringen NV.

M.R. (Miriam) van Dongen was appointed as member of the Supervisory Board on 26 July 2015. She is chair of the audit committee and member of the risk committee and member of the remuneration and

nomination committee. She has over twenty five years of experience in corporate finance, business strategy and in the financial services industry. Miriam is a non-executive board member by profession and holds various supervisory board positions and is the chair of the audit committees of these supervisory boards. Miriam currently serves as supervisory board member and chair of the audit committee of PGGM NV and Optiver. She is also member of the Supervisory Council and chair of the audit committee of The Netherlands' Kadaster (Land Registry) and board member of Stichting Administratiekantoor Aandelen KAS BANK.

M. (Ming) He was appointed as member of the Supervisory Board on 26 July 2015. He is member of the audit committee. He went to Chengdu University of technology in China for his college education and completed a bachelor degree in 1982. He obtained a master's degree at Bowling Green State University

in 1992 and a MBA at the American Graduate School of International Management in 1998. He started his career at the Superior Environment Corporation in 1992 as an environmental engineer. In 2009, he joined Anbang Insurance Group Co., Ltd. as chief investment director of Anbang Property & Casualty Insurance Co., Ltd. In 2012 he was appointed as director and general manager of Anbang Asset Management. Ming He became chief executive officer of Anbang Belgium Holdings NV and Chairman of Board of Bank Nagelmackers in 2016. Until recently, He was chief executive officer of AB Win Win II [LP].

P.P.J.L.M.G. (Pierre) Lefèvre was appointed as member of the Supervisory Board on 26 July 2015. He is chairman of the risk committee and member of the audit committee. After his studies in mechanical engineering and industrial administration, Lefèvre became internal auditor at Unilever before joining AXA Belgium NV in Belgium as a financial controller. He continued his career with AXA Belgium as general manager for Individual Life and later on as general manager for P&C Personal Lines. In 1994, he moved to AXA Insurance (United Kingdom) as chief executive officer of the P&C insurance business and was subsequently appointed chairman of the board. In 1998 he was appointed as chairman of the executive board of AXA Netherlands. Between 2002 and 2013 Lefèvre fulfilled various chief executive officer roles in subsidiaries of Groupama SA in the United Kingdom. Since 2013, Lefèvre has acted as independent non-executive director and chair of the risk committee of Hasting Group Holdings PLC and, since 2014, as senior advisor of Eurohold Corporate Finance, SL. He also serves as an independent non-executive director and chairman of the risk committee of Advantage Insurance Company Limited and as non-executive director of Anbang Belgium Holding NV. He is also an independent non-executive director, member of the nomination and governance committee and chairman of the audit, risk and compliance committee of Fidea NV.

K. (Kevin) Shum was appointed as member of the Supervisory Board on 26 July 2015. He is chair of the remuneration and nomination committee and member of the risk committee. With over twenty years'

experience in the financial industry, Shum is a qualified solicitor of England & Wales, a solicitor of Hong Kong, a member of the Chartered Institute of Arbitrators in the United Kingdom and is a Chartered Financial Analyst in the United States. Previously, Shum worked as a private practitioner at Coudert Brothers LLP and Jun He Law Offices, as Legal Counsel for private equity firm Alliance Capital Asia Limited, a hedge fund of CCIB Asset Management Co. Limited and as Executive Director, Legal & Compliance, for Anbang Overseas Holdings Co. Limited. He currently serves as General Counsel for the Logan Family Trust, is a non-executive director of Fidea NV (chair of governance, nomination and remuneration committee) as well as a member of the supervisory boards of ACTIAM Beleggingsfondsen NV, RZL Beleggingsfondsen NV and Zwitserleven Beleggingsfondsen.

Meetings of the Supervisory Board

The Supervisory Board meets on a regular basis in accordance with an annual schedule, which in practice implies two-day meetings every six weeks on average. The Supervisory Board has drawn up regulations that elaborate and expand on several provisions from the articles of association. These regulations set out additional powers. All members of the Supervisory Board have declared their acceptance of the substance of these regulations and have undertaken to abide by the rules contained therein.

4.3. Report of the Supervisory Board

Functioning of the Supervisory Board

The Supervisory Board aims to have a strong representation of diversity in terms of experience, gender, age, professional and cultural background. In accordance with the regulations of the Supervisory Board, the Supervisory Board considers complementarity, collegial collaboration, independence and diversity to be conditions for a proper performance of duties by the Supervisory Board.

VIVAT is required by law to have at least 30% men or 30% women on the Supervisory Board. VIVAT aims to have at least 40% men or 40% women on the

Supervisory Board in the future. Due to appointments in the past, the Supervisory Board currently is composed of four men (80%) and one woman (20%). As the composition of the board did not significantly change over the last years, there has not been an opportunity to make a more balanced composition in the male/female ratio. When the opportunity arises, the Supervisory Board will strive for a more balanced composition of men and women. In case of a vacancy, we will always aim to find the best candidate.

All members have confirmed the moral and ethical conduct declaration, which includes the need to make a balanced assessment of the interests of customers, shareholder, bondholders, employees and the society in which the company operates. The regulations of the Supervisory Board explicitly provide that the Supervisory Board shall aim a careful balance between the interests of the company's stakeholders, such as the clients of the company, shareholder and employees.

Self-assessment

The Supervisory Board carries out a self-assessment once every three years facilitated by an external consultant. This was done in 2016. In 2018, the Chairman of the Supervisory Board conducted individual interviews with the members of the Supervisory Board based on the outcome of a questionnaire that each individual board member filled out. The questionnaire was used as a supporting tool to evaluate the functioning of the Supervisory Board as a whole, the functioning of the individual committees, the individual supervisory directors and their relationship with the Executive Board during 2018. The outcome of this self-assessment was in line with the expectations. It was discussed within the Supervisory Board and with the Executive Board. Actions have been taken where necessary.

Continuing Education

Members of the Supervisory Board are encouraged to maintain their expertise at the required standard and enhance it where necessary. In this context, a programme is compiled for the Supervisory Board every year. Each year the Supervisory Board

members take at least three training courses within the framework of continuing education. The continuing education programme relates to relevant developments within VIVAT NV and the financial sector, corporate governance in general and of the financial sector in particular, customers, integrity, risk management, financial reporting and audit. The participation of the members of the Supervisory Board in the programme was monitored.

These continuing education sessions included – amongst others – topics on Pensions, Data, Capital Generation and Longevity.

Important Topics and Key Discussions

The formal meetings of the Supervisory Board took place every six weeks (on average). Several additional meetings and conference calls were held. The attendance rate at meetings and committees is high, demonstrating the strength of the Supervisory Board's commitment. None of the Supervisory Board members were frequently absent at these meetings, meaning that there was always a valid quorum.

During the formal meetings the Supervisory Board was updated on strategic activities and topical issues. Furthermore, the Supervisory Board was briefed on the discussions and resulting recommendations from Supervisory Board committee meetings. Twice a year the Supervisory Board held business reviews with all product lines to discuss business activities and key initiatives.

In 2018 the Supervisory Board discussed and approved several items, such as:

- > Investment insurance policies and aftercare programme
- > Re-risking programme
- > Restricted Tier 1
- > Capital Generation
- > Risk Appetite
- > General Data Protection Regulation
- > The Strategic review VIVAT
- > The Operational Plan
- > IFRS 17
- > Risk Model Landscape

The Supervisory Board and the Chairman of the Supervisory Board had regular contact about these subjects with other stakeholders of VIVAT NV, the Dutch Central Bank (DNB) and Dutch Authority for Financial Markets (AFM).

Cooperation with Committees

The Supervisory Board has three committees: the Audit Committee, the Risk Committee and the Remuneration and Nomination Committee. Each member of the Supervisory Board has sufficient knowledge and experience to assess the main aspects of VIVAT's policy and to form an independent opinion of the basic risks. Decisions regarding risk management and risk control are prepared and recommended by the Risk Committee (RC) and the Audit Committee (AC), respectively. These committees are carefully composed where at least two members of these committees have knowledge of risk management / risk control and internal control / reporting respectively. The Audit Committee discussed the audit scope, key audit matters, the external auditor's report and the management letter of the external auditor. The independence of the external auditor and fees were also reviewed by the Audit Committee. The Audit Committee maintains regular contact with the external auditor by meetings between the chair of the Audit Committee and the external auditor. The external auditors, by mutual agreement, were represented at all meetings of the Audit Committee in 2018. The Audit Committee discussed the annual plan and quarterly reports of the internal audit function, and evaluated the functioning of Internal Audit. Both the internal auditor and external auditor reported on the quality and effectiveness of governance, internal control and risk management. The Audit Committee took note of and discussed VIVAT's consultations with the DNB, and considered the results of on-site examinations conducted by the DNB. The committees met in the presence of members of the Executive Board.

The Supervisory Board's Remuneration and Nomination Committee (ReNomCo) prepares decisions on remuneration regarding Identified Staff and employees in control functions. The ReNomCo members

have sufficient expertise with regard to remuneration policies, culture and incentives.

Cooperation between the Supervisory Board and the committees has been positive. The meetings of the committees drill down into the subject matter so that the decisions of the Supervisory Board can be carefully prepared. The substance of the meetings of the committees is fed back to the meeting of the Supervisory Board to ensure that the supervisory directors are kept fully informed and are well positioned to take prudent decisions.

The Supervisory Board appreciates all the efforts made by the Executive Board and all employees in 2018 and looks forward to continuing this cooperation in 2019.

Amstelveen, the Netherlands, 25 March 2019
On behalf of the Supervisory Board,

Maarten Dijkshoorn, Chairman

4.4. Remuneration

Introduction

The remuneration paragraph describes the principles, governance and elements of the remuneration policies within VIVAT (4.4.1). It also gives an overview of the payment of (variable) remuneration in 2018 (4.4.2), as well as the actual remuneration of the members of the Executive Board and Supervisory Board (4.4.3).

4.4.1. Remuneration Policies VIVAT

VIVAT's ambition is to be the most innovative and inspiring employer. The primary objective of VIVAT's remuneration policy is to enable VIVAT to recruit, retain and motivate employees and to stimulate high performance. The policy aligns with and strengthens VIVAT's strategy and core values. It is prudent, moderate and sustainable and meets the requirements of VIVAT's risk policy and applicable legislation and regulations.

The Group Remuneration Policy VIVAT applies to all employees working under the responsibility of VIVAT NV. Besides the Group Remuneration Policy, specific remuneration policies are applicable to Above-CLA employees, Executive Board VIVAT, Statutory Board of ACTIAM and Identified Staff and non-Identified Staff employees within ACTIAM. For information regarding the remuneration policies of ACTIAM we refer to the annual report of ACTIAM NV. In 2018, the Remuneration Committee has evaluated the expense policy as part of the overall board remuneration policy. Based on this evaluation, the policy has been updated as from 1 January 2019.

For the majority of the employees the VIVAT CLA (Collective Labour Agreement) 2018-2019 is applicable.

Principles

Every remuneration policy is based on the following principles:

- It supports VIVAT's corporate strategy, and is aligned with the mission, vision and values of VIVAT;
- It is compliant with the applicable legal rules and regulations;
- It may not threaten VIVAT's ability to maintain an adequate capital base;
- It takes into account the interests of all stakeholders of VIVAT: customers, employees, shareholders and society;
- It is transparent, easy to understand and simple to execute;
- It is aligned with VIVAT's ambition to be a socially responsible and innovative insurance company;
- It fits the risk profile of VIVAT and of the relevant employee;
- It supports the attraction and retention of qualified employees that fit the job;
- It encourages high team- and company performance; and
- It is gender and age neutral.

Governance

The Supervisory Board approved the Group Remuneration Policy VIVAT as well as the other remuneration policies. The general meeting adopted the remuneration policy for the members of the Executive Board after consultation with the Supervisory Board. The Supervisory Board's Remuneration and Nomination Committee (ReNomCo) prepares decisions on Remuneration policies as well as remuneration regarding Identified Staff and employees in control functions. The Executive Board is responsible for the implementation of the remuneration policies.

The Remuneration Policies are based on and in line with the Financial Undertakings Remuneration Policy Act (*Wet Beloningsbeleid Financiële Ondernemingen*) which is incorporated in the Dutch Financial Markets Supervision Act (*Wet op het financieel toezicht* or "**FMSA**"), the Commission Delegated Regulation (EU) 2015/35 ("**Solvency II**"), the Guidelines on System of Governance of the European Insurance and Occupational Pensions Authority ("**EIOPA Guidelines**") and the Regulation on Sound Remuneration Policies 2017 (*Regeling Beheerst Beloningsbeleid 2017*, "**RBB 2017**") with respect to staff working under the responsibility of Zwitserleven PPI NV.

With respect to staff working under the responsibility of ACTIAM NV the remuneration policies of ACTIAM NV are also based on the Alternative Investment Fund Managers Directive 2011/61/EU ("**AIFMD**") and the Guidelines on sound remuneration policies under the AIFMD ("**ESMA**").

Identified Staff

Every year, VIVAT designates members of staff who are Identified Staff on the basis of applicable laws, rules and regulations. In order to establish the list of identified employees of VIVAT, we use Solvency II regulation as of 2018. For staff of Actiam NV, we follow the ESMA Guidelines and for the statutory board of Zwitserleven PPI NV, we follow RBB 2017.

VIVAT has established a Working Group Identified Staff comprising of the directors of HR, Legal,

Financial Risk, Non Financial Risk and Audit (“**Working Group Identified Staff**”). The Working Group Identified Staff may provide and will at request provide input on any decision of the Executive Board and the Supervisory Board on the list of any Identified Staff as well as any decisions on remuneration in relation to Identified Staff.

Elements of the Remuneration Policies

Fixed Annual Salary

The fixed annual gross salary consists of a fixed annual gross salary, including holiday allowance of 8% and a 13th-month payment of 8.33% and insofar as applicable other fixed allowances. The annual gross salary is based on applicable salary scales. The annual salary increase depends on the achievements on competences, space in the salary scale and is also subject to a financial condition (knockout).

Pension

Nearly all employees participate in the same pension scheme of VIVAT. The scheme qualifies as a defined contribution scheme for IAS 19 purposes. The contributions are paid by VIVAT and employees respectively as employer and employee contributions. For employees who were employed by VIVAT as per 31 December 2017 and with a salary exceeding the maximum pensionable salary for pension accrual, a compensation of 16.35% on an employee’s pensionable salary in excess of € 105,075 is applied. The permanent supplement payment is not pensionable and is not taken into account for the calculation of severance payments, including the transition fee (*transitievergoeding*) or any other wage components or benefits.

Variable Remuneration

As of 2018 VIVAT abolished the performance related bonus in the CLA and abolished the variable remuneration for the Executive Board of VIVAT N.V., Above-CLA employees (Senior Management) and for the Statutory Board of ACTIAM N.V.

For the abolition of variable remuneration the employees in the CLA received per July 2018 a salary increase. The Executive Board of VIVAT NV, the

Above-CLA employees (Senior Management) and the Statutory Board of ACTIAM NV who were employed by VIVAT as per 31 December 2017 received for the abolition of their variable remuneration a compensation as of July 2018. This compensation is not pensionable and is not taken into account for the calculation of severance payments, including the transition fee (*transitievergoeding*) or any other wage components or benefits. The percentage of the compensation for the Executive Board is 5% of their fixed annual salary.

For VIVAT’s asset management activities, employees are still entitled to variable remuneration based on performance (with the exception for the Statutory Board of ACTIAM).

Severance Payment

If and insofar a severance payment is due to an employee, such payment will be equal to the transitional fee (*transitievergoeding*) within the meaning of article 7:673 of the Dutch Civil Code unless (i) the relevant employee can benefit from a different arrangement as explicitly agreed upon in an applicable social plan or (ii) otherwise determined at the discretion of the Executive Board or, where it relates to Above-CLA employees, VIVAT Identified Staff or ACTIAM Identified Staff, the Remuneration and Nomination Committee and approved by the Supervisory Board.

VIVAT has agreed upon a new Social Plan 2018-2019 with the unions which is applicable in case of reorganisation(s).

Sign-on bonus & Retention bonus

At VIVAT, special arrangements for employee benefits refer to retention and/or welcome bonuses. VIVAT exercises great restraint when agreeing such arrangements. Such arrangements may be agreed only if they are approved in accordance with legislation and regulations and approved in accordance with VIVAT’s governance.

Other Benefits

The majority of above-CLA employees and a few CLA employees are eligible for a lease car or a lease car allowance. In 2017, VIVAT NV changed its lease policy which limited leasing of cars to those with less than 106 gram CO2 emissions. In addition, the group eligible for a lease car has diminished. As part of VIVAT's commitment to impact investment principles, certain types of cars and certain brands are no longer included in this policy.

Hold back & Claw back

VIVAT has the power to hold back or claw back all or part of any variable pay awarded (Section 135 (6 & 8), Book 2 of the Dutch Civil Code in connection with Wft Section 1:127 Subsection 2 & 3). Whole or partial hold back or claw back will take place in any case if the employee has not met relevant competence standards and standards for appropriate conduct, or was responsible for conduct that led to a considerable deterioration of the financial position of VIVAT NV, ACTIAM NV and/or Zwitserleven PPI NV.

4.4.2. Overview remuneration 2018

Target setting

For all employees, the performance management cycle started with setting the performance targets in the first quarter of 2018. These targets are in line with the company targets and the company's mission.

At least 50% of the KPIs set were non-financial related KPIs. For employees in control functions such as Risk, Audit and Compliance departments, no financial KPIs were set. For all employees two performance targets were set: One regarding customer satisfaction (the Net Promoter Score) and one regarding digitalisation and/or innovation. In addition, all senior management had also general targets: sound and controlled organisation and a financial target.

Besides the performance targets, competence targets were also set. For all employees two mandatory

and one personal competences were set. The annual score on competences can result in a salary increase. The annual salary increase is subject to a knockout financial condition as determined in the CLA.

For Identified Staff, specific rules applied for setting performance targets, determining the extent to which performance targets have been achieved, and for setting and paying variable remuneration, if applicable. The performance targets and variable remuneration were subjected to an ex ante risk & ex post assessment.

Variable Remuneration ACTIAM

Due to the financial results of VIVAT over the year 2017 the Executive Board of VIVAT and the Statutory Board of ACTIAM decided to apply a haircut the total amount of variable remuneration. In 2018, a total amount of € 0.67 million was unconditional awarded to (former) ACTIAM employees as a variable remuneration over the year 2017 and, as deferred variable remuneration over the year 2014, a total amount of € 0.01 million was unconditional awarded.

The decision about awarding variable remuneration for the year 2018 will be made after the date of publication.

Retention scheme

Due to the announced strategic review by the shareholder, VIVAT has offered at the end of 2018 a retention scheme to a few employees of VIVAT and ACTIAM with the approval of regulatory authorities. The vesting of this scheme is subject to certain conditions. For the Executive Board members we refer to the disclosure of the remuneration of the Executive Board in Note 22 Related parties in the consolidated financial statements.

Number of employees with a remuneration exceeding € 1 million

In 2018, one employee received a total remuneration exceeding € 1 million.

4.4.3. Actual Remuneration (former) Members of the

Executive Board and the Supervisory Board

Reference is made to Note 22 Related parties (Intra-group balances with key management personnel of VIVAT) for the actual remuneration of (former) members of the Executive Board and the Supervisory Board.



Reaal Dier & Zorg focuses exclusively on insurance for cats and dogs. With more than twenty years of experience, Reaal Dier & Zorg has become the largest pet insurer in the Netherlands, taking care of some 70,000 bosses and their favourite pets.



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5. Consolidated Financial Statements

5.1. Consolidated Statement of Financial Position

Before result appropriation and in € millions	Notes ¹	31 December 2018	31 December 2017 ²
> Assets			
Intangible assets	1	-	1
Property and equipment	2	62	65
Investment property	3	402	380
Investments	4	38,656	38,683
Investments for account of policyholders	5	11,989	13,138
Investments for account of third parties	6	676	630
Derivatives	7	1,076	760
Deferred tax	8	465	491
Reinsurance share	16	160	181
Loans and advances due from banks	9	1,566	1,814
Corporate income tax		52	31
Assets held for sale	10	-	7
Other assets	11	295	302
Cash and cash equivalents	12	275	259
Total assets		55,674	56,742
> Equity and liabilities			
Share capital ³		0	0
Reserves		3,241	3,547
Total shareholders' equity		3,241	3,547
Holders of other equity instruments		300	-
Total equity	13	3,541	3,547
Subordinated debt	14	863	1,016
Borrowings	15	644	642
Insurance liabilities	16	46,283	46,794
Liabilities investments for account of third parties	6	676	630
Provision for employee benefits	17	548	585
Other provisions	18	26	44
Derivatives	7	602	636
Amounts due to banks	19	1,358	1,643
Other liabilities	20	1,133	1,205
Total equity and liabilities		55,674	56,742

¹ The references relate to the notes to the consolidated financial statements in Section 6.3

² Comparative figures (investments, investments for account of policyholders and other liabilities) have been restated for comparison purposes. Reference is made to the notes in section 6.1.2 Changes in policies, presentation and estimates for the consolidated financial statements.

³ The issued and paid up share capital of VIVAT NV is € 238,500

5.2. Consolidated Statement of Profit or Loss

In € millions	Notes ¹	2018	2017 ²
> Income			
Premium income		2,842	2,923
Less: Reinsurance premiums		51	51
Net premium income	25	2,791	2,872
Fee and commission income		71	87
Fee and commission expense		18	21
Net fee and commission income	26	53	66
Share in result of associates		4	1
Investment income	27	1,524	1,450
Investment income / expense for account of policyholders	28	-387	429
Result on investments for account of third parties	29	-44	57
Other operating income	31	-	15
Total income		3,941	4,890
> Expenses			
Result on derivatives ³	30	97	427
Technical claims and benefits	32	3,552	3,814
Charges for account of policyholders	33	-86	87
Acquisition costs for insurance activities	34	174	159
Result on liabilities from investments for account of third parties	29	-44	57
Staff costs	35	270	281
Depreciation and amortisation of non-current assets	1 / 2	7	10
Other operating expenses	36	93	95
Impairment losses	37	1	8
Other interest expenses	38	135	127
Total expenses		4,199	5,065
Result before tax		-258	-175
Tax expense	39	26	-59
Net result continued operations for the period		-284	-116
> Attributable to:			
- Shareholders		-292	-116
- Holders of other equity instruments		11	-
- Tax on interest of other equity instruments		-3	-
Net result continued operations for the period		-284	-116

¹ The references relate to the notes to the consolidated financial statements in Section 6.3

² Comparative figures (investment income, investment income for account of policyholders, result on derivatives) have been restated for comparison purposes. Reference is made to the notes in section 6.1.2 Changes in policies, presentation and estimates for the consolidated financial statements.

³ Result on derivatives is now presented as part of total expenses instead of total income. Comparatives have been adjusted accordingly.

5.3. Consolidated Statement of Total Comprehensive Income

Consolidated Statement of Other Comprehensive Income

In € millions	Notes ¹	2018	2017 ²
> OCI not to be reclassified subsequently to profit or loss			
Changes in valuation of defined benefit pension plan	17, 40	33	-15
Income tax relating to items that never be reclassified	8, 40	-9	4
Tax rate reduction adjustment relating to items that never be reclassified	8, 40	5	-
Net OCI never reclassified to profit or loss		29	-11
> OCI to be reclassified subsequently to profit or loss			
Unrealised revaluations and amortisation from cashflow hedges	40	29	-36
Unrealised revaluations investments available for sale	40	-81	-538
Impairments fair value reserve	40	-3	-5
Realised gains and losses fair value reserve transferred to profit or loss	40	-249	-395
Results on allocated investments and interest derivatives	40	257	941
Income tax relating to items that may be reclassified	8, 40	13	8
Tax rate reduction adjustment relating to items that may be reclassified	8, 40	-8	-
Net OCI to be reclassified to profit or loss subsequently		-42	-25
Other comprehensive income (net of tax)		-13	-36

¹ The references relate to the notes to the consolidated financial statements in Section 6.3

² The comparative figures have been adjusted to present the gross amount per line items instead of the amount net of tax.

Statement of Total Comprehensive Income

In € millions	2018	2017
Net result for the period	-284	-116
Other comprehensive income (net of tax)	-13	-36
Total comprehensive income (net of tax)	-297	-152
> Attributable to:		
- Shareholders	-305	-152
- Holders of other equity instruments	11	-
- Tax on interest of other equity instruments	-3	-
Total comprehensive income	-297	-152

5.4. Consolidated Statement of Changes in Equity

Consolidated Statement of Changes in Total Equity 2018

In € millions	Issued share capital ¹	Share premium	Sum revaluation reserves	Retained earnings ²	Sum shareholders' reserves	Total equity instruments	Holders of other equity	Total equity
Balance as at 1 January 2018	0	4,309	99	-861	3,547	3,547	-	3,547
Other comprehensive income	-	-	-42	29	-13	-13	-	-13
Net result 2018	-	-	-	-284	-284	-284	-	-284
Total comprehensive income 2018	-	-	-42	-255	-297	-297	-	-297
Issue of Subordinated notes - Principal	-	-	-	-	-	-	300	300
Interest on other equity instruments	-	-	-	-11	-11	-11	-	-11
Tax relating to interest on other equity instruments	-	-	-	3	3	3	-	3
Other movements	-	-	-	-1	-1	-1	-	-1
Other movements 2018	-	-	-	-9	-9	-9	300	291
Total changes in equity 2018	-	-	-42	-264	-306	-306	300	-6
Balance as at 31 December 2018	0	4,309	57	-1,125	3,241	3,241	300	3,541

¹ The share capital issued is fully paid up and comprises of 477 ordinary shares with a nominal value of € 500.00 per share for a total value of € 238,500.

² Other reserves and Retained earnings have been aggregated into Retained earnings. The comparative figures are adjusted accordingly.

The Executive Board proposes to the General Meeting of Shareholders to distribute, similar to 2017, no dividends for 2018.

Consolidated Statement of Changes in Revaluation Reserves 2018

In € millions	Revaluation reserve property and equipment	Cash flow hedge reserve	Fair value reserve	Sum revaluation reserves
Balance as at 1 January 2018	3	-	96	99
Unrealised revaluations and amortisation from cashflow hedges	-	29	-	29
Unrealised revaluations investments available for sale	-	-	-81	-81
Impairments and reversals	-	-	-3	-3
Realised gains and losses through profit or loss	-1	-	-248	-249
Results on allocated investments and interest derivatives	-	-29	286	257
Income tax	-	-	13	13
Tax rate reduction adjustment	-	-	-8	-8
Total changes in equity 2018	-1	-	-41	-42
Balance as at 31 December 2018	2	-	55	57

Consolidated Statement of Changes in Shareholders' Equity 2017

In € millions	Issued share capital	Share premium	Sum revaluation reserves	Retained earnings ¹	Sum shareholders' reserves	Total equity instruments	Holders of other equity instruments	Total equity
Balance as at 1 January 2017	0	4,309	124	-734	3,699	3,699	-	3,699
Other comprehensive income	-	-	-25	-11	-36	-36	-	-36
Net result 2017	-	-	-	-116	-116	-116	-	-116
Total comprehensive income 2017	-	-	-25	-127	-152	-152	-	-152
Total changes in equity 2017	-	-	-25	-127	-152	-152	-	-152
Balance as at 31 December 2017	0	4,309	99	-861	3,547	3,547	-	3,547

¹ Other reserves and Retained earnings have been aggregated into Retained earnings. The comparative figures are adjusted accordingly.

Consolidated Statement of Changes in Revaluation Reserves 2017

In € millions	Revaluation reserve property and equipment	Cash flow hedge reserve	Fair value reserve	Sum revaluation reserves
Balance as at 1 January 2017	4	-	120	124
Unrealised revaluations and amortisation from cashflow hedges	-	-36	-	-36
Unrealised revaluations investments available for sale	-	-	-538	-538
Impairments and reversals	-	-	-5	-5
Realised gains and losses through profit or loss	-1	-	-394	-395
Results on allocated investments and interest derivatives	-	36	905	941
Income tax	-	-	8	8
Total changes in equity 2017	-1	-	-24	-25
Balance as at 31 December 2017	3	-	96	99

5.5. Consolidated Cash Flow Statement

In € millions	2018	2017
> Cash flow from operating activities		
Operating profit before tax	-258	-175
> Adjustments for:		
Revaluation through profit or loss	-	2
Depreciation and amortisation of non-current assets	7	10
Amortisation of investments	204	216
Changes in insurance liabilities for own risk	-118	-1,661
Changes in other provisions	-18	7
Impairment charges / (reversals)	1	8
Change in subordinated loans relating to repurchase	30	-
Unrealised results on investments through profit or loss	476	456
Taxes (paid) received	-	18
> Change in operating assets and liabilities:		
Change in amounts due from banks	248	-854
Change in amounts due to banks	-285	290
Change in investment property	-1	-2
Change in investments	-464	-79
Change in derivatives	199	-43
Change in other assets	7	53
Change in insurance liabilities for policyholders	-1,134	-1,065
Change in insurance liabilities through equity	762	1,947
Change in other liabilities	-72	-274
Net cash flow from operating activities	-416	-1,146
> Cash flow from investment activities		
Proceeds from sale of assets held for sale	7	-
Sale of investment property	15	15
Sale and redemption of investments and derivatives	25,951	27,010
Purchase of property and equipment	-3	-2
Purchase of investment property	-	-108
Purchase of investments and derivatives	-25,645	-26,586
Net cash flow from investment activities	325	329
> Cash flow from finance activities		
Issue of subordinated loans	-	491
Issue of equity instruments	300	-
Redemption of subordinated loans	-180	-466
Issue of senior notes	-	650
Interest payment of subordinated notes	-11	-
Costs of issue of equity instruments	-2	-
Costs of issue of senior notes	-	-9
Net cash flow from financing activities	107	666
Net increase in cash and cash equivalents	16	-151

In € millions	2018	2017
Cash and cash equivalents 1 January	259	410
Cash and cash equivalents as at 31 December	275	259

> Additional disclosure with regard to cash flows from operating activities:		
Interest income received	1,221	1,637
Dividends received	139	147
Interest paid	87	96

6. Notes to the Consolidated Financial Statements

6.1. Accounting Policies for the Consolidated Financial Statements

6.1.1. General Information

VIVAT NV, incorporated and established in the Netherlands, is a public limited liability company incorporated under the laws of the Netherlands. VIVAT NV is a wholly owned subsidiary of Anbang Group Holdings Co. Limited with a registered office at Hong Kong, People's Republic of China, whose ultimate parent is China Insurance Security Fund Co., Ltd. with its headquarters in Beijing, People's Republic of China.

VIVAT NV has its registered office located in Utrecht, the Netherlands and has its principal place of business located at Burgemeester Rijnderslaan 7, 1185 MD in Amstelveen, the Netherlands. The registration number at the Dutch Chamber of Commerce Trade is no. 30099450. The principal activities of VIVAT and its subsidiaries, divided in operating segments, are described in Section 6.4, note 44.

In the consolidated financial statements within this annual report the name 'VIVAT' is used.

The consolidated financial statement combines the financial statements of VIVAT NV (the parent company) and its subsidiaries (see Section 6.3, note 43 List of principal subsidiaries).

The key accounting policies and the changes herein used in the preparation of VIVAT's consolidated financial statements are set out in this section.

Adoption of the Financial Statements

The consolidated financial statements of VIVAT for the year ended on 31 December 2018 were authorised for publication by the Executive Board following the approval by the Supervisory Board on 25 March 2019. The financial statements will be submitted to the General Meeting of Shareholders for adoption.

6.1.2. Basis of Preparation

Statement of IFRS Compliance

VIVAT prepares its consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as endorsed by the European Union. Pursuant to the option offered in article 2:362(8) of the Dutch Civil Code, VIVAT prepares its company financial statements in accordance with the same accounting policies as those used for the consolidated financial statements (refer to Section 9.1 Principles for the preparation of the company financial statements).

Relevant New standards, Amended Standards and Interpretations of Existing Standards Effective as of 2018

New or amended standards become effective on the date specified in the relevant IFRS, but may allow early adoption. New or amended standards that become effective as of 1 January 2018 and that are relevant to VIVAT are disclosed below.

IFRS 15 Revenue from Contracts with Customers

This standard became effective as of 1 January 2018. IFRS 15 provides more specific guidance on the recognition of revenue on contracts with customers other than lease contracts, insurance contracts and financial instruments, which are out of scope of this standard. For further information on the implementation of IFRS 15 refer to the section 'Changes in Policies'.

Amended IFRS 4 on Insurance Contracts

The Amended IFRS 4 on Insurance Contracts is effective as of 1 January 2018 and permits an insurer to apply the temporary exemption from applying IFRS 9 for entities whose activities are predominantly connected with insurance. An entity that applies this exemption is allowed to defer the implementation of IFRS 9 until 1 January 2022, since the IASB tentatively decided to postpone the effective date of IFRS 17 to 1 January 2022.

Predominance is assessed based on a ratio calculated as the quotient of insurance related liabilities (i.e. insurance contracts, investment contracts issued in combination with insurance contracts, tax liabilities relating to insurance activities, funding and other related liabilities) and total liabilities. The assessment took place based on the figures as at 31 December 2015. If the predominance ratio is 90% or more, the entity qualifies for the 'temporary exemption' which offers the qualifying entity for the possibility to postpone the implementation of IFRS 9.

The predominance ratio of VIVAT as at 31 December 2015 amounted to 96%, therefore VIVAT qualifies for application of the temporary exemption. After that initial assessment, no reassessment of predominance ratio took place, as there were no changes in VIVAT's activities:

- No adjustments in activities' profile have been determined by the entity's senior management as a result of external or internal changes.

- VIVAT's subsidiaries have continued to operate as insurance companies under the supervision of DNB.
- No significant new subsidiaries with different activities were acquired.

Due to the application of this exemption VIVAT is required to present additional disclosures to depict the impact of the IFRS 9 classification and measurement model on VIVAT's investments. These disclosures are comprised in note 41 'Financial Instruments'.

Relevant New Standards, Amended Standards and Interpretations of Existing Standards Effective Date on or after January 2019

Relevant new standards, amendments to existing standards and interpretations, effective for reporting periods beginning on or after 1 January 2019, were not early adopted by VIVAT. New or amended standards that become effective on or after 1 January 2019 and that are relevant to VIVAT are disclosed below.

IFRS 9 Financial Instruments

IFRS 9, the new standard on financial instruments has an effective date of 1 January 2018. IFRS 9 replaces most of the current IAS 39 'Financial Instruments: Recognition and Measurement' and includes new requirements for the recognition and measurement of financial assets and liabilities, a new forward looking model for the recognition of impairment losses and a new regulation in order to better align hedge accounting with economic reality and risk management. However, since VIVAT has decided to apply the temporary exemption from applying IFRS 9, the implementation of IFRS 9 by VIVAT has been postponed until 1 January 2022, the effective date of IFRS 17.

Since financial instruments constitute a significant item in VIVAT's consolidated financial statements, it is expected that the introduction of IFRS 9 will

have a significant impact on VIVAT's financial statements.

IFRS 16 Leases

This standard has an effective date of 1 January 2019. According to this new standard, lessees (the users of the assets) no longer make a distinction between finance and operational lease. Consequently lessees have to recognise all assets in scope of IFRS 16 'Leases' in their statement of financial position. The main change involves the accounting of operational leases; a lessee has to recognise a right-of-use asset representing the right to use the underlying asset and a lease liability representing the obligation to make lease payments. In the statement of profit or loss a lessee recognises a depreciation charge regarding their assets in use and interest expense on their lease liabilities for all these leases.

As of 1 January 2019 VIVAT will simultaneously recognise a right-of-use asset and a lease obligation towards the lessor for its existing and new operating lease contracts with respect to its leased property and company cars. VIVAT implements IFRS 16 using the modified retrospective approach. Under this approach the cumulative effect of adopting IFRS 16 will be recognised as an adjustment to the opening balance of retained earnings at 1 January 2019, with no restatement of comparative information. VIVAT will apply the practical expedient to grandfather the definition of a lease on transition date. This means that it will apply IFRS 16 to all contracts entered into before 1 January 2019 which are already identified as leases in accordance with IAS 17 and IFRIC 4. Per 1 January 2019 VIVAT expects to recognise a right-of-use asset for an amount of € 6 million and an additional lease liability of € 6 million. As a result the expected impact of the implementation of IFRS 16 on VIVAT's shareholders' equity per 1 January 2019 is nil. The expected impact is subject to finalisation of the implementation project.

IFRS 17 Insurance contracts

On 18th May 2017 the IASB has issued IFRS 17, the new comprehensive standard on insurance contracts covering recognition and measurement,

presentation and disclosure. IFRS 17 replaces IFRS 4 the current standard on insurance contracts. IFRS 4 allows insurers to continue their previous local accounting policies for the measurement of insurance contracts. IFRS 17 provides a comprehensive model (the general model) for the measurement of insurance contracts, supplemented by the variable fee approach for contracts with direct participation features and the premium allocation approach mainly for short duration (non-life) insurance contracts.

The main features of the new accounting model for insurance contracts comprise:

- > Measurement of insurance liabilities is based on the present value of probability weighted future cash flows to fulfill the contract, increased with a risk adjustment to reflect uncertainties in these cash flows.
- > A Contractual Service Margin (CSM) that is equal and opposite to any day one gain in the fulfillment cash flows of a group of contracts. The CSM represents the unearned profitability of the insurance contracts and is recognised in profit or loss over the coverage period of the contract.
- > The recognition of insurance revenue and insurance service expenses in profit or loss based on the concept of services provided during the period. Insurance services results (earned revenue less incurred claims) are presented separately from the insurance investment income and expenses.
- > The effects of changes in discount rates will be reported in either profit or loss or other comprehensive income, determined by an accounting policy choice.
- > Extensive disclosures to provide information on the recognised amounts and the nature and extent of risks arising from these contracts.

In November 2018 the IASB tentatively decided to postpone the IFRS 17 effective date to 1 January 2022. Retrospective application of the standard is required. Early adoption is permitted. VIVAT plans to adopt IFRS 17 per 1 January 2022. The adoption of IFRS 17 will have a significant effect on VIVAT's

consolidated financial statements, systems and data requirements.

Changes in Policies, Presentation and Estimates

Changes in Policies

IFRS 15 is a new standard that provides more specific guidance on the recognition of revenue on contracts with customers. The standard is applicable for all contracts with customers except for insurance contracts within scope of IFRS 17 and financial instruments and other contractual rights or obligations within the scope of IFRS 9.

As required by IFRS 15 VIVAT has applied the 'five step model' approach for revenue recognition under IFRS 15. The key element of this approach is to identify the performance obligation defined in customer contract and the conditions on when the performance is actually completed. Based on the completion criteria the related revenue is recognised over time (during a period) or at a point in time.

Based on this assessment the contracts in scope of the new standard comprise primarily the contracts signed by asset management for asset management services as well as the contracts signed by intermediaries for handling services. These contracts are recognised under the item 'Fee and Commission Income'.

VIVAT has implemented IFRS 15 applying the retrospective approach with practical expedients. This

implies that the impact of the contracts completed before 1 January 2017 has not been assessed.

The impact of the new standard on total shareholders' equity per 1 January 2018 and 1 January 2017 is nil.

Refer to the Accounting Policies and note 26 Net Fee and Commission Income for additional information.

Changes in Presentation

Adjustment in presentation of mortgage portfolio

VIVAT has adjusted the presentation of a portfolio of mortgages in which policyholders invest. The pool of mortgages and the related insurance liability were previously recognised as Investments and Insurance liabilities for account of policyholders.

Since VIVAT has been exposed to the financial risks arising from this pool of mortgages, the related insurance liabilities needed to be classified as 'Insurance liabilities for general account'. As a result, the related asset portfolio was also reclassified from the category 'Investments for account of policyholders' to the 'Loans and Receivables' within the Investments.

The adjustment in the presentation is recognised in the consolidated statement of financial position and notes of VIVAT NV for the year 2018, the comparative figures are adjusted accordingly.

Consolidated statement of financial position			
In € millions	Balance as at 1 January 2017	Impact adjustment in presentation as at 1 January 2017	Restated balance as at 1 January 2017
Investments	38,294	58	38,352
Investments for account of policyholders	14,251	(64)	14,187
Liabilities (Life, for own risk)	31,738	58	31,796
Liabilities (Life, for account of policyholders)	14,642	(58)	14,584
Other liabilities	1,484	(6)	1,478
Shareholders' equity	3,699	-	3,699

In € millions	Balance as at 31 December 2017	Impact adjustment in presentation as at 31 December 2017	Restated balance as at 31 December 2017
Investments	38,624	59	38,683
Investments for account of policyholders	13,202	(64)	13,138
Liabilities (Life, for own risk)	32,049	59	32,108
Liabilities (Life, for account of policyholders)	13,577	(59)	13,518
Other liabilities	1,210	(5)	1,205
Shareholders' equity	3,547	-	3,547

Consolidated statement of profit or loss			
In € millions	Statement of profit or loss 2017	Impact adjustment in presentation on 2017	Restated statement of profit or loss 2017
Investment income – interest	1,430	6	1,436
Investment income for account of policyholders – interest	435	(6)	429
Tax expense	-59	-	-59
Net result	-116	-	-116

Adjustment in presentation of currency results on derivatives

In 2018 VIVAT adjusted the presentation of foreign currency results on derivatives. Before the adjustment the foreign currency on derivatives was partly presented as investment income and partly as result on derivatives. After the adjustments all these results are presented as result on derivatives. The amount reclassified from investment income to result on derivatives was -/- € 3 million in 2018 and -/- € 18 million in 2017.

Adjustment in presentation of asset management fees mortgage portfolio
VIVAT has adjusted the presentation of the asset management fees paid for mortgage portfolio general account. Initially these fees were presented as fee and commission expense. After the adjustment

these fees are presented as investment income, which is in line with the presentation of other asset management fees paid relating to the general account investments. The amount reclassified from fee and commission paid to investment income was €4 million in 2018 and €4 million in 2017.

Changes in Estimates

The effects of significant changes in estimates are disclosed in the notes to the consolidated financial statements relating to the items concerned. The most significant changes in estimates concern the insurance liabilities (refer to note 16 'Insurance Liabilities').

6.1.3. General Accounting Policies

The accounting policies set out below have been applied consistently to all the periods presented in the consolidated financial statements.

Functional Currency and Reporting Currency

The consolidated financial statements have been prepared in millions of euros (€). The euro is the functional and reporting currency of VIVAT. All financial data presented in euros is rounded to the nearest million, unless stated otherwise. Totals are based on unrounded figures. Their sum may differ from the sum of the rounded figures.

Foreign Currencies

Upon initial recognition, transactions in foreign currencies are converted into euros against the exchange rate at the transaction date.

Monetary items in the statement of financial position denominated in foreign currencies are translated into euros at the exchange rate applicable at the reporting date. Exchange rate differences arising from these transactions and from converting monetary items in the statement of financial position denominated in foreign currencies are recognised in the statement of profit or loss within investment income or gains and losses on financial instruments, depending on the item in the statement of financial position to which they relate.

The exchange rate differences of non-monetary items in the statement of financial position measured at fair value, with changes in the fair value recognised in the statement of profit or loss, are accounted for as part of these changes in the value of the related item in the statement of financial position. Exchange rate differences of non-monetary items in the statement of financial position measured at fair value, with changes in the fair value being recognised in other comprehensive income,

are incorporated into shareholders' equity. Non-monetary items measured at historical cost are measured at the exchange rate applicable on the initial transaction date.

Accounting Based on Transaction Date and Settlement Date

All purchases and sales of financial instruments that have been settled in accordance with standard market practices are recognised at the transaction date, i.e. the date on which VIVAT commits itself to buying or selling the asset or liability. All other purchases or sales are recognised as forward transactions until they are settled.

Offsetting Financial Instruments

Financial assets and liabilities are offset and their net amounts are reported in the statement of financial position if the following conditions are met:

- > a legally enforceable right to set off the recognised amounts exists,
- > VIVAT intends to settle the items on a net basis, or to realise the asset and the liability simultaneously.

If either of these conditions are not met, amounts are not offset.

Estimates and Assumptions

The preparation of the consolidated financial statements requires VIVAT to make estimates and assumptions based on complex and subjective opinions and best estimates. In this process, management judges situations on the basis of available information and financial data that are likely to change in the future. Although estimates are made to the best of the management's knowledge, actual results will differ from these estimates and the use of other assumptions or data can lead to materially different results.

Estimates and underlying assumptions are reviewed on a regular basis. The resulting impact on

accounting estimates is recognised in the period in which the estimate is revised or in the period of revision and future periods if the revision impacts both the reporting period and future periods. The main accounting policies involving the use of estimates concern the methods for determining liabilities arising from insurance contracts, the provision for employee benefits, the provisions for bad debts, the fair value of assets and liabilities, deferred tax and impairments.

Fair Value of Assets and Liabilities

Fair Value

The fair value is the price that VIVAT would receive to sell an asset or to pay to transfer a liability in an orderly transaction between market participants in the principal market, or in the most advantageous market and assuming the highest and best use for non-financial assets.

Fair Value Hierarchy

The fair value of financial assets and liabilities is determined using quoted prices where available. These quoted prices are primarily derived from transaction prices for listed instruments. If transaction prices are not available, market prices from independent market participants or other experts are used. VIVAT applies a transfer price when determining fair value; as a result, financial assets are initially recognised at their bid prices and financial liabilities at their offer prices.

In markets where activity has decreased or in inactive markets, the range of prices from different sources can be significant for a certain investment. Selecting the most appropriate price requires judgement; available market information relating to the fair value of the instrument is taken into account.

When no market price is available for certain financial assets and liabilities, the fair value of these financial assets and liabilities is determined using valuation techniques, which may vary from net present value calculation to valuation models that use accepted economic methodologies. Input used in these models is based on observable market

information to the extent possible. All valuation methods used are assessed and reviewed according to the VIVAT governance procedures.

6.1.4. Basis for Consolidation

Subsidiaries

Subsidiaries, i.e. all entities (including structured entities) that are controlled by VIVAT, are consolidated. Control over companies and entities is assumed to exist if all of the following conditions are met:

- VIVAT has power over a company or entity by means of existing rights that give VIVAT the current ability to direct the relevant activities of the company or entity;
- VIVAT has exposure or rights to variable returns from its involvement with the investee; and
- VIVAT has the ability to use its power over the investee to affect the amount of the investor's returns.

Subsidiaries are fully consolidated from the date on which control is transferred to VIVAT until the date this control ceases. The financial statements of these group companies are fully consolidated and aligned with the accounting policies applied by VIVAT.

Non-controlling interests and their results are presented separately in the consolidated statement of financial position and the statement of profit or loss.

Elimination of Group Transactions

Intra-group transactions, intra-group balances and unrealised gains and losses arising from intra-group transactions are eliminated in the preparation of the consolidated financial statements.

Segment Information

The operating segments of VIVAT are clearly distinctive organisational components that carry out

activities that generate income and expenses. The operating segments are:

- Property & Casualty (P&C) carrying out non-life insurance activities
- Individual Life carrying out individual life insurance services
- Life Corporate carrying out collective life insurance services
- Asset Management carrying out asset management services
- Other, carrying out the holding activities along with the activities that are not directly attributable to any other segment

The segment information is based on the accounting policies used in the consolidated financial statements. For one-off intra-group transactions directed by VIVAT the required consolidation adjustments and eliminations are accounted for directly in the related segment.

6.1.5. Accounting Policies for the Statement of Financial Position

Intangible Assets

Software

Costs that are directly related to the development of identifiable software controlled by VIVAT, that is expected to generate economic benefits in excess of these costs, are capitalised. The direct costs comprise external costs and staff costs directly attributable to software development. All other costs associated with the development or maintenance of software are expensed as incurred.

Capitalised software development costs are amortised on a straight-line basis over the asset's useful life, with a maximum of five years. An asset impairment test is performed at the end of each reporting period.

Property and Equipment

Owner-occupied Property

Owner-occupied property mainly comprises offices (land and buildings) and is measured at fair value

(revaluation model) based on annual valuations performed by external, independent appraisers with adequate professional expertise and experience in the specific location and categories of properties.

Owner-occupied property is measured at fair value on an unlet or (partially) let basis, depending on the situation. The purpose of a valuation is to determine the value for which the asset would be sold in an orderly transaction between market participants at the measurement date. The capitalisation method is used to determine this value. This method uses an expected return at inception and the market rental value to determine the fair value of an asset. Gains and losses on owner-occupied property include lease incentives, discount rates and expected vacancy, making allowance for the location, quality, age and liquidity of the property in question.

Increases in the fair value exceeding cost are added to the revaluation reserve in shareholders' equity, less deferred taxes. Positive revaluations, insofar as they result in the reversal of earlier impairments on the same asset, are credited to the statement of profit or loss. Decreases in fair value, insofar as they result in the reversal of prior positive revaluations of the same asset, are charged to the revaluation reserve. The revaluation reserve cannot be negative. All other decreases in fair value are recognised in profit or loss.

Buildings are depreciated over their useful lives using a straight-line method, with a maximum of fifty years, taking into account any residual value. Land is not depreciated. Regular impairment tests are performed on land and buildings.

Repair and maintenance expenses are recognised within other operating expenses as incurred. Expenses incurred after the acquisition of an asset that increase or extend the future economic benefits of owner-occupied property in relation to their original use are capitalised and then depreciated.

Upon the sale of a property, the part of the revaluation reserve related to the property in question,

which was recognised within shareholders' equity, is transferred to the retained earnings.

IT Equipment and other Property and Equipment

All other property and equipment are measured at cost net of accumulated depreciation and, if applicable, accumulated impairment losses. Cost includes all expenses directly attributable to the acquisition of the assets. Assets are depreciated on a straight-line basis over their useful lives, taking into account any residual value. The estimated useful life varies between three and ten years.

Repair and maintenance expenses are recognised in other operating expenses as incurred. Expenses incurred after the acquisition of an asset that increase or extend the future economic benefits of other property and equipment in relation to their original use are capitalised and subsequently depreciated.

Gains and losses on the sale of property and equipment are defined as the balance of the recoverable amount less transaction costs and the carrying amount. These gains and losses are recognised within other operating income.

Investment Property

Investment property, comprising retail properties and offices, residential properties and land, is held to generate long-term rental income or capital appreciation or both. If a property qualifies as part investment property and part owner-occupied property, it is recognised within property and equipment, unless the owner-occupied part makes up less than 20% of the total number of square metres.

Investment property is measured at fair value i.e. its value in a (partially) let state, including transaction costs, upon initial recognition. The fair value is based on valuations performed every year by independent external appraisers with adequate expertise and specific experience in property locations and categories.

The purpose of a valuation is to determine the value for which the asset would be sold in an orderly transaction between market participants at the measurement date. The capitalisation method is used to determine this value. This method uses an expected return since inception and the market rental value to determine the fair value of an asset. Gains and losses on investment property include lease incentives, discount rates and expected vacancy, but allowance is made for location, quality, age and liquidity of the property as well.

Changes in the fair value of investment property are recognised in profit or loss within investment income.

Financial Assets

VIVAT classifies its financial assets in one of the following categories: (1) at fair value through profit or loss, (2) available for sale, or (3) loans and receivables. The classification depends on the purpose for which the financial assets are acquired. Management decides to which category the asset is allocated at initial recognition.

Upon initial recognition, financial assets are measured at fair value including transaction costs, with the exception of the category 'at fair value through profit or loss', in which transaction costs are recognised directly in the statement of profit or loss.

The categories of financial assets are explained in more detail in the following section.

VIVAT measures its financial liabilities at amortised cost with the exception of derivatives and liabilities from investments for account of third parties. For more information see the corresponding sections.

Investments

Fair Value Through Profit or Loss

A financial asset is classified at fair value through profit or loss if it was designated as such upon initial recognition. Financial assets are only designated at fair value through profit or loss if:

- this eliminates or considerably limits an inconsistency in valuation or recognition between assets and liabilities that would otherwise arise; or
- VIVAT manages and assesses them on a fair value basis.

Financial assets classified as fair value through profit or loss are recognised at fair value. Realised and unrealised gains and losses are recognised directly in the statement of profit or loss within investment income.

Interest income earned on securities is recognised within investment income. Dividends received on equity instruments are also recognised within investment income.

Available for Sale (Fair Value Through Other Comprehensive Income)

Financial assets that do not meet the criteria defined by management for loans and receivables or are not designated as at fair value through profit or loss are classified as available for sale.

After initial recognition, available-for-sale financial assets are subsequently measured at fair value. Unrealised gains and losses arising from fair value adjustments of these investments are recognised within other comprehensive income (shareholders' equity), net of deferred taxes.

When financial assets are sold, any accumulated fair value adjustments are recognised in the statement of profit or loss as investment income. VIVAT uses the average cost method to determine the related gains and losses.

Loans and Receivables (Amortised Cost)

Loans and receivables comprise unlisted debt investments with a fixed term (including mortgages) and loans to banks arising from endowment mortgages issued by the insurance business. Loans and receivables are measured at amortised cost using the effective interest method, less an allowance for impairment if deemed necessary.

Impairment of Financial Assets

At reporting date, VIVAT assesses whether there is objective evidence of an impairment of investments classified as loans and receivables and as available for sale. Impairment losses are recognised directly in the statement of profit or loss as 'impairment charges'.

Investments in Fixed Income Instruments

Investments in debt securities measured at amortised cost or available for sale are tested for impairment if there is objective evidence of financial distress at the counterparty, declining markets for the counterparty's product or other relevant indicators. This test comprises both quantitative and qualitative considerations. Debt securities are assessed for aspects including expected credit losses and credit losses already incurred (e.g. due to default), market data on credit losses and other evidence of the issuer of the instrument's inability to meet its payment commitments.

Where mortgage loans are concerned, an allowance for impairment is recognised if objective evidence exists that VIVAT is not able to collect all payments in accordance with the contractual agreements. For mortgages that are individually significant, this allowance corresponds to the difference between the carrying amount and the recoverable amount. The recoverable amount equals the expected future cash flows, including the amounts realised by virtue of guarantees and collateral, discounted at the initial effective interest rate of the loans.

The criteria relating to impairments are applied to the entire mortgage portfolio. Individual mortgage loans with less significant amounts (and corresponding credit risk) are tested collectively for impairment.

The allowance for impairment losses also covers losses where objective evidence of losses likely to be incurred in the loan portfolio exists (IBNR: incurred but not reported). Losses on mortgages are estimated on the basis of historic loss patterns and the creditworthiness of counterparties. Both estimates

take into account the current economic climate in which the counterparties operate.

When a loan is uncollectable, it is written off against the relevant allowance for impairment.

Investments in Equity Instruments

An investment in equity instruments is considered to have been subject to impairment if its carrying amount exceeds the recoverable value for an extended period, which means that its fair value:

- has decreased 25% or more below cost; or
- has been at least 5% below cost for nine months or more.

Depending on the availability of data, the fair value of unlisted equities is determined based on:

- the price of the most recent transaction (as an indication);
- current fair values of other, similar investments (in entities); or
- valuation methods in accordance with accepted economic methods that use market data to the extent possible.

Reversal of Impairments

If the amount of an impairment loss decreases in a subsequent period, and the decrease can be related objectively to an event occurring after the impairment was recognised, the impairment allowance is (partially) reversed. That reversal is recognised in profit or loss. Impairments on equity securities are never reversed.

Investments for Account of Policyholders (Fair Value Through Profit or Loss)

Investments for account of policyholders are classified as fair value through profit or loss. These investments are held to cover insurance contracts, according to which the investment risk is borne by the policyholders (see the section entitled 'Life insurance contracts for account of policyholders'). Amounts due from these policyholders are recognised in the statement of profit or loss as premium income. Dividends, coupons, adjustments in the fair value of investments and gains and losses on the sale

of investments are recognised in the statement of profit or loss as investments for account of policyholders.

Investments for Account of Third Parties and Liabilities from Investments for Account of Third Parties (Fair Value Through Profit or Loss)

These investments relate to the third parties' share in the investments of investment funds with opposite daily redeemable financial obligations to these third parties at the same amount and are measured at fair value through profit or loss. Any related gains and losses are recognised in the statement of profit or loss as gains and losses on financial instruments. These investment funds are consolidated since VIVAT controls these funds and is exposed to these funds' gross variable results, which are mainly attributable to investments for account of policyholders. This item also comprises investments for account of participants of Zwitterleven PPI.

VIVAT's exposure to risks arising from these financial instruments is limited since the beneficial ownership rests with these third parties and participants. The value of corresponding liabilities equals the fair value of the underlying investments.

Derivatives General

Derivatives are recognised at fair value upon inception. The fair value of publicly traded derivatives is based on quoted bid prices for assets held or liabilities to be issued, and quoted offer prices for assets to be acquired or liabilities held.

The fair value of non-publicly traded derivatives depends on the type of instrument and is based on a present value model or an option valuation model. VIVAT recognises derivatives with a positive market value as assets and derivatives with a negative market value as liabilities.

Changes in the fair value of derivatives, that do not qualify for cash flow hedge accounting, are accounted for in the statement of profit or loss as gains and losses on financial instruments.

For embedded derivatives refer to 'Embedded options and guarantees in insurance contracts' in the section 'Life insurance'.

Hedge Accounting

VIVAT uses derivatives as part of its asset and liability management and risk management. These instruments are used for hedging interest rate and currency risks, including the risks of future transactions. VIVAT can designate a derivative as either:

- a hedge of the exposure to changes in the fair value of a recognised asset or liability or firm commitment (fair value hedge); or
- a hedge of the exposure to variability in future cash flows that can be attributed to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge).

Hedge accounting is only applied if a hedging relationship is considered to be effective. Hedge effectiveness is assessed by VIVAT at inception and during the term. A hedge is effective if the changes in the fair value or cash flows of the hedged item are almost fully offset by changes in the fair value or cash flows of the hedging instrument, insofar as these changes are attributable to the hedged risk, and the actual results remain within a bandwidth of 80% to 125%.

Fair Value Hedge Accounting

Derivatives designated as a hedge of fair value changes of recognised assets or of a firm commitment are recognised as fair value hedges. Changes in the fair value of the derivatives that are designated as a hedging instrument are recognised directly in the statement of profit or loss and reported together with corresponding fair value adjustments to the hedged item attributable to the hedged risk.

If the hedge no longer meets the conditions for hedge accounting, an adjustment in the carrying amount

of a hedged financial instrument is amortised and taken to the statement of profit or loss during the expected residual term of the previously hedged item.

If the hedged item is no longer recognised, i.e. if it is sold or redeemed, the non-amortised fair value adjustment is directly recognised in the statement of profit or loss.

Cash Flow Hedge Accounting

Derivatives can be designated to hedge the exposure to variability in future cash flows resulting from a recognised asset or liability or highly probable forecast transaction. Adjustments in the fair value of the effective portion of a derivative that has been designated as a cash flow hedge and that meets the conditions for cash flow hedge accounting are recognised in the cash flow hedge reserve as a separate component of shareholders' equity. The portion of the gain or loss on the hedging instrument that is considered to be ineffective, is recognised in the statement of profit or loss. The measurement of the hedged item, which is designated as part of a cash flow hedge, does not change.

If the forecast transaction leads to the recognition of an asset or a liability, the accumulated gains and losses on the derivative that were previously recognised in the cash flow hedge reserve are amortised to profit or loss until maturity of the acquired asset or liability.

If the hedging instrument expires or is sold or terminated, or no longer meets the conditions for hedge accounting, the accumulated all gains and losses that were included in the cash flow hedge reserve remain in the cash flow hedge reserve within other comprehensive income until the expected transaction occurs.

If the hedged transaction is no longer expected to occur, the accumulated gains and losses recognised in other comprehensive income are directly taken to profit or loss.

Loans and Advances due from Banks

These assets concern receivables from banks with a remaining maturity of one month or more, not including interest-bearing securities. These receivables are measured at amortised cost using the effective interest method, less any impairment losses.

Cash and Cash Equivalents

Cash and cash equivalents include bank balances and demand deposits with a remaining maturity of less than one month. These receivables are measured at amortised cost using the effective interest method, less any impairment losses.

Taxes

Income tax expense

Income tax relates to payable or recoverable tax on the taxable profit for the reporting period and taxes due from previous periods, if any. Current tax receivables and payables are measured using the tax rate applicable at the reporting date.

Deferred tax assets and liabilities

Deferred tax assets and liabilities are recognised for tax losses carried forward and for temporary differences between the tax bases of assets and liabilities and their carrying amounts in the financial statements. This is based on the tax rates applicable at the reporting date and the tax rates that will apply in the period in which the deferred tax assets or tax liabilities are settled.

Deferred tax assets and liabilities are measured at the undiscounted amount expected to be received or paid. Deferred tax assets are only recognised if sufficient taxable profits are expected to be available in the near future against which these temporary differences can be utilised. Deferred taxes are recognised for temporary differences between the carrying amount and the value for tax purposes.

Deferred tax assets are assessed at the reporting date; if it is no longer likely that the related taxable profit will be achieved, the asset is reduced to its recoverable value. Deferred tax assets and liabilities

are presented on a net basis to the extent that they relate to the same tax authority and that they are settled simultaneously.

Tax group

VIVAT NV and its subsidiaries form a tax group for corporate income tax and value added tax (VAT) and as a result are jointly and severally liable for the fiscal unity's corporate income tax and VAT liabilities.

Reinsurance Share

Inbound reinsurance contracts

Other insurers use these contracts to transfer the insurance risk associated with their own insurance contracts to VIVAT. These contracts qualify as inbound reinsurance contracts; the obligations from the insured risk and the deposit component are recognised as liabilities within insurance contracts in accordance with IFRS 4.

Outbound reinsurance contracts

By virtue of these contracts, VIVAT is compensated for losses incurred on its own insurance contracts. Because of the transfer of significant insurance risks, the entire contract qualifies as an outbound (re)insurance contract. The liabilities from insurance risks and the deposit components are recognised as insurance liabilities in accordance with IFRS 4. The share of reinsurance companies in the insurance liabilities and the benefits to which VIVAT is entitled by virtue of its reinsurance contracts are accounted for and presented as reinsurance assets. The receivables depend on the expected claims and benefits.

Because VIVAT calculates its LAT on a net basis, the expected cashflow arising from the outbound reinsurance contracts are also included in the LAT calculation on insurance liabilities.

The amounts receivable from (claims), and payable to (premium) reinsurance companies are determined in accordance with the terms and conditions of each reinsurance contract and recognised in the period in which they incurred. Receivables from reinsurers are assessed for potential

impairment due to credit risk, at the reporting date. The current outstanding amounts are presented under other assets or other liabilities.

Assets Held for Sale

Assets held for sale are presented separately in the consolidated statement of financial position and consist of non-current assets whose carrying amount will be recovered principally through a sale transaction and not through continuing use.

Assets held for sale are measured at the lower of their carrying amount and their fair value less costs to sell. Any surplus of the carrying amount over their fair value less costs is recognised as an impairment loss.

Other Assets

Other assets consist of receivables from direct insurance policies, other taxes (including VAT, payroll tax), other receivables and accrued assets. Accrued assets also include the accrued interest on financial instruments measured at amortised cost, as well as other accruals, which include amounts receivable from the clearing counterparty with regard to derivative positions.

Equity

Issued share capital

The share capital comprises the issued and paid-in ordinary shares.

Reserves

Share premium reserve

The share premium reserve concerns the paid-in surplus capital in addition to the nominal value of the issued ordinary shares.

Revaluation reserve

Revaluations of owner-occupied property (see the section entitled 'Owner-occupied property') are included in the revaluation reserve.

Cash flow hedge reserve

The cash flow hedge reserve consists of the effective part of cumulative changes in the fair value of derivatives qualifying for cash flow hedge accounting (net of taxes), provided that the hedged transaction has not yet occurred.

Fair value reserve

Gains and losses arising from changes in the fair value of assets that are classified as available for sale are recognised in the fair value reserve (net of taxes). If the particular assets are sold, settled or as a result of other events are no longer recognised; the corresponding cumulative gains and losses is then transferred from the fair value reserve to profit or loss (see the section entitled 'Financial assets'). Exchange rate differences on non-monetary financial assets that are classified as available for sale are also recognised in this reserve.

Shadow accounting is applied to the cash flow hedge reserve and fair value reserve for fixed-income securities that are held to cover insurance liabilities.

Holders of other equity instruments

Other equity instruments comprise listed subordinated restricted Tier 1 notes. These instruments are measured at the amount of the issued notes at par minus directly attributable transaction costs. The interest payment on these instruments is recognised as a deduction on equity once the payment is declared.

Subordinated Debt

Subordinated debt includes the subordinated bonds and private loans issued by VIVAT. This debt is initially measured at fair value net of the transaction costs incurred. The debt is subsequently measured at amortised cost, using the effective interest method.

Borrowings

On initial recognitions these borrowings are stated at fair value net of transaction costs incurred. These

instruments are subsequently measured at amortised cost, using the effective interest method.

Insurance Liabilities

Insurance liabilities arise from insurance contracts. Insurance contracts are contracts that concern the transfer of significant insurance risk. These contracts can also involve investment risks. VIVAT issues both life and non-life insurance contracts. VIVAT recognises insurance liabilities from the earliest of the beginning of the coverage period or the date on which the first payment of the policyholder becomes due.

VIVAT has continued applying the accounting policies in use at the time of transition to IFRS for the valuation of the insurance contract liabilities since the first adoption of IFRS (the historically applied accounting policies). The insurance liabilities reported at the reporting date are valued at the higher of:

- the historic value based on the assumptions used to calculate the (guaranteed) premium and
- the minimum value according to the liability adequacy test.

The first method uses premium calculation principles for interest and mortality (life insurance contracts) or historically observed claim development patterns (property & casualty insurance). A combination of both methods is used in relation to disability insurance contracts.

For insurance liabilities IFRS requires a liability adequacy test to be performed. The carrying amount of the insurance liability based on historical cost and reduced by related intangible assets like the Value of Business Acquired (VOBA) and deferred acquisition costs (if applicable) is compared to the current estimates of future cash flows corresponding to the insurance liability. When the latter is higher, there is a deficit. Under IFRS 4, the carrying amount of the insurance liability has to be supplemented by this deficit, thus increasing the value of the insurance liability based on the current estimates of future cash flows.

The details of the valuation principles for life and non-life insurance contracts and the corresponding liability adequacy test are described below.

Life Insurance

Life insurance contracts can be divided into general account life insurance policies and life insurance contracts for account of policyholders. Both types of insurance policies include individual insurance contracts as well as group insurance contracts. These contracts provide mainly long-term insurance for events that lead to a payment in cash, or of the counter value of investment units, upon maturity of the contract or death of the insured.

General Account Life Insurance Policies

General

For these contracts, VIVAT incurs insurance risk as well as investment risk. These insurance contracts are divided into individual and group contracts and include the following product groups: saving mortgage insurance, annuities, term insurance policies, corporate pensions, funeral expenses insurance policies and traditional endowment insurances.

Measurement of life insurance liabilities is in principle based on historical tariff rates set at the inception date of the underlying contracts. A periodic IFRS liability adequacy test is performed on these liabilities. Since there is a deficit in the liability adequacy test (LAT) at the end of 2017 and 2018, the insurance liabilities are currently measured at the probability weighted best estimate of future cash flows based on current assumptions discounted by the swap curve including Ultimate Forward Rate (UFR). Both measurement principles are explained below.

Measurement at Tariff Rates Locked-in Interest Rate

Liabilities arising from life insurance contracts with a locked-in interest rate are determined on the basis of a prudent prospective actuarial method taking into account all future benefit payments and premiums to be received, if applicable.

Actual payments and the timing of payments also depend on social, economic and demographic trends, inflation, investment returns, the behaviour of policyholders and other factors, as well as assumptions about developments in mortality and disability rates. Lapse, like early surrender or a waiver of premium, is also taken into account for some life insurance products. The assumptions used in the measurement of life insurance contracts at the reporting date are based on the calculation principles set at the contract's inception date.

Most policies have a fixed discount rate between 3% and 4%. The discount rate for recent insurance contracts is generally lower than 3%. For savings mortgage insurance and other guaranteed products, the rate of return guaranteed in the insurance contract is used. The interest rate in these insurance contracts equals the investment return achieved on the corresponding investments.

Embedded Options and Guarantees in Insurance Contracts

VIVAT does not separately recognise embedded derivatives in insurance contracts, such as options to surrender insurance contracts at a fixed amount, or at a fixed amount and a guaranteed interest rate (i.e. closely linked to the basic insurance contract), but recognises them under the host contract from which they stem. The time value of the embedded options is not included in the measurement of the embedded derivative.

Provisions for Longevity Risk

Particularly with regard to the pension portfolio, liabilities arising from insurance contracts may become inadequate due to the extended life expectancy of the beneficiaries. This provision comprises additional contributions that have been made in the past to absorb this longevity risk. The actual longevity risk is the part of the total liabilities and subject to the liability adequacy test.

Cost Surcharges

Premiums include loadings to cover expenses. When premiums are received or fall due, the surcharges are released; they are then available to cover actual

expenses, including administration, renewal expenses and acquisition costs.

Interest Rate Surcharge or Discount

With respect to individual single-premium insurance contracts, an interest rate can be guaranteed, which may be lower or higher than the contractual interest rate used to calculate the liability. The rates for annuity policies are based on a yield curve derived from market data. As the expected market interest rates are currently lower than the standard rate basis, the policyholder pays a surcharge based on the difference between the market rate at the contract's inception date and the contract date and the standard rate applied until maturity. The recognised surcharges and discounts are subsequently amortised on either an actuarial or straight-line basis.

With regard to group insurance contracts, similar surcharges or discounts are amortised on a straight-line basis. In the initial year of recognition, the full-year amortisation charge is recognised.

Provisions for Disability Risk

Under liabilities arising from insurance contracts, a provision is maintained for the entitlement to a premium waiver in the event of disability. This provision is based on a factor multiplied by the annual premium that applies to the disability risk. The factor is based on IBNR techniques derived from empirical data for claim behaviour. The IBNR techniques involve historic data, based on which estimates are made at the reporting date for claims expected to have occurred but have not been reported at the reporting date. The valuation principles of disability coverage that are used, including the waiver of premiums, are the same as the principles for the main insurance policy.

Profit-sharing and Bonuses

The present value of any profit share that has been awarded but has not yet been distributed is included in the provision for profit-sharing and bonuses which is included in the life insurance liabilities.

Profit-sharing

In addition to non-profit-sharing insurance contracts, the insurance portfolio also contains insurance contracts with discretionary or contractual profit-sharing rights.

Discretionary profit-sharing schemes concern the right of individual policyholders to receive additional benefit payments over and above any insured or guaranteed capital. The determination of the amount and timing of these additional benefits is at the discretion of VIVAT's management. Profit shares already awarded are also included in liabilities arising from insurance contracts.

For insurance contracts with discretionary participation features, all realised and unrealised gains and losses, that are eligible for profit sharing, on fixed-income financial assets in the portfolio backing the participating insurance contracts are transferred to insurance liabilities, if they constitute a net gain on a cumulative basis. These additions are made regardless of the management's decision about the profit amounts paid out to the policyholders.

There are also individual and group contracts with contractual profit-sharing. These are based on a share of any surplus interest profits and profit-sharing based on a share of any insurance profits. Obligations as a result of contractual profit-sharing are included in liabilities arising from insurance contracts.

Shadow Accounting

Realised gains and losses on assets backing insurance liabilities can affect the measurement of insurance liabilities. IFRS 4 contains an option generally referred to as 'Shadow Accounting' to reduce accounting mismatches which may occur when insurance liabilities and investments backing those liabilities:

- > are measured on a different basis; or
- > have changes in their measurements recorded in different line items of total comprehensive income (net income versus other comprehensive income).

VIVAT applies this option which means that unrealised gains or losses on assets backing certain insurance liabilities are treated similarly to realised gains and losses for the purpose of measuring insurance liabilities. For VIVAT this leads to two changes in the way cumulative unrealised net gains are accounted for:

- > Unrealised fair value changes of Available for Sale fixed income financial assets, which are initially recognised in other comprehensive income, are transferred to the insurance liabilities without affecting profit or loss.
- > Fair value changes of interest rate derivatives used to hedge interest rate risks, which are initially recognised in the cash flow hedge reserve, are transferred to the insurance liabilities without affecting profit or loss, as a result.
- > Fair value changes of interest rate derivatives, to which no cash flow hedge accounting is applied, are initially recognised in profit or loss. Subsequently these changes are transferred to the insurance liabilities through profit or loss.

Shadow Accounting limits accounting mismatches only as far as those are caused by market interest rate changes. If, after the application of Shadow Accounting, any deficit under the Liability Adequacy Test remains, VIVAT strengthens the insurance liabilities further through profit or loss.

Measurement Based on Current IFRS LAT Assumptions.

IFRS LAT Methodology

Under IFRS, the carrying amount of an insurance liability, net of VOBA and deferred acquisition costs (if applicable), is required to be at least equal to the discounted current estimates of future cash flows under its insurance contract plus a risk margin. The total carrying amount of the liabilities tested, consists of the carrying amount based at historical tariff rates, supplemented with any liabilities arising from interest rate guarantees on life insurance contracts, liabilities to cover for the longevity risk and the effects of shadow accounting.

It is tested, based on current assumptions, whether these carrying amounts will ultimately be adequate

to cover the commitments to policyholders. When performing this test, best estimate future contractual cash flows are projected, taking into account current and future developments in mortality, disability, the behaviour of policyholders, claims handling and management costs. These cash flows are discounted using the (bid price) swap curve including the Ultimate Forward Rate as set for Solvency II reporting purposes for the financial year. The valuation of the future expected profit-sharing and the time value of embedded options and guarantees are included in the resulting best estimate provision. The best estimate is increased with a risk margin, which is calculated using the Cost of Capital method. The resulting minimum liability is compared to the carrying amount, after shadow accounting, of the insurance liabilities adjusted for any differences between fair value and book value of other balance sheet items. If the LAT minimum is higher, a test deficit exists.

To the extent that this has been agreed in the contract, deficits in relation to the guaranteed interest rate will (partially) be borne by the policyholders. Any such contributions are deducted from the liability adequacy test deficit.

The IFRS LAT is calculated on a net basis; the effects of reinsurance contracts on the projected cash flows are comprised in the outcome.

Recognition of a Deficit

If the outcome of the test, taking into account the shadow accounting adjustments, is a deficit, the carrying amount of insurance liabilities will be supplemented via technical claims and benefits in profit or loss. The increase of the carrying value of insurance liabilities and related assets is effected first by impairing any VOBA or any deferred acquisition costs, if available. Any remaining deficit will be added to insurance liabilities through profit or loss. If the deficit decreases in the next reporting period, the prior addition will be reversed to the extent it was recognised in profit or loss (technical claims and benefits).

Test Level and Frequency

The IFRS liability adequacy test is performed at least quarterly for the entire portfolio of life insurance contracts. The test is performed both at legal entity level and at consolidated level. A deficit and a surplus in the liability adequacy test of the separate life insurance companies is offset in consolidation. Non-life insurance liabilities are tested separately.

Assumptions IFRS LAT

The following assumptions were used in performing the IFRS liability adequacy test as at 31 December 2018:

- > Discount rate: derived from the (bid price) swap curve. The curve converges to the Ultimate Forward Rate (UFR) based on the Smith-Wilson method in accordance with Solvency II including an Ultimate Forward Rate as set for Solvency II reporting which for the financial year 2018 converges after the 20 years point (last liquid point) to 4,05% (2017: 4.20%) in 40 years.
- > Profit allocation is in accordance with the applicable profit-sharing arrangements and the company's decisions regarding discretionary profit sharing.
- > Solvency II compliant cost allocation and distribution of efficiency gains based on internal assessment.
- > Projected mortality probability data for the entire population based on Prognose Model AG 2018 adjusted for experience on each portfolio based on both external and internal research.
- > Lapse and early surrender data based on internal research.
- > Inflation rate: derived from market data.
- > Cost inflation consists for around 80% out of expected salary increases, taking into account the agreements in the Collective Labour Agreements (CLA) and for 20% the inflation of other costs.
- > Cost of capital rate: 4% (2017: 4%).

Life Insurance Contracts for Account of Policyholders General

This item concerns insurance contracts under which policyholders bear the investment risk. The

liabilities arising from these contracts basically equal the value of the underlying investments, the value of interest rate guarantees and the value of the term insurance. Since unit-linked policyholders bear investment risk they determine how VIVAT should invest the premiums paid net of costs and risk premiums.

Unit-linked Life Insurance Contracts **Liabilities Linked to the Investments** **Related Component**

The technical provisions for the underlying investments of these insurance contracts correspond to the carrying amount (fair value) of the related underlying investments. As a result, these liabilities are measured at the fair value of the underlying investments. Transaction costs and commission are not included at initial recognition but charged to the statement of profit or loss as these transactions occur. The changes in these insurance liabilities are recognised directly in profit or loss in line with changes in the fair value of these investments.

Interest Rate Guarantees

Interest rate guarantees have been issued by VIVAT for returns from a limited number of unit-linked insurance contracts. These guarantees mainly apply at the maturity dates of the insurance contracts. Prior to maturity, the liability arising from these contracts is at least equal to the accumulated amount of premiums paid plus guaranteed interest less any expense and mortality charge deductions and adjustments for future lapses.

Insurance Component

The insurance component in these insurance contracts is determined based on the tariff rate.

Separate Accounts

Group insurance contracts with segregated investments are recognised as life insurance contracts for account of policyholders. Interest rate guarantees on returns have been granted for a limited number of these contracts.

If group insurance contracts are renewed as general account after contract expiration dates, the existing

provisions for interest rate guarantees are amortised on an actuarial basis to compensate for the deficits in future investment returns in comparison to the guaranteed interest rates stipulated in these contracts.

Non-life Insurance **General**

These are insurance contracts that provide coverage not related to the life or death of insured persons. Apart from disability contracts, the non-life contracts (also referred to as property and casualty or P&C) generally provide coverage for a relative short period of time. VIVAT's non-life insurance contracts can be divided into the following product groups: accident and health, motor vehicles, fire, transport, general liability and other.

Payments made after the occurrence of a specified insured event are either fixed (e.g. in the event of disability) or linked to the scale of the economic loss suffered by the policyholder (in accordance with the indemnity principle).

Liabilities arising from non-life insurance contracts are determined as specified below:

Provision for Unearned Premiums

This provision reflects premiums related to the period of any unexpired coverage at the reporting date. The provision is equal to the unearned gross premiums and commission paid is deducted from the gross premium. The provision for unearned premiums is calculated separately for each insurance contract in proportion to the unexpired risk period.

The change in the provision for unearned premiums is recorded in the statement of profit or loss in order to recognise the income over the period of exposure to risk.

Provision for Unexpired Risks

The provision for unexpired risks has been formed to meet obligations resulting from:

- > claims and claims handling expenses that may arise after the reporting date and which are covered by contracts issued prior to that date,

insofar as the related estimated amount exceeds the provision for unearned premiums and the future premiums in relation to these contracts; and

- premiums received, both single and regular, for contracts with a fixed premium where the underlying risk increases over time. This applies to disability insurance contracts in particular.

Provision for Claims Payable

This provision is intended to cover claims arising from the current and preceding years that have not been settled at the reporting date. The provision is determined systematically on a claim-by-claim basis. In the case of disability claims, this provision is referred to as the provision for periodic payments.

Provision for Internal Claims Handling Costs

A separate provision for internal claims handling costs is formed as part of the provision for claims payable. This provision is an estimate of the expenses relating to payments to be made in respect of claims arising from insured events that have already occurred. The provision for internal claims handling costs is measured with a formula that applies the ratio of the annual amount of claim handling expenses over the annual claim payments and the carrying amount of the provisions. The calculations are performed per homogeneous risk group. The provision is reassessed periodically, based on business information as well as actuarial analysis derived from the most recent liability adequacy test.

Provision for Co-insurance

VIVAT participates in co-insurance contracts, mainly relating to the transport sector. The technical provision is calculated based on all risks accepted at the reporting date and claims incurred during the financial year, both reported and unreported.

The expected balances of risks covered and losses incurred arising from transport insurance contracts are determined on an underwriting-year basis.

Provision for Claims Incurred but not Reported (IBNR)

This provision is intended for events that occurred prior to the reporting date but have not yet been reported at that date as well as for developments on claims that have already been reported. The IBNR is based on historically observed claim development statistics on which estimates are made for claims that have occurred, but are not yet reported or not yet enough reported at the reporting date. The IBNR provision is calculated on a monthly basis and reassessed quarterly, based on business information. The underlying assumptions are reassessed on a yearly basis.

Disability Insurance Contracts

Disability insurance liabilities are measured based on historic actuarial and cost assumptions, unless the IFRS LAT result in a higher liability. IBNR and the claims handling reserve are measured using a fixed interest rate of 3% (and 4% for accident years until 1999), all other disability insurance liabilities are measured using current market interest rates.

Discounting

In accordance with general practice in the industry, VIVAT does not discount the liabilities arising from non-life insurance contracts mentioned in this section, with the exception of disability insurance liabilities. Designated disability insurance liabilities are discounted using current market interest rates.

Liability Adequacy Test of Non-life Insurance Contracts Test Methodology

This test is performed on all non-life provisions. The test value of the insurance liabilities is based on a best estimate and a risk margin. The best estimate is determined separately for each portfolio with homogeneous risk. The best estimate serves as a realistic estimate of future premium income (both gross and reinsurance), claim payments (both gross and reinsurance), expenses and commissions. The cash flows are discounted using the swap curve including ultimate forward rate as set for Solvency II reporting purposes for the financial year. The risk margin is based on the cost of capital method, in which process

the cost of capital equals the capital requirements of a reference company. Cost of capital is determined annually. For 2018 it is set at 4% (2017: 4%).

The test is performed on an aggregate level; deficits in portfolios are compensated with a surplus in another. The IFRS LAT is calculated on a net basis; the effects of reinsurance contracts on the projected cash flows are comprised in the outcome. Any remaining deficit is charged directly to the statement of profit or loss.

Test Level and Frequency

An IFRS liability adequacy test is carried out quarterly to establish the adequacy of the liabilities arising from the total portfolio of non-life insurance policies.

Liabilities from Investments for Account of Third Parties

See the section on investments for account of third parties and liabilities from investments for account of third parties.

Provision for Employee Benefits

Short-term Employee Benefits

Short-term employee benefits include salaries, short paid leave, profit-sharing and bonus schemes. These are accounted for in the statement of profit or loss over the period in which the related services are rendered. In the event that employees have not made use of their entitlements at the end of the period, a liability is formed for the nominal amount.

Pension Benefits

General

All currently employed personnel is hired by VIVAT NV. VIVAT's main pension scheme is a defined contribution scheme administrated by Stichting Pensioenfonds SNS REAAL. New staff is included in this scheme. In addition, a number of defined benefit plans were acquired from insurance companies in the past. The members of those schemes are referred to as members with deferred pension rights or retirees.

Defined Contribution Schemes

According to this pension scheme, defined contributions are paid to separate entities, primarily to Stichting Pensioenfonds SNS REAAL, an independent pension fund. Besides the defined contributions, VIVAT has no obligation to make additional payments to the scheme to make up for deficits resulting from actuarial or investment risk.

Defined Benefit Schemes

A number of defined benefit schemes for (former) employees still exists. The net liability related to these schemes is represented by the difference between the present value of the future liabilities to pay the participants' pensions (gross pension entitlements) and the value of the qualifying assets of these schemes. Qualifying assets are investments relating to pension funds or insurance contracts with insurance companies other than VIVAT.

A net asset due to a surplus is recognised only if VIVAT has the ability to use the surplus to generate future economic benefits (asset ceiling). The excess amount above the asset ceiling will be deducted from the surplus through other comprehensive income.

Gross pension Entitlements from Defined Benefit Schemes

These are calculated annually by an independent actuary according to the projected unit credit method and discounted using rates based on returns from investment-grade corporate bonds (AA rating) with a maturity corresponding to the time of benefit payments to the members. In principle, this method distributes the pension costs evenly over the period in which an employee renders services to VIVAT.

Self-administered Defined Pension Schemes

Entitlements from these schemes are insured at SRLEV within VIVAT. The investments under these schemes are held by SRLEV; if they do not qualify as plan assets, they are presented as investments (general account).

Recognition of Costs in the Statement of Profit or Loss

Costs of Defined Contribution Schemes

The regular contributions in the defined contribution schemes qualify as net periodic costs in the year in which they are due and are recognised within the employee benefits expense. Employee contributions are deducted from this expense.

Income and Expense Associated with Defined Benefit Schemes

The following items are recognised in the statement of profit or loss for defined benefit schemes:

- periodic pension costs relating to the members of the scheme who are still employed by VIVAT;
- costs of improvement (or costs relating to deducted value of entitlements returned) of these pension schemes, insofar as they relate to past employment;
- gains and losses on settlement of pension entitlements; and
- net interest on the net defined benefit liability (or asset).

Net Interest on Defined Benefit Schemes

Net interest is calculated based on the actuarial discount rate used to determine the present value of the gross pension entitlements. This net liability (or asset) is determined at the start of the annual reporting period, taking into account possible changes resulting from contributions from VIVAT or employees and benefits paid out during the year.

Interest costs consist of actuarial interest costs corresponding to the gross defined benefit liability, the fixed return on qualifying investments (calculated as the present value of the gross defined benefit entitlements covered by the insurance contracts, using the discount rate) and interest on the excess above the asset ceiling, which is determined if a defined benefit asset exists.

Recognition in other Comprehensive Income

The following revaluations of the net pension liability (or asset) are recognised in other comprehensive income:

- actuarial gains and losses;
- gains on qualifying investments of defined benefit schemes actually realised during the year, net of the fixed gains and losses based on the actuarial discount rate that is included in the net interest from defined benefit schemes; and
- the effect of asset ceiling, if a defined benefit asset exists.

Revaluations are not reclassified to the statement of profit or loss in the next reporting period, but they can be reclassified to another component of equity, e.g. settlement of pension entitlements.

Other Long Term Employee Benefits

These refer to jubilee benefits and to discounts granted for bank and insurance products to (former) employees after the date of their retirement. The amount of the obligation is based on the present value of the discounts offered after the retirement date, taking into account actuarial assumptions about mortality and interest. Furthermore, an obligation for reimbursement of medical expenses is recognised. A liability for the expected expenses of these reimbursements during the period of employment is recognised according to the methods used to determine the defined pension schemes obligations. To qualify for these benefits, an employee's contract is required to run until his or her retirement age and it is to span a specified minimum period.

Termination Benefits

Termination benefits are employee benefits provided in exchange for the termination of an employee's employment as a result of either: (a) an entity's decision to terminate an employee's employment before the normal retirement date; or (b) an employee's decision to accept an offer of benefits in exchange for the termination of employment. Termination benefits are recognised as staff costs in the statement of profit or loss.

Other Provisions

General

Provisions are recognised if there is a legally enforceable or constructive obligation arising from events in the past, the settlement of which is likely to require an outflow of assets, and a reliable estimate of the obligation can be made.

Provisions are measured at the present value of the expected future cash flows. Additions and any subsequent releases are recognised in the statement of profit or loss.

Restructuring Provision

The restructuring provision is a specific provision that consists of expected severance pay and other costs that are directly related to restructuring programmes. These costs are accounted for in the period in which a legally enforceable or constructive obligation to make payments arises. No provision is recognised for costs or future operating losses from continuing operations.

VIVAT recognises severance pay if it has demonstrably committed itself, either through a constructive or legally enforceable obligation, to:

- terminating the employment contracts of current employees in accordance with a detailed formal plan without the option of the plan being withdrawn; or
- paying termination benefits as a result of an offer to encourage voluntary redundancy. Benefits that fall due after more than twelve months after the reporting date are discounted.

Legal Provisions

At the reporting date, VIVAT recognises a provision for the estimated liability with respect to ongoing legal proceedings. The provision comprises an estimate of the legal fees and payments due in the course of the legal proceedings, to the extent that it is more likely than not that an obligation exists at the reporting date. A provision is recognised if the obligation can be reliably estimated.

Financial Liabilities

Derivatives

See the previous section entitled 'Derivatives'.

Amounts Due to Banks

Amounts due to banks comprise unsubordinated debts to credit institutions. Upon initial recognition, amounts due to banks are measured at fair value, including transaction costs incurred. These liabilities are subsequently measured at amortised cost.

Any difference between the measurement at initial recognition and the redemption value based on the effective interest method is recognised in the statement of profit or loss.

Other Liabilities

Other liabilities include creditors, amounts payable to reinsurers, other taxes and accrued liabilities as well as interest accrued on financial instruments that are measured at amortised cost.

6.1.6. Accounting Policies for the Statement of Profit or Loss

Income and expenditure are allocated to the period to which they relate. Costs are recognised in the cost category to which they relate.

Income

Income represents the fair value of the services, after elimination of intra-group transactions within VIVAT. Income is recognised as described in the following sections.

Premium Income

Premium income from insurance contracts, exclusive of taxes and other charges, comprises regular life premiums (including pensions), single life premiums and non-life premiums.

Regular life premiums, single-premium contracts and limited-premium life insurance policies from life insurance contracts are recognised as income when

payment by the policyholder falls due. Interest rate discounts are included in gross premium income and charged to technical claims and benefits during the amortisation period.

Premium income from non-life insurance contracts is recognised as income (earned premium) until the contracts' maturity in proportion to the insurance period, taking into account movements in the provision for unearned premium. In general, this concerns the insurance contracts with periods of up to twelve months. In case of long term disability contracts with fixed premiums and increasing risk during the contract period, the premium is recognised in profit or loss in line with the predefined risk.

Reinsurance Premiums

This item represents premiums on ceded reinsurance contracts. They are charged to the statement of profit or loss in proportion to the contract period.

Fee and Commission Income

Fee and commission income comprises primarily asset management fees and intermediary commissions, which are in scope of IFRS 15.

Asset management fee comprises fees received on contracts with external parties related to the asset management activities of the investment portfolio as well as the tactical asset allocation according the mandate agreed upon. It also includes fees relating to the valuation of the outstanding assets and the related (financial) administration of all assets. Given that these services are provided and consumed during the year the fees are recognised over time.

Fees related other activities mainly comprises commission received as reward from external parties for insurance contracts signed by VIVAT's intermediaries and fees received for administrative services. Depending on the underlying contract, the fees are recognised at a point in time or over time.

Fee and Commission Expense

Commission expenses and management fees are accounted for as fee and commission expense to the

extent that they are related to the services received in the reporting period.

Commission costs related to transactions in general account financial instruments is included in the amortised cost of this instrument, unless the instrument is measured at fair value through profit or loss, in which case the commission is included in the result.

Investment Income

Investment income consists of interest, dividends, rental income and revaluations.

Interest

The item interest comprises interest income from investments. Interest on financial assets is accounted for using the effective interest method based on the actual purchase price. The effective interest method is based on estimated future cash flows, taking into account the risk of early redemption of the underlying financial instruments and direct costs and income, such as transaction costs charged, brokerage fees and discounts or premiums.

Commitment fees, together with related direct costs, are deferred and recognised as adjustments of the effective interest on a loan if it is likely that VIVAT will conclude a particular loan agreement. If the commitment expires without VIVAT having provided the loan, the fee is recognised at the moment the commitment term expires. If it is unlikely that a particular loan agreement will be concluded, the commitment fee is recognised pro rata as a gain during the commitment period.

Interest income on monetary financial assets that have been subject to impairment and have been written down to the estimated recoverable amount is calculated over the amortised cost of the financial asset net of any reduction for impairment or uncollectibility.

Dividends

Dividends income is recognised in the statement of profit or loss as soon as the entity's right to payment is established. In the case of listed securities, this is

the date on which these securities are quoted ex-dividends.

Rental Income

Rental income consists of rentals from investment property. Rental income is recognised as income on a straight-line basis for the duration of the lease agreement.

Revaluations

This item serves to recognise realised and unrealised increases and decreases in the fair value of financial assets qualifying as at fair value through profit or loss. Revaluations concern the difference between the fair value at the reporting date or net proceeds from the sale during the reporting period on the one hand, and the fair value at the beginning of the reporting period or the purchase price during the reporting period on the other.

Realised gains and losses, i.e. the difference between the selling price and amortised cost, of financial assets coming under the other categories are recognised in this item as well.

Investment Income for Account of Policyholders

This item represents income from investments held for account of life insurance policyholders. These investments are measured at fair value. Increases and decreases in the value of investments are recognised in the statement of profit or loss as investment income for account of policyholders. The dividends and interest for account of policyholders are also accounted for in this item.

Results on Investments for Account of Third Parties

This item represents gains and losses on investments for account of third parties. These gains and losses comprise increases and decreases in the fair value changes on the investments for account of third parties respectively the changes in fair value of the liabilities arising from these investments.

Result on Derivatives

Gains and losses on derivative and other financial instruments are recognised under this item. Derivatives are measured at fair value. Gains and losses from revaluations to fair value are directly recognised in the statement of profit or loss within gains and losses on financial instruments. However, if derivatives are designated as hedging instruments, the recognition of a resulting gain or loss depends on the nature of the hedged item and the effectiveness of the hedging relationship. The ineffective portion of any gains or losses of a cash flow hedge is recognised directly as result on derivatives.

Expenses

Expenses are recognised in the statement of profit or loss on the basis of a direct relationship between costs incurred and the corresponding economic benefits. If future economic benefits are expected to occur in different reporting periods, expenses are recognised in the statement of profit or loss based on a systematic allocation method. Expenses are directly recognised in the statement of profit or loss if they do not generate any future economic benefits.

Technical Claims and Benefits

This item comprises benefits and claims paid, surrender, claim handling costs and the changes in the general account insurance liabilities which include the difference between actual and expected results on the general account insurance portfolio. The changes in insurance liabilities resulting from shadow accounting on interest rate derivatives and LAT-deficit are also presented as this item.

Charges for Account of Policyholders

This item comprises changes in provisions for insurance contracts for account of policyholders (see the section entitled 'Life insurance contracts for account of policyholders').

Acquisition Costs for Insurance Activities

Acquisition costs comprise the direct and indirect costs associated with acquiring an insurance contract, including brokerage fees, the costs of medical

check-ups and service charges for recording new policies in the portfolio. The change in the provision for unearned premiums, insofar as it corresponds to commissions paid, is also accounted for under acquisition costs.

Results on Liabilities from Investments for Account of Third Parties

This item represents changes in value of liabilities from investments for account of third parties, which mirror the changes in the fair value of the underlying investments.

Staff Costs

This item concerns expenses related to staff, including salaries, social security contributions and pension costs.

Depreciation and Amortisation of Non-current Assets

This item comprises all depreciation and amortisation of property and equipment and intangible assets. For details on depreciation and amortisation, see Section 6.1.5 entitled 'Accounting policies for the statement of financial position' (see the applicable items).

Other Operating Expenses

This includes office expenses, accommodation expenses and other operating expenses.

Impairment Charges

This item includes impairments of assets whose carrying amounts exceed their recoverable amounts. Intangible assets, property and equipment, associates, financial assets, receivables and other assets may be subject to impairment. As soon as an impairment loss is identified, it is recognised in the statement of profit or loss. The specific policies for impairment are explained in greater detail in Section 6.1.5 entitled 'Accounting policies for the statement of financial position' (see the applicable items).

Other Interest Expenses

This item primarily comprises interest expenses related to reinsurance depots as well as interest on

subordinated bonds and private loans issued by VIVAT. Interest expenses are recognised in the statement of profit or loss based on the effective interest method.

Other Expenses

Other expenses comprise all expenses that cannot be accounted for within the items in the statement of profit or loss described above. These expenses have no direct relation with the primary and secondary business operations, occur occasionally, and are incurred in a single reporting period or arise in a single reporting period; they are amortised over multiple reporting periods, where applicable.

6.1.7. Contingent Liabilities and Commitments

Contingent liabilities are liabilities not recognised in the statement of financial position because the existence is contingent on one or more uncertain events that may or may not occur in the future not wholly within the control of VIVAT. It is not possible to make a reliable estimate of such liabilities.

The maximum potential credit risk arising from pledges and guarantees is stated in the notes. In determining the maximum potential credit risk, it is assumed that all the counterparties will no longer live up to their contractual obligations and that all the existing collateral is without value.

Leases

A lease is classified at the inception date as a finance lease or an operating lease. A lease that transfers substantially all the risks and rewards incidental to ownership to the lessee is classified as a finance lease. Finance leases are capitalised at the commencement of the lease at the inception date fair value of the leased property or, if lower, at the present value of the minimum lease payments. Lease payments are apportioned between finance charges and reduction of the lease liability so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are recognised in finance costs in the statement of profit or loss.

An operating lease is a lease other than a finance lease. Operating lease payments are recognised as an operating expense in the statement of profit or loss on a straight-line basis over the lease term.

VIVAT entered into lease contracts as sub-lessor or lessee. The leases entered into by VIVAT as a lessee are operating leases. The total payments made under operating leases are recognised in the profit and loss account on a straight-line basis over the period of the lease.

6.1.8. Cash Flow Statement

The cash flow statement is prepared according to the indirect method, and distinguishes between cash flows from operational, investment and financing activities. Cash flows in foreign currency are converted at the exchange rate applicable on the transaction date. With regard to cash flow from operations, operating results before tax are adjusted for gains and losses that did not result in income and payments in the same financial year and for movements in provisions and accrued and deferred items.

Investments in subsidiaries and associates are stated under cash flow from investing activities. The cash and cash equivalents available at the acquisition date are deducted from the purchase price. In the context of the cash flow statement, cash and cash equivalents are equal to the balance sheet item cash and cash equivalents.

6.2. Acquisitions and Disposals

There were no acquisition or disposal of businesses in the financial year 2018. There were no acquisition or disposal of businesses in 2017 either.

6.3. Notes to the Consolidated Financial Statements

1. Intangible Assets

Breakdown of Intangible Assets

In € millions	2018	2017
Software	-	1
Total	-	1

Statement of Changes in Intangible Assets 2018

In € millions	2018	2017
	Software	Software
Accumulated acquisition costs	5	5
Accumulated amortisation and impairments	-5	-4
Balance as at 31 December	-	1
Balance as at 1 January	1	4
Amortisation and impairments	-1	-3
Balance as at 31 December	-	1

The carrying amount of software at the end of 2018 relates to self-developed software.

2. Property and Equipment

Breakdown of Property and Equipment

In € millions	2018	2017
Land and buildings for own use	51	52
IT equipment	4	4
Other assets	7	9
Total	62	65

Statement of Changes in Property and Equipment 2018

In € millions	Land and buildings	IT equipment	Other assets	Total
Accumulated acquisition costs	103	33	19	155
Accumulated depreciation and impairments	-52	-29	-12	-93
Balance as at 31 December	51	4	7	62
Balance as at 1 January	52	4	9	65
Revaluations	-1	-	-	-1
Investments	-	3	-	3
Depreciation	-1	-3	-2	-6
Impairments	1	-	-	1
Balance as at 31 December	51	4	7	62

Statement of Changes in Property and Equipment 2017

In € millions	Land and buildings	IT equipment	Other assets	Total ¹
Accumulated acquisition costs	103	30	19	152
Accumulated depreciation and impairments	-51	-26	-10	-87
Balance as at 31 December	52	4	9	65
Balance as at 1 January	56	8	10	74
Investments	-	2	1	3
Depreciation	-1	-5	-2	-8
Impairments	-3	-1	-	-4
Balance as at 31 December	52	4	9	65

¹ An adjustment has been made in the comparative figures between the category accumulated acquisition costs and accumulated depreciation and impairments.

Rental Income

Land and buildings for own use includes two offices that have been partially let. The expiration dates of these agreements are 2020 and 2021.

Appraisal of Land and Buildings for Own Use

All land and buildings for own use are appraised by an external surveyor in three stages spread across the first three quarters of the calendar year: one third in the first quarter, the next third in the second quarter and the final third in the third quarter. The external surveyor updates the appraisals at the end of the fourth quarter. Consequently, properties are appraised two times a year.

Valuation of Land and Buildings for Own Use

In € millions	Assessed	Carrying amount	Appraised value as % of total carrying amount
2018	51	51	100%
2017	52	52	100%

3. Investment Property

Statement of Changes in Investment Property

In € millions	2018	2017
Balance as at 1 January	380	274
Investments	-	108
Divestments	-15	-15
Revaluations	37	13
Balance as at 31 December	402	380

Investment property mainly consists of offices and retail properties.

4. Investments

Breakdown of Investments

In € millions	2018	2017
Fair value through profit or loss: Designated	186	203
Available for sale	30,189	29,896
Loans and receivables	8,281	8,584
Balance as at 31 December	38,656	38,683

In 2018, VIVAT continued its re-risking strategy. The available for sale investments include new investment transactions in corporate bonds and in other new investments which include securities lending and investments in emerging markets. There was an inflow of € 211 million from a pension buy-out, € 373 million due to the transfer from investments for account of policyholders to investments for own risk and the remainder of the net proceeds of the tender offer. This was offset by a decrease in the loans and receivables mainly due to portfolio movements.

Fair Value Through Profit or Loss: Listed and Unlisted

In € millions	Designated fixed-income	
	2018	2017
Listed	186	202
Unlisted	-	1
Total	186	203

Fair Value Through Profit or Loss: Statement of Changes

In € millions	Designated fixed-income	
	2018	2017
Balance as at 1 January	203	69
Purchases and advances	-	336
Disposals and redemptions	-12	-202
Revaluations	-5	-1
Received Coupons	-7	-7
Accrued Interest	7	8
Balance as at 31 December	186	203

Available for Sale: Listed and Unlisted

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
Listed	-	-	25,070	26,301	25,070	26,301
Unlisted	4,176	3,135	943	460	5,119	3,595
Total	4,176	3,135	26,013	26,761	30,189	29,896

The increase of shares and similar investments in 2018 was mainly caused by the investments in Money Market funds.

Available for Sale: Statement of Changes

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
Balance as at 1 January	3,135	2,237	26,761	27,264	29,896	29,501
Purchases and advances	11,808	10,391	11,294	10,601	23,102	20,992
Disposals and redemptions	-10,782	-9,487	-11,881	-10,247	-22,663	-19,734
Revaluations	20	29	-71	-567	-51	-538
Impairments	-2	-6	-	-	-2	-6
Amortisation	-	-	-192	-215	-192	-215
FX Result	18	-	140	-23	158	-23
Received Coupons	-	-	-663	-699	-663	-699
Accrued Interest	-	-	625	647	625	647
Dividend Received/Negative Distribution	-21	-29	-	-	-21	-29
Balance as at 31 December	4,176	3,135	26,013	26,761	30,189	29,896

During the year, a substantial transition took place from sovereign bonds to corporate bonds. Divested sovereigns are primarily Dutch and German government bonds, whereas purchased corporate bonds mainly include investments in the United States of America.

Available for Sale: Measurement

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
(Amortised) cost	4,131	3,086	22,908	23,320	27,039	26,406
Revaluation	45	49	2,722	3,033	2,767	3,082
Accrued interest	-	-	383	408	383	408
Balance as at 31 December	4,176	3,135	26,013	26,761	30,189	29,896

VIVAT has lent some of its investments for the purpose of additional income. The carrying amount of the investments lent in a securities lending program as at 31 December 2018 amounts to € 2,378 million (2017: € 104 million). The lending periods are open-ended and can be terminated on request. The fair value of investments received from the counterparty as collateral at 31 December 2018 was € 2,456 million (2017: € 104 million). Collateral is only accepted in the form of equity and fixed income securities, with restrictions on the quality. Although collateral is at the disposal of VIVAT, it is VIVAT's policy not to trade with collateral received given the open-ended character of the initial securities lending transaction.

Some investments have been posted as collateral for amounts due to derivatives. The carrying amount (market value) of investments posted as collateral at 31 December 2018 was € 1,410 million (2017: € 1,729 million). The movement in collateral posted was caused by the decrease in repo-funding. The collateral received for derivatives are reported in Note 41 Financial Instruments.

Loans and Receivables: Investments

In € millions	2018	2017
Mortgages	2,095	2,402
Private loans linked to savings mortgages	4,752	5,054
Other private loans	1,434	1,133
Total	8,281	8,589
Provision for bad debts	-	-5
Total	8,281	8,584

The decrease in mortgages by € 307 million was mainly caused by regular mortgage repayments within the portfolio.

The increase of other private loans in 2018 was primarily caused by the settlement of new loans as part of the re-risking strategy.

Loans and Receivables: Statement of Changes

In € millions	2018	2017
Balance as at 1 January	8,589	8,795
Purchases and advances	784	702
Disposals and redemptions	-1,302	-1,154
Accrued interest	216	258
Amortisation	-12	-8
Realized Revaluation	1	-
FX Result	5	-4
Balance as at 31 December	8,281	8,589
Balance provisions as at 1 January	-5	-13
Release	1	8
Release due to derecognition	4	-
Balance provisions as at 31 December	-	-5
Total	8,281	8,584

Investment Portfolio Investments of Insurance Business

In € millions	2018	2017
Investments		
- Fair value through profit or loss: Designated	186	203
- Available for sale	26,013	26,761
- Other private loans	1,435	1,133
Interest-bearing investment portfolio	27,634	28,097
Mortgages	2,095	2,402
Private loans linked to savings mortgages	4,752	5,054
Total	34,481	35,553

The mortgages and private loans linked to savings mortgages are not rated and have the Netherlands as geographic area. For more information about the private loans linked to savings mortgages see note 21 Guarantees and Commitments.

The following table shows the breakdown of the interest-bearing investment portfolio by sector.

Interest-bearing Investment Portfolio (sector)

In € millions	2018		2017	
Sovereign	19,209	70%	20,589	73%
Corporate bonds – financial sector	3,125	11%	3,945	14%
Corporate bonds – non-financial sector	3,165	11%	1,844	7%
Mortgage backed securities	675	2%	559	2%
Loans	1,413	5%	1,103	4%
Other	47	0%	57	0%
Total	27,634	99%	28,097	100%

Compared to 2017 there is a transition from sovereign bonds to corporate bonds - non financial sector.

The following overview includes the interest-bearing investments by rating category.

Interest-bearing Investment Profile (rating)

In € millions	2018		2017	
AAA	15,827	57%	17,407	62%
AA	3,818	14%	4,366	15%
A	4,096	15%	3,253	12%
BBB	2,790	10%	2,485	9%
< BBB	767	3%	36	0%
Not rated	336	1%	550	2%
Total	27,634	100%	28,097	100%

The interest-bearing investment portfolio held 86% of investments with an A rating or higher (year-end 2017: 89%).

The re-risking strategy includes the sale of bonds with AAA-rating (German and Dutch government bonds) and buying corporate bonds, specifically in the US, with a lower rating.

The interest bearing investment portfolio by geographic area is included in the table below.

Interest-bearing Investment Profile (geographic)

In € millions	2018		2017	
Netherlands	7,859	28%	8,358	30%
Germany	7,702	27%	8,136	29%
United States of America	2,135	8%	689	2%
France	1,623	6%	2,007	7%
Austria	1,033	4%	1,123	4%
Belgium	848	3%	862	3%
Ireland	805	3%	962	3%
Spain	674	2%	735	3%
United Kingdom	669	2%	649	2%
Italy	538	2%	635	2%
Japan	525	2%	482	2%
Luxembourg	240	1%	352	1%
Switzerland	216	1%	211	1%
Other European countries	1,879	7%	2,548	9%
America	452	2%	141	1%
Asia	227	1%	34	0%
Oceania	190	1%	173	1%
Africa	19	0%	-	0%
Total	27,634	100%	28,097	100%

The interest-bearing investment portfolio of VIVAT has predominantly European debtors. The German Government and Dutch Government represent, as single debtors, an interest of more than 5% each in the interest-bearing investment portfolio.

The category "Other European countries" also consists of European and other international institutions that cannot be allocated to a single country (2018: € 990 million / 2017: € 1,987 million).

Mortgages per Risk Category

In € millions	2018	2017
Mortgages < 75% of foreclosure value	771	831
Mortgages 75% < > 100% of foreclosure value	339	269
Mortgages > 100% of foreclosure value	65	250
Mortgages with National Mortgage Guarantee	920	1,052
Residential property in the Netherlands	2,095	2,402
Specific provision for bad debts	-	-
Total	2,095	2,402

5. Investments for Account of Policyholders

Investments for account of policyholders include investments under unit-linked policies for an amount of € 9,921 million (2017: € 10,710 million) and separate investment deposits for separate accounts amounting to € 2,068 million (2017: € 2,428 million).

Investments for Account of Policyholders: Listed and Unlisted

In € millions	2018	2017
Shares and similar investments:		
- Listed	10,907	12,029
- Unlisted	202	230
Fixed-income investments		
- Listed	610	598
- Unlisted	270	281
Total	11,989	13,138

As a consequence of the consolidation of investments funds, the investments for account of policyholders within these funds are represented by the underlying investments.

Investments for Account of Policyholders: Statement of Changes

In € millions	2018	2017
Balance as at 1 January	13,138	14,187
Purchases and advances	1,717	5,221
Disposals and redemptions	-2,366	-6,543
Changes in fair value	-403	425
Received Coupons	-19	-20
Accrued Interest	31	33
FX Result	14	-45
Dividend Received/Negative Distribution	-117	-115
Other movements	-6	-5
Balance as at 31 December	11,989	13,138

The decrease of investments for account of policyholders was mainly driven by the transition of separate accounts to investments for own risk (€ 373 million), regular outflow of unit linked policies and the declined prices of equity instruments.

6. Investments/Liabilities for Account of Third Parties

The third party investments amount to € 676 million (2017: € 630 million) and are largely consisting of ACTIAM Responsible Index Funds and investments for the account of participants and related liabilities of Zwitserleven PPI. In 2018 there is an outflow of € 59 million of investment funds.

Breakdown per type of investments

In € millions	2018	2017
Shares and similar investments	649	623
Investments in investments funds	649	623
Other investments	3	1
Cash of participants to be invested	24	6
Other investments	27	7
Total	676	630

Investments for Account of Third Parties: Statement of Changes

In € millions	2018	2017
Balance as at 1 January	630	1,387
Purchases and advances	188	100
Disposals and redemptions	-115	-916
Changes in fair value	-47	56
Other movements	20	3
Balance as at 31 December	676	630

7. Derivatives

Breakdown of Derivatives

In € millions	Positive value		Negative value		Balance	
	2018	2017	2018	2017	2018	2017
Derivatives for which cash flow hedge accounting is applied	128	119	1	3	127	116
Derivatives for which fair value hedge accounting is applied	1	73	7	11	-6	62
Derivatives held in the context of asset and liability management to which no hedge accounting is applied	947	568	594	622	353	-54
Total	1,076	760	602	636	474	124

The derivatives position increased with € 350 million in 2018. This is mainly due to changes in market value caused by long interest rate movements and the stronger USD. The decrease in derivatives held for fair value hedge accounting is mainly due to the discontinuation of fair value hedge accounting on the partially repurchased subordinated notes. The hedge is no longer highly effective.

Statement of Changes in Derivatives

In € millions	2018	2017
Balance as at 1 January	124	605
Purchases	42	-45
Realised gains and losses	-213	-35
Disposals	384	30
Revaluations	309	-461
Exchange rate differences and FX result	-186	10
Accrued interest	14	20
Balance as at 31 December	474	124

As part of the new investment mandates, derivatives have been purchased with a market value.

The disposals mainly consist of Bond Futures due to daily settlement of market value movements and the settlement of FX Forwards and Interest Rate Swaps with a negative market value.

For more information about derivatives see Note 30 Results on derivatives and Note 42 Hedging and hedge accounting.

8. Deferred Tax

Origin of Deferred Tax 2018

In € millions	1 January	Change through profit or loss	Change through equity	Other movements	31 December
Capitalised acquisition costs					
Insurance activities	17	-	-	-	17
(Investment) property and equipment	-42	-1	-	-	-43
Investments	-620	-21	187	-	-454
Derivatives	60	-79	4	-	-15
Insurance contracts	1,014	81	-191	-	904
Provision for employee benefits	57	-31	-3	-	23
Carry forward losses	1	-	-	32	33
Other	4	-4	-	-	-
Total	491	-55	-3	32	465

The other movements relate to tax loss carried forward based on the 2017 tax returns.

Origin of Deferred Tax 2017

In € millions	1 January	Change through profit or loss	Change through equity	Other movements	31 December
Value of business acquired	1	-1	-	-	-
Capitalised acquisition costs					
Insurance activities	23	-6	-	-	17
(Investment) property and equipment	-34	-8	-	-	-42
Investments	-877	24	233	-	-620
Derivatives	-58	109	9	-	60
Insurance contracts	1,213	36	-235	-	1,014
Provision for employee benefits	66	-13	4	-	57
Carry forward losses	82	-	1	-82	1
Other	10	-6	-	-	4
Total	426	135	12	-82	491

In 2018, a law was adopted that as from 2019 denies the tax deductibility of interest paid on Restricted Tier 1 instruments issued by VIVAT NV in 2018 for an amount of € 300 million.

The total amount of change in deferred tax through profit or loss is - € 55 million. This amount is due to temporary differences (€ 42 million) and to the impact of change in corporate income tax rate (- € 97 million). See also note 39.

In 2018, a law was adopted that lowers the Dutch corporate income tax rate to 22.55% in 2020 and to 20.50% in 2021. The deferred tax position at 31 December 2018 is calculated reflecting these reduced rates for temporary differences that are expected to reverse in financial years in which these rates apply. The total impact of the change in tax rate is € 100 million (loss) of which € 97 million via the profit or loss account as tax expense and € 3 million via equity.

9. Loans and Advances due from Banks

In € millions	2018	2017
Loans relating to saving components of mortgages	708	702
Collateral	219	333
Repo (Repurchase agreements)	242	460
Other	397	319
Balance as at 31 December	1,566	1,814

This item relates mainly to loans and advances due from banks other than interest-bearing securities, with a remaining term to maturity of more than three months. Of the total amount of € 1,566 million (2017: € 1,814 million), € 279 million has a remaining term to maturity of less than three months (2017: € 254 million).

Cash collateral advanced to banks is related to the market value of derivatives. The increase of the market value of the derivatives explains the decrease of the paid collateral for the year.

In the first half of 2018, several repurchase agreements have been settled without entering into new repo agreements. The remaining repo agreements are due in 2019.

In 2018, SRLEV entered into new loans relating to saving mortgages, which is partially offset by the termination of similar existing loans.

10. Assets Held for Sale

This item relates to VIVAT's investment in CED Holding BV. In February 2018 the sale of the associate CED Holding BV has been completed with a positive result of € 4 million.

11. Other Assets

Breakdown of other assets

In € millions	2018	2017
Receivables from policyholders	47	42
Receivables from intermediaries	95	98
Receivables from reinsurers	13	15
Receivables from direct insurance	155	155
Accrued interest	17	6
Other accrued assets	58	25
Accrued assets	75	31
Other taxes	-1	-
Other receivables	66	116
Total	295	302

The receivables are expected to be recovered within twelve months after reporting date.

12. Cash and Cash Equivalents

Breakdown of Cash and Cash Equivalents

In € millions	2018	2017
Short-term bank balances	275	259
Total	275	259

Short-term bank balances are at the company's free disposal.

VIVAT and its subsidiaries have a joint credit facility of € 10 million in total with ABN AMRO. In 2018, VIVAT entered into € 200 million revolving credit facility with a group of leading European banks.

13. Equity

Breakdown of Equity

In € millions	2018	2017
Equity attributable to Shareholders	3,241	3,547
Equity attributable to Holders of Other equity instruments	300	-
Total	3,541	3,547

The share capital issued is fully paid up and comprises of 477 ordinary shares with a nominal value of € 500.00 per share for a total value of € 238,500.

In June 2018 VIVAT issued subordinated Restricted Tier 1 notes. The € 300 million subordinated notes bear discretionary interest and have no maturity date, but can be redeemed at the discretion of VIVAT. Consequently these notes have been classified as equity instruments.

The notes are first callable after seven years and each interest payment date thereafter, subject to conditions to redemption. The coupon is fixed at 7% per annum until the first call date and payable semi-annually in arrears on 19 June and 19 December in each year. Interest on this loan is recognised directly via equity instead of via the statement of profit or loss.

14. Subordinated Debt

Breakdown of Subordinated Debt

In € millions	2018	2017
Bonds	863	1,016
Total	863	1,016

Subordinated Debt: Statement of Changes

In € millions	2018	2017
Balance as at 1 January	1,016	1,047
Issue of subordinated debts	-	491
Disposals and redemptions	-150	-466
Currency gains and losses	26	-40
Changes market value due to hedging	-29	-16
Balance as at 31 December	863	1,016

Subordinated Bonds

In € millions	Coupon	Maturity	First call date	Carrying amount		Nominal value	
				2018	2017	2018	2017
SRLEV	9.000%	April 2011 – April 2041	April – 2021	249	399	250	400
SRLEV (Swiss Franc)	mid-swap plus 5.625%	July 2011 – perpetual	December – 2019	93	90	93	90
VIVAT (US Dollar)	6.250%	November 2017 – perpetual	November – 2022	499	476	502	479
				841	965	845	969
Hedge accounting adjustment				22	51	-	-
Total				863	1,016	845	969

In April 2011, SRLEV NV issued € 400 million in subordinated bonds maturing in 2041. In June 2018, SRLEV repurchased a part of the € 400 million subordinated notes. SRLEV repurchased notes of a notional amount of € 150 million. The market value of the notes was € 180 million, resulting in a loss on the transaction of € 30 million. The loss is presented as interest expenses of bonds in Note 38 'Other Interest Expenses', which is partly offset by the discontinuation of related hedge accounting, refer to Note 30 Result on derivatives. The notes qualify as Tier 2 regulatory capital under Solvency II.

In July 2011, SRLEV NV issued CHF 105 million in perpetual subordinated bonds. The CHF bond has a first redemption date on 19 December 2016. SRLEV decided not to exercise its redemption option to redeem the CHF bond in December 2016, 2017 and 2018. Under the Solvency II transitional measures the CHF bond qualifies in full as Restricted Tier 1 own funds in the calculation of Solvency II own funds for ten years after 1 January 2016. At this specific time, it has been determined that it is currently in the interests of SRLEV not to exercise the redemption option to redeem the CHF Bond. The interest rate on the CHF bond has been reset to 5-year CHF mid-swap plus 5.625%.

In November 2017, VIVAT NV issued \$ 575 million (€ 476 million) in subordinated notes. The notes are first callable after five years and each fifth anniversary thereafter, subject to conditions to redemption. The coupon is fixed at 6.25% per annum until the first call date. The notes qualify as Tier 2 regulatory capital under Solvency II.

15. Borrowings

Borrowings: Statement of Changes

In € millions	2018	2017
Balance as at 1 January	642	-
Issue of senior notes	-	650
Incurred transaction costs	-	-9
Amortisation	2	1
Balance as at 31 December	644	642

On May 17th 2017 VIVAT NV issued € 650 million of senior notes. The € 650 million senior notes have a fixed coupon at 2.375% per annum and a maturity of seven years.

16. Insurance Liabilities and Reinsurance Share

As per 31 December 2018, the total amount of insurance liabilities is € 46,283 million (2017: € 46,794 million). The reinsurers' share is € 160 million (2017: € 181 million).

Breakdown of Insurance Liabilities and its Reinsurers Share per Line of Business

In € millions	Gross		Reinsurance	
	2018	2017	2018	2017
Individual Life, for own risk	11,854	12,493	77	91
Life Corporate, for own risk	20,910	19,615	-	-
Life, for own risk (16.1)	32,764	32,108	77	91
Individual Life, for account of policyholders	4,208	4,878	-	-
Corporate Life, for account of policyholders	8,176	8,640	-	-
Life, for account of policyholders (16.2)	12,384	13,518	-	-
Non-Life (16.3)	1,135	1,168	83	90
Total	46,283	46,794	160	181

VIVAT sells Individual Life insurance policies in the retail and SME markets and Life Corporate insurance policies in the entire corporate market in the Netherlands. The Individual Life insurance portfolio mainly consists of unit-linked insurance policies, savings-based mortgage policies and life annuity insurance policies providing regular payments for the remainder of the holder's life. The Life Corporate insurance portfolio mainly consists of traditional contracts, group policies with separate accounts and of unit-linked policies. With respect to new business, the focus is primarily on term life insurance. These are sold both via intermediaries (Individual Life) as well as direct channels (Individual Life and Life Corporate).

Breakdown of Insurance Liabilities and its Reinsurers Share per Type of Reserve

In € millions	Gross		Reinsurance	
	2018	2017	2018	2017
Provision for Life insurance obligations (16.1)	26,640	26,529	77	91
Results on allocated investments and interest derivatives	4,341	4,432	-	-
Cumulative LAT deficit	1,645	1,103	-	-
Unamortised interest rate discounts	81	-14	-	-
Provision for profit-sharing, bonuses and discounts	57	58	-	-
Life, for own risk	32,764	32,108	77	91
Life, for account of policyholders	12,384	13,518	-	-
Current risks	23	35	-	-
Unearned premiums	55	64	1	1
Claims payable	835	815	64	64
Claims incurred but not reported	222	254	18	25
Non-Life	1,135	1,168	83	90
Total	46,283	46,794	160	181

Measurement of life insurance liabilities is in principle based on historical tariff rates set at the inception date of the underlying contracts. A periodic IFRS liability adequacy test is performed on these liabilities. Since there is a deficit in the liability adequacy test (LAT) at the end of 2018 and 2017, the insurance liabilities are currently measured at the probability weighted best estimate of future cash flows based on current assumptions discounted by the swap curve including Ultimate Forward Rate (UFR).

Results on allocated investments and interest derivatives

In € millions	2018	2017
Revaluation reserve of fixed income investment portfolio	2,200	2,408
Results on fixed income financial assets backing insurance contracts with discretionary participation features and related derivatives	2,141	2,024
Total	4,341	4,432

The reinvested cash flows in fixed income investments have a shorter duration with an effect on the revaluation reserve causing the results on allocated investments and interest derivatives to decrease in 2018.

Statement of Changes in Unamortised Interest Rate Discounts

In € millions	Life own risk	
	2018	2017 ¹
Balance as at 1 January	-14	-124
Discounts and surcharges in the financial year	92	97
Amortisation	3	13
Balance as at 31 December	81	-14

¹ An adjustment has been made in the comparative figures for the category Discounts and surcharges in the financial year and Amortisation.

Statement of Changes in Provision for Profit-sharing, Bonuses and Discounts

In € millions	Life own risk	
	2018	2017
Balance as at 1 January	58	90
Profit-sharing, bonuses and discounts granted in the financial year	-1	-32
Balance as at 31 December	57	58

16.1. Life, for Own Risk

Statement of Changes in Provisions for Life Insurance Obligations for Own Risk

In € millions	Gross		Reinsurance	
	2018	2017	2018	2017
Balance as at 1 January	26,529	25,580	91	106
Portfolio transfers	355	976	-	-
Benefits paid	-2,301	-2,291	-21	-24
Premiums received	1,399	1,558	7	12
Interest added	870	915	6	6
Technical result	-77	-85	-3	-5
Release of expense loading	-128	-113	-3	-4
Other movements	-7	-11	-	-
Balance as at 31 December	26,640	26,529	77	91

The Life portfolio contains individual and group insurance policies. In 2018, an amount of € 355 million was transferred from life insurance on behalf of policyholders to life insurance liabilities (2017: € 976 million). This concerned group pension contracts. At the end of the contract terms, these contracts were converted into other contract forms for account of VIVAT. This transfer took place in dialogue with the customers.

Traditional Insurance Policies

In principle, VIVAT bears the investment risk related to traditional insurance policies. Special categories are formed by the saving mortgage insurance, in which the return on the savings portion is linked to the associated mortgage loan. A small portion of the private loans linked saving mortgages portfolio is exposed to counterparty default risk.

A form of profit-sharing exists, or an interest rate rebate has been granted, for a significant portion of the portfolio. This breakdown is included in the accompanying table.

Breakdown of Traditional Insurance Policies

In € millions	2018	2017
With profit-sharing (operational or surplus interest)	9,535	10,063
With interest rate discounts (or surcharges)	4,216	4,130
Without profit-sharing	8,161	7,344
Savings-based mortgages	4,728	4,992
Total traditional insurance policies	26,640	26,529

16.2. Life, for Account of Policyholders

Statement of Changes in Technical Provisions for Insurance on account of Policyholders

In € millions	2018	2017 ¹
Balance as at 1 January	13,518	14,584
Portfolio transfers	-355	-976
Premiums received	708	694
Benefits paid	-1,056	-1,069
Interest added	46	56
Changes in valuation and exchange rate	-375	330
Technical result	-45	-42
Release of expense loading	-57	-68
Other movements	-	9
Balance as at 31 December	12,384	13,518

¹ An adjustment has been made in the comparative figures for the category Interest added and changes in valuation and exchange rate.

Insurance Policies in Investment Units

Policyholders usually bear the investment risk for insurance policies in investment units (unit-linked investment units). VIVAT is in principle, not exposed to interest rate risk, price risk, exchange rate risk or counterparty default risk. For part of the portfolio however, VIVAT has issued minimum guarantees, as a result of which the interest rate risk, price risk and exchange rate risk for these contracts are for the account and risk of VIVAT. The value of the guarantees within the portfolio is measured periodically.

VIVAT's portfolio includes also group policies with separate accounts and unit-linked policies. The separate accounts have an interest guarantee. At the current low interest rates this option has value for the customer.

The decrease in 2018 was caused by market value movements in related assets and the transfer of group pension contracts to insurance liabilities for own risk.

Breakdown of Insurance Policies in Investment Units

In € millions	2018	2017
Without guarantee	8,639	9,395
With guarantee	3,745	4,123
Total	12,384	13,518

16.3. Non-Life

In 2018, the total amount of gross reserves regarding Non-Life is € 1,135 million (2017: € 1,168 million). Net of the reinsurance share of € 83 million (2017: € 90 million) the net amount at December 2018 is € 1,052 million (2017: € 1,078 million).

The provision for current risks decreased by € 12 million because of changes in assumptions and an improved performance of the portfolio of the unexpired risk reserve (URR).

The calculation of the provision unearned premiums, with regard to the portfolio authorized agents, has been calculated based on more detailed information. This resulted in a decrease of the insurance liabilities by € 9 million.

Breakdown Net Reserve

In € millions	2018			2017		
	Net reserve	% Net reserve	% Gross earned premium	Net reserve	% Net reserve	% Gross earned premium
Fire	119	11%	31%	132	12%	32%
Accident and health	388	37%	15%	382	35%	16%
Motor	366	35%	31%	383	36%	30%
Transport	42	4%	6%	39	4%	5%
General liability	127	12%	8%	132	12%	8%
Other	10	1%	9%	10	1%	9%
Total	1,052	100%	100%	1,078	100%	100%

Statement of Changes in Provision for Claims Payable

In € millions	Gross		Reinsurance	
	2018	2017	2018	2017
Balance as at 1 January	815	880	64	87
Reported claims, current period	409	353	25	16
Reported claims, prior periods	50	20	1	-6
Claims paid, current period	-229	-187	-13	-11
Claims paid, prior periods	-230	-248	-15	-20
Interest added	20	-3	2	-2
Balance as at 31 December	835	815	64	64

The provision for claims payable include claims handling expenses of € 35 million at year end (2017: € 32 million). The increase of claims payable can be explained by current market interest movements in the disability portfolio.

Statement of Changes in Provision for Claims Incurred but not Reported

In € millions	Gross		Reinsurance	
	2018	2017	2018	2017
Balance as at 1 January	254	246	25	31
Additions during the year	79	91	2	2
Added to the results	-111	-83	-9	-8
Balance as at 31 December	222	254	18	25

The change in provision for claims incurred but not reported can mainly be explained by a positive run off result in 2018, in particular Fire (see note 32).

Development of Ultimate Loss Total

In € millions Calendar year	Accident Year							Total
	≤ 2012	2013	2014	2015	2016	2017	2018	
2012	2,212	-	-	-	-	-	-	
2013	2,218	539	-	-	-	-	-	
2014	2,233	561	575	-	-	-	-	
2015	2,257	560	530	453	-	-	-	
2016	2,258	557	530	465	459	-	-	
2017	2,232	550	527	450	448	441	-	
2018	2,236	552	527	450	434	414	479	
Total development	-25	-13	48	3	25	27	-	66
Run-off gain (loss)								
2018	-4	-2	-1	0	14	27	-	34

The development of the ultimate loss concerns gross figures, before reinsurance. It includes the claims payment, the changes in claims reserves and the changes in the provision IBNR.

16.4. Liability Adequacy Test results

Reconciliation of the IFRS insurance liabilities and the LAT Results

In € millions	Life insurance LAT		Non-life insurance LAT	
	2018	2017	2018	2017
Insurance liabilities before LAT ¹	41,225	42,024	1,052	1,078
IFRS LAT reserve	45,434	45,943	917	917
Deficit	-4,209	-3,919		

¹ Insurance liabilities before LAT includes both Life for own risk and Life for account of policyholder (net) and is excluding cumulative LAT deficit and revaluation reserve of fixed income investment portfolio.

The deficit is covered by the revaluation reserve of the fixed income investment portfolio (2018: € 2,200 million; 2017: € 2,408 million) and by the surplus value of the investments (mortgages and part of the loans and receivables) measured at amortised cost (2018: € 364 million; 2017: € 408 million). The remaining cumulative LAT deficit at 31 December 2018 amounts to € 1,645 million (2017: € 1,103 million) and is added to the insurance liabilities before LAT.

The increase in the cumulative LAT deficit amounts to € 542 million (2017: 480 million) which is charged through the income statement. The development of the LAT deficit was mainly a result of portfolio developments and the related market impact (€ 342 million), operating assumption changes (€ -171 million), model and methodology updates (€ 166 million), the UFR change to 4,05% (€ 63 million) and entering into a longevity reinsurance contract (€ 130 million).

In € millions	2018	2017
Balance as at 1 January	45,943	46,783
Portfolio Movements	-951	-702
Operating Assumption Changes:		
- Lapse	-61	93
- Mortality	-69	-44
- Disability	-1	19
- Expense	-32	31
- Asset management costs	11	40
- Update RM Assumption Changes	-19	-33
Market Impacts	263	-194
Other	350	-50
Balance as at 31 December	45,434	45,943

The category 'other' mainly consist of model and methodology updates (€ 166 million), the UFR change to 4,05% (€ 63 million) and the impact of the new longevity contract (€ 130 million).

Longevity reinsurance

In 2018 VIVAT concluded a full indemnity based longevity reinsurance contract providing cover for the financial impact of longevity risk of 70% of about € 8 billion of technical provisions in the product line Life Corporate. This portfolio makes up about 40% of SRLEV's longevity risk. As the transaction provides full indemnity for an increase in longevity the contract is fully effective under Solvency II. This contract is included in LAT calculation and as such presented as part of the cumulative LAT deficit. The transaction has a one-off impact of € 130 million negative on the IFRS LAT reserve, the result of the net present value of the future reinsurance premiums which is partly offset by a decrease in risk margin.

More elaboration on the significant developments with regards to risk disclosures are considered in chapter 7.

17. Provision for Employee Benefits

Breakdown of Provision for Employee Benefits

In € millions	2018	2017
Pension commitments	534	570
Other employee benefit commitments	14	15
Total	548	585

Pension Commitments

Defined Contribution Scheme

The pension scheme to which VIVAT employees are entitled is a defined contribution scheme. Under this scheme, VIVAT NV pays a fixed amount to Stichting Pensioenfonds SNS REAAL.

In 2019, VIVAT's contribution to the defined contribution scheme will be approximately € 25 million (2018: € 25 million).

Defined Benefit Schemes

VIVAT has also several legacy pension schemes with pension entitlements of current and former employees of VIVAT and the companies it acquired over the years. Most of these legacy pension schemes have been insured by SRLEV and few with other insurance companies.

The fair value of the plan assets of these several plans is determined based on different methodologies. Investments relating to pension schemes that are included in a separate investment account are offset against the present value of defined benefit obligations. Non-separated investments are recognised within investments in the statement of financial position.

VIVAT's total contribution to these defined benefit schemes is expected to be approximately € 9 million in 2019 (2018: €10 million). Obligations for additional indexation rights are included in the provision and will be released after payment to the insurer.

The main aspects of the defined benefit schemes are explained below.

Pension Scheme Former AXA and Winterthur (Defined Benefit Scheme)

The accrual of new pension rights of former employees of Winterthur, UAP, Equity & Law (E&L) and Guardian have been transferred to the Stichting Pensioenfondsen SNS REAAL as from 1 January 2009. The schemes of Winterthur, UAP and Equity & Law (E&L) are insured with SRLEV NV, without the investments being separated; instead they are recognised within investments in the statement of financial position but included in the balance sheet item Investments. The Guardian pension scheme is insured externally. No direct investment allocation is held in relation to the Guardian pension scheme. Therefore, the fair value of the pension plan assets can not be determined based on a certain investment allocation. The fair value of the plan assets is based on the accrued pension benefits and actuarial rates.

The indexation of the pension entitlements of inactive participants is equal to the indexation applied by the Stichting Pensioenfondsen SNS REAAL. The pension entitlements of active participants are unconditionally indexed based on the salary index. Active participants are here defined as employees of VIVAT that actively accrue pension benefits in the Stichting Pensioenfondsen SNS REAAL.

In the event that the coverage ratio of the Winterthur scheme falls below the agreed limit of 105%, an additional contribution will be made by the employer.

After offsetting the fair value of the investments, € 184 million has been included in the provision for pensions for these pension schemes (2017: € 192 million). In 2019, VIVAT's contribution to these defined benefit schemes is expected to amount to € 3 million (2018: € 3 million).

Pension Scheme Zwitserleven (Defined Benefit Scheme)

As of 1 January 2010, the accrual of new pension entitlements of the employees of former Zwitserleven NV was transferred to Stichting Pensioenfondsen SNS REAAL. The rights of inactive participants built up in the past and active former participants remain part of the former pension scheme of Zwitserleven.

Until 2025 the conditional indexation of the pension rights of inactive participants is determined using the return on investment and potential technical results. If the return is insufficient, the indexation may be lower than the indexation of Stichting Pensioenfondsen SNS REAAL. From 2025 onwards, the indexation will

in principle be equal to the indexation of Stichting Pensioenfonds SNS REAAL. The pension rights of active former participants are unconditionally indexed based on the salary index.

The pension scheme of Zwitterleven is self-administered. For this pension scheme, the present value of the pension obligations of € 267 million (2017: € 295 million) has been included in the provision for employee benefits. There is no separate investment account. VIVAT's contribution to the defined benefit scheme of Zwitterleven is expected to amount to € 5 million in 2019 (2018: € 5 million).

Other Pension Schemes

The accrual of new pension rights of former employees of Zürich, NHL, Helvetia and DBV has been transferred to Stichting Pensioenfonds SNS REAAL. The pension rights of former employees built up in the past are insured internally by SRLEV, without the investments being separated; instead they are recognised within investments in the statement of financial position but included in the balance sheet item Investments. Except for the NHL and Helvetia pension schemes, these are insured externally. No direct investment allocation is held in relation to these pension scheme. Therefore, the fair value of the pension plan assets can not be determined based on a certain investment allocation. The fair value of the plan assets of NHL is based on the accrued pension benefits and actuarial rates and the value of the indexation depot. As the value of the assets in the investment account is lower than the discounted value of the funded insured benefits under the insurance contract, the fair value of plan assets is set to the discounted value of the funded insured benefits, increased with the indexation depot and the current account. Regarding the NHL pension scheme the asset ceiling is applied. In all of these pension schemes no more pension rights, other than indexation, are accrued.

After offsetting the fair value of the investments, € 82 million (2017: € 83 million) has been included in the provision for pensions for these pension schemes. In 2019, VIVAT's contribution to the other defined benefit schemes is expected to amount to €1 million (2018: € 2 million).

Overview Pension Commitments

Breakdown of Pension Commitments

In € millions	2018	2017
Present value of defined benefit obligations	603	641
Less: Fair value of plan assets	-73	-73
Effect of asset ceiling	4	2
Present value of the net liabilities	534	570

Change in Present Value of Defined Benefit Obligations

In € millions	2018	2017
Present value as at 1 January	641	631
Increase and interest accrual through profit or loss	11	10
Actuarial gains or losses due to changes in financial assumptions through Other Comprehensive Income	-4	20
Actuarial gains or losses due to changes in demographic assumptions through Other Comprehensive Income	-7	1
Actuarial gains or losses due to experience adjustments through Other Comprehensive Income	-21	-4
Benefits paid	-17	-17
Present value as at 31 December	603	641

Change in Fair Value of the Plan Assets

In € millions	2018	2017
Fair value as at 1 January	73	65
Investment income through profit or loss	1	1
Actuarial gains or losses due to changes in demographic assumptions through Other Comprehensive Income	-1	-
Actuarial gains or losses due to experience adjustments through Other Comprehensive Income	2	10
Investment income	2	11
Premiums	15	14
Benefits paid	-17	-17
Fair value as at 31 December	73	73

The expected return on investments through profit or loss has been netted with the actuarial rate of interest (in accordance with IAS 19 Revised). The difference between the actual interest result and the actuarial rate of interest is recognised in Other Comprehensive Income.

Breakdown of Fair Value of the Plan Assets

In € millions	2018	2017
Cash and cash equivalents	14	-
Insurance contract	59	73
Balance as at 31 December	73	73

The plan assets Insurance contracts consist of the paid-up value based on the actuarial principles.

Reconciliation of the effect of the Asset Ceiling

In € millions	2018	2017
Balance as at 1 January	2	-
Remeasurements on the effect of asset ceiling	2	2
Balance as at 31 December	4	2

Statement of Other Comprehensive Income

In € millions	2018	2017
Balance as at 1 January	24	35
Actuarial gains or losses directly taken to Other Comprehensive Income pension commitments	33	-17
Actuarial gains or losses directly taken to Other Comprehensive Income other employee benefit commitments	-	-2
Investment income for the benefit or at the expense of Other Comprehensive Income	-1	10
Additional transfer from Defined Benefit Obligation	-	5
Deferred taxes	-3	4
Other	-	-11
Balance as at 31 December	53	24

The table below shows the actuarial gains and losses on pension commitments, that arise from experience adjustments, as a percentage of the pension commitments at year-end.

Experience Adjustment Arising on the Pension Commitments

In percentages	2018	2017
Experience adjustments as a % of defined benefit obligation	-4%	-1%
Experience adjustments as a % of investments	4%	14%

The Main Actuarial Parameters at Year-end

In percentages	2018	2017
Discount rate	1.80%	1.75%
Expected salary increase	2.26%	2.32%
Price inflation	2.23%	2.20%

Sensitivity Present Value of Pension Obligations 2018

In € millions	31 December 2018	
	Change in € millions	Change in %
Discount rate 1.30% (-0.5%)	58	10%
Discount rate 2.30% (+0.5%)	-51	-8%

Sensitivity Present Value of Pension Obligations 2017

In € millions	31 December 2017	
	Change in € millions	Change in %
Discount rate 1.25% (-0.5%)	65	10%
Discount rate 2.25% (+0.5%)	-56	-9%

Other Employee Benefit Commitments Change in Other Employee Benefit Commitments

In € millions	2018	2017
Balance as at 1 January	15	12
Additions	-	2
Release through Other Comprehensive Income	-	2
Withdrawal	-1	-1
Balance as at 31 December	14	15

These refer to reimbursements of medical expenses, discounts granted for bank and insurance products to (former) employees after the date of their retirement.

18. Other Provisions

Breakdown of Other Provisions

In € millions	2018	2017
Restructuring provision	5	9
Other provisions	21	35
Total	26	44

Other provisions are predominantly of a long-term nature; these have been formed mainly for the settlement of legal and other claims.

Statement of Changes in Restructuring and Other Provisions

In € millions	Restructuring provision		Other provisions		Total	
	2018	2017	2018	2017	2018	2017
Balance as at 1 January	9	110	35	40	44	150
Additions / release	4	5	5	16	9	21
Withdrawal	-8	-106	-1	-7	-9	-113
Released to results	-	-	-18	-14	-18	-14
Balance as at 31 December	5	9	21	35	26	44

The restructuring provision, formed in 2016, is used during 2017. The main addition to the restructuring provision relates to closing of an office location, which is expected to settle in the course of 2019.

19. Amounts due to Banks

Breakdown of Amounts Due to Banks

In € millions	2018	2017
Due on demand	650	414
Deposits and certificates	-	526
Private loans	708	703
Total	1,358	1,643

The amount of € 650 million (2017: € 414 million) due on demand relates to cash collateral. The market value of the derivatives portfolio increased with € 350 million. VIVAT receives cash and non-cash collateral which explains the increase for the year. Deposits and certificates relate to liabilities under repurchase agreements. These agreements expired and were not renewed in 2018. The private loans relates to the saving components of mortgages.

20. Other Liabilities

Breakdown of Other Liabilities

In € millions	2018	2017
Debts in relation to direct insurance	286	290
Debts to reinsurers	124	149
Investment transactions to be settled	1	19
Other taxes	17	23
Other liabilities	334	338
Benefits to be paid	341	348
Accrued interest	30	38
Total	1,133	1,205

The other liabilities are expected to be settled within twelve months after reporting date.

21. Guarantees and Commitments

Contingent Assets and Liabilities

Assets

At year-end 2018, SRLEV NV is entitled to a possible distribution of € 1 million (2017: nil) following the sale of investments.

Liabilities

At year-end 2018, SRLEV NV had assumed commitments to invest € 578 million in investment funds (2017: € 599 million). These funds may in due course call these commitments (capital calls). Ahead of these capital calls, securities have been identified that can be sold as soon as there is a capital call. This exposure had no immediate effect on the capital as of 31 December 2018.

An Asset Management Agreement (AMA) is signed between Curlew Netherlands BV and RE Young Urban Housing BV (previous: GVR Parking 500 BV; subsidiary of VIVAT). VIVAT commits € 150 million (2017: nil) to a ten year separate account mandate for RE Young Urban Housing BV in the Netherlands, managed by Curlew Netherlands BV. It is expected that the first investments will start from Q1 2019.

Guarantee Schemes

SRLEV NV has guaranteed obligations arising under an insurance contract between NV Pensioen ESC, a subsidiary of SRLEV NV, and a third party related to the defined benefit plan of that party for the term of the contract. The financial position of NV Pensioen ESC, including the indexation reserves, which – as stipulated in the contract with the third party – will be guaranteed by VIVAT NV if the SII ratio of SRLEV NV should fall below 100%. SRLEV NV's solvency ratio was higher than 100% at year-end 2018. Given that the fair value of the separated assets exceeds the technical claims and benefits, this contract does not give rise to any additional technical claims and benefits in the statement of financial position.

As per 1 January 2019, the Recovery and Resolution insurance companies Act (*Wet herstel en afwikkeling van verzekeraars*) came into force. This also affects VIVAT NV.

In 2012, SRLEV NV revised separate account contracts before the end date of the contracts to make the deficits arising from issued guarantees more manageable. Agreement was reached with customers, in which process customers funded the increased charges of longevity risk while SRLEV NV bore part of the interest deficit. At year-end 2018, a liability of € 2 million exists relating to this separate accounts restructuring (2017: € 3 million). The customers' liability in respect of this restructuring was € 5 million at year-end 2018 (2017: € 6 million).

Guarantees Received and Given

The market value of guarantees received under the National Mortgage Guarantee Fund (in Dutch: NHG) amounted to € 871 million at year-end 2018 (2017: € 928 million).

The market value of the collateral of the mortgages was € 4,405 million at year-end 2018 (2017: € 4,598 million). The amortised cost of the mortgages was € 2,095 million at year-end 2018 (2017: € 2,343 million).

For saving mortgage arrangements made between SRLEV and several credit institutions the credit risk concerning saving premiums was covered by received cession warranties amounting to € 4,378 million (2017: € 4,586 million), deeds of assignment amounting to € 266 million (2017: € 264 million) or clearance amounting to € 289 million (2017: € 356 million). At year-end 2018 an amount of € 119 million was unsecured (2017: € 157 million).

Under the so-called 'Fortuinplan' arrangement mortgage receivables have been pledged to policyholders for the equivalent value of insurance contract liabilities. The value of these insurance contract liabilities at year-end 2018 was € 53 million (2017: € 56 million).

Netherlands Reinsurance Company for Losses from Terrorism

In 2019, VIVAT will take a 17.66% share in the Life cluster (2018: 13.72%) and a 4.43% share in the Non-life cluster (2018: 3.99%) of the Netherlands Reinsurance company for Losses from Terrorism (Nederlandse Herverzekeringsmaatschappij voor Terrorismeschaden NV). In 2019, the guarantee will be € 12 million (one third of total guarantee of € 35 million) for the Life cluster and € 3 million (one third of total guarantee of € 9 million) for the Non-life cluster and total premiums will amount to € 1 million (2018: € 1 million).

Legal Proceedings

General

In VIVAT's efforts to ensure compliance with applicable laws and regulations, instances of non-compliance occur. At present, these instances include Sanction and Anti money laundering regulation compliance which are shared with the regulators including a timely action plan to address and resolve current and future instances.

As part of regular supervision by AFM, VIVAT's compliance with the commission regulation is subject to assessments. At present this could result in a formal decision qualifying VIVAT's compliance. The final outcome of the assessment by the regulator is uncertain.

VIVAT is involved in litigation and other binding proceedings involving, but not limited to, disputes concerning the products and services of VIVAT and its position as principal, employer and taxpayer. Although it is impossible to predict the outcome of current or threatened legal proceedings, management believes on the basis of currently available information and after taking legal advice in general, the outcome of these proceedings is unlikely to have any material adverse effects on VIVAT's financial position or operating results.

Investment Insurance Policies

VIVAT subsidiary SRLEV NV ('SRLEV') has a portfolio of investment insurance policies (including and also referred to as: unit-linked policies) which consists of a variety of products with distinct characteristics and different versions of contractual documentation. SRLEV and its predecessors have concluded approximately 1.2 million investment-linked insurance policies, of which about 225,000 were still outstanding at 31 December 2018.

Since 2006, there has been widespread public attention for costs and risks related to investment insurance policies and the question whether insurance companies provided adequate information to their current and prospective unit-linked policyholders. In response to this, insurers, VIVAT being one of them, agreed on

compensation schemes with consumer organisations. In 2009, VIVAT reached an outline agreement followed by an Agreement ('Vaststellingsovereenkomst') in 2010 to offer compensation to policyholders whose individual unit-linked policies had a cost charge in excess of an agreed maximum. In 2014, VIVAT has concluded its implementation of the compensation scheme. The costs of the compensation scheme and complementary policy are substantial and have been recognised in the financial statements.

Later on, much of the attention of the public, politicians and regulators has shifted from the costs of investment-linked insurances to the efforts undertaken by the insurers to mobilise customers with an active investment-linked insurance to review their position (Flankerend Beleid: 'complementary policy'). VIVAT uses various tools to communicate with customers and encourages them to check whether their policies still meet the purposes for which they were originally entered into and to consider revising their products or switch to other forms or products for capital accumulation.

As from 2013 clients have been approached and activated to review their position and take adequate measures. The nature of the encouragement depended on the characteristics of the policies. First focus was on the so called 'non-accumulating policies' (Dutch: niet opbouwende polissen, "NOPs"). In 2016 customers with a pension- or mortgage related policy have been approached. In 2017, the remaining group of customers (Activation Category "Other") have been encouraged to review their position.

Dutch insurers still face complaints and litigation involving unit-linked policies. Over time VIVAT has received a large number of complaints/claims from customers stating VIVAT did not inform them in full about the associated costs, specific product features, leverage and capital consumption effects, attached risks or use other material and legal grounds.

The number of proceedings against SRLEV NV that involve unit linked policies is, compared to the portfolio of active policies, relatively limited. On 31 December 2018, less than twenty proceedings were still pending against SRLEV before the civil courts or before the *Klachteninstituut Financiële Dienstverlening* ('KiFiD'). These cases include one class action brought by Vereniging Woekerpolis.nl regarding the products *Swiss Life Spaarbeleg* and *AXA Verzekerd Hypotheekfonds*.

In this class action, the Vereniging Woekerpolis.nl asked for over 80 declaratory judgements from the court that SRLEV acted wrongfully. If such declarations are given, individual class members may use those declarations to file their own claims for damages. By judgement of 20 December 2017, the District Court Noord Holland denied almost all of the requested declaratory decisions, except for two. The District Court declared that SRLEV failed to adequately inform a part of the class about the effect of increasing life premiums as the accrued capital diminishes ('hefboom en inteereffect'). Also, the District Court nullified a contractual term allowing SRLEV to increase certain administrative costs in one of its products; according to the District Court any cost increase based on those terms has been should be refunded.

It should be noted the costs itself are not affected by this decision. The judgement itself does not have substantial influence on the assessment of the investment insurances risk profile. So far, none of the class members have commenced litigation for financial compensation based on the declaratory verdict in the class action.

Both Woekerpolis.nl and SRLEV filed appeal against the judgement of the District Court.

To date, the number of cases in which SRLEV NV has been required to pay damages following a decision by KiFiD or a civil court has been limited.

Relevant proceedings against peers as well as the Vereniging Woekerpolis.nl proceeding against SRLEV are, in general, still at an early stage. There are no relevant judgements of the Supreme Court so far. Given the wide variety of legal grounds, product characteristics, different applying regulations over time etc. the case law so far is to a large extent highly casuistic.

Individual claims have operational impact. However, there are no material adverse changes in the overall risk profile, regarding the portfolio of investment insurance policies compared to previous year. The political, regulatory and public focus on investment-linked insurances remains. Elements of investment-linked insurances are being challenged or may be challenged on multiple legal grounds in current and possible future legal proceedings against VIVAT and peers. There is a risk that one or more of those legal challenges will succeed and may affect VIVAT. The financial consequences of any of the aforementioned factors or a combination thereof and current and any future subsequent legal proceedings may affect VIVAT, both financially and reputationally. However, it is not possible at this time to make reliable estimates of the expected number of proceedings, possible future precedents or the financial and/or reputational impact of current and possible future proceedings. The probability and financial impact of additional compensation and/or successful claims still cannot be determined in a meaningful way.

Future Payment Obligations

VIVAT has signed a number of contracts for Information Technology support, with a payment obligation of € 13 million in 2019 (2018: € 11 million). The obligation for the period of more than one year and less than two years amounts to € 5 million and for the period between two and five years € 4 million (2018: € 17 million). No obligations have been entered into for more than five years.

Future Payment Obligations Arising from Leases

Future payment obligations for car leases in 2019 amount to € 1 million (2018: € 1 million) for the period between one and two years € 1 million and for a period between two and five years € 1 million (2018: € 2 million). No obligations have been entered into for more than five years.

The total rental obligations for owner-occupied properties, excluding properties owned by and rented from SRLEV NV, are € 2 million in 2019 (2018: € 2 million) and € 2 million for a period of more than one year (2018: € 5 million). No obligations have been entered into for more than two years, excluding the rentals from SRLEV NV. The current tenancy agreements will expire between 2019 and 2020.

22. Related Parties

Identity of Related Parties

Parties are considered to be related if one party can exercise control or significantly affect the other party's financial or operating policies. VIVAT's related parties are its parent Anbang and affiliates and VIVAT's key management personnel and their close family members. Unless stated otherwise, transactions with related parties are conducted at arm's length.

Intra-group Balances and Transactions between VIVAT NV, Anbang and Affiliates

In € millions	Anbang		Affiliates		Total	
	2018	2017	2018	2017	2018	2017
> Positions						
Other assets	-	-	-	2	-	2
Other liabilities	1	2	-	-	1	2
> Transactions						
Interest expense	-	30	-	-	-	30
Redemption loans including interest	-	484	-	-	-	484
Service fees expenses	-1	2	-	-	-1	2
Service fees income	-	-	1	2	1	2

The intra-group balances and transactions between VIVAT NV, Anbang and affiliates in 2018 were:

- In 2018 VIVAT have provided administration and investment services to certain affiliates of Anbang in the Netherlands and Belgium.
- In 2017 Anbang have provided IT services to VIVAT, these fees are adjusted in 2018 and still outstanding at the end of 2018.

Intra-group Balances and Transactions with Key Management Personnel of VIVAT

The key management personnel consists exclusively of the members of the Executive Board and the Supervisory Board. This applies to VIVAT and also to SRLEV NV, Proteq Levensverzekeringen NV and VIVAT Schadeverzekeringen NV.

The Executive Board comprised six members as at 31 December 2018 (31 December 2017: 7). The Supervisory Board comprised five members as at 31 December 2018 (31 December 2017: 5).

Actual Remuneration (former) Members of the Executive Board

The following table provides a breakdown of the total remuneration of the Executive Board for the year 2017 and 2018, including former and existing key management.

Breakdown of Remuneration (former) Members of the Executive Board

In € thousands	2018	2017
Short-term employee benefits	4,372	4,691
Post-employment benefits	138	150
Other long-term benefits	3	-
Total	4,513	4,841

The other long-term benefits relate to a retention scheme; the vesting of this scheme is subject to certain conditions and any payment will be made in instalments based on current remuneration regulations.

Reference is made to Section 6.1.5 for the accounting principles of employee benefits.

Loans, Advances and Guarantees

There are no loans, advances or guarantees outstanding on 31 December 2018 (and 2017) and/or granted to members of the Executive Board during 2018.

Actual Remuneration Members of the Supervisory Board

The following table provides an overview of the total remuneration of the Supervisory Board members in 2017 and 2018 (excluding 21% VAT).

Breakdown of Remuneration Members of the Supervisory Board

In € thousands	2018	2017
Total fixed actual remuneration for Supervisory Board members	610	610
Total remuneration for the members of the Supervisory Board's Committees	25	25
Total	635	635

Loans, Advances and Guarantees

There are no loans, advances or guarantees outstanding on 31 December 2018 (and 2017) and/or granted to members of the Supervisory Board during 2018.

23. Interests in Non-consolidated Structured Entities

VIVAT invests in non-consolidated structured entities, such as investment funds, in the form of investments, credit guarantees or liquidity obligations.

The table below breaks down the carrying amount of the assets and liabilities relating to VIVAT with its involvement classified by type of transaction and the maximum exposure to losses of the non-consolidated structured entities and the relative size of those entities.

Non-consolidated Structured Entities 2018

In € millions	Carrying amount assets	Carrying amount liabilities	Carrying amount vs maximum exposure to loss	Total assets of entities	Total liabilities of entities
Investment Funds	-	-	-	3	3
Total	-	-	-	3	3

Non-consolidated Structured Entities 2017

In € millions	Carrying amount assets	Carrying amount liabilities	Carrying amount vs maximum exposure to loss	Total assets of entities	Total liabilities of entities
Securitisation entities	17	-	17	1,239	1,239
Total	17	-	17	1,239	1,239

The maximum exposure to losses with respect to equity interests (including loans and participating interests) is the carrying amount of those interests. The maximum exposure to losses with respect to commitments and guarantees is the notional amount. The nominal amount does not represent the expected losses or reflect unrealised losses (if applicable). These commitments and guarantees are conditional and present the maximum losses that VIVAT could suffer on its involvement in non-consolidated structured entities, without considering the impact of any mitigating action or compensating influence of other financial instruments.

VIVAT had not offered financial or non-financial support to any non-consolidated structured entities at 31 December 2017.

24. Events after the Reporting Date

In the first quarter of 2019, SRLEV purchased a Dutch mortgage portfolio for an amount of € 780 million as part of the re-risking activities.

25. Net Premium Income

Premium income consists of insurance premiums net of reinsurance premiums.

Breakdown of net premium income

In € millions	General account		For account of policyholders		Total	
	2018	2017	2018	2017	2018	2017
Regular premiums Individual Life	520	550	201	233	721	783
Regular premiums Life Corporate	207	206	421	401	628	607
Total gross regular premiums Life	727	756	622	634	1,349	1,390
Single premiums Individual Life	116	96	12	7	128	103
Single premiums Life Corporate	556	706	74	53	630	759
Total gross single premiums	672	802	86	60	758	862
Total gross premium income	1,399	1,558	708	694	2,107	2,252
Total reinsurance premiums Life	7	12	-	-	7	12
Total net premium income Life	1,392	1,546	708	694	2,100	2,240
Gross premium Property & Casualty	735	671	-	-	735	671
Reinsurance Property & Casualty	44	39	-	-	44	39
Total net premium income Property & Casualty	691	632	-	-	691	632
Total net premium income	2,083	2,178	708	694	2,791	2,872

In 2018 Life Corporate entered into another buy-out, representing €211 million of single premium (2017: €376 million). Premium income Property & Casualty increased as a result of growth in the authorized agents portfolio, a release from the unearned premium reserve linked to authorised agents (€ 19 million) due to an improvement of in depth portfolio data and to a decrease of the unexpired risk reserve (URR) with € 14 million.

Breakdown of regular premiums Life

In € millions	General account		For account of policyholders		Total	
	2018	2017	2018	2017	2018	2017
<i>Individual</i>						
Without profit-sharing	462	502	201	233	663	735
With profit-sharing	73	67	-	-	73	67
Total individual	535	569	201	233	736	802
<i>Group</i>						
Without profit-sharing	126	119	421	401	547	520
With profit-sharing	66	68	-	-	66	68
Total group	192	187	421	401	613	588
Total gross regular premiums Life	727	756	622	634	1,349	1,390

Breakdown of single premiums Life

In € millions	General account		For account of policyholders		Total	
	2018	2017	2018	2017	2018	2017
<i>Individual</i>						
Without profit-sharing	421	398	12	7	433	405
Total individual	421	398	12	7	433	405
<i>Group</i>						
Without profit-sharing	235	390	74	53	309	443
With profit-sharing	16	14	-	-	16	14
Total group	251	404	74	53	325	457
Total gross single premiums Life	672	802	86	60	758	862

Breakdown of premium income Property & Casualty

In € millions	Gross		Reinsurance		Total	
	2018	2017	2018	2017	2018	2017
Fire	231	212	16	11	215	201
Accident and health	111	110	5	5	106	105
Motor vehicle	229	198	2	2	227	196
Transport	41	36	1	1	40	35
General liability	57	54	1	2	56	52
Other segments	66	61	19	18	47	43
Net premium income Property & Casualty	735	671	44	39	691	632

26. Net Fee and Commission Income

Breakdown of net fee and commission income

In € millions	2018	2017
- Management fees	54	69
- Other activities	17	18
Total fee and commission income	71	87
Fee and commission expense	18	21
Total	53	66

27. Investment Income

Breakdown of investment income

In € millions	2018	2017
Fair value through profit or loss	279	192
Available for sale	827	791
Loans and receivables	360	430
Investment property	58	37
Total	1,524	1,450

Breakdown of investment income 2018

In € millions	Fair value through profit or loss	Available for sale	Loans and receivables	Investment property	Total
Interest	248	432	376	-	1,056
Dividends	-	21	-	-	21
Rental income	-	-	-	26	26
Direct operating expenses	-	-	-	-5	-5
Total interest dividends and rental income	248	453	376	21	1,098
Realised gains and losses	24	254	2	1	281
Unrealised revaluations	7	120	-18	36	145
Total revaluations	31	374	-16	37	426
Total	279	827	360	58	1,524

Interest income from investments is higher in 2018 compared to previous year. This is due to the increase of the interest rate swap exposure (mostly receiver swaps) during the year.

Unrealised revaluations from investments consist of currency differences on bonds. The increase is due to increased exposure on American bonds and a decreased exchange rate USD/EUR.

Breakdown of investment income 2017

In € millions	Fair value through profit or loss	Available for sale	Loans and receivables	Investment property	Total
Interest	163	434	429	-	1,026
Dividends	-	30	-	-	30
Rental income	-	-	-	25	25
Direct operating expenses	-	-	-	-5	-5
Total interest dividends and rental income	163	464	429	20	1,076
Realised gains and losses	-2	387	1	4	390
Unrealised revaluations	31	-60	-	13	-16
Total revaluations	29	327	1	17	374
Total	192	791	430	37	1,450

Investment income includes a net gain on currency differences. This amount is hedged within the result on derivatives.

28. Investment Income / expense for Account of Policyholders

Breakdown of investment income /expense for account of policyholders

In € millions	2018	2017
Interest	31	32
Dividends	117	118
Total interest and dividends	148	150
Revaluations	-535	279
Total	-387	429

The decrease of investment income for account of policyholders is mainly attributable to a decrease in the market value revaluations.

29. Result on (Liabilities from) Investments for Account of Third Parties

The amount of - € 44 million (2017: € 57 million) consists of results of the third party investments. We refer to Note 6 Investments for Account of Third Parties for information about the third party investments.

30. Result on Derivatives

Breakdown of Result on Derivatives

In € millions	2018	2017
Revaluations transferred from OCI	-	-10
Interest income transferred from OCI	4	7
Result on derivatives held for cash flow hedge accounting	4	-3
Market value movements of derivatives held for fair value hedge accounting	-9	33
Market value movements of derivatives maintained for ALM not classified for hedge accounting	-92	-457
Total	-97	-427

The negative result on derivatives of € 97 million largely corresponds to the market value movements of the derivatives. The market value movement was positively influenced by changes in interest rates, it was offset by a loss on currency differences. This loss is attributable to the currency differences of the hedged items within the investment income.

31. Other Operating Income

In 2017, the amount of € 15 million consists of a release for a legal claim.

32. Technical Claims and Benefits

Technical claims and benefits include benefits paid, surrenders, claims paid, claim handling costs and changes in insurance liabilities. This item also includes profit-sharing and discounts.

Breakdown of Technical Claims and Benefits

In € millions	Gross		Reinsurance		Net	
	2018	2017	2018	2017	2018	2017
General account benefits paid and surrenders	2,301	2,291	-21	-24	2,280	2,267
Change in general account insurance liabilities	91	892	15	15	106	907
Profit-sharing and discounts	22	37	-	-	22	37
Results on allocated investments and interest derivatives	176	-253	-	-	176	-253
LAT deficit	542	480	-	-	542	480
Life insurance	3,132	3,447	-6	-9	3,126	3,438
Claims paid	459	434	-28	-30	431	404
Change in provision for reported claims	20	-65	-	23	20	-42
Change in provision for claims incurred but not reported	-32	8	7	6	-25	14
Property & Casualty insurance	447	377	-21	-1	426	376
Total	3,579	3,824	-27	-10	3,552	3,814

The change in general account insurance liabilities includes compensation paid to unit-linked policyholders and compensation relating to defined contribution schemes. For further details on the compensation scheme, see Note 16 Insurance liabilities and reinsurance share.

Higher claims originating from the January storm (€ 20 million after reinsurance) influenced the technical claims in 2018 for P&C. The amount of € 15 million is after taxation as we have mentioned in the board report.

33. Charges for Account of Policyholders

Charges for account of policyholders include benefits paid, surrenders and changes in insurance contracts. This item also includes profit-sharing and discounts relating to these policyholders.

Breakdown of Charges for Account of Policyholders

In € millions	2018	2017
Benefits paid and surrenders for Life insurance contracts for account of policyholders	1,056	1,069
Change in technical provisions for Life insurance contracts for account of policyholders	-1,142	-982
Total	-86	87

Change in technical provision is mainly attributable to a decrease in the market value revaluations and transfer from life insurance on behalf of policyholders to life insurance liabilities.

34. Acquisition Costs for Insurance Activities

Breakdown of Acquisition Costs for Insurance Activities

In € millions	2018	2017
Individual Life	19	21
Life Corporate	2	2
Total Life	21	23
Property & Casualty	161	143
Reinsurance Property & Casualty	-7	-6
Total Property & Casualty	154	137
Other (eliminations)	-1	-1
Total	174	159

Acquisition costs in Property & Casualty mainly increased as a result of growth in the authorized agents portfolio (higher premium income) and a release from the unearned premium reserve linked to authorised agents due to an improvement of in depth portfolio data.

35. Staff Costs

Breakdown of Staff Costs

In € millions	2018	2017
Salaries	128	139
Pension costs	33	34
Social security contributions	17	18
Other staff costs	92	90
Total	270	281

The decrease in the staff cost is mainly a result of less number of the internal and external FTE's, release of the performance bonus 2017 partly offset by the salary increase as replacement for the variable remuneration in the CLA. As of 2018 VIVAT terminated the performance related bonus in the CLA and terminated the variable remuneration for senior executives. As replacement for the variable remuneration the employees in the CLA received a salary increase per July 2018.

Breakdown of Pension Costs

In € millions	2018	2017
Pension contributions based on defined contribution	27	29
Employee contributions	-4	-4
Total based on defined contributions	23	25
Increase of present value defined benefit plans	10	9
Total	33	34

Other Staff Costs

Other staff costs include the cost of temporary staff of € 62 million (2017: € 65 million) and restructuring charges of € 4 million (2017: € 6 million). It also consists of travelling expenses, car fleet and training costs.

Number of Internal FTE's

In numbers	2018	2017
Number of internal FTE's	1,983	2,022

Share-based Remuneration

Variable remuneration for Identified Staff is split in two portions: an immediate/unconditional portion (60%) and a deferred/conditional portion (40%). 50% of the variable remuneration of Identified Staff is paid in cash and 50% in share based instruments. The unconditional portion of variable remuneration in share based instruments has a retention period of one year, after which it will be paid in cash. The share-based component of the deferred portion of the variable remuneration vests four years after the year of award and will be paid in cash at that moment. For further details on remuneration see Section 4.4 Remuneration.

36. Other Operating Expenses

Breakdown of Other Operating Expenses

In € millions	2018	2017 ¹
IT systems	24	24
Housing	6	11
Marketing and public relations	10	14
External advisors	19	14
Other costs	34	32
Total	93	95

¹ An adjustment of € 3.9 million has been made in the comparative figures from the category marketing cost to the category external advisors.

The other costs mainly relate to outsourced services and contributions.

37. Impairment Losses (Reversals)

Breakdown of Impairment Losses / Reversals by Class of Asset

In € millions	Impairments		Reversals		Total	
	2018	2017	2018	2017	2018	2017
> Through profit or loss						
Property and equipment	4	4	5	1	-1	3
Investments	2	6	-	1	2	5
Other debts	2	1	2	1	-	-
Total through profit or loss	8	11	7	3	1	8
> Through other comprehensive income						
Investments	-	-	-	4	-	-4
Total through other comprehensive income	-	-	-	4	-	-4

38. Other Interest Expenses

Breakdown of Other Interest Expenses

In € millions	2018	2017
Bonds	96	55
Private loans	31	65
Interest on reinsurance deposits	6	7
Other interest and investment expenses	2	-
Total	135	127

Other interest expenses have increased in 2018 compared to 2017, mainly as result of the loss on the repurchase of a part of the existing subordinated loan of nominal € 400 million and replacing private loans with listed tier 2 bonds issued in late 2017. In June 2018, SRLEV NV has repurchased bonds for a notional amount of € 150 million. The market value of the bonds was € 180 million, resulting in a loss on the transaction of € 30 million. This is partly offset by the discontinuation of hedge accounting for the related derivative.

The decrease of interest on private loans is mainly caused by the redemption of the Tier 2 loans that Vivat received from Anbang in 2017.

39. Income Tax

Breakdown of Tax Expense

In € millions	2018	2017
In financial year	-25	82
Other items	-4	-6
Corporate income tax due	-29	76
Due to temporary differences	-42	-135
Due to change in income tax rate with regard to deferred tax	97	-
Deferred tax (including tax rate change)	55	-135
Total	26	-59

The corporate income taxes are irrevocable for the years up to and including 2016.

Reconciliation Between the Statutory and Effective Tax Rate

In € millions	2018	2017
Statutory income tax rate	25.0%	25.0%
Result before tax	-258	-175
Statutory corporate income tax amount	-65	-44
Effect of participation exemption	-2	-9
Due to change in income tax rate with regard to deferred tax	97	-
Other items	-4	-6
Total	26	-59
Effective tax rate	-10.1%	33.7%

The effective tax rate of -10.1% differs compared to the nominal rate of 25%. This is the result of the impact of the change in corporate income tax rate on the deferred tax position, tax exempt and a prior year adjustment. For further disclosures about deferred tax, see note 8.

Other items of € 4 million (gain) is a prior year adjustment of the taxable amount. The adjustment 2017 is a release of the tax provision that was accrued.

40. Income tax effects relating to Other Comprehensive Income

In € millions	Before tax amount		Tax (expense) benefit		Net of tax amount	
	2018	2017	2018	2017	2018	2017
Changes in valuation of defined benefit pension plan	33	-15	-4	4	29	-11
Unrealised revaluations and amortisation from cashflow hedges	29	-36	-7	9	22	-27
Unrealised revaluations investments available for sale	-81	-538	128	135	47	-403
Impairments fair value reserve	-3	-5	1	1	-2	-4
Realised gains and losses transferred to profit or loss	-249	-395	62	98	-187	-297
Results on allocated investments and interest derivatives	257	941	-179	-235	78	706
Total comprehensive income	-14	-48	1	12	-13	-36

The changes in valuation of defined benefit pension plan of € 29 million mainly consist of actuarial gains or losses due to changes in financial assumptions and due to experience adjustments.

The unrealised revaluations and amortisation from cash flow hedges through OCI in 2018 is € 22 million and consists mainly of fair value changes during the year. In 2017 the unrealised revaluations of € 27 million negative was mainly due to a settlement of one of the cash flow hedge swaps.

The unrealised revaluations investments available for sale through OCI of € 81 million negative before tax consists mainly of unrealised revaluations of European sovereign and corporate bonds and European equities. The unrealised revaluations in 2017 (€ 538 million negative before tax) were higher and mainly relate to Dutch and German sovereign bonds.

The realised gains and losses transferred to profit or loss of € 187 million negative relate to realised gains on Dutch and German sovereign bonds (€ 180 million) and on equity (€7 million). Compared to 2018, the realised gains of bonds in 2017 (€ 269 million) were higher, because a large amount of long-term Dutch and German sovereign bonds were sold in 2017. Compared to 2018, the realised gains on equity in 2017 (€ 28 million) were higher, due to the sale of Q-park in 2017 with a realised gain of € 20 million.

The movement of € 78 million (net of tax) through OCI of the results on allocated investments and interest derivatives is part of the total movement of results on allocated investments and interest derivatives as explained in note 16. Insurance Liabilities and Reinsurance Share. Before tax the amount is € 257 million consisting of the movement of Shadow accounting (€ 29 million negative before tax) and revaluation reserve of fixed income investment portfolio (€ 286 million before tax) and is mainly a result of interest rate movements.

41. Financial Instruments

Fair Value of Assets and Liabilities

The table below shows the fair value of VIVAT's assets and liabilities. It only shows the property, financial assets and liabilities and does not include items that do not meet the definition of a financial asset or liability. The total fair value shown below does not represent the value of the company as a whole.

Fair Value of Assets and Liabilities

In € millions	Fair value 2018	Carrying amount 2018	Fair value 2017	Carrying amount ¹ 2017
Property				
Land and buildings for own use	51	51	52	52
Investment property	402	402	380	380
Investments				
- Fair value through profit or loss: designated	186	186	203	203
- Available for sale	30,189	30,189	29,896	29,896
- Loans and receivables	6,390	6,187	6,385	6,187
- Mortgages	2,220	2,094	2,563	2,397
Investments for account of policyholders	11,989	11,989	13,138	13,138
Investments for account of third parties	676	676	630	630
Derivatives	1,076	1,076	760	760
Loans and advances due from banks	1,601	1,566	1,863	1,814
Other assets	306	306	302	302
Cash and cash equivalents	275	275	259	259
Total property and financial assets	55,361	54,997	56,431	56,018
Financial liabilities				
Subordinated debt	862	863	1,055	1,016
Borrowings	661	644	645	642
Derivatives	602	602	636	636
Amounts due to banks	1,358	1,358	1,643	1,643
Other liabilities	1,159	1,159	1,878	1,878
Total financial liabilities	4,642	4,626	5,857	5,815

¹ Some of the comparative figures have been restated for comparison purposes. Reference is made to the notes in section 6.1.2. Changes in principles, estimates and presentation for the consolidated financial statements.

The fair values represent the amount that would be received to sell a property and financial asset or paid to transfer a financial liability in an orderly transaction between market participants at the reporting date. The fair value of property, financial assets and liabilities is based on quoted market prices, where observable. If prices in an active market are not available, various valuation techniques are used to measure the fair value of these instruments. Parameters used in such valuation techniques may be subjective and various assumptions are used, for instance for the discount rate and the timing and size of expected future cash flows. Where possible and if available, the valuation techniques make use of observable inputs in relevant markets. Changes in assumptions can significantly influence estimated fair values. The main assumptions for each item are explained in the section on fair value hierarchy below.

The carrying amount of financial assets and liabilities at amortised cost is shown excluding accrued interest. Accrued interest related to these instruments is recognised within other assets or other liabilities.

Measurement of Assets and Liabilities

The following methods and assumptions are used to determine the fair value of property and financial instruments.

Land and Buildings for Own Use

The fair value of land and buildings for own use is measured on the basis of annual appraisals. The main parameters for these appraisals are rentable market value and expected yield.

Investment Property

The fair value of investment property is measured on the basis of annual appraisals. The main parameters for these appraisals are rentable market value and expected yield.

Investments

The fair value of equities is based on quoted prices in an active market or other available market data. The fair value of interest-bearing securities, exclusive of mortgage loans, is also based on quoted market prices or if actively quoted market prices are not available, on the discounted value of expected future cash flows. These discounted values are based on the relevant market interest rate, taking into consideration the liquidity, creditworthiness and maturity of the investment.

Mortgages

The market value of mortgages is determined using a discounted value method. The yield curve used to discount cash flows of mortgage loans is the swap rate plus a risk premium that can vary between sub-portfolios. Expected future early redemptions, losses and the corresponding consumer rates are taken into account in determining the expected cash flows.

Derivatives

The fair value of nearly all derivatives is based on observable market inputs, such as market interest rates and foreign exchange rates. The fair value of a number of non-publicly traded derivatives depends on the type of instrument and is based on a discounted value model or an option valuation model.

Loans and Advances due from Banks

The fair value of loans and advances due from banks has been estimated based on the discounted value of the future cash flows, using the prevailing interest rate plus a risk premium. The risk premium is based on the credit risk assumed by the market for holding such instruments issued by VIVAT, differentiated by maturity and type of instrument. The carrying amount of any amount that is due within one month is considered to be a reasonable approximation of the fair value.

Other Assets

Given the predominantly short-term nature of other assets, the carrying amount is considered to be a reasonable approximation of the fair value.

Cash and Cash Equivalents

The carrying amount of the cash and cash equivalents is considered to be a reasonable approximation of the fair value.

Subordinated Debts

The fair value of subordinated debt is based on quoted prices in an active market when available. When actively quoted market prices are not available the fair value of subordinated debts has been estimated based on the discounted value of future cash flows, using the prevailing interest rate plus a risk premium. The risk premium is based on the credit risk assumed by the market at years' end for holding subordinated debt issued by VIVAT, differentiated by maturity and type of instrument.

Borrowings

The fair value of borrowings is based on quoted prices in an active market when available. When actively quoted market prices are not available the fair value of borrowings has been estimated based on the discounted value of future cash flows, using the prevailing interest rate plus a risk premium. The risk premium is based on the credit risk assumed by the market at years' end for holding subordinated debt issued by VIVAT, differentiated by maturity and type of instrument.

Amounts Due to Banks

The fair value of amounts due to banks has been estimated based on the discounted value of the future cash flows, using the prevailing interest rate plus a risk premium. The risk premium is based on the credit risk assumed by the market for holding such instruments issued by VIVAT, differentiated by maturity and type of instrument. The carrying amount of any amount that is due within one month is considered to be a reasonable approximation of the fair value.

Other Liabilities

The carrying amount of the other liabilities is considered to be a reasonable approximation of the fair value.

Hierarchy in Determining The Fair Value of Property and Financial Instruments

A significant part of the properties and financial instruments are recognised at fair value. The fair value of property and financial instruments measured at fair value in the statement of financial position or for which the fair value is disclosed is classified as a level. This level depends on the parameters used to determine fair value and provides further insight into the valuation. The levels are explained below:

Level 1 – Fair Value Based on Quoted Prices in an Active Market

Quoted prices from exchanges, brokers or pricing institutions are observable for properties and all financial instruments in this valuation category. In addition, these financial instruments are traded on an active market, which allows the price to accurately reflect current and regular market transactions between independent parties. The investments in this category mainly concern listed equities and bonds, including investment funds on account of policyholders whose underlying investments are listed.

Level 2 – Fair Value Based on Observable Inputs

This category includes property and financial instruments for which no quoted prices are available but whose fair value is determined using models where the parameters include available market inputs. These instruments are mostly privately negotiated derivatives and private loans. This category also includes

investments whose prices have been supplied by brokers but for which there are inactive markets. In these cases, available prices are largely supported and validated using market inputs, including market rates and actual risk premiums related to credit rating and sector classification.

Level 3 – Fair Value not Based on Observable Market Data

The property and financial instruments in this category have been assessed individually. The valuation is based on management's best estimate, taking into account most recently known prices. In many cases analyses prepared by external valuation agencies are used. These analyses are based on data unobservable in the market, such as assumed default rates associated with certain ratings.

The table below shows the instruments in level 1, level 2 and level 3. Property and financial assets and liabilities not measured at fair value and whose carrying amount is a reasonable approximation of fair value are not classified by level.

Fair value hierarchy 2018

In € millions	Carrying amount	Fair value			Total
		Level 1	Level 2	Level 3	
> Property and financial assets measured at fair value					
Land and buildings for own use	51	-	-	51	51
Investment property	402	-	-	402	402
Investments at fair value through profit or loss: designated	186	186	-	-	186
Investments available for sale	30,189	28,322	556	1,311	30,189
Investments for account of policyholders	11,989	11,614	75	300	11,989
Investments for account of third parties	676	676	-	-	676
Derivatives	1,076	-	1,074	2	1,076
Total	44,569	40,798	1,705	2,066	44,569
> Financial assets not measured at fair value					
Mortgages	2,094	-	-	2,220	2,220
Investments loans and receivables	6,187	-	811	5,579	6,390
Loans and advances due from banks	1,566	-	1,310	292	1,601
Other assets	306	-	-	-	306
Cash and cash equivalents	275	-	-	-	275
> Financial liabilities measured at fair value					
Derivatives	602	-	527	75	602
> Financial liabilities not measured at fair value					
Subordinated debt	863	862	-	-	862
Borrowings	644	661	-	-	661
Amounts due to banks	1,358	-	-	-	1,358
Other liabilities	1,159	-	-	-	1,159

In 2018 the fair value of subordinated debt and borrowings are based on quoted prices in an active market when available (comparative figures have been adjusted).

Fair value hierarchy 2017

		Fair value			
In € millions	Carrying amount	Level 1	Level 2	Level 3	Total
> Property and financial assets measured at fair value					
Land and buildings for own use	52	-	-	52	52
Investment property	380	-	-	380	380
Investments at fair value through profit or loss: designated	203	191	11	1	203
Investments available for sale	29,896	28,224	493	1,179	29,896
Investments for account of policyholders	13,138	12,776	40	322	13,138
Investments for account of third parties	630	630	-	-	630
Derivatives	760	-	760	-	760
Total	45,059	41,821	1,304	1,934	45,059
> Financial assets not measured at fair value					
Mortgages	2,397	-	-	2,563	2,563
Investments loans and receivables	6,187	-	860	5,525	6,385
Loans and advances due from banks	1,814	-	1,607	256	1,863
Other assets	302	-	-	-	302
Cash and cash equivalents	259	-	-	-	259
> Financial liabilities measured at fair value					
Derivatives	636	-	571	65	636
> Financial liabilities not measured at fair value					
Subordinated debt	1,016	1,055	-	-	1,055
Borrowings	642	645	-	-	645
Amounts due to banks	1,643	-	-	-	1,643
Other liabilities	1,878	-	-	-	1,878

The table below shows the movements in property and financial instruments measured at fair value and classified in level 3.

Change in Level 3 Property and Financial Instruments in 2018

	Land and buildings for own use	Investment property	Derivatives	Investments for account of policyholders	Fair value through profit and loss: designated	Available for sale	Total
Balance as at 1 January	52	380	-65	322	1	1,180	1,870
Transfer to level 3	-	-	-	-	-	98	98
Realised gains or losses recognised in profit or loss	-	1	-10	-2	-1	9	-3
Unrealised gains or losses recognised in profit or loss	1	36	-8	-	-	-	29
Unrealised gains or losses recognised in other comprehensive income	-	-	-	-	-	16	16
Purchase/acquisition	-	-	-	15	-	541	556
Sale/settlements	-	-15	10	-48	-	-539	-592
Other	-2	-	-	12	-	6	16
Balance as at 31 December	51	402	-73	300	-	1,311	1,991
Total gains and losses included in profit or loss	1	37	-18	-2	-1	9	26

Change in Level 3 Property and Financial Instruments in 2017

	Land and buildings for own use	Investment property	Derivatives	Investments for account of policyholders	Fair value through profit and loss: designated	Available for sale	Total
Balance as at 1 January	56	274	-67	348	7	1,079	1,697
Transfer to level 3	-	-	-	-	11	301	312
Realised gains or losses recognised in profit or loss	-	-	-4	5	-	15	16
Unrealised gains or losses recognised in profit or loss	-	-	6	-	-1	-	5
Unrealised gains or losses recognised in other comprehensive income	-	-	-	-	-	-27	-27
Purchase/acquisition	-	108	-39	13	-	389	471
Sale/settlements	-	-15	39	-57	-14	-449	-496
Other	-4	13	-	13	-2	-5	15
Transfer from level 3	-	-	-	-	-	-123	-123
Balance as at 31 December	52	380	-65	322	1	1,180	1,870
Total gains and losses included in profit or loss	-	-	2	5	-1	15	21

Breakdown of Level 3 Property and Financial Instruments

In € millions	2018	2017
Land and buildings for own use	51	52
Investment property	402	380
Bonds issued by financial institutions	720	710
Collateralised loan obligation	13	18
Equities	578	453
Derivatives	-73	-65
Investments for account of policyholders	300	322
Total	1,991	1,870

The fair value of property and financial instruments classified in level 3 is partly based on inputs that are not observable in the market. A sensitivity analysis is performed on the major holdings in Level 3 investments. The fair value of interest-bearing securities is calculated as the discounted value of expected future cash flows.

The expected future cash flows as well as the discount rate is also a significant unobservable input. These discounted values are based on the relevant market interest rate, taking into consideration the liquidity, creditworthiness and maturity of the investment. The fair value sensitivity on these securities is calculated based on the changes in one of the elements used to determine the discount rate.

Sensitivity as a result of changes in parameters

In € millions	Impact on shareholder's equity
Fixed income securities	
Interest +50 bps	-11
Interest -50 bps	11
Credit spreads Government Bonds +50 bps	-10
Credit spreads Corporates/Mortgages +50 bps	-6
All Credit spreads +50 bps	-15

The sensitivity of the fair value of equity securities is calculated as the movement in fair value of the equity securities in the event of a general shock in the market. In this calculation, the look through principal is taken into account.

Sensitivity as a result of a shock applied

In € millions	Impact on shareholder's equity
Equity securities	
Equities +10%	9
Equities -10%	-27

Impairments of Financial Instruments by Category

	Level 1		Level 2		Level 3		Total	
In € millions	2018	2017	2018	2017	2018	2017	2018	2017
Equities	-	-	-	-	2	5	2	5
Total	-	-	-	-	2	5	2	5

The table below shows movements in the financial assets and liabilities measured at fair value between the levels.

Reclassification Between Categories 2018

In € millions	to Level 1	to Level 2	to Level 3	Total
From:				
Based on published stock prices in an active market (Level 1)	-	83	21	104
Based on observable market data (Level 2)	-	-	77	77

Reclassification Between Levels 1, 2 and 3

Shift Between Levels 2 and 3

At year-end 2018, €77 million (2017: € 297 million) was transferred from level 2 to level 3 for investments that were significantly less traded. Therefore, available prices for these investments are largely supported and validated using market inputs resulting in an increase in measurement uncertainty.

Shift Between Levels 1 and 3

At year-end 2018, €21 million (2017: € 15 million) was transferred from level 1 to level 3 and €83 million (2017: € 0 million) from level 1 to level 2 for investments that were significantly less traded. Therefore, available prices for these investments are largely supported and validated using market inputs resulting in an increase in measurement uncertainty.

Offsetting Financial Assets and Liabilities

The table below shows the financial assets and liabilities that are subject to offsetting and the related amounts that are not set off but serve to mitigate credit risk.

Financial Assets and Liabilities 2018

In € millions	Related amounts not netted in the carrying amount						Netted value
	Gross carrying amount	Offsetting carrying amount	Netted carrying amount	Financial instruments	Cash collateral	Other financial collateral	
Financial assets							
Derivatives	1,076	-	1,076	114	934	-	28
Loans and advances due from banks	242	-	242	239	3	-	-
Total financial assets	1,318	-	1,318	353	937	-	28
Financial liabilities							
Derivatives	602	-	602	102	499	-	1
Total financial liabilities	602	-	602	102	499	-	1

At year-end 2018, VIVAT received collateral from third parties by virtue of derivative exposures. An amount of € 422 million (2017: € 375 million) of this collateral has been reinvested in a money-market fund.

Financial Assets and Liabilities 2017

In € millions	Related amounts not netted in the carrying amount						Netted value
	Gross carrying amount	Offsetting carrying amount	Netted carrying amount	Financial instruments	Cash collateral	Other financial collateral	
Financial assets							
Derivatives	760	-	760	304	437	-	19
Loans and advances to banks	461	-	461	445	13	-	3
Total financial assets	1,221	-	1,221	749	450	-	22
Financial liabilities							
Derivatives	636	-	636	567	68	-	1
Amounts due to banks	526	-	526	521	-	-	5
Total financial liabilities	1,162	-	1,162	1,088	68	-	6

Management of Past Due and Impaired Assets

The table below sets out the financial instruments by arrears and/or impairment.

Financial Instruments - Impairments 2018

In € millions	Not in arrears nor impaired	Financial assets that are past due but not impaired	Financial assets that have been impaired	Provision for bad debt	Total
Investments	30,332	-	90	-47	30,375
Loans and receivables	8,281	-	-	-	8,281
Other financial assets	297	15	-	-6	306
Total	38,910	15	90	-53	38,962

Financial Instruments - Impairments 2017

In € millions	Not in arrears nor impaired	Financial assets that are past due but not impaired	Financial assets that have been impaired	Provision for bad debt	Total
Investments	30,055	-	93	-49	30,099
Loans and receivables	8,513	-	16	-4	8,525
Other financial assets	282	26	-	-6	302
Total	38,850	26	109	-59	38,926

VIVAT recognises impairments on equities if the market value has fallen to 25% below cost price, or has been at least 5% below cost price uninterruptedly for at least nine months.

VIVAT recognises impairments on fixed-income financial instruments if there is a loss event related to the financial instrument. To identify such events, the financial instruments are periodically assessed on the basis of a number of criteria set by Finance. Financial instruments meeting one or more of these criteria are analysed and assessed individually to determine whether there is a loss event.

Maturity schedule for financial liabilities

The table below shows the undiscounted cash flows from the principal financial liabilities, other than derivatives, by contract maturity date.

Liquidity calendar financial liabilities 2018

In € millions	< 1 month	1 - 3 months	3 - 12 months	1 - 5 years	> 5 years	Total
Subordinated debt	-	-	-	-22	-842	-863
Borrowings	-	-	-	-	-644	-644
Amounts due to banks	-649	-	-	-	-709	-1,358
Amounts due to reinsurers	-	-1	-15	-83	-18	-117
Total	-649	-1	-15	-105	-2,213	-2,982

Liquidity calendar financial liabilities 2017

In € millions	< 1 month	1 - 3 months	3 - 12 months	1 - 5 years	> 5 years	Total
Subordinated debt	-	-	-	-52	-964	-1,016
Borrowings	-	-	-	-	-642	-642
Amounts due to banks	-633	-307	-	-	-703	-1,643
Amounts due to reinsurers	-	-	-	-12	-129	-141
Total	-633	-307	-	-64	-2,438	-3,442

The table below shows the undiscounted cash flows from all derivative contracts by maturity date.

Liquidity calendar derivatives 2018

In € millions	< 1 month	1 - 3 months	3 - 12 months	1 - 5 years	> 5 years	Total
Interest rate derivatives	-	-	-2	-70	-490	-562
Currency contracts	-21	-4	-9	-6	-	-40
Total	-21	-4	-11	-76	-490	-602

Liquidity calendar derivatives 2017

In € millions	< 1 month	1 - 3 months	3 - 12 months	1 - 5 years	> 5 years	Total
Interest rate derivatives	-	-	-	-30	-578	-608
Currency contracts	-	-	-	-28	-	-28
Total	-	-	-	-58	-578	-636

The table regarding the cash flows from insurance business is included in chapter 7.6.3.1.

IFRS 9 Disclosures

As mentioned in the section 'Relevant New Standards' VIVAT qualifies for the temporary exemption and consequently is allowed to defer the implementation of IFRS 9. Due to the application of the temporary

exemption, VIVAT is required to provide additional disclosures in order to enable comparability with financial statements published by entities applying IFRS 9. These disclosures concern the changes in fair value of financial instruments and credit risk exposure.

Changes in Fair Value

According to amended IFRS 4-requirements the disclosures concerning the fair value and the changes in fair value for all the interest bearing financial assets are disclosed divided on two groups:

- Financial assets that pass the SPPI-test excluding the financial assets held for trading or managed on a fair value basis;
- Other financial assets that fail the SPPI-test including financial assets held for trading and financial assets that are managed on a fair value basis.

Along with the Business Model Assessment, the Solely Payments of Principal and Interest (SPPI) test is one of the two criteria in IFRS 9 to determine whether an interest bearing financial asset should be classified as measured at amortised cost or fair value through other comprehensive income (FVOCI). It is tested whether the contractual terms of the financial asset give rise, on specified dates, to cash flows that are solely payments of principal and interest.

A financial asset that fails the SPPI-criterion is measured at fair value through profit or loss (FVTPL). Equity instruments and derivatives are excluded from the SPPI-test.

The disclosures are required for the following items:

Investments

Change in Fair Value of Investments SPPI and non-SPPI 2018

In € millions	Fair value through profit or loss: Designated		Available for sale		Loans and receivables		Total	
	SPPI ¹	non-SPPI	SPPI ²	non-SPPI	SPPI	non-SPPI	SPPI	non-SPPI
Balance as at 1 January	-	203	26,260	501	8,939	-	35,199	704
Purchases and advances	-	-	11,155	139	785	-	11,940	139
Disposals and redemptions	-	-12	-11,773	-107	-1,294	-	-13,067	-119
Changes in fair value	-	-5	-96	-28	-36	-	-132	-33
Other movements	-	-	-38	-	216	-	178	-
Balance as at 31 December	-	186	25,508	505	8,609	-	34,117	691

¹ According to IFRS 4.39 the amounts presented in the columns labelled SPPI correspond to the financial assets with contractual terms that give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding, excluding any financial asset that meets the definition of held for trading or that is managed and whose performance is evaluated on a fair value basis. The amounts related to the assets excluded from the SPPI group are presented in the column labelled non-SPPI (even if these assets meet the SPPI condition).

² Available for sale is excluding equity instruments which do not pass SPPI test.

Other movements includes accrued interest and received coupons.

Investments for Account of Policyholders

All the investments for account of policyholders are managed on a fair value basis, therefore they are not eligible for SPPI testing. For their fair value and the changes in fair value refer to the section 6.3 Note 5 Investments for Account of Policyholders in the consolidated financial statements.

Investments for Account of Third Parties

All the investments for account of third parties are managed on a fair value basis, therefore they are not eligible for SPPI testing. For their fair value and the changes in fair value refer to section 6.3 Note 6 in the consolidated financial statements.

Derivatives

By nature none of the derivatives meets the SPPI-test, therefore they are measured at fair value through profit or loss. For their fair value and the changes in fair value refer to the section 7 'Derivatives in the notes to the consolidated financial statement'.

Loans and Advances due from Banks

All the loans and advances due from banks meet the SPPI test. For their fair value and the changes in fair value refer to the table below.

Change in Fair Value of Loans and Advances due from Banks

In € millions	2018
Balance as at 1 January	1,863
Purchases and advances	2,878
Disposals and redemptions	-3,134
Changes in fair value	-14
Other movements	9
Balance as at 31 December	1,601

Other Assets

There are items recognised in Other assets, that qualify as financial instruments under IFRS 9. All financial assets recognised in Other assets meet the SPPI-test. As these assets constitute short-term receivables that are expected to be recovered within 12 months, their face value is deemed to be an approximation of their fair value. Bearing in mind their short term character, no statement of changes is being presented. For more details refer to the section 11 'Other assets, in the notes to the consolidated financial statements.

Cash and Cash Equivalents

Cash and cash equivalents include bank balances and demand deposits with a remaining maturity of less than one month. These items meet SPPI-conditions. For the changes in value of these items refer to section 5.4 'Consolidated Cash Flow Statement.

Credit Risk Disclosures

For the financial assets that pass the SPPI-test (excluding the financial assets held for trading or managed on a fair value basis) the disclosure of their carrying amounts under IAS 39 separated into credit risk rating grades need to be made. Additionally for the assets that do not have low credit risk, the fair value needs to be disclosed.

Breakdown of carrying amount of Financial Assets 2018 (rating)

In € millions	Fair value through profit or loss: Designated	Available for sale	Loans and receivables	Other financial instruments	Total
AAA	-	15,037	666	48	15,751
AA	-	3,305	325	-	3,630
A	-	3,891	141	237	4,269
BBB	-	2,555	-	43	2,598
< BBB	-	716	-	-	716
Not rated	-	4	7,150	1,238	8,392
Total	-	25,508	8,281	1,566	35,355

VIVAT considers the financial assets with the credit rating BBB or higher to be assets with low credit risk. The total not rated assets consists mainly (for more than 90%) of mortgages and private loans linked to savings mortgages.

- Mortgages. The total portfolios are assumed to have a low credit risk because good social security systems in the Netherlands reduce the risk of consumers not being able to repay the mortgages. In case of unemployment, social security payments allow the home owners time to find a new job and does not force home owners into selling their houses. As a result it is unlikely that consumers do not meet their contractual cash flow obligations. The mortgages themselves are primarily standardised financial instruments without additional contractual provision contributing to an increased credit risk. Therefore, the mortgages are assumed to have a low credit risk.
- Private loans linked to savings mortgages. As a result of cession/retrocession being applied to the vast majority of these instruments, the commercial banks with an investment grade became counterparties. No contractual provisions are present based on which the credit risk of the instruments could additionally be increased as compared to the regular counterparty credit risk. As a result, these instruments are assumed to have a low credit risk.
- Other private loans. These are primarily loans granted to municipality or comparable bonds. These municipality bonds are risks to Dutch (AAA rated) and French (AA rated) governments and considered investment grade. Apart from that, the loans do not have a subordinated character compared to other liabilities of these entities. As a result, these instruments are assumed to have a low credit risk.
- Loans and advances due from banks. Even if these instruments are not individually rated, all the banks being the counterparties to these instruments have an investment credit rating, so it is our assumption that these banks have a strong capacity to meet their contractual cash flow obligations in the near term. Apart from that, no contractual provisions are present based on which the credit risk of the instruments could additionally be increased as compared to the regular counterparty credit risk. As a result, these instruments are assumed to have a low credit risk.

The assets rated lower than BBB are not considered to be the assets with low credit risk. As these assets are classified as available for sale, their fair value equals their carrying amount.

42. Hedging and Hedge Accounting

VIVAT uses various strategies for its insurance business to hedge its interest rate, market and currency risks. Under IFRS, derivatives are recognised at fair value in the statement of financial position, while changes in their fair value are recognised through profit or loss. An accounting mismatch arises if changes in the fair value of hedged risks are not recognised through profit or loss, causing volatility in the results. In these cases, hedge accounting is applied in principle to mitigate the accounting mismatch and volatility.

The nominal amounts of the derivatives used for hedging purposes shown in the table below reflect the degree to which VIVAT is active in the relevant markets.

Derivatives for Hedging Purposes 2018

In € millions	Nominal amounts			Total	Fair value	
	< 1 year	1 - 5 years	> 5 years		Positive	Negative
> Interest rate contracts						
- Swaps and FRAs	4,299	5,072	26,026	35,397	865	-537
- Options	90	1,801	4,030	5,921	187	-25
> Currency contracts						
- Swaps	763	689	-	1,452	12	-5
- Forwards	4,706	-	-	4,706	13	-34
Total	9,858	7,562	30,056	47,476	1,076	-602

Derivatives for Hedging Purposes 2017

In € millions	Nominal amounts			Total	Fair value	
	< 1 year	1 - 5 years	> 5 years		Positive	Negative
> Interest rate contracts						
- Swaps and FRAs	2,452	2,947	21,911	27,310	521	-584
- Options	25	1,271	4,650	5,946	211	-24
> Currency contracts						
- Swaps	55	659	-	714	10	-27
- Forwards	702	-	-	702	18	-1
Total	3,234	4,877	26,561	34,672	760	-636

The notionals of the derivatives are not disclosed netted (positive and negative).

The notional amounts are the units of account relating to the derivatives, specifying the relationship with the underlying values of the primary financial instruments. These notional amounts are not an indication of the size of the cash flows or market and credit risks relating to the transactions.

Hedging

VIVAT uses derivatives to protect the market value of own funds and regulatory solvency against undesired market developments. Examples include:

- hedging interest rate risks arising from return guarantees made to policyholders;
- hedging interest rate risks arising from obligations to share surplus interest with policyholders;
- hedging interest rate risks arising from the difference in maturities between investments and liabilities;

➤ hedging currency risks on investments and liabilities denominated in foreign currencies.

Hedge Accounting

VIVAT applies hedge accounting to its fair value hedges and cash flow hedges, to execute the hedging strategies described above.

Fair Value Hedges

Hedging Currency Risk in Equity Portfolio

VIVAT hedges the currency risk in the equity portfolio using foreign exchange futures contracts.

Hedging Interest Rate Risk on Subordinated Debt

VIVAT hedges the interest rate risk in the subordinated debt using interest rate swaps. In 2018, part of the fair value hedge accounting was discontinued. Please see note 30 Result on derivatives.

Cashflow Hedges

Hedging Interest Rate Risk in Future Reinvestments

VIVAT has extended the effective maturity of the investment portfolio using interest rate swaps. As a result, the interest rate risk has been hedged by fixing the interest rates at the time of reinvestment, making the interest income constant over a longer period.

The cash flow hedge reserve in shareholders' equity, before application of shadow loss accounting, related to the aforementioned swaps is € 164 million (2017: € 142 million). This reserve is amortised based on the effective interest method and the maturity date of the longest leg of the swap.

Hedging Inflation Risk on Government Bonds

VIVAT uses inflation swaps to hedge the inflation risk in the government bonds.

43. List of Principal Subsidiaries

Overview of Principal Subsidiaries

Name	Country of incorporation and place of business	Nature of business or industry	Proportion of ordinary shares directly held by parent (%)	Proportion of ordinary shares directly held by the group (%)
SRLEV NV	The Netherlands, Alkmaar	Insurance	100	100
VIVAT Schadeverzekeringen NV	The Netherlands, Amstelveen	Insurance	100	100
Proteq Levensverzekeringen NV	The Netherlands, Alkmaar	Insurance	100	100
ACTIAM NV	The Netherlands, Utrecht	Asset management	100	100
Zwitserleven PPI NV	The Netherlands, Amstelveen	Pensions	100	100
RZL Investment Funds	various	Investment management	range	range
ACTIAM Index Funds	various	Investment management	range	range

6.4. Segmentation

44. Segment Information

VIVAT is organised based on product lines in 2018. As a result the following segments have been identified: Life Corporate, Individual Life, P&C, Asset Management and Other. During 2018, the structure remained unchanged.

Life Corporate

This segment offers pension solutions for business customers. A range of products provide the employees of our customers freedom in making the right decisions to secure their financial future. The main brand of this product line is Zwitserleven.

Individual Life

This segment mainly consists of life annuity insurance policies, mortgage-related endowment policies and unit-linked insurance policies. These products are targeted at the retail and SME markets.

Property & Casualty

This segment offers property, casualty and disability insurance.

Asset Management

This segment offers a comprehensive range of investment funds and investment solutions that ranges from responsible index investing to impact investing. The main brand of this product line is ACTIAM.

Other

This segment comprises activities that are managed separately from the other segments.

Accounting basis between reportable segments

Costs are allocated within VIVAT on an accrual basis. The prices of other transactions between group companies are in principal based on arms' length conditions.

45. Statement of Financial Position by Segment

Statement of financial position by segment 31 December 2018

In € millions	Life Corporate	Individual Life	Property & Casualty	Asset Management	Other ¹	Elimination	Total
> Assets							
Property and equipment	28	24	-	-	10	-	62
Investments in associates	-	-	-	-	48	-48	-
Investment property	62	340	-	-	-	-	402
Investments	22,264	14,323	1,557	32	770	-290	38,656
Investments for account of policyholders	7,780	4,209	-	-	-	-	11,989
Investments for account of third parties	329	347	-	-	-	-	676
Derivatives	739	314	23	-	-	-	1,076
Deferred tax assets	569	-	-	-	-378	274	465
Reinsurance share	-	77	83	-	-	-	160
Loans and advances due from banks	686	880	-	-	-	-	1,566
Corporate income tax	34	-	-	2	19	-3	52
Other assets	-337	273	68	21	235	35	295
Cash and cash equivalents	93	68	50	3	61	-	275
Total assets	32,247	20,855	1,781	58	765	-32	55,674
> Equity and liabilities							
Share capital	-	-	-	-	-	-	0
Reserves	1,098	2,149	336	25	-367	-	3,241
Shareholders' equity	1,098	2,149	336	25	-367	-	3,241
Holders of other equity instruments	-	-	-	-	300	-	300
Total equity	1,098	2,149	336	25	-67	-	3,541
Subordinated debt	398	381	150	-	223	-289	863
Borrowings	-	-	-	-	644	-	644
Insurance liabilities	29,083	16,062	1,135	-	3	-	46,283
Liabilities investments for account of third parties	329	347	-	-	-	-	676
Provision for employee benefits	172	-	25	-	351	-	548
Other provisions	5	16	-	-	5	-	26
Derivatives	561	36	5	-	-	-	602
Deferred tax liabilities	-	108	3	-	-385	274	-
Amounts due to banks	221	1,120	17	-	-	-	1,358
Corporate income tax	-	-	2	-	-	-2	-
Other liabilities	380	636	108	33	-9	-15	1,133
Total equity and liabilities	32,247	20,855	1,781	58	765	-32	55,674

¹ In the segment Other, eliminations have been included between Life Corporate, Individual Life, Property & Casualty and Other.

Statement of financial position by segment 31 December 2017

In € millions	Life Corporate	Individual Life	Property & Casualty	Asset Management	Other ¹	Elimination	Total
> Assets							
Intangible assets	-	-	1	-	-	-	1
Property and equipment	24	29	-	-	12	-	65
Investment property	52	328	-	-	-	-	380
Investments	21,581	14,903	1,567	16	851	-235	38,683
Investments for account of policyholders	8,281	4,857	-	-	-	-	13,138
Investments for account of third parties	175	455	-	-	-	-	630
Derivatives	447	294	19	-	-	-	760
Deferred tax assets	544	-	-	-	421	-474	491
Reinsurance share	-	91	90	-	-	-	181
Loans and advances due from banks	685	1,119	-	10	-	-	1,814
Corporate income tax	61	-	13	1	2	-46	31
Other assets	-327	263	72	19	293	-18	302
Cash and cash equivalents	89	63	46	13	48	-	259
Assets held for sale	-	-	7	-	-	-	7
Total assets	31,612	22,402	1,815	59	1,627	-773	56,742
> Equity and liabilities							
Share capital	-	-	-	-	-	-	0
Reserves	1,556	1,760	344	32	-145	-	3,547
Shareholders' equity	1,556	1,760	344	32	-145	-	3,547
Subordinated debt	397	378	150	-	326	-235	1,016
Borrowings	-	-	-	-	642	-	642
Insurance liabilities	28,255	17,371	1,168	-	-	-	46,794
Liabilities investments for account of third parties	175	455	-	-	-	-	630
Provision for employee benefits	184	-	26	-	375	-	585
Other provisions	1	34	-	-	9	-	44
Derivatives	576	36	8	-	16	-	636
Deferred tax liabilities	-	83	4	-	387	-474	-
Amounts due to banks	36	1,591	16	-	-	-	1,643
Corporate income tax	-	22	-	-	24	-46	-
Other liabilities	432	672	99	27	-7	-18	1,205
Total equity and liabilities	31,612	22,402	1,815	59	1,627	-773	56,742

¹ In the segment Other eliminations have been included between Individual Life, Property & Casualty and Other.

46. Statement of Profit or Loss by Segment

Statement of profit or loss by segment 2018

In € millions	Life Corporate	Individual Life	Property & Casualty	Asset Management	Other ¹	Elimination	Total
> Income							
Premium income	1,258	849	735	-	-	-	2,842
Less: Reinsurance premiums	-	7	44	-	-	-	51
Net premium income	1,258	842	691	-	-	-	2,791
Fee and commission income	5	24	2	67	-	-27	71
Less: Fee and commission expense	2	1	-	31	2	-18	18
Net fee and commission income	3	23	2	36	-2	-9	53
Share in result of associates	-	-	4	-	-	-	4
Investment income	934	562	21	-	13	-6	1,524
Investment expense for account of policyholders	-183	-204	-	-	-	-	-387
Result on investments for account of third parties	-16	-28	-	-	-	-	-44
Total income	1,996	1,195	718	36	11	-15	3,941
Inter-segment revenues	3	9	1	3	1		
> Expenses							
Result on derivatives	135	-15	-7	-	-16	-	97
Technical claims and benefits	2,241	893	426	-	-8	-	3,552
Charges for account of policyholders	-57	-29	-	-	-	-	-86
Acquisition costs for insurance activities	2	19	154	-	-	-1	174
Result on liabilities from investments for account of third parties	-16	-28	-	-	-	-	-44
Staff costs	77	67	85	26	15	-	270
Depreciation and amortisation of non-current assets	2	2	3	-	-	-	7
Other operating expenses	18	23	28	19	5	-	93
Impairment losses	-3	4	-	-	-	-	1
Other interest expenses	31	73	11	-	36	-16	135
Total expenses	2,430	1,009	700	45	32	-17	4,199
Result before tax	-434	186	18	-9	-21	2	-258
Tax expense	-28	53	2	-2	-1	2	26
Net result continued operations for the period	-406	133	16	-7	-20	-	-284

¹ In the segment "Other" eliminations have been included between Individual Life, Property & Casualty and Other.

Statement of profit or loss by segment 2017

In € millions	Life Corporate	Individual Life	Property & Casualty	Asset Management	Other ¹	Elimination	Total
> Income							
Premium income	1,366	886	671	-	-	-	2,923
Less: Reinsurance premiums	3	9	39	-	-	-	51
Net premium income	1,363	877	632	-	-	-	2,872
Fee and commission income	3	23	1	79	-	-19	87
Less: Fee and commission expense	1	2	-	35	1	-18	21
Net fee and commission income	2	21	1	44	-1	-1	66
Share in result of associates	-	-	1	-	-	-	1
Investment income	681	739	16	-	24	-10	1,450
Investment income for account of policyholders	194	235	-	-	-	-	429
Result on investments for account of third parties	8	49	-	-	-	-	57
Other operating income	15	-	-	-	-	-	15
Total income	2,263	1,921	650	44	23	-11	4,890
Inter-segment revenues	6	21	1	31	33		
> Expenses							
Result on derivatives	307	96	9	-	15	-	427
Technical claims and benefits	2,481	934	376	-	23	-	3,814
Charges for account of policyholders	-351	438	-	-	-	-	87
Acquisition costs for insurance activities	2	21	137	-	-1	-	159
Result on liabilities from investments for account of third parties	8	49	-	-	-	-	57
Staff costs	88	71	82	25	15	-	281
Depreciation and amortisation of non-current assets	1	2	6	1	-	-	10
Other operating expenses	22	21	28	16	8	-	95
Impairment losses	3	4	-	1	-	-	8
Other interest expenses	32	78	10	-	18	-11	127
Other expenses	-	-	-	-	-	-	-
Total expenses	2,593	1,714	648	43	78	-11	5,065
Result before tax	-330	207	2	1	-55	-	-175
Tax expense	-91	47	-	-	-15	-	-59
Net result continued operations for the period	-239	160	2	1	-40	-	-116

¹ In the segment Other eliminations have been included between Individual Life, Property & Casualty and Other.

7. Managing Risks

7.1. Risk Management System

7.1.1. General

VIVAT has established a Risk Management System (see figure 13) that is aimed at a controlled and effective achievement of the strategic objectives. It relates risks to the strategic, financial and operational objectives as well as to the objectives in the areas of sustainability and reputation. The framework consists of organizational, control and culture components. The management of VIVAT recognises that transparency is a vital element in effective risk management. The Executive Board and the VIVAT Risk Committee (VRC), which is responsible for setting the Risk Management System, monitor that the desired culture and level of risk awareness are translated into identifiable aspects, such as desirable behaviour, details of the risk appetite or criteria for evaluation of employees.

The Executive Board of VIVAT has set guidelines in the risk governance areas of strategy, risk appetite and culture in order to enable risk assessments to be performed properly and efficiently. These guidelines apply to the entire organisation. VIVAT seeks to have an open culture in which risks can be discussed, employees feel a responsibility to share information on risks and (pro)active risk management is appreciated.

The established Integrated Control Framework (ICF), part of the Risk Management System, provides the basis for the internal control system on risk maturity of process key controls and management controls within VIVAT. The management of a Product Line or Functional Line is responsible for day-to-day operations within the Risk Management System, schedules the testing of operating effectiveness of key controls and prepares operational plans on a yearly basis. These plans are subject to the approval of the Executive Board of VIVAT.

For all components within the ICF, standards include applicable minimum requirements. All components of VIVAT are scored for each Product Line and Functional Line by a yearly assessment of all Management Controls, in which both first line and second line of defence are involved.

7.1.2. Overview

In the Risk Management System, specific Solvency II requirements such as the Key Functions and the Own Risk and Solvency Assessment (ORSA) are incorporated. The VIVAT Risk Management System operates an integrated approach for risks that the organisation is or could be exposed to, with Risk Management being an integral part of the decision making process. Major decisions of the Executive Board have to be accompanied by a Key Function opinion.

The core of the VIVAT Risk Management System consists of a Governance part and a Risk management part. In the governance part, starting from the VIVAT Vision and Mission and business strategy, the Risk Strategy and Risk Appetite are derived. The components Risk Policy, Risk Classification and Risk

Organisation are necessary conditions to enable these strategic risk processes. To ensure an integrated approach the first line product and functional lines and the second line key functions use the same risk classification, operations are covered by the Risk Appetite and are aligned by a policy structure.

Governance including an adequate Risk Culture, is conditional for performing risk management on tactical and operational level, with as the core a control cycle of risk identification-measurement- mitigation and continuous monitoring and reporting. The Risk Management Process is supported by the ICF, built up from several components that together form the basis for sound and controlled business operations and hence for visibly being in control of VIVAT and its Product and Functional lines. The ICF measures maturity of risk management and ensures steering on correct and complete risk reports.

The internal reports are a part of (the operation of) the Risk Management Process. The reports on recognised types of risks are input for the integrated risk reports, enabling Key Risk Indicator (KRI) monitoring and drawing management attention to deviations of the risk tolerance limits.

VIVAT performs Risk Self Assessments (RSA) and Strategic Risk Assessments (SRA). An ORSA is incorporated in the VIVAT Risk Management System and is performed at least annually.

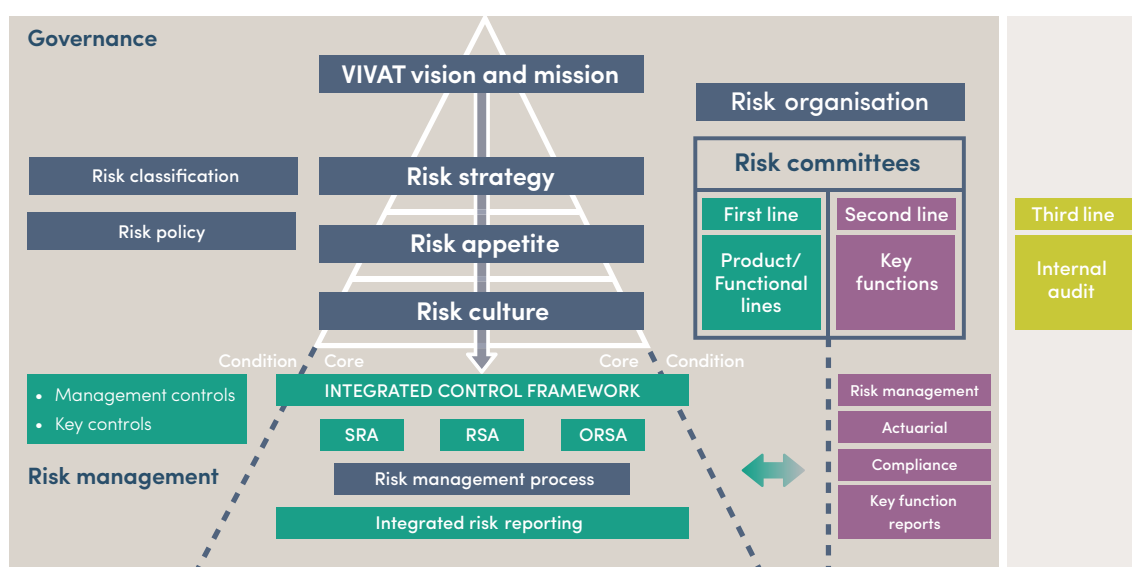


Figure 13: Risk Management

7.2. Risk Management Governance

7.2.1. Mission

To achieve our mission to make financial choices easy, VIVAT has set itself three main goals: Customer advocacy, Profitable growth and Cost discipline. With these goals as our starting point, we have set out a Risk Strategy that contributes to a sustainable profitable growth of VIVAT, for the benefit of all its stakeholders.

In order to achieve our mission, VIVAT takes its role in society seriously. Corporate Social Responsibility (CSR) forms an integral part of the strategy and business operations. VIVAT wishes to offer simple and comprehensible, competitively priced products in efficient business processes, using a central back office in addition. VIVAT pursues a customer-centric strategy, with Zwitserleven, Reaal and nowGo positioned clearly and appealing to different segments. The focus on these flagship brands allows for a more agile and lean operation bringing costs to a lower required level.

7.2.2. Risk Strategy

VIVAT has derived a Risk Strategy, a supporting set of objectives following from the VIVAT vision and mission to achieve the strategic goals. VIVAT aims for a robust and strong capital position, which contributes to the trust of customers, employees, society and financial markets in the company. VIVAT offers competitively priced products by utilising economies of scale in its organisation. The Risk Strategy is expressed in the Risk Appetite.

As main principles VIVAT has defined a robust capital position, a sustainable capital generation and sound and controlled business operations.

VIVAT provides guarantees for future payments to its customer and therefore VIVAT needs a strong capital position. The Executive Board would like to hold a buffer above regulatory requirement to absorb temporary volatility and provide more certainty to its customers.

7.2.3. Risk Appetite

The Risk Tolerance in the Risk Appetite is set yearly by the Executive Board and confirmed by the Risk Committee (RC) of the Supervisory Board. The Risk Tolerance is limited by the risk capacity, which indicates the maximum amount of risk VIVAT can accept at consolidated level, in view of its capital and liquidity position and any restrictions due to funding agreements or requirements imposed by regulators. The Risk Appetite is subsequently translated into practical risk objectives.



Figure 14: Risk Appetite framework

Risk Appetite is defined at VIVAT level. Subsequently it is developed in more detail on the individual legal entity level or specific Product or Functional Lines in the form of individual quantitative risk limits and qualitative constraints. The limits are measurable; the qualitative constraints are observable. When implementing the strategy, the Executive Board gives guidelines to the Product Lines for establishing Operational plans, taking into account the set Risk Appetite and corresponding limits. With those objectives and constraints as starting point, the Product Lines optimise risk and return by developing the best possible products and services.

The evaluation of the Risk Tolerance in the Risk Appetite, which is carried out at least once a year, consists of a number of steps, including risk identification, the determination of risk capacity, the selection of measures, risk mitigation, risk criteria, reporting and monitoring.

7.2.4. Risk Culture

Culture and conduct in general play a vital role in steering a company, and specifically in adequate risk management. Both are considered standard elements in performance evaluation meetings and in annual performance objectives. VIVAT has awareness programmes in place that focus on how employees hold each other accountable for their conduct and how they can escalate matters if necessary. VIVAT has five core behaviours: Client Focus, Result Driven, Immediate Execution, Take Responsibility and Change Attitude.

VIVAT realises that the tone at the top is defining for Risk Culture, which makes communication and exemplary behaviour determinant. VIVAT encourages an open corporate culture in which risks are to be discussed, employees feel responsible to share knowledge on risks and where (pro) active risk management

is appreciated. Exemplary behaviour, the openness for discussion of dilemmas, practicability of policy and transparency are inseparably linked to an open corporate culture.

Risk Culture is also embedded in the organisation by risk management being an integral part of the organisational processes and decision making of VIVAT. Decision making is clear, explicit, and in line with the Risk Policy and Risk Appetite of VIVAT. The management teams of the Product Lines and Functional Lines promote awareness of risks and are supported by the second line departments of the Risk organisation. The management teams are responsible for ensuring that risk decisions are made in accordance with the delegated authorisations, in consultation with all second line Solvency II key functions.

Furthermore, VIVAT ensures that senior management and employees on key functions are fit and proper to fulfill their job. Finally, VIVAT's Remuneration Policy discourages taking undesired and irresponsible risks focused on short-term profit and personal gain.

7.2.5. Risk Organisation

VIVAT implemented the 'Three Lines of Defence' control model (3LoD) including the Solvency II Key Functions and a risk committee governance structure. It contributes to the strengthening of the Risk Culture, taking responsibility for managing risks and internal control, and eventually to the further optimisation and integration of the risk management.

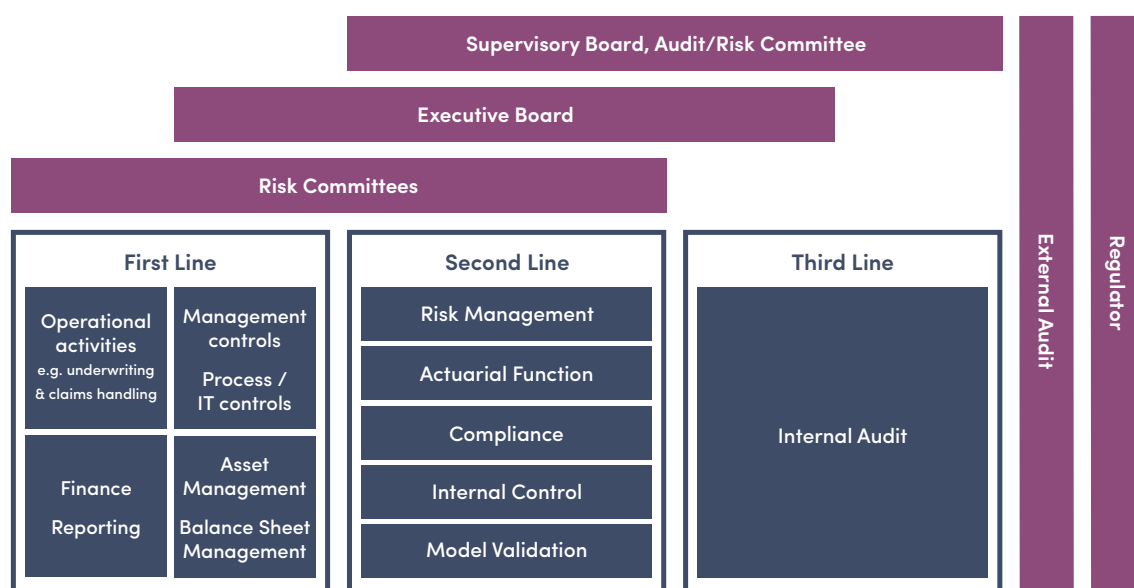


Figure 15: Three Lines of Defence

First Line: Risk Taker

Business plans are prepared in the first line. With this preparation, the first line operationalises the (risk) strategy, focusing on the primary process (i.e. underwriting, claims handling, preparing financial accounts) of the business and on investment activities.

Within the policy framework and subject to internal procedures and risk limits, it is the objective of the risk taker to achieve an optimum risk/return. Consequently risks are managed by identifying, measuring,

mitigating and monitoring them and report whether the risks remain within the risk appetite of VIVAT and its underlying entities.

Risk Self Assessments are carried out and in combination with the ORSA, these assessments could lead to changes in the (risk) strategy. For all these activities the first line has an active role in various risk committees including the ability to demonstrate management and process key controls according to the standards as set by the ICF.

Second Line: Risk Management

The second line has a monitoring role in respect of the risk management actions and activities carried out by the first line. The second line assesses actions in the first line as well as the effectiveness of procedures by means of testing key controls, and is responsible for monitoring the overall risk profile to be in line with the risk appetite.

The second line is also responsible for formulating the Risk Management System and setting Risk Policies. The first line is responsible for the execution of these policies. The second line assesses policy compliance on a regular basis, using risk reports, reports on management and process key controls and own observations. Furthermore, the second line sets the mandates in line with the risk appetite. It also defines basic principles and preconditions for risk models and the control framework and supports central decision-making bodies. The data used, including models, assumptions and techniques, are validated periodically.

The second line risk management organisation of VIVAT is part of the Risk department, resorting under the Chief Risk Officer (CRO). This department includes the second line Financial and Non-Financial Risk departments. The CRO is member of the Executive Board.

Third Line: Internal Audit

Audit VIVAT is the independently operating audit function: Audit VIVAT provides assurance and consulting services, helping VIVAT to accomplish its objectives by evaluating and improving the effectiveness of governance, risk management and control processes.

Audit VIVAT does not take part in determining, implementing or steering of VIVAT's risk appetite, risk management processes and risk responses. Audit VIVAT reports to the chairman of the Executive Board of VIVAT and has direct access to the Chairman of the Audit Committee of the Supervisory Board of VIVAT.

Audit VIVAT performs risk based audits on VIVAT's risk management processes, including their design and how well they are working, on the management of key risks, including the effectiveness of the controls and other activities, and on the reliability and appropriateness of risks and reporting of risk and control status. This means formulating an opinion on whether the organisation's risk management methodology is understood by key groups or individuals involved, including the Executive Board and the Audit Committee. Further, Audit assesses whether risk management processes are sufficient to protect the assets, reputation, and ongoing operations of the organisation.

Risk Committees

In addition to the risk management organisation, VIVAT has established Risk Committees to manage risks effectively. VIVAT has established at Group level the following Risk Committees: VIVAT Risk Committee (VRC), Asset Liability Committee (ALCO), Policies Models and Assumptions Committee (PMAC), Investment Committee (IC), Operational Risk Committee (ORC VIVAT) and Product Committee (PC). The ORC

VIVAT is leading for the underlying ORC MT's. In the ORC MTs, the issues regarding Operational Risk and Compliance are discussed. The PC is leading for the underlying PMP MT's (Product, Marketing, Pricing) in the Product Lines.

Key Functions

In accordance with Solvency II VIVAT recognises four Key Functions. A function as intended in Solvency II is not a person or a department but an internal capacity to perform certain tasks and responsibilities. The Key Functions are established on Group level and carry out activities on behalf of all insurance entities of VIVAT. The CRO is the Risk Management Function Holder, the Managing Director Risk is the Actuarial Function Holder and the Director Non-financial Risk is the Compliance Function Holder. The Director Audit VIVAT is the Audit Function Holder.

The Risk Management Function (RMF) coordinates the Enterprise Risk Management Report (ERM Report), an integrated comprehensive report on the major financial and non-financial risks within VIVAT. It consists of reports from the three second line Key Functions (Risk Management Function, Actuarial Function and Compliance Function) and shows both the development and the outlook with regard to actuarial, financial, model and non-financial risks, and in addition strategic developments. The ERM Report presents both new and progress on existing high risk findings and/or issues compiled on the basis of the information obtained from monitoring reports, risk dashboards, RAS, Internal Control Statements, reports by internal and external regulators, incidents and issues reported, and own assessments & perceptions. It contains a second line opinion on the development of the various risks, the dependency, and the impact on OP, solvency and strategy. The Risk opinion is discussed in the risk committees and in EB, VRC and the Risk Committee of the Supervisory Board.

The RMF provides annually the Risk Management Function Review Report, aimed at providing a sufficient level of assurance that the Solvency II-figures, and Solvency II and IFRS sensitivities, are determined adequate and reliable. This RMF report is submitted to the VRC and the Audit Committee of the Supervisory Board.

The Actuarial Function (AF) opines on the adequacy of the Technical Provision used for IFRS-LAT and Solvency II purposes. It furthermore assesses the reliability and adequacy of Underwriting and Reinsurance programmes. The Actuarial Function Report (AFR) is submitted to the VRC and the Audit Committee of the Supervisory Board.

Regularly the RMF and the AF submit an update based on the follow-up of findings in the AFR and RMF report, supplemented with recent findings and advices. This update is part of the ERM report.

The main purpose of the Compliance Function is to support management in conducting its business operations in a controlled, honest and sound manner, and with regard to the risks which in this context are a threat to achieving the strategic objectives, obligations arising from laws and regulations, insights from social discussions and guidelines imposed by regulators. The Compliance Function provides regularly, as part of the ERM Report, a report on the most important Compliance Risks of VIVAT to the VRC and the Risk Committee of the Supervisory Board.

7.2.6. Risk Policy

VIVAT has an integrated risk management policy structure. The entire policy structure is accessible to employees through the internal policy site. The policy structure ensures the timely identification and assessment of risks and adequate monitoring and reporting of the material risks, both on board and workplace level. The Risk Policy is structured in levels, the aim is to give insight in the cascading from (Solvency II-) legislation, (second line) risk policy, corresponding processes and (first line) implementation. At least once a year the Risk Policies are assessed, adjusted if necessary and approved following regular governance.

7.2.7. Risk Classification

VIVAT provides insight into the risks for the business itself and for its stakeholders to manage these risks within the indicated tolerance levels. This includes both behaviour related and financial aspects of Risk Management. To provide clarity in the communication and management of risks, the risk classification incorporates a comprehensive list of mutually exclusive risk types to which VIVAT is exposed or could be exposed to.

VIVAT has defined and structured different risk types, partly on the basis of applicable laws and regulations (such as Solvency II Standard Formula), and partly on own assessment of risks given VIVAT's risk profile. As part of its strategy, VIVAT deliberately takes Underwriting risks and Market risks aiming for returns. As a consequence, taking Counterparty risk and Liquidity risk may contribute to those returns. Compliance risk and Operational risks are inherent risks that do not provide more returns when taking more risk and have to be controlled and managed at a minimal level.

Strategic developments (governance, positioning, external developments) relate to future business developments and may eventually emerge as one of the main or sub risk types and are monitored in the ERM Report. In the risk assessment on the Operational Plans several internal and external strategic development scenarios are taken into account.

VIVAT applies the Solvency II Standard Formula, not all of the risk categories are part of the Solvency Capital Requirement (SCR) calculation. The SCR calculation does not contain Liquidity and Compliance Risk. The tables below show a breakdown of the SCR of VIVAT and of its solo entities.

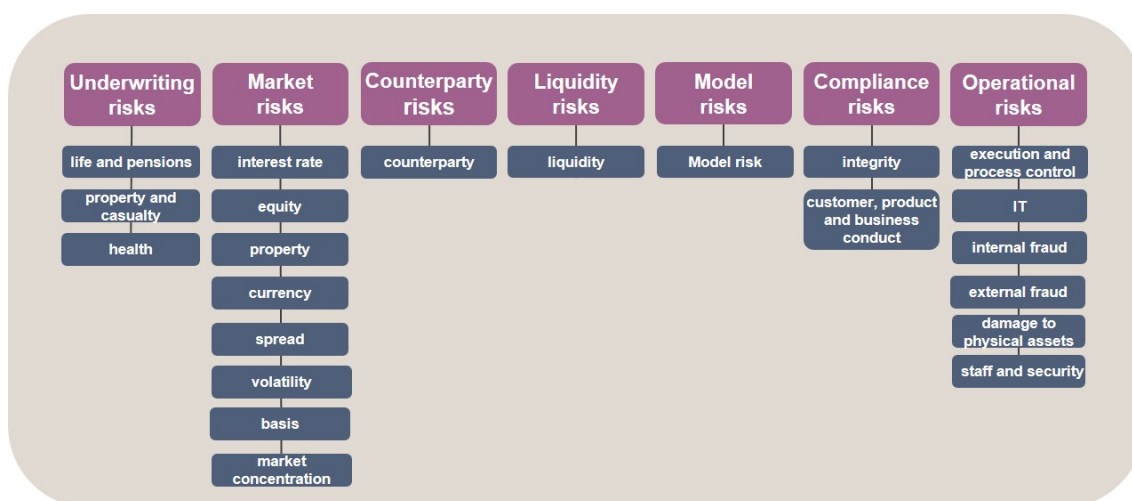


Figure 16: Risk classification

The risk categories will be explained in more detail in the next paragraphs.

To give more insight in the risks the company is exposed to, sensitivities are determined on best effort basis for different underwriting and market risks in paragraph 7.5 and further. For underwriting risks and spread risks the sensitivities shown are the estimated impact on own funds without recalculating the SCR after shock. For the other market risks the sensitivities shown are the estimated impact on own funds including the estimated impact on the SCR market and life underwriting risk after shock.

7.3. Risk Control

Risk Management is a continuous process of identifying and assessing risks and establishing controls. Risk management is an inextricable part of the strategy, policy, processes, procedures, operational embedding, allocation of capacity and responsibilities, and independent testing of control effectiveness. The first and second line departments have been assigned a responsibility in this process, which is supported by the Integrated Control Framework (ICF).

7.3.1. Integrated Control Framework

The Integrated Control Framework (ICF) contains a set of (management and process) controls and an analysis on operating effectiveness enabling management to adequately manage risks, following (strategic) objectives and VIVAT's risk appetite. This enables the identification of gaps in the control framework and monitoring on follow-up using a standardised approach.

The ICF forms the basis for sound and controlled operations within VIVAT and monitors Process Controls and Management Controls.

7.3.2. Process Controls and Management Controls

The effectiveness of Process (key) Controls within VIVAT is scheduled each quarter for independent testing by first line management. The second line (internal control) subsequently performs reviews or reperformance.

Management Controls (or Entity level Controls) give insight in the maturity of risk management and mitigation in the individual product- and functional lines. The standards and control objectives used relate to relevant legislation (e.g. WFT, Solvency II) and internal policies.

After the implementation of the Integrated Control Framework (ICF) and GRC tooling in the period 2015-2017, the ICF was further strengthened in 2018 by focus on the governance, structural improvement of process design and increased analysis and reporting possibilities in GRC tooling. The governance was strengthened by installing an Operational Risk and Compliance Committee at VIVAT level. Regarding process design initiatives were started to facilitate and strengthen process ownership for solid process and control design in which all risk and regulatory elements are incorporated. Also, good progress was made in 2018 in order to incorporate automated controls within the ICF. Practically all processes and controls for P&C were reconsidered and updated. At the end of 2018 a start was made to also rationalise and strengthen the monitoring controls within the actuarial departments of Finance which will further continue in 2019.

Due to the update of the methodology of assessing management controls (MCSA) in 2018, the standards for achieving a specific maturity level have been stricter in comparison to the MCSA2017. Despite the stricter assessment, overall the PL/FL's have been able to further improve or at least maintain comparable maturity levels. Amongst others an increase was measured in maturity on model management in the Finance and Risk domains, due to pro-active communication with second line concerning the model inventory list, model changes and follow-up on findings.

7.4. Capital Management

7.4.1. Definition

Capitalisation refers to the extent to which VIVAT and its underlying legal entities have buffer capital available to cover unforeseen losses and to achieve the strategic objectives of the company. VIVAT manages its capitalisation within limits set in the Risk Appetite Statements. Annually target setting happens in the Operational Plan culminating in a Capital & Funding Plan. Monthly and quarterly forward looking monitoring enables VIVAT taking timely action if capitalisation would deteriorate. VIVAT assesses its capitalisation regularly with respect to level and quality in the ORSA and with respect to risk / return in the ALM Study.

7.4.2. Capital Policy

VIVAT aims for a robust and strong capital position in accordance to its risk profile, which contributes to both the confidence that clients have in the institution and access to financial markets. VIVAT deems a solvency ratio between 140% and 200% as a normal going concern level. The objective of the Capital Policy is to ensure that there is sufficient capital to fulfill obligations towards policyholders and meet requirements. The available capital of VIVAT has to meet internal risk appetite standards as well as external requirements of regulators, rating agencies and also includes commercial considerations. Capitalisation generally refers

to the relationship between risk-bearing activities and available regulatory capital (own funds). The second objective of the Capital Policy is to ensure that capital is used as efficiently and flexibly as possible to facilitate the implementation of VIVAT's strategy.

A recovery plan exists which describes the procedure that applies in a contingency situation. A contingency situation is a situation in which a capital deficit arises, or threatens to arise, that poses a direct threat to the going concern of VIVAT. In its Risk Appetite, VIVAT has defined specific triggers that determine whether a contingency situation exists. The emphasis of these triggers is on capital metrics and these are linked to governance and management measures. VIVAT's Capital Policy forms the basis for lower level policies, process descriptions and procedures.

Management uses the Operational Plan, Capital and Funding Plan, ALM study, Risk Dashboards, ORSA, Recovery Plan and Financial Risk Reporting for managing the capital position. The Capital and Funding Plan describes the medium-term activities relating to capital and funding, including a five-year solvency forecast. The Capital and Funding Plan is based on the Operational Plan as supplied by the underlying Product Lines.

7.4.3. Regulatory Framework

Solvency II is a risk-based regime consisting of three pillars. Pillar 1 regulates the capital requirements. Insurers should be capitalised adequate to their risks. Therefore, this pillar introduces two risk weighted measures: the Minimum Capital Ratio (MCR), and the Solvency Capital Ratio (SCR). Pillar 2 demands a higher level of risk management and governance. Pillar 3 establishes higher standards of transparency.

7.4.4. ORSA

As part of its risk-management system VIVAT conducts its own risk and solvency assessment (ORSA). That assessment includes:

- the overall assessment of solvency taking into account the specific risk profile, approved risk tolerance limits and the business strategy of VIVAT;
- the significance in which the risk profile of VIVAT deviates from the assumptions underlying the SCR calculated with the standard formula.

The ORSA is an integral part of VIVAT's management control cycle and is filed with the regulator.

7.4.4.1. ORSA Process

The ORSA considers external factors, the business strategy, future developments, the risk profile and risk appetite to assess the amount and quality of capital. An overview is shown in the figure below.

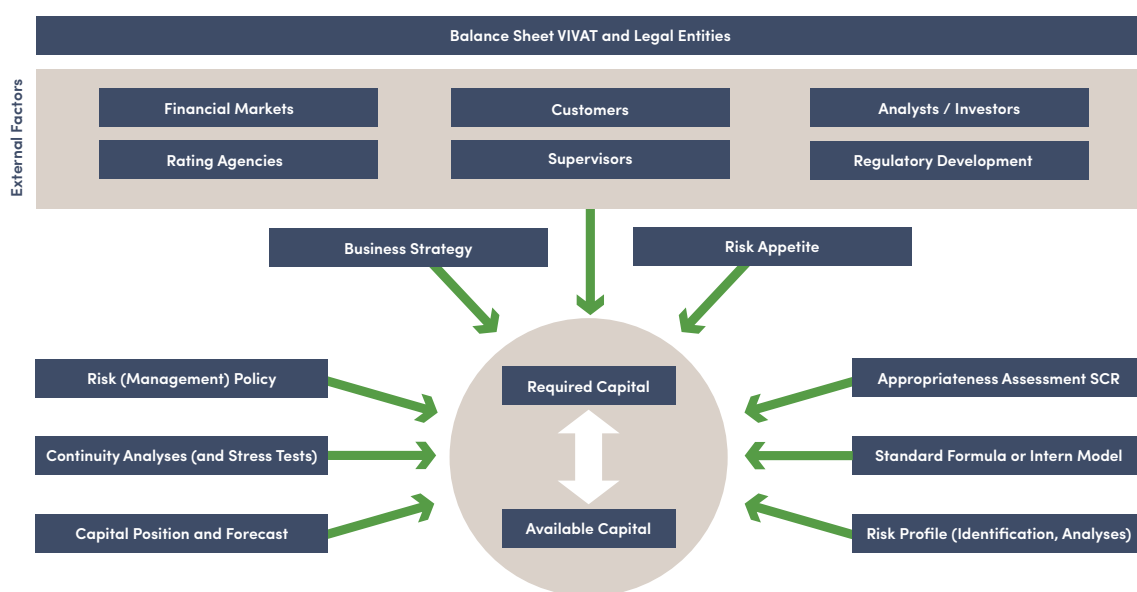


Figure 17: ORSA Process

VIVAT performs the ORSA annually and if any significant change in its risk profile occurs. The Executive Board is accountable and actively involved. Adequacy of capital is tested against a range of stressed scenarios thereby considering the possible effect of management actions.

7.4.4.2. Scenario Tests and Mitigating Action

An extensive risk identification process takes place. The identified risks are subject to a range of stress scenarios, which are severe but plausible, to test the financial position of VIVAT. This is in contrast to the Recovery Plan, in which the scenarios should be severe enough to create a direct threat to the going concern of VIVAT.

For all scenarios in the ORSA mitigating management actions have been assessed.

7.4.4.3. Main Conclusions

The ORSA concludes that VIVAT's risk profile is well reflected in the SCR standard formula and Solvency is adequate. Risks that are out-of-scope of the standard formula have been identified in risk assessments, examined in stress scenarios and mitigated by managerial actions. The quality of VIVAT's capital is good, refinancing of a limited part of VIVAT loans is only due in 2024. VIVAT complies with capital requirements and substantial liquidity and a Revolving Credit Facility is available to recover from stress. VIVAT re-risking plans would further improve capital generation and supports the strong capital position going-forward, while reducing spread volatility by moving to an asset mix more in line with VA reference portfolio.

7.4.5. Recovery Plan

VIVAT is required to establish a recovery plan, which describes the procedures in a contingency situation. A contingency situation is a situation in which a capital deficit arises, or threatens to arise, that poses a

direct threat to the going concern of VIVAT. The Recovery Plan is updated annually. The Recovery Plan includes early warning indicators for emerging crises, a crisis management governance framework and the management actions VIVAT has at its disposal in a crisis situation to maintain its core businesses viable for the future. The management actions are evaluated in a scenario analysis. The annual update of the Recovery Plan is performed in conjunction with the ORSA process and its results are shared with the regulator.

7.4.6. Capital Position

The supervisory authorities EIOPA and DNB have produced several public guidance notes on the interpretation of Solvency II and VIVAT produces all regulatory reports that are mandatory under the Solvency II legislation.

For internal purposes, VIVAT calculates the Solvency II position on a monthly basis. VIVAT calculates its position under Solvency II using the standard formula, applying the Volatility Adjustment (VA) and thus making use of the possibility of applying long-term guarantee measures. VIVAT does not apply the Matching Adjustment. The required and available capital (own funds) under Solvency II are determined on the basis of information at year-end 2018. The yield curve used as at 31 December 2018, including the Ultimate Forward Rate (UFR), Credit Risk Adjustment (CRA) and VA, is published by EIOPA.

EIOPA yearly re-calculates the UFR in accordance with the methodology to derive the UFR. For the euro the calculated target UFR for 2018 is 3.6%. As the UFR for the euro was 4.2% in 2017 and the annual change of the UFR is limited to 15 basis points according to the methodology, the applicable UFR is 4.05% in 2018. That UFR was for the first time applicable for the calculation of the risk-free interest rates of 1 January 2018.

When determining the Solvency II capital ratio, the loss absorbing capacity of deferred tax assets may be set off against the Solvency Capital Requirement (SCR). VIVAT has examined whether, following a loss of the same scale as the (pre-tax) SCR shock, future fiscal profits will be sufficient to be able to recover, partially or fully, the change in deferred tax asset created by that loss. The Loss Absorbing Capacity of Deferred Taxes in the SCR is prudently set at 0% for VIVAT and its legal entities, except for legal entities with a net Deferred Tax Liability (DTL). In these cases the Loss Absorbing Capacity of Deferred Taxes equals the net DTL-position. The net Deferred Tax Asset on the balance sheet of VIVAT as at 31 December 2018 is valued at 100% under IFRS and Solvency II.

Under Solvency II, capital is called 'eligible own funds' and is divided into three tiers. These tiers reflect the ability to absorb capital losses, with Tier 1 being the highest capital quality (which can be further split in restricted and unrestricted Tier 1 capital) and Tier 3 the lowest. VIVAT does not have 'ancillary own funds' (such as letters of credit and guarantees) which require supervisory approval.

The classification of the hybrid capital of VIVAT NV and SRLEV NV (outstanding on 31 December 2018) into Tier 1 and Tier 2 capital is based on the transitional measures contained in the level 1 regulations, and aligned with DNB.

The following table shows the breakdown of the eligible own funds, starting from shareholders' equity:

Breakdown Own Funds

In € millions	2018	2017 ¹
Shareholders' equity	3,240	3,547
Reconciliation IFRS-Solvency II	265	-387
Subordinated liabilities	1,177	1,049
Other	-	-1
Total available own funds	4,682	4,208
Tiering restriction	-47	-428
Total eligible own funds	4,635	3,780

¹ Figures as filed with the regulator.

The following items result in differences between IFRS shareholders' equity and Solvency II own funds.

Reconciliation IFRS-Solvency II

The reconciliation encompasses the following significant differences in measurement under Solvency II and under IFRS:

- Technical provisions – Under Solvency II the technical provisions (including provisions for saving mortgages) are measured using Solvency II parameters, taking into account current market estimates. Under IFRS a liability adequacy test on the technical provision is performed, if the carrying amount of the technical provision is inadequate, the provision is increased. With respect to economic parameters used, there are differences regarding the interest rate curve and the cost of capital. The difference in the interest rate curve development, due to the VA development that is only applicable for Solvency II, is a main driver for the development of the reconciliation of IFRS and Solvency II.
- Deferred Tax Assets – Due to differences in the valuation of assets and liabilities the resulting DTA position is different.

Subordinated Liabilities

Under Solvency II the available own funds include subordinated debt including accrued interest with regard to this debt.

Tiering Restriction

The use of own funds of different tiers is subject to certain limits under Solvency II. These limits are related to the required capital or Tier 1 capital, and is applied to define the Eligible Own Funds. These limits cause a difference between the Available Own Funds and the Eligible Own Funds.

Per Year-end 2017 the tier 2 and tier 3 restriction was applicable for VIVAT. The successfully executed Restricted Tier 1 issuance by VIVAT of € 300 million combined with a successful tender offer of € 150 million for part of the SRLEV € 400 million Tier 2 subordinated notes in June, increased the effectiveness of capital and decreasing the tiering restriction. Per Year-end 2018 only the tier 3 restriction was applicable for VIVAT. Furthermore, the increase in the VA and the by the Senate approved decrease of the Corporate Income Tax Rate decrease the DTA and therefore decrease the tiering restriction as well.

For SRLEV the tier 3 restriction remained applicable during 2018.

Breakdown tiering

In € millions	Tier 1		Tier 2	Tier 3	Total
	Unrestricted	Restricted			
Eligible own funds to meet the Group SCR 2018	3,099	398	779	359	4,635
Eligible own funds to meet the Group SCR 2017 ¹	2,538	91	958	193	3,780

¹ Figures as filed with the regulator.

VIVAT

The increase in Eligible Own Funds can be mainly explained by market movements (spread and VA) and capital effects.

In June 2018 VIVAT successfully executed a Restricted Tier 1 issuance by VIVAT of € 300 million combined with a successful tender offer of € 150 million for part of the SRLEV € 400 million Tier 2 subordinated notes. The transaction increased both the capital position as the effectiveness of capital (due to a decrease in tiering restrictions), increasing the Eligible Own funds of VIVAT.

Due to widening of government bonds spreads and especially corporate bond spreads in the reference portfolio of the VA, the applicable VA has increased per year-end 2017 from 4bps to 24bps per year-end 2018. The portfolio of VIVAT is currently more defensive than the VA Reference portfolio, as a consequence the spread impact to the assets was more limited than the decrease of the market value of insurance liabilities caused by the VA, increasing the Eligible Own Funds of VIVAT substantially.

SRLEV

The increase in Eligible Own Funds can be mainly explained by market movements (spread and VA) and capital effects.

In September 2018 € 200 million of VIVAT's liquidity was injected as Tier 1 capital to SRLEV increasing the Solvency II ratio of SRLEV.

Due to widening of government bonds spreads and especially corporate bond spreads in the reference portfolio of the VA, the applicable VA has increased per year-end 2017 from 4bps to 24bps per year-end 2018. The portfolio of SRLEV is currently more defensive than the VA Reference portfolio, as a consequence the spread impact to the assets was more limited than the decrease of the market value of insurance liabilities caused by the VA, increasing the Eligible Own Funds of SRLEV substantially.

VIVAT Schadeverzekeringen

VIVAT Schadeverzekeringen has improved technical results, but combined with low expected asset returns and funding costs the Own Funds development is negative.

Proteq Levensverzekeringen

The increase in Eligible Own Funds can be mainly explained by market movements (spread and VA).

Due to widening of government bonds spreads and especially corporate bond spreads in the reference portfolio of the VA, the applicable VA has increased per year-end 2017 from 4bps to 24bps per year-end 2018. The portfolio of Proteq is currently more defensive than the VA Reference portfolio, as a consequence the

spread impact to the assets was more limited than the decrease of the market value of insurance liabilities caused by the VA, increasing the Eligible Own Funds of Proteq substantially.

Solvency Capital Requirement

In € millions	2018	2017
Life underwriting risk	1,376	1,520
Underwriting risk Non-Life	203	208
Underwriting risk Health	269	271
Market risk	1,133	836
Counterparty default risk	164	145
Diversification	-952	-881
Basic Solvency Capital Requirement	2,194	2,099
Operational risk	199	203
Loss-absorbing capacity of technical provisions	-	-
Loss-absorbing capacity of deferred taxes	-	-
Net Solvency Capital Requirement	2,393	2,302
Capital requirements of other financial sectors	19	25
Consolidated group SCR	2,412	2,327

The main risk profile changes in 2018 are explained in the Risk Profile paragraph.

Capital Requirements of other financials sectors refer to holdings which are subject to a different regime than Solvency II.

Solvency II Ratio

In € millions/percentage	2018 ¹	2017 ²
Total eligible own funds	4,635	3,780
Consolidated group SCR	2,412	2,327
Solvency II ratio	192%	162%

¹ Regulatory Solvency II ratio is not final until filed with the regulator

² Figures as filed with the regulator

A detailed movement analysis is included in the general section of the Risk Profile.

Contingent liabilities – Under Solvency II, VIVAT has not measured the contingent liability relating to unit-linked policies in calculating the own funds as no reliable estimate can be made of the outcome. This is consistent with the measurement under IFRS.

7.4.7. Risk Profile

VIVAT and her insurance subsidiaries keep focusing on improving capital generation by re-risking, improving its combined ratio and value of new business, and further optimizing its risk profile taking into account its Risk Appetite. In 2018, as part of re-risking program, the investment portfolio has been shifted to more US credit investments, Emerging Markets Debt and a securities lending program has been started which will have an expected positive impact on capital generation. However, this also leads to an immediate increase on the Solvency Capital requirement decreasing the Solvency II Ratio.

As part of optimising the risk profile, VIVAT by her subsidiary SRLEV has entered into a full indemnity reinsurance contract to transfer longevity risk (a Quota Share Reinsurance agreement). The Solvency II ratio has been increased significantly by decreasing the longevity risk as part of life underwriting risk. Furthermore, due to new regulatory developments and, as a result of this, the limited effectiveness of the Mass Lapse stop loss treaty, VIVAT by her subsidiary SRLEV has decided to cancel the mass lapse reinsurance contract, which was activated in Q4 2016. The consequence of this cancellation in the increase for underwriting risk is nihil.

VIVAT has continued the process of re-risking and of reducing the spread mismatch between assets (mainly German and Dutch government bonds) and liabilities (mainly swap plus Volatility Adjustment) over 2018. Similar to 2017, the basis risk was further mitigated during 2018 by replacing long duration German and Dutch government bonds by swaps combined with short duration government bonds.

In June 2018, VIVAT successfully executed a Restricted Tier 1 issuance by VIVAT of € 300 million combined with a successful tender offer of € 150 million for part of the SRLEV € 400 million Tier 2 subordinated notes. The transaction increased both the capital position as the effectiveness of capital (due to a decrease in noneligible capital), increasing the Solvency II ratio of VIVAT. In September 2018, € 200 million of VIVAT's liquidity was injected as Tier 1 capital to SRLEV increasing the Solvency II ratio of SRLEV.

Due to widening of government bonds spreads and especially corporate bond spreads in the reference portfolio of the Volatility Adjustment (VA), the applicable VA has increased per year-end 2017 from 4bps to 24bps per year-end 2018. The portfolio of VIVAT is currently more defensive than the VA Reference portfolio, as a consequence the spread impact to the assets was more limited than the decrease of the market value of insurance liabilities caused by the VA, increasing the Solvency II ratio of VIVAT, SRLEV, VIVAT Schadeverzekeringen and Proteq Levensverzekeringen substantially.

As part of the re-risking strategy VIVAT by her subsidiary SRLEV has also entered a limited tactical spread position. Furthermore, VIVAT and SRLEV have managed their interest rate risk slightly further increasing the interest rate risk under Solvency II. However, VIVAT's interest rate risk remains well hedged on a Solvency II ratio basis.

The main risk profile changes in 2018 for VIVAT and SRLEV relate to changes in spread risk (re-risking), interest rate risk (re-balancing and tactical spread position), counterparty default risk (securities lending programme), equity risk (One-time item) and life underwriting risk (entering longevity re-insurance). Furthermore, the UFR has decreased per year-end 2017 from 4.2% with 15bps to 4.05% per year-end 2018. This had a negative impact on the valuation of long term life insurance liabilities.

The main risk profile changes of VIVAT Schadeverzekeringen relate to changes in spread risk (re-risking) and Non-life underwriting Risk (new re-insurance treaty). VIVAT Schadeverzekeringen has improved technical results, but combined with low expected asset returns and funding costs the Own Funds development is negative. To become more in line with the developments on climate change, VIVAT has purchased additional reinsurance cover through an Annual Aggregate Excess of Loss treaty for 2019. The Annual Aggregate Excess of Loss treaty protects on an annual basis the retention of the catastrophe reinsurance programme and regular property programme against an increase in frequency, decreasing the Non-life underwriting risk (catastrophe risk) and increasing the Solvency II ratio.

The risk profile change of Proteq Levensverzekeringen is mainly due to an increase in spread risk as a result of re-risking. Furthermore, Proteq's Solvency has improved substantially by an update in expense assumptions.

Development Solvency Ratio

The development in 2018 of the solvency ratio is explained by the analysis of change as presented in the graphs below. The movement consists of the categories Capital Generation, Capital Effects, Market Impacts, One-time items, Tax and Tiering effects and Miscellaneous Movements (Other).

Capital Generation is defined as the change of eligible own funds caused by (organic) capital generation due to expected asset return, Value New Business, release of Risk Margin and unwinding of the UFR.

In Capital Effects the effects to capital are shown (i.e. coupon payments to subordinated loans, (Restricted) Tier 1 and Tier 2 capital issuances, Tier 1 capital injection).

In Market Impacts the impact of economic variance to the asset and liability return is taken into account (i.e. spread and interest rate movement). Next to these movements, also the change caused by the Volatility Adjustment is taken into account.

One-time items show the impact of events like entering into a longevity reinsurance contract, the UFR decrease, re-risking impact and changes in models.

Changes of Tax and Tiering due to fiscal movements, Senate approved changes to the corporate income tax-rate and Solvency Capital Requirement changes are presented in Tax and Tiering effects. Next to these movements the Loss Absorbing Capacity of Deferred Taxes movement is taken into account.

Miscellaneous Movements or Other consists mainly of changes in insurance parameters (including expense), insurance results, as well as other business developments. It also contains the regular development (run-off development and new business) of the Solvency Capital Requirement.

Analyses of Change Solvency Ratio

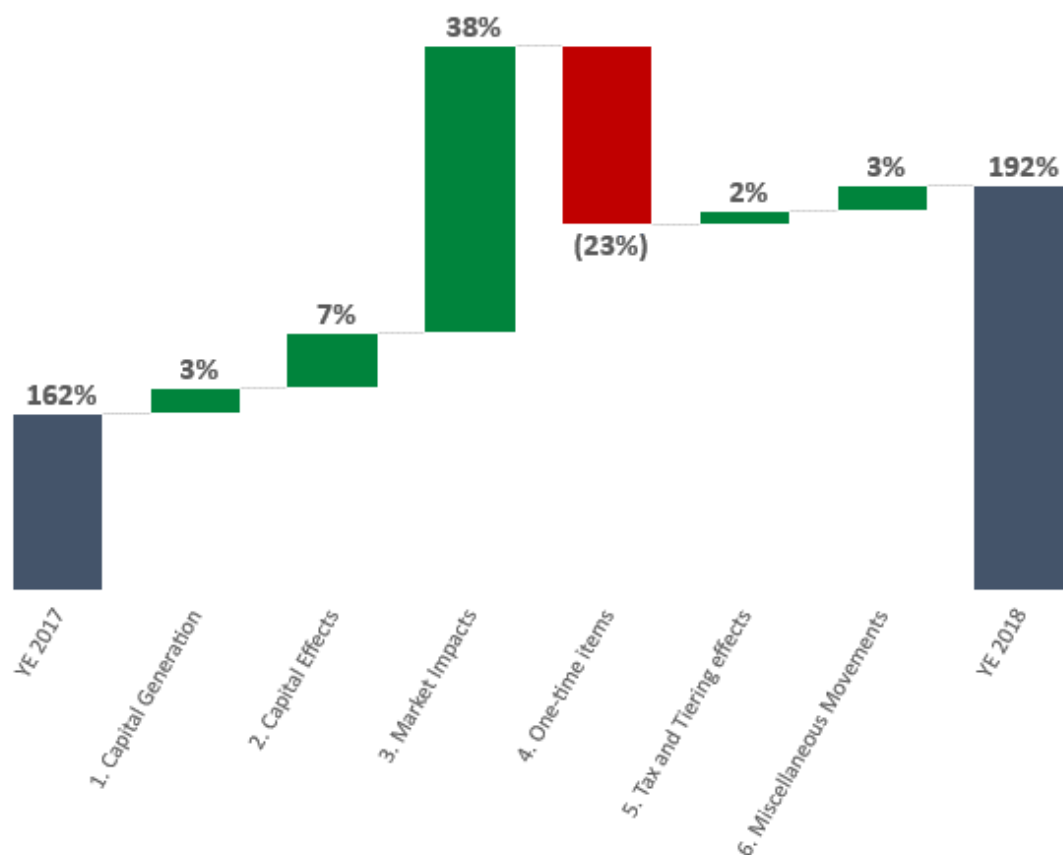


Figure 6: AoC Solvency Ratio

The Solvency II ratio of VIVAT NV increased from 162% to 192% in 2018. The main drivers of this movement are:

Capital Generation (+/+3%)

VIVAT is actively steering to improve organic capital generation amongst others by optimising her risk profile and re-risk. Re-risking will also decrease spread volatility by better matching the reference portfolio of the Volatility Adjustment. VIVAT's organic capital generation is hampered by the UFR-drag and low due to low expected asset return caused by a low exposure to market risks.

Capital Effects (+/+7%)

The increase of the Solvency II ratio of 7% is mainly explained by the successfully executed Restricted Tier 1 issuance by VIVAT of € 300 million combined with a successful tender offer of € 150 million for part of the SRLEV € 400 million Tier 2 subordinated notes in June. The transaction increased both the capital position as the effectiveness of capital (due to a decrease in non-eligible capital), increasing the Solvency II ratio of VIVAT. This increase of the eligible own funds is partly offset by coupon payments on subordinated loans.

Market Impacts (+/+38%)

The increase in Solvency II ratio of 38% is mainly explained by spread and Volatility Adjustment movement.

Under the Solvency II regime the swap curve with a prescribed Ultimate Forward Rate (UFR) is used when discounting insurance liabilities, adjusted for credit risk (CRA) and a Volatility Adjustment (VA). The VA moves along with the credit spreads, but still substantial basis risk remains because the VA is based on a reference portfolio instead of VIVAT's own asset portfolio, and also a 65% scaling factor is applied to determine the VA. VIVAT is overweighted in AAA rated European government bonds compared to the VA reference portfolio.

In 2018 the government bonds spreads and especially corporate bonds spread have widened in the reference portfolio of the VA, the applicable VA has increased from 4bps per year-end 2017 to 24bps per year-end 2018. The portfolio of VIVAT is currently more defensive than the VA Reference portfolio. As a consequence the spread impact to the assets was more limited than the decrease of the market value of insurance liabilities caused by the VA, increasing the Solvency II ratio of VIVAT substantially.

One-time items (-/-23%)

One-time items decreased the Solvency II ratio with 23%, mainly explained by the following events:

- Re-risking.
 - Mainly due to the shift in the investment portfolio to more (US) credit investments, more Emerging Markets Debt and the start of a securities lending program has led to an increasing effect on the spread and counterparty default risk.
 - VIVAT by her subsidiary SRLEV has also entered a limited tactical spread position.
 - Furthermore, VIVAT and SRLEV have managed their interest rate risk slightly further increasing the interest rate risk.
 - However, VIVAT's interest rate risk remains well hedged on a Solvency II ratio basis.
 - This decreases the Solvency II ratio in total by approximately 16%.
- Entering into a longevity reinsurance contract. This increases the Solvency II ratio by approximately 13% by decreasing longevity risk as part of the Life underwriting risk.
- Improved determination of risk margin and life underwriting risk, due to new investigation in homogeneity of risk groups, has decreased the solvency II ratio by approximately 8%.
- The UFR decrease. The eligible own funds decreased due to the decrease of the UFR from 4.20% per year-end 2017 with 15bps to 4.05% per 2018 year-end decreasing the Solvency II ratio by approximately 4%.
- Changes in models. The SCR equity increased mainly due to improved modelling of the risk and the SCR Counterparty Default increased due to new insight in determining the risk (legislation and modelling). The Solvency II ratio decreased by approximately 4%.

Tax and Tiering effects (+/+2%)

The movement is mainly explained by an increased Solvency Capital Requirement decreasing the tiering restriction to Tier 2 and Tier 3 capital.

Miscellaneous Movements or Other (+/+3%)

The most important drivers for the increase in Solvency II ratio of 3% in this category is portfolio development, including reflection of this in underwriting parameter updates and insurance results.

7.5. Underwriting Risk

7.5.1. Risks – General

The underwriting risk is the risk that the own funds, earnings or solvency will be threatened as a result of the inability to make payments (either now or in the future) from premium and/or investment income owing to incorrect and/or incomplete assumptions (mortality, longevity, disability, claims, policy holders' behaviour, catastrophes, interest and expenses) used in the development of the product and the determination of its premium. A distinction is made between Life (including Pensions) and Non-Life (Property & Casualty and Disability). The interest rate risk related to insurance products forms part of the market risk.

7.5.2. Risk Management Process

VIVAT assesses new underwriting risks continuously and manages existing underwriting risks, for both new business and for the existing portfolio.

Operational Plan

Derived from the VIVAT strategy, the Operational Plan (OP) describes the planned development of the insurance portfolio together with the related capital requirement for the next three years, based on expected new business and the existing portfolio. The OP sets out in broad terms whether VIVAT wants to enter new markets, which forms of distribution will be used, whether new (forms of) insurance products will be developed, and which products will be adjusted or terminated. It also lays down possible measures relating to acceptance and the mitigation of claims.

Product Development, Pricing and Acceptance

In accordance with the OP, new or adjusted products are developed which follow the Product Approval and Review Process (PARP). Starting from the customer's interests the target group, coverage and terms and conditions are determined. This is the basis for the best estimate risk premium, taking into account options and guarantees, capital requirements and the internal pricing curve. Furthermore, criteria related to profitability and risk control measures (acceptance criteria, clauses, any reinsurance) must be met.

The Product Committee (PC), in which the Solvency II second line Key Functions are represented, is responsible for approval of new products, including the pricing. A selling product review is performed regularly, existing products follow a risk based product review calendar.

Technical Provisions

At the Non-Life Insurance businesses, all relevant information on portfolio and claims developments is used for the calculation of the Technical Provision and the SCR on a quarterly basis. At Life, the provision is calculated monthly. For IFRS, a liability adequacy test on the (IFRS) premium and claims reserves is performed once a month (at the Life and Pensions businesses) or once every quarter (at the Non-Life Insurance businesses), or more frequently if this is deemed necessary. Any reserves that are inadequate are increased. The most recent insights as to parameters are involved. The Actuarial Function assesses the Solvency II Technical Provision and expresses an opinion on its reliability and adequacy at least once a year.

Parameter Study

For long-term policies (Life, Disability) evaluation of the underwriting parameters (e.g. mortality, lapses, disability, recovery) takes place by a parameter study. The aim of this study is to value the existing insurance portfolio and set the cost price of new Life insurance policies. For short-term policies the Non-Life underwriting parameters are evaluated every quarter, other parameters (like lapse) at least once a year. Thereby relevant information on portfolio developments is taken into account. At the Non-Life business, the tariff structure of each product is regularly assessed by means of analysis. Monitoring takes place on the basis of the combined ratio of each branch and distribution.

Portfolio Analysis

Portfolio analysis is aimed at optimising risks and returns within the risk policy structure. This can lead to new strategic insights in areas such as entering new markets or terminating products. The analysis is based on the impact of underwriting risks following from various measures: IFRS-based liability adequacy test (LAT), long term profitability, SCR and VNB. Based on the risk appetite, VIVAT mitigates underwriting risks primarily by means of diversification and reinsurance.

7.5.3. Life

Life includes SRLEV and Proteq Levensverzekeringen.

7.5.3.1. Risk Categories

The underwriting risk in the Life business includes the significant sub-risk categories of mortality risk, longevity risk, lapse risk, catastrophe risk and expense risk. It may include disability and recovery risk to a limited degree. VIVAT is also exposed to interest rate risk in the context of guarantees for both IFRS and Solvency II.

Mortality Risk and Longevity Risk

The risk most typically associated with Life insurance policies is mortality and longevity risk. These risks mainly affect the duration and timing of the payment of the insured cash flows. Mortality risk indicates the risk for the company of the policyholder dying earlier than expected. In the case of a life benefit, the longevity risk for VIVAT is that the policyholder might live longer than expected. The financial impact of the difference between the date the policyholder is expected to die and the actual date of death can be substantial, particularly in the case of longevity risk.

To forecast the survival probabilities of the entire population, VIVAT uses the model published by the Netherlands Actuarial Association (Projection table AG2018) which combines mortality rates of several European countries with those of the Netherlands. The probabilities are reviewed at least once a year and updated if necessary to include the most recent observations. Once a year VIVAT also reviews and if required updates the empirical figures for portfolio mortality on the basis of research into observed mortality within the Life portfolio.

Disability-morbidity Risk

Other underwriting risks that affect the Life insurance portfolio is the risk of being (partly) incapacitated for work for a period or on a permanent basis. The financial impact is mostly dependent on the age, the sum insured and the disability percentage of the policy holder.

Lapse Risk

Other underwriting risks that affect the Life insurance portfolio are risks associated with policyholders' behaviour, such as early surrender (the policyholder terminates the policy before the maturity date) or conversion to a paid-up status (the policyholder terminates the regular premium payment before the maturity date).

Life Expense Risk

VIVAT runs expense risk if actual costs turn out to be higher than the amounts received from the cost loadings included in the pricing calculation. This relates to changes in the level, trend or volatility of the costs related to the fulfilment of insurance or reinsurance contracts.

VIVAT uses a 'moderate going concern' assumption in its models. This means that it expects the portfolio to decline in size owing to growth from new policies failing to keep pace with the expiry of existing policies. As a result, it will be harder to spread fixed costs over a declining total number of policies. This assumption is reflected in the projection parameters for the technical provision.

Life Catastrophe Risk

With respect to Life insurance, in the event of a catastrophe the risks will be concentrated primarily in the group insurance portfolio. Participants in a group contract often work at the same location or undertake joint activities, which brings about a concentration of risk. Such concentrations of risks have been partly offset through the use of reinsurance.

Interest Rate Guarantee Risk

In the case of traditional insurance policies, VIVAT bears the interest rate risk on the investments that are held to cover the obligations to policyholders. When a benefit or annuity payment is due, VIVAT pays the policy holder a predetermined nominal amount. In contrast, VIVAT does not run any interest rate risk on pure unit-linked contracts. However, VIVAT has issued interest rate guarantees for some unit-linked insurance policies, as a result of which it is exposed to an interest rate risk in respect of products of this type. A guaranteed minimum return on maturity or a guaranteed yearly return applies in the case of unit-linked investment policies with an interest rate guarantee.

In the case of Group insurance policies with separate accounts, it is the policyholder that, in principle, bears the market risk. The policyholder is the institution that concluded the contract to insure the pension commitments for its employees with VIVAT. VIVAT guarantees the payment of the insured pension rights. The value of the investments has to be at least sufficient to cover the provision for accrued pension rights that are guaranteed. Additional measures may also have been agreed contractually to compensate for investment losses up to a certain amount (e.g. the creation of an additional provision/buffer in the investment account). VIVAT is entitled to reduce the market risk if the additional provisions/buffers are insufficient. If the value of the investments (including any contractually agreed additional measures) turns out to be insufficient, the remaining deficit is for the risk of VIVAT.

The following table indicates which risks are associated with specific products for the Life insurance portfolio of VIVAT.

Products in the Life insurance portfolio (Solvency II)

Product	Product features		Risks per product					
	Guarantee	Profit-Sharing	Mortality	Longevity	Cata-strophe	Lapse	Expense	Disability
Savings-based mortgage	Mortgage interest		√		√	√	√	
Life annuity	Regular payment			√			√	
Term insurance	Insured capital	¹	√		√	√	√	
Traditional savings	Insured capital	√	√	√	√	√	√	
Funeral insurance	Insured capital	√	√	√	√	√	√	
Individual insurance policies in investment units	²		√	√	√	√	√	
Group insurance policies in cash	Regular payment / Insured capital	√	√	√	√	√	√	√
Group insurance policies in investment units	²		√	√	√	√	√	√
Group insurance policies with separate accounts	Regular payment / Insured capital ³			√	√	√	√	√

¹ Partly company profit-sharing

² In some insurance guaranteed minimum yield applies at maturity

³ End of contract date contract contributory is not mandatory

7.5.3.2. Life Insurance Portfolio

The Life insurance portfolio contains individual (Individual Life) and Group insurance (Life Corporate) policies.

Individual policies are sold as policies with a fixed sum insured and policies with a benefit in units (unit-linked and universal life insurance). The traditional products were sold without or with profit sharing. The unit linked policies are without or with guarantees.

The Individual Life insurance portfolio mainly consists of unit-linked insurance policies, savings mortgage policies, endowments and other savings policies, term life policies, funeral policies and Life annuity insurance policies providing regular payments for a fixed period or for the remainder of the holder's life.

The Life Corporate portfolio consists of both traditional contracts where the investment risk is borne by the insurer, investment insurance (unit linked and universal life) and separate accounts, where the investment risk is borne by the customer. The separate accounts have an interest guarantee whereby at the current low interest rates this option has value for the customer.

The total portfolio is spread over policies with mortality risk and policies with longevity risk.

VIVAT sells individual Life insurance policies and annuities in the retail and SME markets in the Netherlands. With respect to new business, the focus is primarily on term Life insurance. These are sold via the labels Reaal and Zwitserleven by intermediaries and through direct channels. Furthermore, mortgage-related capital insurance is sold. The individual life insurance is aimed at private households.

VIVAT's corporate Life insurance portfolio focuses on the entire corporate market in the Netherlands.

The next table provides an overview of the product portfolio.

Scope of various insurance categories

	Gross premium income		Sum insured		Technical provision for insurance contracts ¹	
	2018	2017	2018	2017	2018	2017
In € millions						
Traditional insurance policies	636	646	68,457	70,942	11,198	11,764
Individual insurance policies in investment units	213	240	80,063	84,522	4,208	4,937
Total Individual Life	849	886	148,520	155,464	15,406	16,701
Traditional insurance policies	321	321	2,353	2,582	3,436	3,357
Group insurance policies	442	591	17,017	15,987	12,006	11,349
Group insurance policies in investment units	497	454	41,909	38,968	8,176	8,640
Total Life Corporate	1,260	1,366	61,279	57,537	23,618	23,346
Total	2,109	2,252	209,799	213,001	39,024	40,047

¹ The technical provision for insurance contracts excludes Results on allocated investments and interest derivatives and LAT deficit.

Breakdown of various insurance policies

In € millions	Gross premium income		Sum insured		Technical provision for insurance contracts ¹	
	2018	2017	2018	2017	2018	2017
Term insurance	187	184	66,314	65,758	591	563
Pure endowment	39	80	2,438	2,567	1,487	1,495
Endowment	403	437	16,989	19,058	8,858	9,429
Funeral insurance	27	28	2,074	2,119	1,142	1,132
Deferred annuities and survivor annuities	270	502	12	9	7,224	6,891
Annuity payments	451	304	0	-	7,217	6,820
Supplementary coverage	22	23	0	-	121	140
Traditional insurance policies	1,399	1,558	87,827	89,511	26,640	26,470
Individual insurance policies in investment units	213	240	80,063	84,521	4,208	4,937
Group pure endowments	414	355	5,616	5,677	5,690	5,724
Group endowments	4	5	1,421	1,944	424	553
Group deferred annuities and survivor annuities	21	41	0	0	1,359	1,579
Group annuity payments	5	5	0	0	602	703
Other group insurance policies	53	48	34,872	31,348	101	81
Insurance policies in investment units	710	694	121,972	123,490	12,384	13,577
Total	2,109	2,252	209,799	213,001	39,024	40,047

¹ The technical provision for insurance contracts excludes Results on allocated investments and interest derivatives and LAT deficit.

Co-insurance Life

VIVAT has concluded a number of co-insurance contracts with one or more other insurers. In general, risk assessments are based on the information provided by the administrating company. In the case of co-insurance, each co-insurer is liable for its own part of the insurance. Every year, the leader of the contract draws up a report that VIVAT uses to monitor the development of the portfolio and determine the provisions.

7.5.3.3. Life Reinsurance

The insurance business has a largely integrated reinsurance programme for the life and disability portfolio.

As per 2018, proportional reinsurance of the mortality risk is no longer in place and only the individual disability risk is reinsured. The retention for individual disability risks corresponds to € 1.5 million sum at risk per insured. For 2019, the appropriateness of the current structure of the reinsurance programme for disability will be further assessed.

The catastrophe reinsurance contract for life and disability was concluded as an umbrella cover for the different sub portfolios together. The cover of the catastrophe reinsurance for life and disability amounts from € 15 million up to € 90 million.

To protect VIVAT for the risk of a mass lapse event, VIVAT had a non-proportional Mass Lapse Stop Loss reinsurance contract (indemnity based) in place. Due to new regulatory developments and, as a result of this, the limited effectiveness of the stop loss treaty, VIVAT is of the opinion that continuation of the mass

lapse stop loss reinsurance treaty is no longer appropriate and decided to terminate the stop loss treaty as per ultimo 2018.

Finally, after a thorough and intensive investigation regarding the risk mitigation of longevity risk VIVAT has succeeded to transfer part of the longevity risk through a full indemnity-based Quota Share reinsurance treaty. With this Quota Share the remaining longevity risk is in line with VIVAT's internal risk appetite. The impact has been reflected in the 2018 SCR calculations.

7.5.3.4. Sensitivities and SCR

The value of the Life insurance portfolio is sensitive to changes in the underwriting parameters used for calculating the market value of liabilities. In order to obtain information on these sensitivities, the effects of changes in mortality rates, surrender rates (including conversions to non-contributory policies) and expense assumptions, including inflation, are calculated separately. The most material items have been disclosed.

The key sensitivities of IFRS equity, or the Solvency II ratio, to changes in the underwriting parameters are the sensitivities to longevity risk and expenses. Due to the long term nature of the Life insurance portfolio these sensitivities are sensitive for interest rate movements.

The Solvency II ratio sensitivities for underwriting parameters are based on the estimated impact on own funds without recalculating the SCR after shock.

Sensitivity as a result of changes in underwriting parameters

In € millions	IFRS net result		IFRS shareholders' equity		Solvency II ratio	
	2018	2017	2018	2017	2018	2017
10% increase in surrender rates (including non-contributory continuation)	37	4	37	4	2%	2%
10% lower mortality rates for all policies (longevity risk)	-172	-251	-172	-251	-9%	-14%
10% increase in expenses assumptions + 1% increase in inflation	-437	-434	-437	-434	-23%	-24%

Mortality Risk

The capital requirement for life mortality risk is equal to the loss in basic own funds resulting from an instantaneous permanent increase of 15% in the mortality rates used for the calculation of the technical provisions. The increase in mortality rates will apply only to insurance policies for which the increase in mortality rates leads to an increase in technical provisions, without risk margin, being the best estimate provision.

Longevity Risk

The capital requirement for life longevity risk is equal to the loss in basic own funds resulting from an instantaneous permanent decrease of 20% in the mortality rates used for the calculation of the technical provisions. The conditions for the calculation are exactly the same as those specified in relation to life mortality risk, although in this case it concerns an increase in the best estimate provision in the event of a falling mortality rate. The groups whom this concerns will generally be those that are not affected by the life mortality risk.

Longevity risk has decreased due to entering a longevity re-insurance contract.

Disability-morbidity risk

The capital requirement for disability-morbidity risk is equal to the loss in basic own funds resulting from the following combination of instantaneous permanent changes:

- an increase of 35% in the disability rates which are used in the calculation of the technical provision in the following 12 months;
- an increase of 25% in the disability rates which are used in the calculation of the technical provision in all months thereafter;
- a decrease of 20% in the recovery rates which are used in the calculation of the technical provision for all years

Lapse Risk

The capital requirement for life lapse risk is equal to the largest of the following capital requirements:

- The capital requirement for the risk of a permanent increase in lapse rates. This is equal to the loss in basic own funds of insurance and reinsurance undertakings that would result from an instantaneous permanent increase of 50%.
- The capital requirement for the risk of a permanent decrease in lapse rates. This is equal to the loss in basic own funds of insurers and re-insurers that would result from an instantaneous permanent decrease of 50%.
- The capital requirement for mass lapse risk. This is equal to the loss in basic own funds that would result from a discontinuance of 40% of the policies.

The lapse down shock is the dominant shock for VIVAT and SRLEV. For Proteq Levensverzekeringen the mass lapse shock is dominant.

Life Expense Risk

The capital requirement for life-expense risk is equal to the loss in basic own funds that would result from the following combination of instantaneous changes:

- an increase of 10% in the amount of expenses taken into account in the calculation of the technical provisions;
- an increase of 1 percentage point in the cost-push inflation rate (expressed as a percentage) used for the calculation of the technical provision.

The above shock is applied to all VIVAT's continuing operating expenses. Only the 10% increase is applied on the management fee of the investment portfolio, because these expenses are not sensitive to inflation.

Revision Risk

This risk is not present in the portfolio, the effect of the shock is set to 0.

Life Catastrophe Risk

The capital requirement for life catastrophe risk is equal to the loss in basic own funds resulting from an instantaneous permanent increase of 0.15 percentage points to the mortality rates in the following twelve months.

The increase in mortality rates will apply only to insurance policies for which the increase in mortality rates leads to an increase in technical provisions, without risk margin, being the best estimate provision.

Diversification

Not all risks will materialise at the same time and at their full magnitude resulting in diversification between different risk types.

The table below shows the SCR of the underwriting risk Life. In these calculations only the policies which are negatively affected by these sensitivities are taken into account.

SCR Life underwriting risk

In € millions	2018	2017
Mortality risk	246	262
Longevity risk	826	1,071
Disability-morbidity risk	18	22
Lapse risk	358	223
Life expense risk	553	604
Life catastrophe risk	206	193
Diversification	-831	-855
SCR Life underwriting risk	1,376	1,520

The Solvency Capital Requirement for life underwriting risk decreased mainly due to a decrease of the longevity risk due a full indemnity reinsurance contract to transfer longevity risk that has been entered (a Quota Share Reinsurance agreement). Portfolio development including reflection of this in underwriting parameters updates are the main driver for the increase of lapse risk and decrease of expense risk.

7.5.4. Non-life

For the division of risks into sub-risks in the Non-life insurance portfolios, VIVAT makes a distinction between Health underwriting risk and Non-Life underwriting risk.

The emphasis of this portfolio is on three segments: Fire, Motor and Disability. The insurance policies are mostly sold through authorised agents and distribution partners to retail and SME customers. In addition, sales are also effected via direct channels. The disability insurance products in the portfolio include both individual coverage (for self-employed persons) and group coverage for employees. Only individual insurance contracts are currently sold.

The health underwriting risk module consists of the following three submodules:

- > SCR for the Health Non-SLT underwriting risk
- > SCR for the Health SLT risk
- > SCR for the Health catastrophe risk

The Health catastrophe sub-module relates to all health insurance policies (i.e. both SLT and Non-SLT). In the following two subparagraphs the Non-Life underwriting risk and the health underwriting risks are assessed. In the third subparagraph the important role reinsurance has on the risk profile of VIVAT Schadeverzekeringen NV is mentioned.

7.5.4.1. Disability

The Non-life insurer pays disability benefits that stem from the individual and group portfolios. The Life insurer pays disability benefits that relate to the cover that forms part of a Life insurance contract.

Disability risk, recovery risk and lapse risk

In the case of disability insurance in Non-life, the main risks are the disability risk, recovery risk and lapse risk. The disability risk and recovery risk are risks that appear when a policyholder becomes unfit for work and receives benefits during the period this situation remains to exist. These risks relate to the amount, duration and timing of the payment of the insured cash flows. The disability risk is the risk that more policyholders than expected become disabled, or that policyholders become more severely disabled than expected. The recovery risk is the risk that fewer policyholders recover or that the policyholder recovers to a lesser extent than expected. The lapse risk is the risk associated with the consequences of cancellation by the policyholder before the envisioned end date of the policy. VIVAT manages these risks by continuously promoting/offering reintegration pathways and by monitoring the inflow and outflow.

The materiality of these risks in the additional disability covers in Life insurance is more limited, mainly due to the longer waiting periods.

7.5.4.2. Property & Casualty

The risks of Property & Casualty (P&C) can be divided into risks related to claims, whether reported or not, that have already occurred (reserve risk), and risks related to future claims arising from current contracts (premium risk and catastrophe risk).

Reserve Risk

Reserve risk is the risk that the accrued claims reserves are insufficient to settle all claims already incurred. VIVAT manages this risk by means of monitoring best estimate trends in the claims development based on claim year on a regular basis. VIVAT has assigned specialised departments for the handling and run-off of claims (including bodily injury claims). Experts in these departments handle claims on an item-by-item basis, make estimates of the size of the claim, and monitor the progress of claims settlement. The long-tailed claim areas at VIVAT are disability claims, bodily injury claims and liability claims.

A liability adequacy test on the (IFRS) premium and claims reserves is performed once a month (at the Life and Pensions business) or once every quarter (at the Non-Life Insurance business), or more frequently if this is deemed necessary. Any reserves that are inadequate are increased. The most recent insights as to parameters are involved here.

For short-term policies (P&C), the Non-life underwriting parameters are evaluated every quarter, other parameters (like lapse) at least once a year. In these evaluations relevant information on portfolio developments is taken into account. The tariff structure of each product is regularly assessed by means of analysis. Monitoring takes place on the basis of the combined ratio of each branch and distribution channel.

Premium Risk

Premium risk is the risk that premiums pertaining to future exposure are insufficient to meet all corresponding claims and costs. VIVAT manages this risk by means of the product development, pricing and acceptance procedures as described in Section 7.5.2, Risk Management Process.

Catastrophe Risk

Catastrophe risk is the risk of losses due to extreme or exceptional events. This includes both natural disasters and events caused by human actions. Geographically, the risk in the Non-life portfolio of VIVAT is almost entirely concentrated in the Netherlands. There is concentration of underwriting risks in the Fire segment, where storm risk is an important factor. In addition, the concentration of risks can occur in apartment buildings, city blocks and office buildings. The concentration of risks also occurs in the group accident portfolio and the group disability schemes. VIVAT reinsures catastrophe risks due to perils of nature (such as storms) or terrorism. Catastrophes resulting from acts of violence, nuclear incidents or floods are excluded under the standard policy conditions. Through participation in the nuclear insurance pool and the environmental insurance pool, specifically insured risks are shared with other insurers.

Co-Insurance

VIVAT Schadeverzekeringen NV is represented at the Rotterdam Insurance Exchange through its co-insurance unit. Risks in the Fire, Transport and Liability segments are underwritten. The focus is on the medium-sized and large business segments of the corporate insurance market.

7.5.4.3. Non-life Reinsurance

The use of reinsurance for Property and Casualty is playing an important role in managing the net underwriting risk profile of the Non-Life portfolio. The reinsurance programme consists of reinsurance contracts per line of business and makes no specific distinction between the various distribution channels. In addition to the regular protection for the portfolios, VIVAT Schadeverzekeringen NV has concluded a catastrophe contract for covered natural perils (storm, hail) and the accumulation of losses due to one event (e.g. conflagration) within the property portfolio.

The 2018 reinsurance programme was largely a continuation of the programme for 2017. From risk management and capital management considerations, the capacity of the catastrophe programme for 2018 and 2019 is aligned with the Risk Appetite of VIVAT. As per 1st July 2018 a catastrophe risk sublayer with a retention level of € 10 million was purchased for the remainder of 2018 to mitigate the risk of a second catastrophe event after the windstorm of January 2018.

To become more in line with the expected developments on climate change, VIVAT has purchased additional reinsurance cover through an Annual Aggregate Excess of Loss treaty for 2019. The Annual Aggregate Excess of Loss treaty protects on an annual basis the retention of the catastrophe reinsurance programme and regular property programme against an increase in frequency.

Non-life insurance retention

In € thousands		2019	2018	2017
Coverage:				
Property Catastrophe	per event	20,000	20,000	20,000
Property Fire	per risk	2,000	2,000	2,000
Property Annual Aggregate	per risk per risk/ event	5.000 10.000		
Motor Third Party Liability	per risk	2,500	2,500	2,500
General Third Party Liability	per risk	1,500	1,500	1,500
Personal Accident	per risk	1,000	1,000	750
Transport	per risk	1,000	1,000	1,000

The level of retention of the VIVAT Non-life reinsurance contracts is in line with the size of the underwriting portfolios and the principles of the Reinsurance Policy. The reinsurance program consists of reinsurance contracts per line of business and makes no specific distinction between the various distribution channels.

7.5.4.4. Sensitivities and SCR Non-life

The own funds of P&C Insurance are sensitive to results in the Non-life claims, disability and loss ratio's. The table below shows the sensitivity for different shocks. The IFRS net result sensitivity for an increase of claims of 10% is equal to the impact on IFRS shareholder equity and increased from minus € 29 million to minus € 31 million. In contrast to 2017 in 2018 the impact to Loss Absorbing Capacity is taken into account. This improved determination is the main driver for the increased sensitivity in the Solvency II ratio.

In € millions	Solvency II ratio	
	2018	2017
Claims +10%	-13%	-8%
Disability +25% and Recovery -20%	-58%	-49%
Loss ratio current accident year +10%	-12%	-7%

Non-Life Premium and Reserve Risk

The capital requirement for the premium and reserve underwriting risk is dependent on the standard deviation and volume of the premiums and outstanding reserves.

Non-Life Lapse Risk

The capital requirement for the lapse risk is equal to the loss in basic own funds as a consequence of an instantaneous discontinuance of 40% of the insurance policies for which discontinuance would result in an increase of the best estimate provision. Compared to premium & reserve risk and the catastrophe risk this risk is limited.

Non-Life Catastrophe Risk

In calculating the SCR for the Non-Life portfolio the following main drivers are identified: premium & reserve risk, cat risk and lapse risk. Due to risk diversification between the risks the total risk is less than the aggregated results and thus a diversification effect originates. In the following table the net SCR outcome for each risk is given.

SCR underwriting risk Non-Life

In € millions	2018	2017
Non-Life premium and reserve risk	185	183
Non-Life lapse risk	9	4
Non-Life catastrophe risk	48	63
Diversification	-39	-42
SCR Non-Life underwriting risk	203	208

The increase in premium and reserve risk can be explained by portfolio development (increase of portfolio and run-off gains former accident years) and increases in claim reserves (due to a windstorm in January). The increase in lapse risk can be mainly explained by portfolio development including reflection of this in underwriting risk parameters (lower cost parameters and lower initial expected loss ratios). To become more in line with the expected developments on climate change, VIVAT has purchased additional reinsurance cover through an Annual Aggregate Excess of Loss treaty for 2019. The Annual Aggregate Excess of Loss treaty protects on an annual basis the retention of the catastrophe reinsurance programme and regular property program against an increase in frequency, decreasing the Non-life underwriting risk (catastrophe risk).

7.5.4.5. Sensitivities and SCR Health

The health underwriting risk relates to occupational disability policies and the casualty, sickness benefits and pet care portfolio. As the risk profiles of these insurance policies differ, a distinction is made in risks between:

- health insurance policies which provide for long-term benefits and thus resemble Life policies (Health SLT);
- health insurance policies which provide for short-term benefits and thus resemble Non-Life insurance (Health Non-SLT);
- risks relating to a mass accident, an accident concentration risk and a pandemic. This results in a third main risk module within Health and is the Health catastrophe risk (Health Cat).

SLT Mortality Risk

This risk applies to the Health SLT active portfolio for which mortality rates may have a negative impact on the best estimate. For the Health SLT Inactive portfolio a shorter life will mean less future payments. The impact is marginal because the end date of the contract limits the mortality risk.

SLT Longevity Risk

This risk only applies to Health SLT Inactive portfolio. The impact is marginal because the end date of the contract limits the longevity risk.

SLT Disability-morbidity Risk

The capital requirement for morbidity risk (or incapacity for work risk) is equal to the loss in basic own funds that would result from the following combination of instantaneous permanent changes:

- an increase of 35% in the disability rates which are used in the calculation of technical provisions in the following 12 months;
- an increase of 25% in the disability rates which are used in the calculation of technical provisions in all months thereafter;

- where the rehabilitation rates used for the calculation of the technical provisions are lower than 50%, a decrease of 20% of those rates.
- where the disability and morbidity persistency rates used for the calculation of the technical provisions are equal or lower than 50%, an increase of 20% of those rate.

The shock on disability applies to both the first year as well as risk after the first year and has major impact on both the Health SLT active portfolio as well as the Health SLT inactive portfolio. The parameters in the shock are at the core of the product and given the duration of the controls the impact of this shock is very significant in the Non-Life portfolio.

SLT Lapse Risk

The high exposure to lapse is mostly driven by the expected future profits contained in the disability portfolio. The lapse risk is based on a formula of different type of shocks (see Life portfolio). The impact is mainly seen at the health SLT active portfolio. There is a (marginal) impact on the inactive portfolio, because disabled policy holders can rehabilitate.

SLT Expense Risk

The impact of the expense risk shock is relatively limited for the disability portfolio.

SLT Revision Risk

The capital requirement for revision risk is equal to the loss in basic own funds that would result from an instantaneous permanent increase of 4% in the amount of annuity benefits only on annuity insurance and reinsurance obligations where the benefits payable under the underlying policies could increase as a result of changes in inflation, the legal environment or the state of health of the person insured. Due to the fact that disability claims are paid out in the form of an annuity, there is a sensitivity to this shock. However, it is limited.

The health SLT underwriting risk applies to occupational disability policies. Virtually the same sub-modules as defined for the Life underwriting risk (see Chapter 7.5.3.4) apply to the SLT health underwriting risk. Also virtually the same are the extent of shocks and the correlation assumptions between the shocks.

SCR Health SLT underwriting risk

In € millions	2018	2017
SLT Longevity risk	2	3
SLT Disability-morbidity risk	232	233
SLT Lapse risk	85	79
SLT Expense risk	18	22
SLT Revision risk	14	15
Diversification	-91	-90
SCR Health SLT underwriting risk	260	262

The change in SLT health lapse risk can be partly explained by a change in models due to new insight in determining the risk (interpretation Solvency legislation). Changes in the other risks can be mainly explained by insurance parameter updates, portfolio development and interest rate development (including VA).

SCR Health underwriting risk

In € millions	2018	2017
SCR Health SLT underwriting risk	260	262
Non-SLT premium reserve risk	15	15
Non-SLT lapse risk	3	3
Diversification	-2	-3
SCR Health Non-SLT underwriting risk	16	15
Health catastrophe risk	3	3
Diversification	-10	-9
Total health underwriting risk	269	271

Non-SLT SCR

Due to the limited size of the portfolio, the Non-SLT underwriting risk is limited.

7.6. Market Risk

7.6.1. Risks – General

Market risks can potentially have a substantial financial impact on the value of the assets and liabilities of the insurance business. Unfavourable changes in market conditions have an impact on VIVAT's earnings and/or own funds. To manage the mismatch between the assets and liabilities an ALM (Asset and Liability Management)-framework is in place. This framework is designed to bring about an investment strategy that optimises the relationship between risks and returns. The framework also ensures that VIVAT's operations remain within the boundaries of its risk appetite.

The market risk is the risk arising from changes in the level or volatility of market prices of financial instruments which have an impact on the value of the assets and liabilities of VIVAT. The ALM-framework aims to properly reflect the structural mismatch between assets and liabilities, with respect to the duration thereof.

The following eight sub-market risks have been defined: interest rate risk, equity risk, property risk, spread risk, basis risk, market risk concentrations, currency risk and volatility risk. VIVAT can achieve its financial objectives by managing these risks adequately. It does this by reducing losses due to movements in the level and/or volatility of market prices of financial assets, liabilities and financial instruments.

VIVAT monitors and mitigates market risk in close cooperation with ACTIAM, the asset manager of VIVAT. For mitigation, instruments such as interest rate swaps, futures, FX forwards, interest rate swaptions and fixed income investments are used.

7.6.2. Risk Management Process ALM

The ALM-policy covers the management of market risk, counterparty default risk and liquidity risk.

The starting point for the ALM policy is the ALM study, which is drawn up annually. The ALM study seeks to find an optimum between risk and return within the preconditions that apply with regards to solvency, laws and regulations. This ALM study is used as a basis for defining a Strategic Asset Allocation (SAA), which is in turn used to translate specific investment activities into an investment plan and

investment mandates for ACTIAM, taking into account the risk tolerances in the Risk Appetite Statements (RAS), solvency ratio, the tax position and the long-term risk exposure. In order to spread the risk, the risk is spread across a range of risk drivers, asset classes and sectors. When finalising the SAA, specific attention is paid to the availability of sufficient expertise in the segments in which investments are held. All investments are monitored by means of reports on performance and capital.

Investments are made in accordance with the prudent person principle and in the interest of the policyholders. The prudent person principle forms part of the ALM policy. Investments are made exclusively in assets and instruments which risks are properly identified, measured, monitored, managed, controlled and reported.

Sensitivity Analyses and Stress Tests

Stress tests provide information on how sensitive investments and liabilities are to interest rate risk and other market risk. These risks are quantified (and monitored) on a regular basis.

For interest rate risk several parallel and non-parallel shocks are defined. For market risk a number of combined scenarios is determined with (different) simultaneous shocks to the various sub-market risks.

These market risk scenarios are monitored and reported on a regular basis, and if deemed necessary adjustments are made to existing risk exposures based on overlay hedging tools. This evaluation is supported by metrics for yield curve risk and non-linear interest rate risk. In this manner, VIVAT manages market risk from a holistic balance sheet perspective.

This approach reflects the sensitivity of the entire statement of financial position (of fixed cash flows, options, risk margin and required capital) drawn up on a Solvency II basis.

7.6.3. SCR Market Risk

Exposure to market risk is measured under the Solvency II regime using adverse movements in financial variables. The main driver of market risk is the Solvency Capital Requirement for spread risk and to lesser extent the Solvency Capital Requirements for equity and interest rate risk.

The relevant types of market risk in Solvency II are displayed in the table below:

SCR Market risk

In € millions	2018	2017
Interest rate risk	487	224
Equity risk	216	196
Property risk	119	117
Spread risk	686	489
Currency risk	184	175
Diversification	-559	-365
SCR market risk	1,133	836

VIVAT

The main drivers for the SCR market risk increase are an increase in the interest rate risk, an increase in the spread risk and an increase in the equity risk.

The spread risk increased mainly due to the re-risking program. In 2018, the investment portfolio has been shifted to more US credit investments and Emerging Market Debt which will have an expected positive impact on capital generation. However, also an immediate increase on the spread risk.

The interest rate risk for VIVAT and SRLEV mainly increased due to a slightly adjusted interest-rate hedge position and a limited tactical swap spread position. Although the tactical swap spread position increases the interest rate risk under the Solvency II legislation, VIVAT's interest rate risk remains well hedged on a Solvency II ratio basis.

The equity risk increased mainly due to new insight in determining the risk (modelling).

7.6.3.1. Interest Rate Risk

Interest rate risk is a key component of VIVAT's market risk profile. Interest rate risk arises when the interest rate sensitivities of the assets and liabilities are not equal and it is expressed as movements in the capital position if market rates change. Moreover, the expected fixed cash flows from technical provisions are matched with fixed-income investments as much as possible. The profit-sharing and return guarantees to policyholders are an additional source of interest rate risk. Due to the long term nature of the Life and Pension insurance portfolio it is very sensitive to interest rate movements. This sensitivity is partly mitigated by the use of interest rate derivatives to hedge the guarantees and profit-sharing in the Life insurance portfolio.

VIVAT uses a scenario based approach to control the sensitivity of solvency to market conditions, such as interest rates and spreads. The key solvency metric to express the risk is based on the regulatory solvency reported to the Dutch Central Bank (DNB). This method is chosen because VIVAT has decided to use regulatory solvency as the principle factor in managing market risks.

From this perspective also the, over 2018 prescribed UFR of 4.05% by EIOPA introduces a risk. Over the course of time, the positive valuation effect of the UFR reduces, which puts downward pressure on the trend in solvency in the future. EIOPA decided to yearly decrease the UFR starting in 2018 with 0.15% per year with a starting point of 4.2%, per 1 January 2019 the applicable UFR will decrease to 3.9%. This will have a negative impact on solvency.

The tables below show the sensitivity of the IFRS result, IFRS equity and Solvency II ratio to changes in interest rates as a result of a decrease or an increase by 0.5% of the interest rates (maintaining the UFR at 4.05%), decreases in the UFR of 0.15% and 0.5% and the impact of the VA on the Solvency II ratio.

Under IFRS the impact of different UFR is slightly different than under Solvency II due to tiering and the VA (not applicable under IFRS).

Sensitivity

In € millions	IFRS net result		IFRS shareholders' equity		Solvency II ratio	
	2018	2017	2018	2017	2018	2017
Interest +50 bps	-80	-41	-95	-41	6%	6%
Interest -50 bps	100	69	116	69	-6%	-9%
UFR -15 bps	-67	-58	-67	-58	-3%	-7%
UFR -50 bps	-224	-198	-224	-198	-12%	-15%
Excluding VA	-	-	-	0	-41%	-11%

The increase in interest rate sensitivities for IFRS, per 2018 compared to 2017, is largely explained by the introduction of the longevity reinsurance contract and by the effect of implemented model improvements for VIVAT Schade.

The capital requirement for interest rate risk in the standard formula of Solvency II is determined on the basis of two scenarios in which the risk free yield curve is exposed to shocks affecting both assets and liabilities. The first scenario is 'interest rate up' and the second 'interest rate down'. The capital requirement for interest rate risk is defined by the scenario which has the most negative impact on basic own funds. The sign of the SCR interest rate shock (up or down) has to be determined based on the net SCR interest rate risk in accordance with SII legislation. Per YE 2017, in some sensitivities the down Shock for VIVAT is leading while in the base the up shock was leading, resulting in a changed and lower diversification benefit in SCR Market risk according to the Solvency II regulations of the standard formula (due to changed applicable correlation matrix). For UFR -50 bps and Interest -50bps this was the case, explaining the difference in sensitivity 2017 versus 2018.

Under IFRS, as from YE 2017, part of the disability provisions is valued on current interest rate and therefore is sensitive to interest rates changes.

Nominal Insurance Liabilities by Buckets

The table below presents nominal cash flows arising from insurance liabilities, net of reinsurance (liabilities) by maturity segment.

Cash flows from insurance business 2018

In € millions	< 1 year	1 - 5 years	5 - 10 years	10 - 15 years	15 - 20 years	> 20 years	Total
Insurance liabilities - Life	1,329	4,584	5,652	5,058	4,420	13,787	34,830
Insurance liabilities - Non-life	170	379	157	105	74	77	962
Total	1,499	4,963	5,809	5,163	4,494	13,864	35,792

Cash flows from insurance business 2017

In € millions	< 1 year	1 - 5 years	5 - 10 years	10 - 15 years	15 - 20 years	> 20 years	Total
Insurance liabilities - Life	1,261	4,437	5,468	4,983	4,426	14,141	34,716
Insurance liabilities - Non-life	122	380	158	111	84	93	949
Total	1,383	4,817	5,626	5,094	4,510	14,234	35,665

The table excludes the portfolio on account of policyholders. The portfolio on account of policyholders is not relevant in this context, since the value accumulated in the investment funds is paid to policyholders on the policy's maturity date. The accrued balances of savings policies and savings-based mortgages are neither taken into account as these are offset. The cash flows from the underwriting provisions concern cash flows with a nominal guarantee. This does not include cash flows driven by options and guarantees and the risk margin. The cash flows arising from the underwriting provisions are estimated on a best estimate basis. Assumptions are made of mortality, disability, surrender and costs. A change in assumptions can alter the view of the cash flows in the table. The cash flow projections do not include future profit-sharing. Also the Ultimate Forward Rate of 4.05% (UFR) introduces a risk. It limits the interest rate sensitivity of value of the cash flows of the liabilities included in the table above. Over the course of time, this downward pressure of the UFR on the interest rate sensitivity of the in-force liabilities will disappear. In 2018 the government bonds spreads and especially corporate bonds spread have widened in the reference portfolio of the VA, the applicable VA has increased from 4bps per year-end 2017 to 24bps per year-end 2018. As a consequence the 'excluding VA' sensitivity increased.

VIVAT's interest rate hedging policy aims to ensure that obligations towards policyholders are fulfilled in both the short term and the long term. In addition, it aims to enable its providers of capital to receive a reasonable return (in terms of market value) that is in line with VIVAT's risk exposure and to stabilise the solvency capital. VIVAT manages its interest rate risk by stabilising the Solvency II ratio after an up or down interest rate shock, taking the UFR of 4.05% into account. This generally results in a negative own funds impact for interest rate up movements and a positive own funds impact for interest down movements.

The capital requirement for interest rate risk is determined on the basis of two scenarios in which the risk free yield curve is exposed to shocks affecting both assets and liabilities. The first scenario is 'interest rate up' and the second 'interest rate down'. The capital requirement for interest rate risk is defined by the scenario which has the most negative impact on basic own funds. The sign of the SCR interest rate shock (up or down) has to be determined based on the net SCR interest rate risk in accordance with SII legislation. However, the gross SCR interest rate risk determines the size of SCR interest rate risk. The interest rate scenario used for the up and down Solvency II shocks are prescribed; being in effect a parallel up shock of 100 bps and a non-parallel down shock increasing from 0 to minus 71 bps, both without re-applying the UFR. For VIVAT, SRLEV and VIVAT Schadeverzekeringen the up shock is leading, whereas for Proteq Levensverzekeringen the down shock is leading.

SCR Interest rate risk

In € millions	2018	2017
SCR interest up shock	-487	-224
SCR interest down shock	-110	-246
SCR interest rate risk	487	224

The interest rate risk for VIVAT and SRLEV mainly increased due to a slightly adjusted interest-rate hedge position and a limited tactical swap spread position. Although the tactical swap spread position increases the interest rate risk under the Solvency II legislation, VIVAT's interest rate risk remains well hedged on a Solvency II ratio basis.

The interest rate risk of VIVAT Schadeverzekeringen mainly increased due to the improved modelling of the disability portfolio slightly decreasing the sensitivity of the liabilities and increasing the interest risk.

The interest rate risk of Proteq Levensverzekeringen mainly changed due to market and portfolio development.

7.6.3.2. Equity Risk

The IFRS-based equities classification also includes participations in funds that invest in other types of securities like money market funds and other (non-investment grade) fixed income funds. The ALM policy and the market sensitivities are adjusted to reflect the underlying risk under Solvency II and IFRS for a more economic approach ('look through'), including the impact of the shock on the liabilities. VIVAT periodically examines the impact of changes in the equity markets on the result and on own funds. Scenario analysis are used for this purpose, in line with the situation applying in the case of interest rate risk.

The tables below show the results of this analysis at the reporting date net of taxation. Upward effects on equity are processed in the revaluation reserve and do not impact earnings. A downward effect on equity does impact the net result in case of an impairment (for the accounting policies on impairments see Section 6.1.5 in the Annual Report for Accounting policies regarding the statement of financial position).

Sensitivity

In € millions	IFRS net result		IFRS shareholders' equity		Solvency II ratio	
	2018	2017	2018	2017	2018	2017
Equities +10%	33	21	49	37	1.6%	1.0%
Equities -10%	-51	-32	-49	-37	-1.6%	-1.0%

The SCR for equity risk is equal to the loss in market value of the basic own funds in the event of a sudden shock to equities including a so-called symmetric adjustment. This adjustment corrects the equity shock for the difference between the current level of global equity prices and a long-term average and can vary between a minus 10% adjustment and a plus 10% adjustment.

SCR for equity risk consists of type 1 and type 2 equities. Type 1 equities are equities listed in regulated markets which are members of the EEA or OECD. Type 2 equities are equities listed in countries other than members of the EEA and/or OECD, non-listed equities, private equities, hedge funds, commodities and other alternative investments.

The SCR for equity risk is defined as the aggregation of the capital requirement for type 1 equities and the capital requirement for type 2 equities, allowing a correlation of 0.75 between types 1 and 2.

A transitional arrangement can be applied to type 1 equities in order to reduce the standard capital charge. VIVAT does not apply this transitional arrangement.

The table below shows the SCR for equity risk.

SCR Equity risk

In € millions	2018	2017
Type 1 equities	153	143
Type 2 equities	76	65
Diversification	-13	-12
Equity risk	216	196

The equity risk for VIVAT and SRLEV increased mainly due to improved determination of the shock for Individual Unit Linked assets (modelling). Equity risk for VIVAT Schadeverzekeringen decreased mainly due to selling her subsidiary in CED Holding BV and due to a decreased valuation of a strategic participation.

SRLEV and VIVAT Schadeverzekeringen report on an unconsolidated basis, resulting into a classification of net asset value (mainly property) to type 2 strategic equity risks for several subsidiaries (which are listed in Annex I). This results in a higher equity charge for SRLEV than VIVAT (consolidated). The opposite effect occurs when calculating the amount of property risk.

The SCR for type 1 originates for a great part from contracts where the investment risk is born by the policyholder (unit linked and collective investment undertakings).

7.6.3.3. Property Risk

Property risk is defined as the sensitivity of the value of assets, liabilities and financial instruments to changes in the level or volatility of the market prices of real estate.

The IFRS-based equities classification also includes participations in funds that invest in other types of securities. The ALM policy and the market sensitivities are adjusted to reflect the underlying risk under Solvency II and IFRS based on an economic approach ('look through'). VIVAT periodically examines the potential impact of changes in the property markets on the net result and on shareholders' equity based on scenario analysis in line with the situation applying in the case of interest rate risk. The table below shows the indicative results of this analysis at the reporting date net of taxation.

Sensitivity

In € millions	IFRS net result		IFRS shareholders' equity		Solvency II ratio	
	2018	2017	2018	2017	2018	2017
Property +10%	36	33	38	35	1.6%	1.4%
Property -10%	-36	-33	-38	-35	-1.6%	-1.4%

The SCR for property risk is equal to the loss in the basic own funds that would result from an instantaneous decrease of 25% in the value of property. Property consists of direct property (e.g. buildings and investments in owner-occupied properties) and indirect interests in property (through investment funds). VIVAT applies the look-through approach in determining the SCR for property risk also taking the effect of any leverage on the Net Asset Value of property funds into account.

The table below shows the SCR for property risk:

SCR Property risk

In € millions	2018	2017
Property risk	119	117

Property risk of VIVAT and SRLEV slightly increased due to the changes in the value of property.

7.6.3.4. Spread Risk

Spread risk is defined as the sensitivity of the value of assets, liabilities and financial instruments to changes in the level or volatility of the credit spread above the risk-free interest rate term structure. The spread risk for the insurance business arises in the fixed-income investment portfolio, which includes securitisations, loans, corporate and government bonds that are sensitive to changes in credit risk surcharges. Increasing credit risk surcharges have a negative effect on the market value of underlying bonds.

Credit risk surcharges are also a source of basis risk in the valuation of insurance liabilities. The basis risk relates to the risk of a mismatch between the interest rate used in the valuation of the liabilities and the interest rate used for the asset portfolio. This basis risk mainly emanates from the risk that movements in the interest rate on the EU government bonds held in portfolio will not be in line with movements in the swap rate.

The swap curve (including UFR) is currently used when discounting insurance liabilities under IFRS. A change in the swap curve has a direct impact on the value of the insurance liabilities. This leads to volatility in the available capital, as the interest rate used for the valuation of the investment portfolio differs from the relevant swap curve for the insurance liabilities.

Under the Solvency II regime the swap curve with a prescribed Ultimate Forward Rate (UFR) is used when discounting insurance liabilities, adjusted for credit risk (CRA) and a Volatility Adjustment (VA). The VA moves along with the credit spreads, but still substantial basis risk exists because the VA is based on a reference portfolio instead of VIVAT's own asset portfolio, and also a 65% scaling factor is applied to determine the VA. For managing market risks a number of combined scenarios is determined with (different) simultaneous shocks to risk categories. In this scenario based approach among others credit spreads, volatility (interest rate volatility and equity volatility) and best estimates for the VA are taken into account.

While interest rate risk regarding the Solvency II ratio sheet is well matched, there remains significant volatility as the credit risk profile of VIVAT differs from the profile implied by the Volatility Adjustment (VA). In 2018, as part of re-risking programme, the investment portfolio has been shifted to more US credit investments and emerging market debts decreasing the risk. Additional and similar to 2017, the basis risk was further mitigated during 2018 by replacing long German and Dutch government bonds by swaps combined with short government bonds. The basis risk is still material, in case of lower spreads for high quality bonds (e.g. German and Dutch) and higher spreads for riskier bonds, the Solvency II Ratio in general increases.

An increase of credit spreads will directly have a negative short-term effect on IFRS equity and net result, in the long run, spreads are expected to be realised, mitigating this short term negative effect. Under Solvency II an increase of credit spreads also leads to an increase of the Volatility Adjustment impacting the value of the liabilities. VIVAT assumes that an increase of all credit spreads of 50 bps leads to an increase of the VA of 24 bps, an increase of 50 bps on corporates to an increase of the VA of 13 bps and an increase

of 50 bps on government bonds to an increase of the VA of 11 bps. The change of the VA has no impact on the value of the liabilities under IFRS.

Sensitivity

In € millions	IFRS net result		IFRS shareholders' equity		Solvency II ratio ¹	
	2018	2017	2018	2017	2018	2017
Credit spreads Government Bonds +50 bps	-370	-506	-379	-506	1%	-18%
Credit spreads Corporates/Mortgages +50 bps	-111	-111	-118	-111	16%	13%
All Credit spreads +50 bps	-481	-617	-496	-617	17%	-5%

¹ An increase of credit spreads also leads to an increase of VA, impacting the value of the liabilities.

The changed government bond sensitivity, per 2018 compared to 2017, can be mainly explained by:

- A decreased government bonds exposure. By replacing long duration German and Dutch government bonds for swaps combined with short duration government bonds the exposure decreased in 2018. The decreased exposure leads to a decreased IFRS and Solvency II sensitivity for shocks to government bonds.
- The applicable VA shock in this sensitivity increased from 9 bps in 2017 to 11 bps in 2018 (due to update VA calibration). As a consequence of this increased VA shock the Solvency II sensitivity of 2018 decreased compared to 2017.
- In 2017 the leading interest rate risk scenario changed from 'interest rate up' in the basis to 'interest rate down' for the sensitivity. In 2018 the leading interest rate risk scenario remains in the 'interest rate up' scenario for the basis as well as for the sensitivity. This leads to an additional negative effect (by lower diversification benefits) per 2017 compared to 2018 for the Solvency II sensitivity.

Solvency Capital Requirement for Spread Risk

The SCR for spread risk is determined by calculating the impact on the eligible own funds due to the volatility of credit spreads over the term structure of the risk-free rate. The required capital for spread risk is equal to the sum of the capital requirements for bonds, loans and structured products. The capital requirement takes into account the market value, the modified duration and the credit quality category.

SCR Spread risk

In € millions	2018	2017
Bonds and loans	650	441
Securitisation positions	36	48
Spread risk	686	489

In 2018, as part of re-risking programme, the investment portfolio has been shifted to more US credit investments and Emerging Market Debt which will have an expected positive impact on capital generation, however also an immediate increase on the Solvency Capital requirement for spread risk. Re-risking is the main driver for the increase in spread risk, European sovereigns and sub-sovereigns are excluded from spread risk in the standard formula (replacement of long term government bonds does not affect the spread risk).

7.6.3.5. Concentration Risk

Concentration risk is defined as all risk exposures associated with a potential loss that is significant to endanger the solvency or financial position of insurance and reinsurance undertakings.

A concentration risk charge is prescribed under Solvency II when the issuer exposure exceeds a certain percentage threshold of the asset base depending on the credit rating of the issuer and the type of investment. The SCR for concentration risk is calculated on the basis of single name exposure. This means that undertakings which belong to the same corporate Group are treated as a single name exposure.

VIVAT and its insurance entities still hold substantial investments in German and Dutch government bonds and supranational issuers which are excluded from (the Solvency II scope of) concentration risk. As of 31 December 2018, the applicable Solvency II thresholds have not been exceeded and as a result no concentration risk charge was applicable to VIVAT or its insurance entities.

7.6.3.6. Currency Risk

Currency risk is defined as the sensitivity of the value of assets, liabilities and financial instruments to changes in the level or volatility of exchange rates. The currency risk of VIVAT is caused by a combination of investments and liabilities in foreign currencies that are not perfectly matched.

With respect to fixed-income investments, VIVAT's policy is to permit only very limited currency risk. Given this, the currency risk on fixed-income investments denominated in foreign currency is, in principle, hedged with currency swaps.

Currency risk also arises in relation to the equity investments of VIVAT. This currency risk, after netting the currency risk in other non-fixed-income investments and liabilities, is structurally hedged using forward currency contracts or currency swaps if the net exposure without applying look through principle exceeds € 10 million. A currency hedge bandwidth of 98-102% has been agreed for external mandates, within which operations may be carried out.

The effects of changes in foreign exchange markets on the net result, own funds and solvency are measured periodically using scenario analysis. The Solvency II currency exposure is determined using the look through principle regarding investment funds. This results in slightly higher currency exposure.

The table below provides an indication of VIVAT's foreign exchange exposure excluding loans.

Currency exposure excluding loans (net exposure)

In € millions	Net balance exposure		Hedge derivatives	
	2018	2017	2018	2017
US Dollar	2,411	149	-2,396	-142
Pound Sterling	60	61	-61	-62
Swiss Franc	101	99	-100	-98
Japanese Yen	493	482	-494	-482
Australian Dollar	-2	1	-	-
Total	3,064	792	-3,050	-784

The table below provides an indication of VIVAT's foreign exposure on subordinated loans (nominal value).

Currency exposure loans (net exposure)

In € millions	Nominal balance		Hedge derivatives	
	2018	2017	2018	2017
US Dollar	-308	-476	311	479
Swiss Franc	-93	9	93	-
Total	-401	-467	405	479

The SCR for currency risk is equal to the loss in the basic own funds that would result from an instantaneous change in the value of the foreign currency against the local currency. For each foreign currency this involves taking the maximum of the impact on the basic own funds of a 25% increase or 25% decrease in the value of the currency. The total SCR for currency risk is then obtained by the sum of the 'individual' currencies.

SCR Currency risk

In € millions	2018	2017
Currency risk	184	175

The currency risk can almost fully be explained by in foreign currency denominated subordinated notes. This exposure is fully hedged on a Eligible Own Funds and P&L basis, but impacts the Solvency Capital Requirement. In the Solvency II regime the capital requirement for currency risk is determined on the assets over liabilities, not taken into account the subordinated notes in foreign currency. The movement is caused by regular development.

7.6.3.7. Volatility Risk

The volatility risk is the risk of losses due to changes in (implied) volatilities (interest rate and equity) and is measured and presented separately. It is addressed in the market sub risks as described before. VIVAT is sensitive to volatility on both sides of the balance sheet. Embedded options on the liability side and swap-tions as hedges on the asset side. Because of the hedges, the residual volatility risk is not material.

7.6.3.8. Diversification

Not all risks will materialise at the same time and at their full magnitude, resulting in diversification between different risk types. Solvency II prescribes a correlation matrix for the diversification effect in the SCR Market Risk module in order to aggregate the results of the types of market risks. This leads to a lower amount of total Market Risk compared to the sum of the individual market risk types. Solvency II furthermore prescribes that a downward SCR interest rate shock will be more correlated with an equity, spread and property shock compared to an upward interest rate shock. At 31 December 2018, VIVAT had a net balance sheet exposure to an upward interest rate shock.

7.7. Counterparty Default Risk

7.7.1. Risks – General

VIVAT defines counterparty default risk as the risk of potential losses due to an unexpected payment default of the counterparties and debtors of insurance and reinsurance undertakings within the next twelve months.

The SCR Counterparty Default Risk covers risk-mitigating contracts, such as reinsurance arrangements, insurance securitisations, repos, (unsecured) savings parts, derivatives, retail mortgages and receivables from intermediaries, as well as any other credit exposures not covered by the definition of SCR Spread Risk.

For each counterparty, the overall credit default risk exposure of the insurance or reinsurance undertaking concerned to that counterparty is measured, irrespective of the legal form of its contractual obligations to that undertaking. Its calculation also takes into account collateral or other security held by or for the account of the insurance or reinsurance undertaking and the risks associated therewith.

Besides the calculation of SCR Counterparty Default Risk, VIVAT has developed a complementary Counterparty Risk Policy for internal use. This risk is measured as Loss At Default (LAD) and Stress Loss (SL) and combines instruments/exposures that are in scope for both SCR Concentration Risk and SCR Counterparty Default Risk. Appropriate internal LAD and SL limits have been incorporated in the ALM policy and must be adhered to.

VIVAT uses this methodology to aggregate and monitor all types of exposures to various types of individual counterparties, such as (sub)sovereigns, financials and corporates. The periodic Counterparty Risk reports are discussed by the Investment Committee for VIVAT and subsidiaries SRLEV, VIVAT Schadeverzekeringen and Proteq Levensverzekeringen, and appropriate measures are taken when limits are exceeded.

7.7.2. Risk Management Process

VIVAT manages and verifies counterparty default risk within the set frameworks. Investments may be sold when deemed necessary, risk mitigating contracts or clauses are drawn up in cooperation with ACTIAM and Legal Affairs. The counterparty default risk at VIVAT is measured by means of measuring the exposure to individual parties and, as the case may be, aggregating exposures with similar characteristics.

For each type of credit risk, the roles, powers and responsibilities of officers and committees, including tiered decision-making powers, are recorded in the policy documents for the relevant type of credit risk.

Fixed-income Investment Portfolio

The counterparty default risk within the interest-bearing investment portfolios of VIVAT is the risk that an issuer of a bond or a debtor of a private loan does no longer meet its obligations. The strategic allocation along the various investment grade categories within the interest-bearing portfolio is determined in the context of ALM and laid down in mandates with the asset managers.

Derivatives Exposure

The counterparty default risk related to the market value of the derivatives held by VIVAT with a counterparty is managed by means of a Credit Support Annex (CSA) agreement in accordance with standard industry

practice. These agreements provide that the underlying value of the derivatives must be posted as collateral in liquid instruments, such as cash and government bonds, to cover the counterparty default risk.

Reinsurance

VIVAT pursues an active policy with respect to the placement of reinsurance contracts, using a panel consisting of reinsurers with solid ratings. The general policy is that reinsurers should have a minimum rating of A-. However, given the long-term nature of the underlying business, the current casualty panel and the panel for life and disability reinsurance contracts consists of reinsurers with at least an A rating. Continuity and diversification within the panels of reinsurers is an important principle of VIVAT's Reinsurance Policy.

Mortgage Portfolio

VIVAT is exposed to counterparty default risk on its mortgage portfolio. Part of this portfolio is guaranteed by the National Mortgage Guarantee Fund (NHG). The average Loan to Value ratio has improved due to amortisation of the outstanding mortgage balance and an increase in Dutch housing prices in 2014-2018. The market value of the portfolio has decreased due to scheduled amortisation and prepayments.

Overview Mortgages

In € millions	2018	2017
Mortgages < 75% of foreclosure value	771	831
Mortgages 75% < > 100% of foreclosure value	339	269
Mortgages > 100% of foreclosure value	65	250
Mortgages with National Mortgage Guarantee	920	1,052
Residential property in the Netherlands	2,095	2,402
Specific provision for bad debts	-	-
Total (carrying amount)	2,095	2,402

7.7.3. SCR Counterparty Default Risk

The counterparty default risk module reflects the possible loss as a consequence of bankruptcies or a reduction in the credit standing of counterparties over a twelve month period. The SCR for the counterparty default risk is determined by aggregating the capital requirements related to type 1 and type 2 exposures.

Counterparty default risk

In € millions	2018	2017
Type 1 exposures	106	39
Type 2 exposures	69	114
Diversification	-11	-8
SCR counterparty default risk	164	145

In 2018 counterparty default risk type 2 for VIVAT, SRLEV and VIVAT Schadeverzekeringen decreased mainly due to a policy change for taking into account the savings part of the mortgages, i.e. lower net mortgage exposure. The counterparty default risk type 1 increased mainly due to starting a securities lending programme and due to new insight in determining the risk (legislation and modelling). For Proteq Levensverzekeringen counterparty default risk increased mainly by starting a security lending program.

Type 1 exposures are exposures that are expected to involve low diversification effects and for which the counterparty is likely to have an external rating. Solvency II treats the following as type 1 exposures:

- risk-mitigation contracts, including reinsurance arrangements, special purpose vehicles (SPVs), insurance securitisations and derivatives
- cash at bank
- deposits with ceding undertakings
- commitments received by an insurance or reinsurance undertaking which have been called up but are unpaid
- legally binding commitments which the insurer has provided or arranged and which may create payment obligations depending on the credit standing of a counterparty

The capital requirement for counterparty default risk on type 1 exposures is a percentage of the total losses given-default on all type 1 exposures, the percentage is dependent on the variance between the type 1 exposures, the higher the variance the lower the percentage.

The loss-given default (LGD) on a single-name exposure is equal to the sum of the LGDs on each of the underlying exposures to counterparties belonging to the relevant single-name exposure.

Type 2 exposures consist of all exposures to which the capital requirement for spread risk is not applicable and which are not of type 1. In general, these are diversified exposures which do not have an external rating. Solvency II explicitly mentions the following exposures in the context of type 2:

- receivables from intermediaries
- policyholder debtors
- mortgage loans which meet a set of requirements

SRLEV holds various saving mortgages, financed both internally and externally. The majority of the portfolio represents savings mortgages with cession/retrocession arrangements and pledged collateral for which no spread is included in the market valuation and no SCR CDR is calculated. Currently, together with other insurance companies, SRLEV is in discussion with DNB regarding the valuation and the treatment of these savings mortgages in the SCR. Since the discussion is ongoing and no conclusions are reached at the moment SRLEV applied the valuation method and treatment in the SCR in line with previous year.

The capital requirement for credit risk on type 2 exposures is equal to the loss in the basic own fund as defined by EIOPA.

Diversification

Not all risks will materialise at the same time and at their full magnitude resulting in diversification between different risk types.

7.8. Liquidity Risk

7.8.1. Risks – General

Liquidity risk is defined as the risk that VIVAT would have insufficient liquid assets to meet its financial obligations in the short term, in a going concern situation or in times of a stress situation, or if obtaining the necessary liquidity would mean incurring unacceptable costs or losses.

The liquidity risk is monitored and managed both at consolidated level and at legal entity level.

7.8.2. Risk Management Process

The policy of VIVAT is to have more liquidity available than it is required to hold based on internal risk management minimum levels. The objective of the internal risk management minimum levels is to ensure that VIVAT is able to fulfill its obligations towards policyholders and all legal obligations.

The liquidity risk policy uses three sources of liquidity:

1. the cash position
2. the liquidity buffer
3. the liquidity contingency policy

Cash Position

The first source of liquidity concerns the cash position. This position is built up from the cash management process from investments (managed by ACTIAM) and cash management process from underwriting and operating activities. In the investments cash management process all cash flows from investments are managed by our asset manager (ACTIAM).

VIVAT has taken into account that all obligations to policyholders must be respected and that these obligations will be paid throughout the underwriting and other operating cash management process. If at any time these obligations exceed the premium income additional cash will be transferred from the investment cash management process. Otherwise, when premiums exceed the payments in the operational cash management process, cash will be transferred to the investments cash management process, for the purpose of the investing excess cash (temporarily).

Liquidity Buffer

The second source is the liquidity buffer. Together with the cash position, the liquidity buffer forms the overall liquidity position of the entity. The liquidity buffer is a good indicator for the overall liquidity position of VIVAT and takes into account all available assets and the impact of prescribed shocks in a stress situation. Monitoring of this buffer accounts for an important part of the daily activities of VIVAT.

Liquidity Contingency Policy

The last source of liquidity relates to a situation in which the normal liquidity and buffers turn out to be insufficient. In case of such a contingency, VIVAT has implemented a Crisis Management Team (CMT) structure and a predefined set of potential management actions. The CMT must take timely action in rapidly deteriorating liquidity circumstances in order to avoid a bankruptcy that could occur in the worst case and/or to settle all of the obligations under the insurance portfolio in an orderly manner.

7.8.3. Exposure

The required liquidity is determined based on absorbing shocks in a stress situation. The shocks are applied on prescribed risk categories. These risk categories are mass lapse (Life insurance), storm-/hail damage (Non-life insurance) and interest rate movements. In total, the liquidity buffer is sufficient to cover a severe liquidity stress scenario.

7.9. Non-financial Risk

7.9.1. Risks – General

The Non-Financial Risk department (NFR), as second line Risk department, monitors and provides advice to management on compliancy risk and operational risk.

Compliance Risk

Compliance risk is the risk that an organisation could suffer legal or regulatory sanctions, material financial loss, or loss of reputation as a result of non-compliance with laws, regulations, rules, self-regulatory standards, codes and unwritten rules that apply to its activities.

Non-compliance with integrity- and conduct related rules can lead to regulatory action, financial loss or damage to the reputation of VIVAT, for example fines, compensation, disciplinary action, imprisonment or exclusion proceedings.

Laws and regulations within scope consist among others of those laws and regulations under which the supervisory authorities (Authority for the Financial Markets (AFM), Dutch Central bank (DNB), Authority for Consumers and Markets (ACM) and Data Protection Authority (AP) supervise aspects related to non-financial risks, such as the Dutch Financial Supervision Act (Wft), the Dutch Money Laundering and Terrorist Financing (Prevention) Act (*Wwft*), the Dutch Sanctions Act, as well as relevant European laws such as Solvency II, AIFMD and guidance from the Dutch Association of Insurers and other relevant bodies.

Operational Risk

Operational risk represents the risk of an economic loss, a negative reputational or supervisory impact resulting from inadequate or failed internal processes, people and systems, or from external events. Operational risks include the risk of a material misstatement in VIVAT's financial reporting and legal risks, but excludes strategic and business risks. Operational risk events can lead to adverse consequences beyond a pure financial loss. The assessment of possible reputational impacts following an operational event is an explicit part of the operational risk management process.

Operational risks are inherent in all of VIVAT's insurance products, activities, processes and systems and the management of operational risk is a fundamental element of VIVAT's risk management framework. VIVAT recognises the following types of operational risk: Execution & Process Control risk, IT risk, Internal Fraud risk, External Fraud risk, Damage to physical assets risk and Staff & security risk. Model risk is considered a separate risk.

Organisation

NFR has frequently direct contact with EB and SB and is represented in the Risk and Audit Committee of the Supervisory Board, the VRC, the PC, the ORC VIVAT and in the ORC's and PMP's of the MTs (see Section 7.2.5 Risk Organisation) of VIVAT. Within the PMP MTs NFR Compliance advices on the development, evaluation and approval of products in accordance with laws, regulations, the AFM criteria and criteria related to treating customers fairly

7.9.2. Risk Management Process

In managing non-financial risks VIVAT follows the risk management process as set out in Section 7.3. The Risk Control Framework consists of five key tasks.

Risk Identification

VIVAT systematically analyses Compliance and Operational Risks in order to make the risks transparent. This will enable VIVAT to control and manage its exposure within the risk tolerance limits in an efficient way. Risk identification is performed through risk assessments and, top-down and bottom-up risk analysis.

Risk Measurement

VIVAT uses a methodology to measure its operational risks based upon the combination of the likelihood of occurrence and the impact upon occurrence of the risk. This methodology is referred to as the risk rating procedure. The risk rating procedure is an assessment of the risk exposure VIVAT is facing at a certain moment in time, and an approach to assess the needs for controls, corrective actions and/or additional controls.

Risk Mitigation

NFR supports and challenges the first line in the recognition and mitigation of Non-Financial Risks. For this, it carries out research, monitors control measures and informs management. This includes an integrated incident overview, the Non-Financial Risk Appetite KRI scores, and the effectiveness of management and process controls to draw attention to relevant issues in the field of internal control. NFR facilitates the business in training & awareness on Compliance and Operational Risks.

Risk Monitoring

The objective of risk monitoring is to ensure that the internal control over the business processes remain effective and within the risk tolerance. Controls are designed to detect shortcomings in the control over processes. This is assessed through regular testing of the first line. Internal Control assesses through its monitoring activities whether the test results provide a reliable basis for the assessment of the level of control. NFR also monitors the progress of the implementation of laws and regulations and also on design, existence and operational effectiveness of the first line responsibility to implement laws and regulations.

Risk Reporting

In line with the VRC frequency NFR reports developments in non-financial risks and own observations in a Non-Financial Risk report, which provides a comprehensive overview of the major Non-Financial Risks and incidents within VIVAT. The Non-Financial Risk report is combined with the Financial Risk, Model Risk and Actuarial Function reports into the Enterprise Risk Management Key Take Aways.

7.9.3. Developments

In 2018 VIVAT has focused on new opportunities and sustainability towards our clients. The strategic ambition to become an innovative insurer has led to several initiatives in products, services, methodologies and processes. This dynamic and change oriented environment, the announced strategic reorientation of Shareholder, new and changed legislation, combined with a continued focus on cost reduction and revenue models could influence operational and compliance risks. These risks are addressed, managed and monitored within the VIVAT risk framework to maintain a sound and controlled organisation.

7.9.4. Exposure to Non-financial Risks

As important part of VIVAT risk framework, during 2018 VIVAT further improved the Integrated Control Framework consisting of process and management controls. Continuous attention on the quality of process and control design, testing of effectiveness of controls, reporting and analysis tooling and process ownership enables the organization to manage and monitor Compliance and Operational Risks in an efficient and effective manner. Based on the monitoring of all risk types, in this paragraph the main developments and risk events are described. VIVAT's management is of the opinion that action plans and programs are in place to sufficiently address and mitigate these risks.

Compliance Risk

Owing to the great complexity of the legislation concerning Solvency II, IFRS, GDPR, ILM, IDD, PRIIPS and Supply Chain Responsibility, changes to the pension legislation (Law Improved Premium Scheme), legislation may not be implemented in good time as a result of which VIVAT would not be compliant and would inter alia suffer reputational damage as a result. As an insurer Sanctions risks are limited but not non-existent.

In VIVAT's efforts to ensure compliance with applicable laws and regulations, instances of non-compliance can occur. These instances are shared with the regulators including a timely action plan to address and resolve future instances. At present, these instances include Sanction and Anti-money laundering regulation compliance.

Risks (including reputational risk) are not fully excluded in the non-accruing investment-linked policy file, owing to the combined effects of continuing media exposure, political opinion, court judgements and inaction on the part of customers. Initiated activation efforts were judged sufficient by the regulator and are continuously addressed through VIVAT's aftercare program.

Due to new legislation both in the Netherlands and in the EU (General Data Protection Regulation) privacy risks should be taken into account. Special precautions are in order to avoid data breaches when personal data is transferred to third parties, especially to parties in countries outside the EU that do not provide an adequate level of protection. An implemented broad privacy program and local Privacy Champions safeguard full attention to VIVAT's compliance with the privacy regulation. VIVAT appointed a Data Protection Officer within the Compliance department.

Operational Risk

Execution and Process Control Risk

In 2018 execution and process risk was influenced by the number of change projects, system conversions and strategic initiatives within the organisation. Aiming at realisation of (short term) results, often making use of the same available capacity within the organisation puts pressure on quality. This is influencing risk management and risk taking at first line. Furthermore human factors, such as dealing with news on strategic re-orientation of VIVAT will be different for each individual employee, but may cause distraction from work and change of focus on personal priorities.

Further improving the quality of process design was an important topic addressed in 2018, resulting in good progress in order to further incorporate automated controls within the ICF framework and new quality of design standards checklist are introduced. Strategic projects aiming at an increased level of (modular) process automation and straight through processing will contribute to mitigation of operational risks.

The committee structure within VIVAT assures that new legislation, risk reports and findings, incidents, follow up on actions are addressed in Operational Risk and Compliance committees in the first line and at VIVAT board level.

In the event of operational incidents, they are reported transparently and addressed with root cause analysis and monitoring of structural improvements. Process Key Control testing and review on Management controls was properly in place at both first and second line, enhancing the control environment.

Information Technology Risk

In order to be more efficient, VIVAT defined the target IT landscape and non-target systems are made redundant. This rationalisation will continue in 2019. Besides, the IT focus is on innovations like new and modern apps. The IT organisation has implemented the Agile way of working and Continuous Delivery, to improve on efficiency and to decrease time-to-market. VIVAT is aware that these developments require high standards of change management within the IT department to maintain an IT landscape that is in control and is managing IT risks. VIVAT is aware of the increasing strategic importance of collecting, managing and use of data, taking into account relevant legislation, e.g. GDPR. VIVAT has implemented a sustainable design for Data Governance to manage and monitor the diverse data related initiatives.

Outsourcing / Cloud Computing

VIVAT is shifting away from handling IT matters itself in favour of outsourcing in areas of the consumer value chain where VIVAT is less distinctive. VIVAT assesses how the required functionalities in that value chain can be purchased or outsourced as components. VIVAT performs risk assessments for new outsourcing initiatives, the results of which are reflected in the contracts with outsourcing partners.

During 2018 further improvements are made in structurally embedding legal requirements regarding outsourcing in our procurement procedures and integrated control framework. A good supplier management is set up to in order to maintain the desired level of control over outsourcing.

Cybercrime Risk

Fighting cybercrime is a key priority for a financial organisation like VIVAT. Cyber criminals are always trying to compromise financial companies, for example with ransomware. In 2018 no major incidents related to cybercrime occurred within VIVAT. Cybercrime will remain high on the agenda of the VIVAT management. Appropriate organisational and technological measures have been taken in order to be able to tackle the cybercrime risks, like the cooperation with the National Cyber Security Centre and other major Dutch insurance companies. Also in 2019 new measures will be implemented to stay in control over the cybercrime risk.

Staff and Security Risk

Due to active monitoring in 2018, the sick leave percentage has shown a strong decrease. Nevertheless, VIVAT will continue to monitor sick leave and will further enhance the level of control by changing to a new health service partner and dedicated case management. Furthermore, with regard to social safety, VIVAT conducted an employee survey in 2018, as well as a RIE (Risk Inventory and Evaluation) with a plan of action.

Model risk

In 2018, VIVAT completed its model inventory and by that increased overview and insight into its model landscape. Within the Risk Model Landscape programme important steps towards lower model risk are taken

by converting important SCR- and ALM-tooling. Model risk is further reduced by the follow-up of large numbers of second line findings, especially for reporting models, resulting in a more efficient and reliable valuation of underwriting and market risks and the determination of the solvency ratio. Ongoing model validations on reporting, (asset) valuation and pricing models, following a risk based approach, further increased model insight and provides guidance towards lower model risk.

7.9.5. SCR Operational Risk

Operational risk is the risk of losses caused by weak or failing internal procedures, weaknesses in the action taken by personnel, weaknesses in systems or because of external events. This takes into account legal risks, but risks that are a consequence of strategic decisions or reputational risks are disregarded. The technical provision for own risk is part of the calculation of the SCR operational risk.

The basic capital requirement for operational risk is calculated by taking the maximum of (a) the capital requirement for operational risks on the basis of earned premiums and (b) the capital requirement for operational risks on the basis of technical provisions and adding 25% of the expenses incurred in respect of unit linked business.

SCR Operational risk

In € millions	2018	2017
VIVAT	199	203

The development for operational risk can be mainly explained by regular portfolio development.



8. Company Financial Statements

8.1. Company Statement of Financial Position

Before result appropriation and in € millions	Notes ¹	31 December 2018	31 December 2017 ²
> Assets			
Property and equipment		10	12
Subsidiaries	1	3,654	3,727
Receivables from subsidiaries	2	858	722
Investments	3	481	616
Deferred tax	4	8	37
Corporate income tax		18	-
Other assets	5	10	5
Cash and cash equivalents	6	60	46
Total assets		5,099	5,165
> Equity and liabilities			
Issued share capital ³		0	0
Share premium reserve		4,309	4,309
Revaluation reserves and other legal reserves		154	170
Retained earnings		-1,222	-932
Total shareholders' equity	7	3,241	3,547
Holders of other equity instruments		300	-
Total equity		3,541	3,547
Subordinated debt	8	499	476
Borrowings		644	642
Capital base		4,684	4,665
Provision for employee benefits	9	351	375
Other provisions	10	5	9
Derivatives	11	-	16
Corporate income tax		-	24
Other liabilities	12	59	76
Total equity and liabilities		5,099	5,165

¹ The references next to the balance sheet items relate to the notes to the company statement of financial position in Section 9.2.

² Comparative figures (subsidiaries, receivables from subsidiaries) have been restated for comparison purposes. Reference is made to the notes in section 9.1 Accounting policies to the company financial statements.

³ The issued and paid up share capital of VIVAT NV is € 238,500.

8.2. Company Statement of Profit or Loss

In € millions	Notes ¹	2018	2017 ²
> Income			
Fee and commission income		-	-
Fee and commission expense		2	1
Net fee and commission income		-2	-1
Share in result of subsidiaries and associates	15	-244	-85
Investment income		14	41
Result on derivatives		16	-
Total income		-216	-45
> Expenses			
Result on derivatives		-	14
Staff costs	16	15	15
Other operating expenses		13	5
Other interest expenses	17	48	48
Total expenses		76	82
Result before tax		-292	-127
Tax expense	18	-8	-11
Net result continued operations for the period		-284	-116
> Attributable to:			
- Shareholders		-292	-116
- Holders of other equity instruments		11	-
- Tax on interest of other equity instruments		-3	-
Net result continued operations for the period		-284	-116

¹ The references next to the income statement items relate to the notes to the company statement of profit or loss in Section 9.2.

² Comparative figures (investment income, result on derivatives) have been restated for comparison purposes. Reference is made to the notes in section 6.1.2 Changes in policies, presentation and estimates for the consolidated financial statements.

9. Notes to the Company Financial Statements

9.1. Accounting Policies to the Company Financial Statements

Change in Accounting Policies

VIVAT NV decided to prepare its company financial statements in accordance with the provisions of Book 2 of the Dutch Civil Code instead of earlier applied International Financial Reporting Standards (IFRS) as endorsed by the European Union. According to the option offered in Article 362(8) of Book 2 of the Dutch Civil Code, VIVAT NV is able to use the same accounting policies for measurement in its company financial statements as for its consolidated financial statements, it is still effectively applying IFRS measurement principles in its company financial statements (so called combination 3 allowed by RJ 100.107). The main reason for this change is to avoid the application of multiple standards being used within VIVAT NV and to maintain the reconciliation of equity in the company and consolidated financial statements of VIVAT NV. If VIVAT had continued to apply the so-called combination 4, the required implementation of IFRS 9 in the VIVAT company financial statement would have resulted in reconciliation differences in equity between company and consolidated financial statements both retrospectively and prospectively.

Compared to the prior year reporting, the change of accounting policies results only in a different measurement method for investments in subsidiaries and associates in separate financial statements (the equity method). The (net) equity method required under IFRS is different from under Dutch Civil Code, as goodwill does not need to be presented separately from the investment in the group company in the company financial statements. However, as the amount of goodwill recognised by VIVAT NV as at 31 December 2018 and 31 December 2017 was not material, the change in accounting policies has no significant impact on VIVAT's company financial statements.

Change in Presentation

A change in presentation was processed in respect of the reimbursement rights. The reimbursement rights are now presented at an IAS 19 value and the subsidiary value of SRLEV NV has been adjusted accordingly given that these rights relate to the contract between VIVAT NV and SRLEV NV. Although this change did not have an impact on net result and net equity, the presentation of different line items in the Company Statement of Financial Position was affected. As a result, the change was processed retrospectively. The value in the comparative figures at 31 December 2017 of subsidiaries increased by € 32 million while the receivable from subsidiaries in relation to the reimbursement rights decreased by the same amount.

General

Where applicable, for items not described in this section, the accounting policies applied for the company financial statements are the same as those described in the section 6.1 Accounting policies for the consolidated financial statements. For the items not separately disclosed in the notes to the company financial statements, reference is made to the notes in the section 6.3 Notes to the consolidated financial statements.

Subsidiaries

Subsidiaries are companies and other entities in which VIVAT NV has existing rights to direct the relevant activities of the entity (see Section 6.3, note 43 List of principal subsidiaries). Subsidiaries are measured using the equity method of accounting.

Movements in the carrying amounts of subsidiaries due to changes in their revaluation, cash flow, fair value and profit-sharing reserves are recognised in shareholders' equity.

Movements in the carrying amounts arising from the share of result of subsidiaries are recognised in accordance with the accounting policies of VIVAT NV in profit or loss. The distributable reserves of subsidiaries are recognised in retained earnings.

VIVAT NV has provided a perpetual Tier 1 Capital loan to its subsidiary SRLEV NV. Redemption of the loan is scheduled at specific dates, for the first time five years after it was issued. The agreed terms meet the requirements in the EU's Solvency II regulations for Tier 1 Capital loans. These regulatory requirements imply that the borrower has a unilateral right not to pay interest or repay the principal to the investors. Based on these terms, the loan does not qualify as a liability at SRLEV and consequently it is recognised as an equity investment at VIVAT NV, increasing the carrying amount of the investments in subsidiaries. Interest payments are deducted from the net equity value of the investment.

Receivables from and Debts to Group Companies

Loans (including subordinated loans) to and from group companies are measured at amortised cost.

Revaluation Reserve

The revaluation reserve comprises the cumulative revaluations on investment property and revaluations of owner-occupied property of VIVAT's subsidiaries net of income tax. A cumulative loss on an investment property and owner-occupied property ((acquisition) costs exceed their fair value) is not recognised as part of the revaluation reserve.

9.2. Notes to the Company Financial Statements

1. Subsidiaries

Statement of Changes in Subsidiaries

In € millions	2018	2017
Balance as at 1 January	3,727	3,579
Solvency II Tier 1 Capital subordinated loan SRLEV NV	-	250
Interest accrual Solvency II Tier 1 Capital subordinated loan SRLEV NV	5	10
Capital issue	200	11
Revaluations	-25	-34
Result	-244	-89
Other movements	-9	-
Balance as at 31 December	3,654	3,727

Other movements mainly contains of interest payment of subordinated notes with an amount of € -14 million and recalculation effects regarding the defined benefit plan with an amount of € 4 million.

On 30 June 2017 VIVAT NV issued a Solvency II Tier 1 Capital subordinated loan of € 250 million to SRLEV NV. This subordinated loan bears a fixed rate interest of 7.75% and its perpetual. SRLEV's management may decide to cancel interest payment at any time without a cause.

In 2018, the capital issue consists of a share premium payment to SRLEV NV of € 200 million.

On 28 October 2018 VIVAT Schadeverzekeringen NV merged with Fnidsen Beheer BV pursuant to title 2.7 of the Dutch Civil Code, whereby VIVAT Schadeverzekeringen NV acquired all the assets and liabilities of Fnidsen Beheer BV by universal succession of title and Fnidsen Beheer BV ceased to exist.

2. Receivables from Subsidiaries

Breakdown of Receivables from Subsidiaries

In € millions	2018	2017
Loans	565	385
Reimbursement right	271	288
Receivables	22	49
Total	858	722

Reference is made to Note 14 Related parties of the company financial statements for more details about the granted loans to SRLEV NV, VIVAT Schadeverzekeringen NV and the reimbursement right to SRLEV NV.

All personnel currently employed by VIVAT NV have a collective defined contribution pension scheme at Stichting Pensioenfonds SNS REAAL. A number of defined benefit schemes for (former) employees still exists. The majority of these schemes is insured at SRLEV NV. As a result VIVAT NV, as employer, has a receivable towards SRLEV NV for the amount that is insured at SRLEV NV. This receivable covers the pension commitments to VIVAT NV's (former) employees. This commitment is presented as a provision for employee benefits in VIVAT NV's company statement of financial position.

3. Investments

The investments comprise solely of available for sale investments (2018: € 481 million; 2017: € 616 million). The investments available for sale concern investments in unlisted shares and similar investments and listed fixed-income investments.

Available for Sale: Listed and Unlisted

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
Listed	-	-	409	561	409	561
Unlisted	72	55	-	-	72	55
Total	72	55	409	561	481	616

Available for Sale: Statement of Changes

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
Balance as at 1 January	55	318	561	-	616	318
Purchases and advances	298	553	117	633	415	1,186
Disposals and redemptions	-282	-816	-259	-67	-541	-883
Revaluations	-	-1	-	-1	-	-2
Amortisation	-	-	-8	-6	-8	-6
Received Coupons	-	-	-7	-3	-7	-3
Accrued Interest	-	-	5	5	5	5
Dividend Received/ Negative Distribution	1	1	-	-	1	1
Balance as at 31 December	72	55	409	561	481	616

Available for Sale: Measurement

In € millions	Shares and similar investments		Fixed-income investments		Total	
	2018	2017	2018	2017	2018	2017
(Amortised) cost	72	55	406	555	478	610
Revaluation	-	-	-	1	-	1
Accrued interest	-	-	3	5	3	5
Balance as at 31 December	72	55	409	561	481	616

Investment Portfolio

Fixed-income Investment Portfolio

The fixed-income investments consist of sovereign bonds.

The following overview provides a breakdown of the interest-bearing investments by rating category.

Breakdown of Interest-bearing Investment Profile (rating)

In € millions	2018		2017	
AAA	409	100%	408	73%
AA	-	0%	153	27%
Total	409	100%	561	100%

Of the interest-bearing investment portfolio, 100% of investments had an AA rating or higher (year-end 2017: 100%).

The table below contains the breakdown of the interest bearing investment portfolio by geographic area.

Breakdown of Interest-bearing Investment Profile (geographic)

In € millions	2018		2017	
Netherlands	269	66%	207	37%
Germany	140	34%	201	36%
France	-	0%	102	18%
Austria	-	0%	51	9%
Total	409	100%	561	100%

4. Deferred tax

Origin of Deferred Tax 2018

In € millions	1 January	Change through profit or loss	Change through equity	31 December
Investments	2	-	-	2
Derivatives	4	-4	-	-
Provision for employee benefits	35	-24	-5	6
Other	-4	4	-	-
Total	37	-24	-5	8

Origin of Deferred Tax 2017

In € millions	1 January	Change through profit or loss	Change through equity	31 December
Investments	-	2	-	2
Derivatives	-	4	-	4
Provision for employee benefits	9	18	8	35
Other	-	-4	-	-4
Total	9	20	8	37

In 2018, a law was adopted that as from 2019 denies the tax deductibility of interest paid on Restricted Tier 1 instruments issued by VIVAT NV in 2018 for an amount of € 300 million.

In 2018, a law was adopted that lowers the Dutch corporate income tax rate to 22.55% in 2020 and to 20.50% in 2021. The deferred tax position at 31 December 2018 is calculated reflecting these reduced rates for temporary differences that are expected to reverse in financial years in which these rates apply.

5. Other Assets

Breakdown of Other Assets

In € millions	2018	2017
Accrued interest	4	4
Other accrued assets	-	1
Accrued assets	4	5
Other receivables	6	-
Total	10	5

The receivables are expected to be recovered within twelve months after reporting date.

6. Cash and Cash Equivalents

Breakdown of Cash and Cash Equivalents

In € millions	2018	2017
Short-term bank balances	60	46
Total	60	46

Short-term bank balances are at the company's free disposal.

7. Equity

Statement of changes in equity 2018

In € millions	Issued share capital ¹	Share premium reserve	Revaluation reserves and other legal reserves	Retained earnings ²	Total shareholders' equity	Holders of other equity instruments	Total equity
Balance as at 1 January 2018	-	4,309	170	-932	3,547	-	3,547
Other comprehensive income	-	-	-42	29	-13	-	-13
Net result 2018	-	-	-	-284	-284	-	-284
Total comprehensive income 2018	-	-	-42	-255	-297	-	-297
Issue of Subordinated notes - Principal	-	-	-	-	-	300	300
Interest on other equity instruments	-	-	-	-11	-11	-	-11
Tax relating to interest on other equity instruments	-	-	-	3	3	-	3
Unrealised revaluations	-	-	37	-37	-	-	-
Realised gains and losses	-	-	-9	9	-	-	-
Tax relating to changes in revaluation reserve	-	-	-7	7	-	-	-
Tax rate reduction adjustment	-	-	5	-5	-	-	-
Other movements	-	-	26	-35	-9	300	291
Total changes in equity 2018	-	-	-16	-290	-306	300	-6
Balance as at 31 December 2018	-	4,309	154	-1,222	3,241	300	3,541

¹ The share capital issued is fully paid up and comprises of 477 ordinary shares with a nominal value of € 500.00 per share for a total value of € 238,500.

² Other reserves and Retained earnings have been aggregated into Retained earnings. The comparative figures are adjusted accordingly.

Statement of change in revaluation reserves and other legal reserves 2018

In € millions	Revaluation reserve	Cash flow hedge reserve	Fair value reserve	Other legal reserves	Revaluation reserves and other legal reserves
Balance as at 1 January 2018	73	-	96	1	170
Unrealised revaluations and amortisation from cashflow hedges	-	29	-	-	29
Unrealised revaluations	37	-	-81	-	-44
Impairments and reversals	-	-	-3	-	-3
Realised gains and losses through profit or loss	-9	-	-248	-1	-258
Change in profit-sharing reserve and shadow accounting movement	-	-29	286	-	257
Income tax	-7	-	13	-	6
Tax rate reduction adjustment	5	-	-8	-	-3
Total changes in equity 2018	26	-	-41	-1	-16
Balance as at 31 December 2018	99	-	55	-	154

Statement of changes in equity 2017

In € millions	Issued share capital ¹	Share premium reserve	Revaluation reserves and other legal reserves	Retained earnings ²	Total shareholders' equity
Balance as at 1 January 2017	-	4,309	193	-803	3,699
Other comprehensive income	-	-	-25	-11	-36
Net result 2017	-	-	-	-116	-116
Total comprehensive income 2017	-	-	-25	-127	-152
Unrealised revaluations	-	-	14	-14	-
Realised gains and losses	-	-	-10	10	-
Tax relating to changes in revaluation reserve	-	-	-2	2	-
Other movements	-	-	2	-2	-
Total changes in equity 2017	-	-	-23	-129	-152
Balance as at 31 December 2017	-	4,309	170	-932	3,547

¹ The share capital issued is fully paid up and comprises of 477 ordinary shares with a nominal value of € 500.00 per share for a total value of € 238,500.

² Other reserves and Retained earnings have been aggregated into Retained earnings. The comparative figures are adjusted accordingly.

Statement of change in revaluation reserves and other legal reserves 2017

In € millions	Revaluation reserves	Cash flow hedge reserve	Fair value reserve	Other legal reserves	Revaluation reserves and other legal reserves
Balance as at 1 January 2017	69	-	120	4	193
Unrealised revaluations and amortisation from cashflow hedges	-	-36	-	-	-36
Unrealised revaluations	14	-	-538	-	-524
Impairments and reversals	-	-	-5	-	-5
Realised gains and losses through profit or loss	-8	-	-394	-3	-405
Change in profit-sharing reserve and shadow accounting movement	-	36	905	-	941
Income tax	-2	-	8	-	6
Total changes in equity 2017	4	-	-24	-3	-23
Balance as at 31 December 2017	73	-	96	1	170

Issued Share Capital

The issued share capital has been fully paid-up and consists of ordinary shares with a nominal value of € 500 each. 477 ordinary shares had been issued at 31 December 2018 (2017: 477).

Breakdown of Issued Share Capital

	Number of ordinary shares		Amount of ordinary shares (in € thousands)	
	2018	2017	2018	2017
Authorised share capital	2,385	2,385	1,193	1,193
Share capital in portfolio	1,908	1,908	954	954
Issued share capital as at 31 December	477	477	239	239

8. Subordinated Debt

In € millions	Coupon	Maturity	First call date	Carrying amount		Nominal value	
				2018	2017	2018	2017
VIVAT (US Dollar)	6.250%	November 2017 – perpetual	November – 2022	499	476	502	479

In November 2017, VIVAT NV issued \$ 575 million in subordinated notes. The notes are first callable after five years and each fifth anniversary thereafter, subject to conditions to redemption. The coupon is fixed at 6.25% per annum until the first call date. The notes qualify as Tier 2 regulatory capital.

9. Provision for Employee Benefits

Specification Provision for Employee Benefits

In € millions	2018	2017
Pension commitments	337	360
Other employee benefit commitments	14	15
Total	351	375

Pension Commitments

For the general disclosure of the Pension commitments reference is made to note 17, Section 6.3 Notes to the consolidated financial statements.

VIVAT's total contribution to these defined benefit schemes is expected to be approximately € 6 million in 2019 (2018: € 6 million). Obligations for additional indexation rights are included in the provision and will be released after payment to the insurer.

After offsetting the fair value of the investments, € 116 million has been included in the provision for pensions for the former AXA and Winterthur pension schemes (2017: € 121 million). In 2019, VIVAT's contribution to these defined benefit schemes is expected to amount to € 2 million (2018: € 2 million).

The pension scheme of Zwitserleven is self-administered. For this pension scheme, the present value of the pension obligations of € 169 million (2017: € 186 million) has been included in the provision for employee benefits. There is no separate investment account. VIVAT's contribution to the defined benefit scheme of Zwitserleven is expected to amount to € 3 million in 2019 (2018: € 3 million).

After offsetting the fair value of the investments, € 52 million (2017: € 52 million) has been included in the provision for pensions for the pension schemes of former employees of Zürich, NHL, Helvetia and DBV

built up in the past. In 2019, VIVAT's contribution to the other defined benefit schemes is expected to amount to € 1 million (2018: € 1 million).

Overview Pension Commitments

Breakdown of Pension Commitments

In € millions	2018	2017
Present value of defined benefit obligations	381	405
Less: Fair value of plan assets	-46	-46
Effect of asset ceiling	2	1
Present value of the net liabilities	337	360

Change in Present Value of Defined Benefit Obligations

In € millions	2018	2017
Present value as at 1 January	405	400
Increase and interest accrual through profit or loss	7	6
Actuarial gains or losses due to changes in financial assumptions through Other Comprehensive Income	-3	12
Actuarial gains or losses due to changes in demographic assumptions through Other Comprehensive Income	-4	1
Actuarial gains or losses due to experience adjustments through Other Comprehensive Income	-13	-3
Benefits paid	-11	-11
Present value as at 31 December	381	405

Change in Fair Value of the Plan Assets

In € millions	2018	2017
Fair value as at 1 January	46	42
Investment income through profit or loss	1	-
Actuarial gains or losses due to changes in demographic assumptions through Other Comprehensive Income	-1	-
Actuarial gains or losses due to experience adjustments through Other Comprehensive Income	2	6
Investment income	2	6
Premiums	9	9
Benefits paid	-11	-11
Fair value as at 31 December	46	46

The expected return on investments through profit or loss has been netted with the actuarial rate of interest (in accordance with IAS 19 Revised). The difference between the actual interest result and the actuarial rate of interest is recognised in Other Comprehensive Income.

Breakdown of Fair Value of the Plan Assets

In € millions	2018	2017
Cash and cash equivalents	9	-
Insurance contract	37	46
Balance as at 31 December	46	46

The plan assets Insurance contracts consist of the non-contributory value based on the actuarial principles.

Reconciliation of the effect of the Asset Ceiling

In € millions	2018	2017
Balance as at 1 January	1	-
Remeasurements on the effect of asset ceiling	1	1
Balance as at 31 December	2	1

Statement of Other Comprehensive Income

In € millions	2018	2017
Balance as at 1 January	22	22
Actuarial gains or losses directly taken to Other Comprehensive Income pension commitments	21	-11
Actuarial gains or losses directly taken to Other Comprehensive Income other employee benefit commitments	-	-1
Investment income for the benefit or at the expense of Other Comprehensive Income	-1	6
Additional transfer from Defined Benefit Obligation	-	3
Deferred taxes	-2	3
Other	-	-
Balance as at 31 December	40	22

The table below shows the actuarial gains and losses on pension commitments, that arise from experience adjustments, as a percentage of the pension commitments at year-end.

Experience Adjustment Arising on the Pension Commitments

In percentages	2018	2017
Experience adjustments as a % of defined benefit obligation	-4%	-1%
Experience adjustments as a % of investments	4%	14%

The Main Actuarial Parameters at Year-end

In percentages	2018	2017
Discount rate	1.80%	1.75%
Expected salary increase	2.26%	2.32%
Price inflation	2.23%	2.20%

Sensitivity Present Value of Pension Obligations 2018

In € millions	31 December 2018	
	Change in € millions	Change in %
Discount rate 1.30% (-0.5%)	37	10%
Discount rate 2.30% (+0.5%)	-32	-8%

Sensitivity Present Value of Pension Obligations 2017

In € millions	31 December 2017	
	Change in € millions	Change in %
Discount rate 1.25% (-0.5%)	41	10%
Discount rate 2.25% (+0.5%)	-35	-9%

Other Employee Benefit Commitments

Change in Other Employee Benefit Commitments

In € millions	2018	2017
Balance as at 1 January	15	12
Additions	-	2
Release through Other Comprehensive Income	-	2
Withdrawal	-1	-1
Balance as at 31 December	14	15

These refer to jubilee benefits and to discounts granted for bank and insurance products to (former) employees after the date of their retirement.

10. Other Provisions

Breakdown of Other Provisions

In € millions	2018	2017
Restructuring provision	5	9
Total	5	9

Statement of Changes in Other Provisions

In € millions	Restructuring provision	
	2018	2017
Balance as at 1 January	9	110
Additions	4	5
Withdrawal	-8	-106
Balance as at 31 December	5	9

The restructuring provisions, formed in 2016, is used during 2017. The main addition to the restructuring provision relates to closing of an office location, which is expected to settle in the course of 2019.

11. Derivatives

The derivatives were held in the context of ALM to which no hedge accounting is applied.

Statement of Changes in Derivatives

In € millions	2018	2017
Balance as at 1 January	-16	-
Purchases	-	-3
Revaluations	-11	-
Exchange rate differences and FX result	27	-14
Accrued Interest	-	1
Balance as at 31 December	-	-16

12. Other Liabilities

Breakdown of Other Liabilities

In € millions	2018	2017
Debts to subsidiaries	2	1
Other taxes	10	10
Other liabilities	34	52
Accrued interest	13	13
Total	59	76

The other liabilities are expected to be settled within twelve months after reporting date.

13. Guarantees and Commitments

403-statements

VIVAT NV has provided a statement in accordance with section 2:403 of the Dutch Civil Code (Burgerlijk Wetboek) in relation to its (indirect) subsidiaries Bemiddelingskantoor Nederland BV and Volmachtkantoor Nederland BV, pursuant to which VIVAT NV declares itself to be jointly and severally liable for the legal acts performed by aforementioned entities.

The 403-statements provided in relation to the insurers VIVAT Schadeverzekeringen NV and Proteq Levensverzekeringen NV, has been revoked in January 2017. The 403-statement provided in relation to SRLEV NV has already been revoked in 2015.

Future Payment Obligations Arising from Leases

The total rental obligations for owner-occupied properties are € 7 million in 2019 (2018: € 8 million), € 6 million for a period between one and two years and and € 6 million for a period between two and five years. The current tenancy agreements will expire between 2019 and 2023.

14. Related Parties

Intra-group Balances between VIVAT NV and Subsidiaries

In € millions	2018	2017
> Positions		
Receivables	22	49
Reimbursement right	271	288
Loans (receivables from subsidiaries)	565	385
Corporate income tax (payable to subsidiaries)	33	46
Accrued interest (other assets)	1	1
Other liabilities	2	1
> Transactions		
Capital issue to subsidiaries	200	11
Grant Solvency II Tier 1 Capital subordinated loan	-	250
Movements receivables	-27	-17
Movements reimbursement right	-17	-23
Obtain loans (receivables from subsidiaries)	180	95
Redemption loans (receivables from subsidiaries)	-	-180
Movements corporate income tax (payable to subsidiaries)	-13	30
Movements accrued interest (other assets)	-	1
Movements other liabilities	1	-182
Staff costs	-151	-156
Other operating expenses	-69	-72
Interest income	28	32
Interest expense	-	-9

For details on the intra-group balances and transactions between VIVAT NV, Anbang and affiliates, see Note 22 Related parties of the consolidated financial statements.

15. Share in Result of Subsidiaries

Breakdown of Share in Result of Subsidiaries

In € millions	2018	2017
SRLEV NV	-278	-55
VIVAT Schadeverzekeringen NV ¹	16	-
Proteq Levensverzekeringen NV	1	3
ACTIAM NV	-7	1
Zwitserleven PPI NV	-	-
Others (eliminations)	24	-34
Total	-244	-85

¹ On 1 January 2018 VIVAT Schadeverzekeringen NV merged with Fnidsen Beheer BV. VIVAT Schadeverzekeringen NV elected to apply the pooling of interest method to account for the merger. The financial information of Fnidsen Beheer BV is accounted for in the financial statements of VIVAT Schadeverzekeringen as per 1 January 2017.

16. Staff costs

Staff costs are mainly related to incidental costs, among others an addition to the restructuring provision and costs related to Loopbaanplaza.

17. Other interest expenses

Breakdown of Other Interest Expenses

In € millions	2018	2017
Bonds	48	14
Private loans	-	34
Total	48	48

18. Income Tax

Breakdown of Tax Expense

In € millions	2018	2017
In financial year	-32	9
Corporate income tax due	-32	9
Due to temporary differences	20	-20
Due to change in income tax rate with regard to deferred tax	4	-
Deferred tax (including tax rate change)	24	-20
Total	-8	-11

The corporate income taxes are irrevocable for the years up to and including 2016.

Reconciliation between the Statutory and Effective Tax Rate

In € millions	2018	2017
Statutory income tax rate	25.0%	25.0%
Result before tax	-292	-127
Statutory corporate income tax amount	-73	-32
Effect of participation exemption	61	21
Due to change in income tax rate with regard to deferred tax	4	-
Total	-8	-11
Effective tax rate	2.7%	8.7%

The effective tax rate of 2.7% differs compared to the nominal rate of 25%, caused by the effect of the participation exemption and the change in income tax rate to 22.55% in 2020 and 20.50 % in 2021. For further disclosures about deferred tax, see note 4.

19. Audit Fees

Ernst & Young Accountants LLP and other Ernst & Young lines of services charged the following fees pursuant to Section 382a(3) of Book 2 of the Dutch Civil Code to VIVAT, its subsidiaries and other consolidated entities in 2018.

In € thousands	2018	2017
Audit of the financial statements, including the audit of the statutory financial statements and other statutory audits of subsidiaries and other consolidated companies	3,180	2,395
Other audit services	1,000	1,244
Total	4,180	3,639

20. Result Appropriation

For the provisions of the articles of association governing the appropriation of profit or loss reference is made to Section Other information.

The Executive Board proposes to the General Meeting of Shareholders to deduct the negative result for 2018 of € 284 million from the retained earnings of VIVAT NV.

In accordance with the resolution of the General Meeting of Shareholders held on 25 April 2018, the negative result for 2017 of € 116 million has been deducted from the retained earnings of VIVAT NV.

Amstelveen, the Netherlands, 25 March 2019

The Supervisory Board

M.W. Dijkshoorn (Chairman)

M.R. van Dongen

M. He

K. Shum

P.P.J.L.M. Lefèvre

The Executive Board

J.J.T. van Oijen (Chairman)

L. Tang

X.W. Wu

Y. Cao

W.M.A. de Ruiter-Lörx

J.C.A. Potjes



The Route Mobiel roadside assistance service operates in the Netherlands and 43 other countries. The company has an extensive network of expert assistance providers, with over 180 bases across the Netherlands.





Other Information

1. Provisions in Articles of Association Governing the Appropriation of Profit or Loss

Article 41 Profit and Loss; general

1. The profits shall be at the free disposal of the general meeting.
2. The company may only make distributions to shareholders and other persons entitled to distributable profits to the extent its equity exceeds the total amount of its issued share capital and the reserves which to be maintained pursuant to the law.
3. Distribution of profits shall take place following the adoption of the annual accounts from which it appears that such distribution is allowed.

Article 42 Profit and Loss; Distributions

1. Dividends shall be due and payable fourteen days after having been declared, unless upon the proposal of the management board the general meeting determines another date thereof.
2. Dividends that have not been collected within five years after they became due and payable shall revert to the company.
3. If the general meeting so determines on the proposal of the management board, an interim dividend will be distributed, including an interim dividend from reserves, but only with due observance of what is provided in Section 2:105, paragraph 4, of the Dutch Civil Code.
4. A loss may only be applied against reserves maintained pursuant to the law to the extent permitted by the law.

Independent auditor's report

To: the shareholder and supervisory board of VIVAT N.V.

Report on the audit of the financial statements 2018 included in the annual report

Our opinion

We have audited the financial statements of VIVAT N.V. ('VIVAT' or 'the Company'), based in Utrecht. The financial statements include the consolidated financial statements and the company financial statements.

In our opinion:

- The accompanying consolidated financial statements give a true and fair view of the financial position of VIVAT N.V. as at 31 December 2018, and of its result and its cash flows for 2018 in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and with Part 9 of Book 2 of the Dutch Civil Code
- The accompanying company financial statements give a true and fair view of the financial position of VIVAT N.V. as at 31 December 2018, and of its result for 2018 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements comprise:

- The consolidated statement of financial position as at 31 December 2018
- The following statements for 2018: the consolidated statement of profit or loss, the consolidated statements of total comprehensive income, changes in equity and cash flows
- The notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

- The company statement of financial position as at 31 December 2018
- The company statement of profit or loss for 2018
- The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the "Our responsibilities for the audit of the financial statements" section of our report.

We are independent of VIVAT N.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), 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.

Materiality

Materiality	EUR 50 million (2017: EUR 70 million)
Benchmark applied	1.5% of VIVAT's shareholder's equity (2017: 2% of VIVAT's shareholder's equity)
Explanation	VIVAT's equity and solvency, and the ability to meet policyholder liabilities, are key indicators for the users of its financial statements. As such, we have based materiality on VIVAT's shareholder's equity. We have considered the recent developments regarding ongoing strategic review and decided to decrease the benchmark applied in 2018 to 1.5% of VIVAT's shareholder's equity.

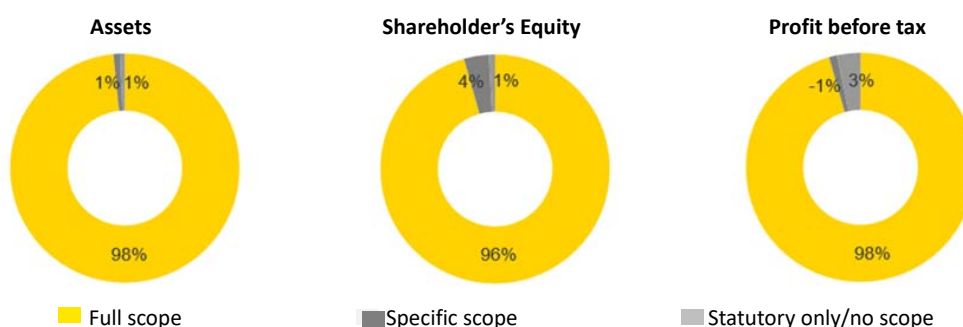
We have also taken misstatements into account and possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the supervisory board that misstatements in excess of EUR 2.5 million, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view should be reported on qualitative grounds.

Scope of the group audit

VIVAT is at the head of a group of entities. The financial information of this group is included in the consolidated financial statements of VIVAT.

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 the reporting units based on their size and/or the risk profile. We included SRLEV N.V. ('SRLEV'), VIVAT Schadeverzekeringen N.V. ('VIVAT Schade') and Proteq Levensverzekeringen N.V. ('Proteq') in the audit scope for consolidation purposes, resulting in a coverage of 99% of total assets, 99% of shareholder's equity and 97% of profit before tax.



We have:

- Performed audit procedures ourselves at group entities SRLEV and VIVAT Schade
- Performed specific audit procedures ourselves at Proteq

Further, we performed, amongst others, analytical procedures to corroborate our assessment that there are no significant risks of material misstatement for the remaining entities.

By performing the procedures mentioned above at group entities, together with additional procedures at VIVAT level, we have been able to obtain sufficient and appropriate audit evidence about VIVAT's financial information to provide an opinion on the consolidated financial statements.

Our key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the supervisory board. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Fair value measurement of investments and related disclosures	
Risk	VIVAT invests in various asset types and continued the re-risking of the investment portfolio in 2018. 81% of assets are carried at fair value in the balance sheet. Of the total assets, 18% is related to investments for which no published prices in active markets are available. Fair value measurement can be subjective, and more so for areas of the market reliant on model based valuation or with weak liquidity. Valuation techniques for mortgages, loans, real estate, private equity investments and for non-listed bonds, equities and derivatives involve setting various assumptions regarding pricing factors. The use of different valuation techniques and assumptions could produce significantly different estimates of fair value. Associated disclosures are complex and dependent on high quality data. Specific areas of audit focus include the valuation of Level 3 assets where valuation techniques are applied in which significant unobservable inputs are used.
Our audit approach	We assessed and tested the design and operating effectiveness of the controls over valuation, independent price verification and model validation and approval. We performed additional procedures, supported by our valuation specialists where necessary. This included, where relevant, comparison of judgments made to current and emerging market practice and re-performance of valuations on a sample basis. We also assessed the impact of other sources of fair value information including gains or losses on disposal and fair value information based on the Company's own purchase transactions. Finally, we assessed and tested the design and operating effectiveness of the controls over related disclosures including the disclosure of valuation sensitivity and fair value hierarchy in note 41.
Key observations	Based on our procedures performed, we consider the fair value of financial instruments to be within a reasonable range. The fair value disclosures of investments meet the requirements of IFRS-EU.
Estimates used in calculation of insurance contract liabilities and Liability Adequacy Test (LAT)	
Risk	<p>VIVAT has insurance contract liabilities of EUR 46 billion representing 89% of the Company's total liabilities. The measurement of insurance contract liabilities involves judgment over uncertain future outcomes, mainly the ultimate total settlement value of long-term liabilities, including any guarantees provided to policyholders.</p> <p>The Company's IFRS liability adequacy test (LAT) is performed in order to confirm that insurance contract liabilities are adequate in the context of expected future cash outflows. In the LAT, the excess of fair value over the carrying value of mortgages and loans at amortized cost is taken into account.</p>

	<p>As at 31 December 2018, the LAT of SRLEV and Proteq shows a significant deficit. As a consequence, insurance liabilities are primarily measured on the basis of the LAT to cover for this deficit. Changes in estimates and assumptions used in the LAT therefore directly impact VIVAT's profit or loss. The setting of mortality, longevity, expense and lapse assumptions in the LAT, including the assumptions to determine the fair value of mortgages, require application of significant judgment.</p> <p>Furthermore, in 2018 SRLEV N.V. concluded a full indemnity longevity reinsurance contract providing partial cover for the financial impact of longevity risk for a selected portfolio of group pension insurance contracts. The impact of this contract is included in LAT calculation and as such affected the cumulative LAT deficit per 31 December 2018 (resulting in an increase of the LAT-deficit by EUR 130 million per 31 December 2018).</p>
Our audit approach	<p>We involved our actuarial specialists to assist us in performing audit procedures in this area. This included among others consideration of the appropriateness of the mortality, longevity, expense and lapse assumptions used in the valuation of life insurance contract liabilities. Further, for non-life contracts, this included the assessment of the provision for claims incurred but not reported, and the appropriateness of the morbidity and recovery assumptions for bodily injury and disability products. As part of these procedures, we evaluated Company and industry data, and expectations of developments in this respect.</p> <p>In addition, we considered the validity of the Company's IFRS LAT results which is a key test performed in order to ensure that insurance contract liabilities are adequate in the context of expected future cash flows based on best estimate assumptions plus a risk margin. Our work on the LAT includes assessing the reasonableness of the projected cash flows and challenging the assumptions adopted, including mortality, longevity, expenses and lapses, and the determination of fair value of the mortgage and loan portfolio valued at amortised cost basis, based on Company's and industry experience data, expected market developments and trends. Regarding the fair value of the mortgage and loan portfolio, this included re-performance of valuations on a sample basis.</p> <p>Other key audit procedures included assessing the Company's methodology for calculating the insurance contract liabilities and an assessment of internal controls in this respect, including the analysis of the movements in insurance contract liabilities during the year. We assessed whether the movements are in line with the changes in assumptions adopted by the Company, our understanding of developments in the business and our expectations derived from market experience.</p> <p>Furthermore, we inspected the full indemnity longevity reinsurance contract concluded by SRLEV N.V. in 2018 and compliance of its treatment with IFRS-EU. We have assessed the reasonableness of the expected cash flows and related impact on the risk margin included in the LAT in respect of this contract by reference to the projected cash flows on the underlying insurance contracts and the longevity reinsurance contract.</p> <p>We considered whether VIVAT's disclosures in note 16 to the financial statements in relation to insurance contract liabilities and LAT results are compliant with IFRS-EU.</p>

Key observations	We consider the estimates used to be within a reasonable range. The disclosures of insurance contract liabilities and LAT results meet the requirements of IFRS-EU.
Unit-Linked Exposure	
Risk	Holders of unit-linked products (where the customer bears all or part of the investment risk), or consumer protection organizations on their behalf, have filed claims or initiated proceedings against the Company and may continue to do so. A negative outcome of such claims and proceedings in respect of unit-linked products, settlements or any other actions for the benefit of customers by other insurers and sector-wide measures could have a significant impact for VIVAT relating to compensation. The financial consequences of these legal proceedings cannot be reliably estimated at this point. Refer to note 21 to the financial statements.
Our audit approach	<p>We performed audit procedures in this area, which included:</p> <ul style="list-style-type: none"> • assessment of VIVAT's governance, processes and internal controls with respect to unit-linked exposures • review of the documentation and discussing the unit-linked exposures with management and the Company's internal legal advisors • obtaining a legal letter from VIVAT's external legal advisor • involving our own legal experts in the assessment of the documentation and developments regarding the unit-linked exposure • consideration of the recognition and measurement requirements for establishing provisions under IFRS-EU. <p>We also considered whether the Company's disclosures in respect of this legal exposure is compliant with the relevant accounting requirements. We focused on the adequacy of disclosure of the related risks and assumptions in note 21 to the financial statements.</p>
Key observations	Management's assessment that the financial consequences of the unit-linked exposure cannot be reliably estimated at this time and therefore no provision is recognized in the 2018 balance sheet, is adequately substantiated. The related disclosure meets the requirements of IFRS-EU.
Reliability and continuity of the information technology and systems	
Risk	<p>VIVAT N.V. is highly dependent on its IT systems and IT infrastructure for the continuity of the operations. VIVAT continues to invest in its IT systems and IT infrastructure and processes to meet clients' needs and business requirements.</p> <p>VIVAT is continuously improving the efficiency and effectiveness of its IT systems and IT infrastructure and the reliability and continuity of the electronic data processing, including its defense against cyber-attacks.</p>
Our audit approach	As part of our audit procedures we have assessed the changes in the IT systems and IT infrastructure and have tested the reliability and continuity of electronic data processing within the scope of the audit of the annual accounts. For that purpose we have included IT auditors in our team. Our procedures included testing of controls with regards to IT systems and processes relevant for financial reporting as well as additional (substantive) procedures if deemed necessary. We also assessed the impact of data conversions executed in 2018 to the in scope systems,

	including assessment of the follow up to the findings identified in this relation, as well as the redesign of the IT general control framework.
Key observations	The combination of the tests of controls and the substantive tests performed provided sufficient appropriate evidence for the purposes of our audit.

Report on other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:

- Board report including 2018 at a Glance, Key Figures, Message from the Executive Board of VIVAT, Strategy and Developments and Corporate Governance
- Additional information
- Other information as required by Part 9 of Book 2 of the Dutch Civil Code

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

- Is consistent with the financial statements and does not contain material misstatements
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Board report in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged by the supervisory board as auditor of VIVAT N.V. on 29 October 2015, as of the audit for the year 2016 and have operated as statutory auditor since that date.

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 audit of public-interest entities.

Other non-prohibited services provided

In addition to the statutory audit of the financial statements of VIVAT and its subsidiaries, we provided the following services:

- We issued an auditor's report on VIVAT's group reporting package prepared for the purpose of consolidation by its ultimate parent company.
- We issued auditor's reports on selected regulatory reporting templates of VIVAT, and of its subsidiaries, to the Dutch Central Bank (DNB).
- We issued comfort letters in relation to prospectuses prepared in connection with securities offerings of VIVAT and SRLEV.
- We issued assurance reports in respect of Zwitserleven's and Actiam's ISAE 3402 statements.

- We issued assurance reports on cost price models for financial products prepared by VIVAT's insurance subsidiaries.
- We issued assurance reports on statements of premium income and number of motor vehicles insured.
- We issued reports of factual findings and assurance reports on statements prepared by VIVAT to meet contractual obligations with its customers.
- We issued a report of factual findings related to board remuneration.

Description of responsibilities for the financial statements

Responsibilities of management and the supervisory board for the financial statements

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

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

The supervisory board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management

- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation

Because we are ultimately responsible for the opinion, we are also 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. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the supervisory board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the supervisory board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the supervisory board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Amsterdam, 25 March 2019

Ernst & Young Accountants LLP

Signed by A. Snaak



Additional information

1. GRI-table

GRI Code	Disclosure	Cross reference / explanatory note 2018
> GRI 102: GENERAL DISCLOSURES		
> 1. Organisational Profile		
102-1	Name of the organisation	VIVAT NV
102-2	Activities, brands, products, and services	3.1. About VIVAT, p.13 3.3.2. How We Create Value, p.17-20 3.4. Our Main Brands, p.27 3.5. Our Product Lines, p.27-33
102-3	Location of the organisation's headquarters	Amstelveen, The Netherlands
102-4	Number of countries operating	VIVAT only operates in the Netherlands. Taxes are therefore paid only in the Netherlands.
102-5	Nature of ownership and legal form	4. Corporate Governance, p.49
102-6	Markets served	3.4. Our Main Brands, p.27 3.5. Our Product Lines, p.27-33
102-7	Scale of the reporting organisation	Key Figures, p.6 3.6. Our People, p.34 5.1. Consolidated Statement of Financial Position, p.61 5.2. Consolidated Statement of Profit or Loss, p. 62
102-8	Information on employees and other workers	3.6. Our People, p.34 -35
102-9	Supply chain	3.3.2. How We Create Value, p.17-20 3.4. Our Main Brands, p.27
102-10	Significant changes to the organisation and its supply chain	No significant changes have occurred in the reporting period.
102-11	Precautionary Principle or approach	3.5.4. Asset Management, p.32-33 7. Managing Risks, p.157
102-12	External initiatives	OECD guidelines – We undertake to encourage our suppliers and subcontractors to apply rules of conduct that are compatible with the guidelines which we endorse. We apply due diligence in the supply chain and combat corruption and anti-competitive practices in any form (including tax avoidance). In 2018 no significant incidences of corruption were reported. If a supplier violates the sustainability declaration, we enter into a dialogue and seek ways for improvement. If improvements are not made, we have the option to terminate the contract. International Labour Organisation (ILO) – By complying with these guidelines, we support effective measures to abolish child labour and eliminate any form of forced labour, we support the elimination of discrimination in employment and occupation and, within our sphere of influence, we support the freedom to join a trade union and the right to collective bargaining.
102-13	Memberships of associations	Here is a selection of the organisations of which we are members: Zwitserleven: PSI (UNEP Principles for Sustainable Insurance), VBDO (Association of Investors for Sustainable Investment), Verbond van Verzekeraars (Dutch Association of

GRI Code	Disclosure	Cross reference / explanatory note 2018
		<p>Insurers), MVO Nederland (CSR Netherlands), Swiss Life Network (International network of insurers who service multinational customers across borders), Ondernemersvereniging Amstelveen</p> <p>Reaal: Keurmerk Klantgericht Verzekeren, Verbond van Verzekeraars (Dutch Association of Insurers)</p> <p>ACTIAM: Dutch Fund and Asset Management Association (DUFAS), Extractive Industries Transparency Initiative (EITI), Global Impact Investing Network (GIIN), VBDO (Association of Investors for Sustainable Investment), Eumedion, CDP, GRESB (Global Real Estate Sustainability Benchmark), Green Bond Principles (incl. participation in Executive Committee), Natural Capital Finance Alliance PRI (Principles for Responsible Investment), FSC Nederland, Facility Management: VGP (Association of Volume Users of Postal Services)</p>
> 2. Strategy		
102-14	Statement from senior decision maker	2. Message from the Executive Board of VIVAT NV, p.9-10
> 3. Ethics and Integrity		
102-16	Values, principles, standards, and norms of behavior	3.3. Corporate Social Responsibility, p.15 4. Corporate Governance, p.49-50
> 4. Governance		
102-18	Governance structure	4. Corporate Governance, p.49
> 5. Stakeholder Engagement		
102-40	List of stakeholder groups	Additional Information - 3.3. Stakeholder Engagement, p.250
102-41	Collective bargaining agreements	100% of the employees are covered by collective bargaining agreements
102-42	Identifying and selecting stakeholders	Additional Information - 3.3. Stakeholder Engagement, p.250
102-43	Approach to stakeholder engagement	Additional Information - 3.3. Stakeholder Engagement, p.250
102-44	Key topics and concerns raised	Additional Information - 3.3. Stakeholder Engagement, p.250
> 6. Reporting Practice		
102-45	Entities included in the consolidated financial statements	Additional Information - 3.6. About this Report, p.255
102-46	Defining report content and topic Boundaries	Additional Information - 3.6. About this Report, p.255
102-47	List of material topics	3.3. Corporate Social Responsibility, p.15-16 Additional information - 3.2. Determination of Materiality and Stakeholder Engagement, p.249
102-48	Restatements of information	No significant restatement has been made with regard to the CR information and data in 2018 compared to the previous.
102-49	Changes in reporting	3.3. Corporate Social Responsibility, p.15 Additional Information - 3.2. Determination of Materiality and Stakeholder Engagement, p.248
102-50	Reporting period	January 1st - December 31st, 2018
102-51	Date of most recent report	Apr-18
102-52	Reporting cycle	Yearly

GRI Code	Disclosure	Cross reference / explanatory note 2018
102-53	Contact point for questions regarding the report	Additional Information – 3.6. About this Report, p.255
102-54	Claims of reporting in accordance with the GRI Standards	Additional Information – 3.6. About this Report, p.255
102-55	GRI content index	Additional Information – 1 GRI-table, p.241
102-56	External assurance	VIVAT does not longer obtain external assurance on its CSR data
> GRI 103: MANAGEMENT APPROACH		
Topic Specific Standards		
> Investing Responsibly		
DMA	Management approach disclosures	103-1: 3.3. Corporate Social Responsibility, p.15 3.3.1. Our Three Strategic Priorities, p.17 Additional Information – 3.2. Determination of Materiality and Stakeholder Engagement, p.248 103-2: 3.3.4. Responsible Investing, p.21-25 3.4.4. ACTIAM, p.27 3.5.4. Asset management, p.32-33 Additional Information – 3.1. Organisation of Corporate Social Responsibility, p.247 Additional Information – 3.4. Coherence & Connectivity CR Strategy, p.252 103-3: 3.5.4. Asset Management, p.32-33 3.3.4. Responsible Investing, p.21-25
Own indicator	Policy and results of responsible investment	Other Milestones, p.5 2. Message from the Executive Board of VIVAT NV, p.9 3.3.4. Responsible Investing, p.21-25 3.5.4. Asset Management, p.32-33 Additional Information – 3.5. Coherence & Connectivity CR Strategy, p.253
Own indicator	Percentage of investment in line with ESG criteria	Additional information – 4. Glossary, p.256
> Solvency		
DMA	Management approach disclosures	103-1: 3.2. VIVAT's Strategy, p.14 3.3. Corporate Social Responsibility, p.15 Additional Information – 3.2. Determination of Materiality and Stakeholder Engagement, p.248 103-2: 3.8. Risk and Capital Management, p.43-47 7.4. Capital Management, p.166 Additional Information – 3.1. Organisation of Corporate Social Responsibility, p.247 Additional Information – 3.4. Coherence & Connectivity CR Strategy, p.252 103-3: 7.4. Capital Management, p.166
Own indicator	Solvency II ratio	Key Figures, p.6 3.8. Risk and Capital Management, p.46 Additional Information – 3.5. Coherence & Connectivity CR Strategy, p.253
> Sustainable Use of Land		
DMA	Management approach disclosures	103-1: 3.3. Corporate Social Responsibility, p.15 Additional Information – 3.2. Determination of Materiality and Stakeholder Engagement, p.248

GRI Code	Disclosure	Cross reference / explanatory note 2018
		103-2: 3.3.2. How We Create Value, p.17-20 3.5.4. Asset Management, p.32-333.3.5. Efficient and Sustainable Business, p.25-26 Additional Information - 3.1. Organisation of Corporate Social Responsibility, p.247 Additional Information - 3.4. Coherence & Connectivity CR Strategy, p.252 103-3: 3.3.4. Responsible Investing, p.21-25 3.3.5. Efficient and Sustainable Business, p.25-26
Own indicator	Energy consumption kWh per FTE	3.3.5. Efficient and Sustainable Business, p.25
Own indicator	% Sustainable electricity	3.3.5. Efficient and Sustainable Business, p.26
Own indicator	% Sustainable gas	3.3.5. Efficient and Sustainable Business, p.26
Own indicator	Net emissions	3.3.5. Efficient and Sustainable Business, p.26
Own indicator	CO2- and water footprints of investment funds	Additional Information - 3.4. Coherence & Connectivity CR Strategy, p.252
Own indicator	ESG-score of portfolios and benchmarks	Additional Information - 3.4. Coherence & Connectivity CR Strategy, p.252
> Being a Good Employer		
		103-1: 3.3. Corporate Social Responsibility, p.15 3.6. Our people, p.34-37 Additional Information - 3.2. Determination of Materiality and Stakeholder Engagement, p.248 103-2: 3.6.2. Terms and Conditions of Employment, p. 36 Additional Information - 3.1. Organisation of Corporate Social Responsibility, p.247 Additional Information - 3.4. Coherence & Connectivity CR Strategy, p.252 103-3: 3.6. Our People, p.34
DMA	Management approach disclosures	
Own indicator	Ratio male-female	3.6. Our People, p.34
Own indicator	Female managers	3.6. Our People, p.34
Own indicator	Female members of senior management	3.6. Our People, p.34
> Responsible Pension		
		103-1: 3.3. Corporate Social Responsibility, p.15 Additional Information - 3.2. Determination of Materiality and Stakeholder Engagement, p.249 103-2: 3.3.2. How We Create Value, p.17-20 3.4. Our Main Brands, p.27 3.5. Our Product Lines, p.27-33 Additional Information - 3.1. Organisation of Corporate Social Responsibility, p.247 Additional Information - 3.4. Coherence & Connectivity CR Strategy, p.252 103-3: 3.5. Our Product Lines, p.27-33
DMA	Management approach disclosures	

GRI Code	Disclosure	Cross reference / explanatory note 2018
Indicator	Number of tools/expressions to help customers beyond ZL retirement	3.5. Our Product Lines, p.27-28
> Sustainable Employability		

Annex

Material topic	Topic-specific Standards	Indicator
> Material topics which VIVAT report according to GRI Standards		
Customer service (First time right)	GRI 417 - product & service labelling	GRI 417-1: Requirements for products and service labelling GRI 417-2: Incidents of non-compliance concerning product and information labelling GRI 417 -3: Incidents of non-compliance concerning marketing communications
Integrity	GRI 406: Non-discrimination	GRI 406-1: Incidents of discrimination and corrective actions taken
> Material topics which VIVAT partially report according to GRI Standards		
Solvency, Profitability & Pricing	GRI 201 - Economic performance	GRI 201-1: Direct economic value generated and distributed
	Own indicator	Solvency II ratio
> Material topics which VIVAT report according to own indicators		
Insights in risks	Own indicator	Risk profile and risk management
		Insight in our risks
Customer satisfaction & simplicity	Own indicator	Treating customers fairly
		Clear and understandable products
Responsible investment	Own indicator	Policy and results of responsible investment
Digitisation	Own indicator	No indicator formulated yet
> Disclosure G4-PR5 has been discontinued		

2. Principles underlying/non-underlying result

➤ Definition and usefulness of Net Underlying Result (NUR):

Net result IFRS of VIVAT has a high volatility as result of the valuation of all assets and liabilities on a fair value basis. In the NUR major fair value movements as result of market developments and parameter changes have been eliminated from IFRS-result. VIVAT believes that the NUR provides useful information to stakeholders and investors which results in greater comparability of results with peers and that it enhances their understanding on the financial impact of management decisions (e.g. re-risking of investments, additional cost-savings). The NUR should be viewed as complementary to, and not as a substitute for net result IFRS.

➤ Limitations of the usefulness Net Underlying Result:

The large difference between net result IFRS and NUR is driven by a number of items.

Besides the result of new business the NUR also includes realisation of interest and technical results on the existing (old) business portfolio. As VIVAT values virtually all of its assets and liabilities on a fair value basis, these specific results are already included within Equity. Reported results on existing (old) portfolio in NUR are reversed in net result IFRS by means of a change in the LAT shortfall. The NUR is therefore not a full reflection of economic value added.

The increase in NUR is partly driven by the interest income on derivatives that will balance out when these instruments mature. This impact is offset by the fair value of technical provisions (LAT shortfall) in the net result IFRS, whilst any changes in LAT shortfall have been excluded from the net underlying result. This therefore increases the difference between NUR and net result IFRS.

Given the complexity in valuation of derivatives it is not possible to fully eliminate all fair value movements from NUR. This could lead to distortion in comparability of figures between different periods. In addition to the impact of additional investment income from derivatives the increase of the NUR was also supported by ongoing re-risking activities, lower costs and lower interest expenses.

Further differences between NUR and net result IFRS relate to the above mentioned one-off items (longevity reinsurance and DTA adjustment) that had a negative impact on the net result IFRS but were excluded from the NUR.

3. Principles of Non-financial Reporting

3.1. Organisation of Corporate Social Responsibility

The management of VIVAT has delegated the task of implementing CSR to the CSR-manager and his CSR core team. The CSR-manager is responsible for coordinating, developing and implementing an overarching CSR policy for VIVAT and its brands. When necessary they be assisted by a 'knowledge circle' which contributes specialist knowledge. The CSR-manager is direct or indirect the linking pin between the core team and the Executive Board. The Executive Board has final responsibility with regard to the activities described above. The CEO of VIVAT is sponsor of Corporate Social Responsibility within the Executive Board and the CCO of VIVAT has a involvement in the implementation of the CSR policy. The Supervisory Board has an advisory and supervisory role.

The product lines responsible for each of the fields covered by CSR are, first of all, our brands and, second, our corporate staff departments such as Risk, Finance, General Office and Human Resources. Within the product lines, VIVAT and the brands have established a network of experts. Together, they decide on how the key CSR objectives are to be approached.

These experts support and monitor the process and achievement of the objectives. The responsibilities of the CSR-manager and his CSR core team include the following:

- > developing a framework for VIVAT's overarching CSR policy and key objectives
- > developing strategies for the key objectives
- > coordinating the annual reporting process within CSR
- > maintaining contacts with several stakeholders
- > answering questions about CSR

3.2. Determination of Materiality and Stakeholder Engagement

VIVAT is continuously in contact with its external stakeholders. The insights that follow from these engagement are key in defining our company's course. That is why VIVAT has consulted a wide representation of stakeholders to define the relevance of topics to stakeholders. In chapter 3 Strategy and Developments a connection has been made between the stakeholder consultation and the newly developed CSR policy. In this paragraph the result of our engagement with stakeholders is elaborated upon in more detail.

Firstly, we have asked our stakeholders: "How do you view the topic of CSR?"

Stakeholders indicate that companies should play a role when it comes to CSR, and that long-term value creation is key. VIVAT has underlined these statements by emphasizing the concept of long-term value creation within the CSR strategy and policy of VIVAT and its brands. One of the generic take-aways from the consultation is that our stakeholders believe that companies should take responsibility for CSR. An insurer should not only steer on financial value, but also on societal value. VIVAT endorses this and takes this along into her supply chain. To get more VIVAT specific insights the stakeholders were asked for their opinion regarding a variety of statements and their valuation of topics (as a basis to define its materiality).

Secondly, we have asked stakeholders to react on the following: "For a comprehensive CSR-policy VIVAT must at least..."

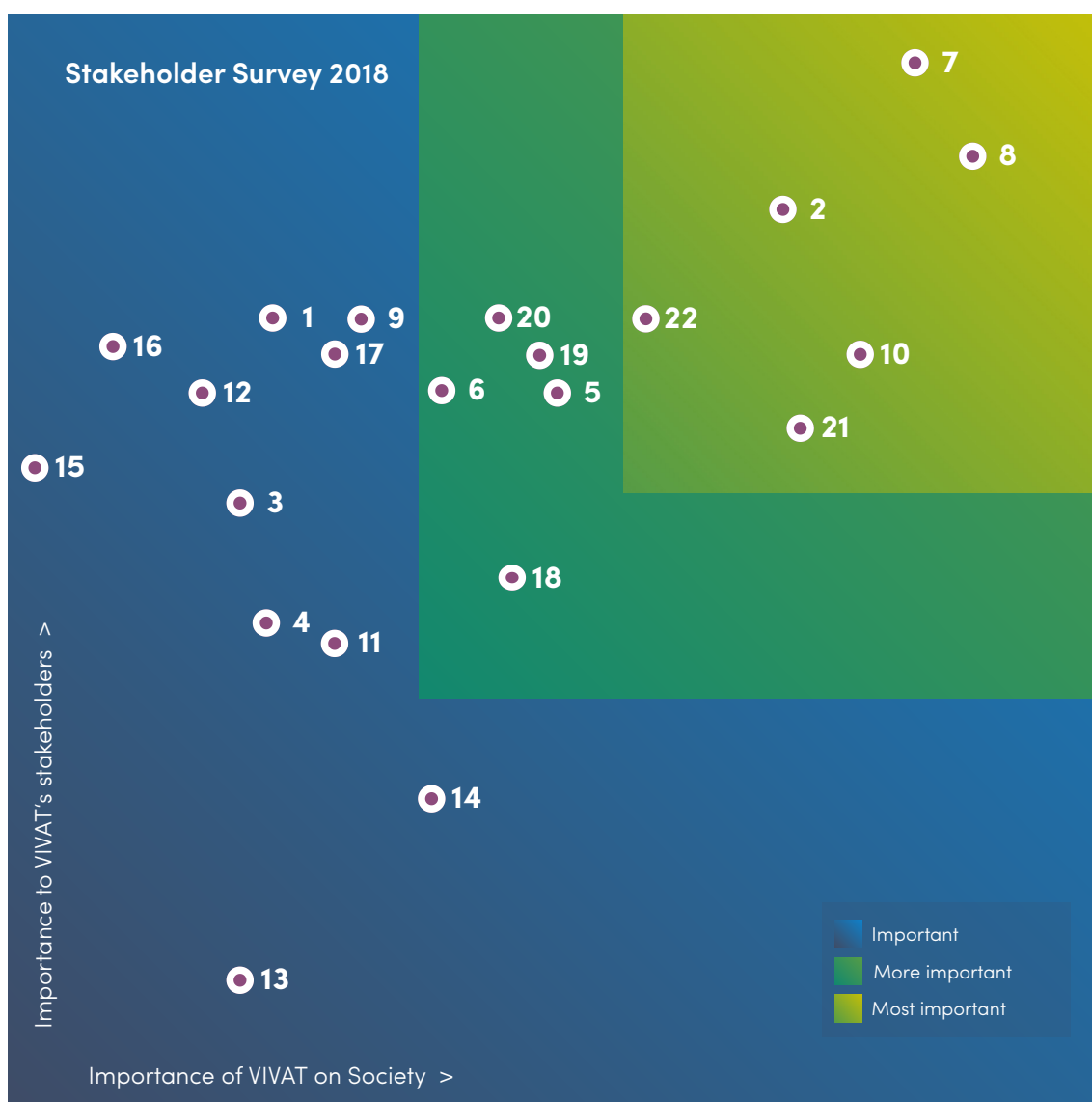
It became clear that VIVAT must at least exclude the following companies from their investments or as customer: companies from controversial industries (like the tobacco or weapons industry), or companies that are associated with human rights violations. VIVAT has already taken steps to further enhance policies regarding investments, premium income and internal operations. Besides already existing policies to exclude companies from life insurance or property & casualty insurances contracts, the company assessments will be increasingly tightened. Via a step-by-step approach, starting with life insurance, the holdings structures will be tested against the exclusion policy: if irregularities come up, the first step will be to engage with companies to discuss changes, a second step would be exclusion when needed. In essence, VIVAT is the insurer that not only "does not invest in companies that do not comply with CSR & integrity criteria" but also "does not wish to have premium income and profits from the same companies".

Additionally, VIVAT will start to focus on:

- Supplying recovered or replaced products instead of disbursing money within Property & Casualty Insurance
- Making clear to all our customers – from companies to consumers – which products they buy and what they can expect from VIVAT to make their lives simpler and easier in the financial world

Also in 2018 an extensive materiality assessment was conducted prioritising the topics and validating their relevance. Based on the prioritisation conducted for internal and external stakeholders a materiality matrix was created. As a starting point the short-list of 22 relevant topics was used. This list was both updated and prioritised based on the outcomes of a media- analysis, peers analysis and desk research.

The figure below shows the corresponding materiality matrix. The horizontal axis represents the importance VIVAT on society whereas the vertical axis represents the importance to the stakeholders of VIVAT. The topics in the upper right corner, the first six, are most important as they are highly relevant to both VIVAT's business and its stakeholders.



All Material Topics

1. Appropriate and simple products	12. Minimise paper use by digitisation
2. Being a good employer	13. Animal Welfare
3. Diversity and Inclusion	14. Innovation
4. Strict selection of customers on integrity and sustainability	15. Pro-activity in customer contact
5. Products with added value for our customers	16. Ease of purchase of products
6. Sustainable procurement	17. Climate-neutral operations
7. Investing responsibly	18. Sustainable energy generation
8. Solvency	19. Circularity / stimulate reuse of products
9. Sustainable results for the organisation	20. Reduction of CO ₂ emission by 50% in 2040
10. Responsible pension	21. Sustainable use of land and preservation of nature
11. Financial self-sufficiency of customers	22. Sustainable employability

The following subjects are most material to our stakeholders:

- 7. Investing responsibly
- 8. Solvency
- 2. Being a good employer
- 10. Responsible pension
- 22. Sustainable employability
- 21. Sustainable use of land and preservation of nature

Other important subjects are:

- 5. Products with added value for our customers
- 19. Circularity / stimulate reuse of products
- 20. Reduction of CO₂ emission by 50% in 2040 vs 2015
- 18. Sustainable energy generation
- 6. Sustainable procurement

We disclose our performance on our material topics in this report. The page references for each topic is included in the GRI table (Additional information, Section 3.1).

3.2.1. Boundaries of Material Aspects

All information about the policy, strategy and related indicators concerns our own organisation, unless indicated otherwise in the report. However, VIVAT and its brands and activities cannot be viewed separately from its environment and impact on third parties.

3.3. Stakeholder Engagement

Stakeholders are essential for VIVAT, for the continued existence of the business and for the course we are following. Our stakeholders include customers, suppliers, civil society organisations, financial authorities, government bodies and our employees. Stakeholders are identified on the basis of an assessment of the reciprocal interest which the stakeholder and VIVAT have in each other. VIVAT is in regular contact with its main stakeholders. This enables us to keep abreast of their expectations and relevant developments. In the dialogue with our stakeholders, we seek to create a basis of trust and to develop an understanding of the aspects that are important to the different parties.

This helps us to set priorities and take the right decisions. In addition, stakeholder dialogues enable us to adjust our strategy where needed. For this reason, our Executive Board is involved in these dialogues. We keep in contact with our main stakeholders, albeit more intensively with some than with others. The following table summarises the main aspects discussed in 2018.

Stakeholder Dialogue

Group	Type of engagement	Main aspects discussed in 2018	Actions and reactions of VIVAT
Business partners	Events with intermediaries	Innovation, digitisation	<ul style="list-style-type: none"> • VIVAT organised several events with and for intermediaries to discuss innovation and digitisation • Pension Day of Zwitserleven
Civil society organisations	Yearly ratings Verbond van Verzekeraars Week van het Geld	(Sustainable) investment policy	<ul style="list-style-type: none"> • Almost all investments are socially responsible and in line with our Fundamental Investment Principles • Focus on three key themes: climate, water and land
Customers	Continuous and structural customer feedback loops Customer interviews for customer journey and proposition development Customer group specific events, including our annual pension day	Continuous identification of improvement areas of our service delivery and customer interaction Thorough understanding of customer (group) needs in certain life events to add more value for our customers by a.o. developing innovative digital solutions	<ul style="list-style-type: none"> • Customer feedback is translated into actions in order to continuously improve our services • Concentrate on providing solutions for our customers based on their needs and pro-active relevant customer interaction • Organising various client events to offer them tailored information
Employees	Senior management debriefs and meetings Offsites (senior management) Innovation masterclasses Strategy webinar Work Council	Sustainable employability of our employees, personal development, customer centricity, innovation and digitisation	<ul style="list-style-type: none"> • Employees have access to a learning portal that includes a range of training courses as well as development tools. • VIVAT organised activities on innovation and digitisation to involve employees with VIVAT's strategy.
Regulators	Regular contact through formal meetings, emails and telephone contact with for example DNB and AFM	Risk Management, Treating customers Fairly, new initiatives, legislation, strategy and business updates, innovation	<ul style="list-style-type: none"> • VIVAT filled out surveys of regulators and participated in sector broad research
Suppliers	Yearly contract negotiations, Daily email and telephone contact	Sustainable purchasing, general purchasing conditions and pricing	<ul style="list-style-type: none"> • Implementing VIVAT's General Procurement Terms and Conditions (revised in 2016) • VIVAT is shifting away from handling IT matters itself in favour of outsourcing in areas of the consumer value chain where VIVAT is less distinctive

3.3.1. Dilemmas

A topic still highly relevant is pensions. We frequently discuss this topic with our stakeholder groups. As the market for financial services has been unstable for several years now, pensions do form a challenge. The continued low interest rate poses a problem for people trying to save money. This consequently has an impact on the insurance sector. Solvency requirement are getting stricter, consumers behaviour is changing and the Witteveen pension legislation results in a shrinking pension market. This leads to capital challenges

in the short-term due to limited returns on our investments. It also impacts our ability to help our customers creating a prosperous future.

The effects of climate change can have an influence on VIVAT's operations and solvency. To keep costs manageable, we face the challenge of preventing the increasing chance of weather-related damage to products and resources for (business) customers with preventive measures. Therefore, SDG 13 - aiming to take urgent action to combat climate change and its impacts - will also be integrated in our strategic objectives.

Zwitserleven strives for its pension clients towards a carefree future in a world that matters. Therefore, 20% of the equity portfolio in the unit-linked pension portfolio is invested in a new impact fund set up by ACTIAM. This fund specifically invests in a number of SDGs. With this investment more than € 300 Mio. involved. On the remaining 80%, a sustainable policy will be introduced in 2019.

Inclusiveness is important to VIVAT. VIVAT wants to contribute to gender equality (SDG 5) and to reduce inequality (SDG 10) by integrating these themes into the chosen theme 'Good employment practices' (SDG 8).

Related to this is the Internet of Things and the relation with privacy. IoT allows for more intensive monitoring of the factual state of 'things' as well as the behaviour of the owners. The expectation is that this trend will become larger and lead to individualised premiums to be calculated for various insurance products. On the one hand it provides business opportunities. On the other hand privacy law- and legislation need to be taken into account as well as the ethical aspects of data and customer privacy. Groups of customers may be concerned about the level of knowledge a company would possess. Subsequently, we must exercise caution with respect to the use of digital and big data technology in our products and services. In this context, regulations including the AVG General Data Protection Regulation (GDPR) are well taken into account by VIVAT.

3.4. Coherence & Connectivity CSR Strategy

VIVAT's CSR strategy is aligned and integrated with the mission and core strategy of the company and comprises four main pillars:

- > Responsible investments
- > Customer centricity
- > Sustainable operations
- > Sustainable results

In our Connectivity Table we have visualised how these strategic pillars (the basis of our business model) are translated into CSR focus areas and how they are linked to material topics. In addition, it shows the indicators that are used to control and monitor progress in the form of KPI targets and the achieved results in 2018 as well as the risks related to these indicators. Because of the extent of the table it is not possible to embed it in this report. Therefore it is published in high resolution on the VIVAT website: [vivat.nl/en/corporate-responsibility/connectivity/](https://www.vivat.nl/en/corporate-responsibility/connectivity/)

A more elaborate explanation of our CSR strategy, including our value creation model, is provided in Section 3.3.

3.5. Reference Table EU Directive Non-financial and Diversity Information

The table below is in line with the new EU Directive (2014/95/EU) that has come into effect. This Direction was enshrined in Dutch legislation in the form of two separate regulations: disclosure of non-financial information and disclosure of diversity policy. In order to be fully compliant with the directive, we included the following reference table to disclose where in our integrated report we have provided the information required.

Requirements EU-Directive	Reference Annual Report VIVAT NV 2018
> Company model	
General description and core processes	2018 at a Glance, p.4-5
Business model	3.3.2. How We Create Value, p.17-20
Description of Strategy	3. Strategy and Developments, p.13-36
> Environment	
Description implemented policies	3.3.1. Our Three Strategic Priorities, p.17 3.3.4. Responsible Investing, p.24-25
Results of implemented policies	3.3.4. Responsible Investing, p.24-25
Description of risks	3.3.2. How We Create Value, p.17-20
Description risk management	3.3.2. How We Create Value, p.17
Quantitative performance-indicators	3.3.4. Responsible Investing, p.24-25
> Social and Personnel	
Description of implemented policies	3.3.1 Our Three Strategic Priorities, p.17 3.6. Our People, p.34-37
Result of implemented policies	3.6. Our People, p.34-37
Description of risks	7.9. Non-financial Risk, p.206
Description risk management	3.3.3. Sustainable Customer Relationship, p.20-21
Quantitative performance-indicators	3.6. Our People, p.34-37
> Human Rights	
Description of implemented policies	3.3.3. Sustainable Customer Relationship, p.20-21 3.3.4. Responsible Investing, p.22-23
Result of implemented policies	3.3.3. Sustainable Customer Relationship, p.20-21 3.3.4. Responsible Investing, p.22-23
Description of risks	3.3.3. Sustainable Customer Relationship, p.20-21 7.9. Non-financial Risk, p.206
Description risk management	3.3.3. Sustainable Customer Relationship, p.20-21 7.9. Non-financial Risk, p.206
Quantitative performance-indicators	3.3.4. Responsible Investing, p.23
> Corruption and Bribery	
Description of implemented policies	3.3.3. Sustainable Customer Relationship, p.20 3.3.4. Responsible Investing, p.23-24
Result of implemented policies	3.3.3. Sustainable Customer Relationship, p.20 3.3.4. Responsible Investing, p.23-24
Description of risks	7.9. Non-financial Risk, p.206
Description risk management	7.9. Non-financial Risk, p.207
Quantitative performance-indicators	3.3.4. Responsible Investing, p.24
> Diversity Policy	
Description of implemented policies	3.6.2. Terms and Conditions of Employment, p.36 4.3. Report of the Supervisory Board, p.52
Objectives of implemented policies	3.6.2. Terms and Conditions of Employment, p.36
Method of implemented policies	3.6.2. Terms and Conditions of Employment, p.36
Results of implemented policies	3.6.2. Terms and Conditions of Employment, p.36 4.1. The Executive Board, p.49 4.2. The Supervisory Board, p.51

3.6. About this Report

The 2018 Annual Report of VIVAT NV provides a combined account of our performance in the financial and CSR fields. We regard CSR not as a secondary activity performed alongside our core task but as a subject that forms an integral part of our entire business operations. This report reflects this approach. Drafts of this report were extensively reviewed by internal reading groups and subject matter experts. Our aim is to further integrate our financial & non-financial reporting.

Scope & Boundary

This report is targeted at stakeholders of VIVAT NV and other interested parties. The scope of this report comprises all entities for which VIVAT NV has management responsibility. The report relates to the full 2018 calendar year. New acquisitions are included in our CSR reporting as of the first full year of ownership. Any disposals during the reporting year are excluded for the full year. In order to report the information and data most relevant to our stakeholders, reporting aspects have been selected by means of a materiality analysis. We have compared the importance attached to various aspects by VIVAT and by our external stakeholders. Our analysis and its results are explained under the Additional Information Section 3.2. The selection of disclosures in this report is based on the outcomes of the materiality analysis and on the availability of quantitative data.

Reporting Guidelines

The criteria for reporting CSR information on VIVAT NV are based on the guidelines of the Global Reporting Initiative (GRI) Standards (core level). The GRI guidelines are the most generally accepted guidelines for preparing annual (social) reports and can be found on www.globalreporting.org. In its 2018 annual report, VIVAT NV reports on the basis of GRI Standards at 'core' application level. The full GRI table has been included in this report under Additional Information Section 1.1. In addition, we have developed a value creation model, including the main forms of capital input in line with the Integrated Reporting framework. This model and an explanation on how we create value is included in Section 3.3.2.

Measuring Method

Data was provided by the various product lines and staff departments. Data concerning the workforce and financial results set out in this report was collected using our financial data management system. The remaining non-financial data set out in this report was collected using a standardised yearly questionnaire that was completed by the responsible entities. The product lines, HR, Finance, Risk and facility management each provided relevant data relating to their business. The collected data was consolidated and validated at HQ level by the CSR core team. The CSR core team and the CSR sounding board group are responsible for collecting and validating the reported data. Data is validated by means of methods such as trend analyses. All data has been measured, unless stated otherwise. If no data was available, it was estimated by extrapolation of historical data. No uncertainties and inherent limitations have been found in the data as a consequence of their measurement, estimation and calculation.

Feedback

VIVAT NV welcomes feedback from stakeholders and other interested readers. We would be glad to receive any comments at info@vivat.nl.

4. Glossary

Active ownership, engagements	<p>We identify three different types of engagement:</p> <ol style="list-style-type: none"> 1) Responsive engagement: in response to controversies or violations of our Fundamental Investment Principles. 2) Proactive engagement: raising possibilities for improvement and potential risks. 3) Collective engagement: talking to companies along with other investors in order to have a greater impact.
CO₂ footprint	is a calculation that makes it clear how much CO ₂ emissions a company creates and which business activities created which quantities. This makes it easier to see where CO ₂ emissions can be reduced.
Customer satisfaction	is a measure of how our products and services meet or surpass customer (solely private clients) expectation following a survey in April and September. Customer satisfaction score (relation based) reflects our customers' satisfaction on a scale from 1 to 10 (1 = extremely dissatisfied, 10 = extremely satisfied).
ESG Criteria	Environmental, social and governance (ESG) criteria are a set of standards for a company's operations that socially conscious investors use to screen potential investments.
Global Reporting Initiative	is a leading organisation in the sustainability field. GRI promotes the use of sustainability reporting as a way for organisations to become more sustainable and contribute to sustainable development.
Insurance contract	a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder in exchange of a premium.
Net Promoter Score	outcome of Net Promoter Score ('NPS'; relation based) survey with customers (solely private clients) in April and September of the reporting years. Stakeholders view this as a material indicator. The NPS methodology is a widely used methodology in which scores from 0 to 6 are classified as 'detractor', scores 7 or 8 are classified as 'passive' and only those scores that are 9 or 10 are classified as 'promoters'. The result is calculated by the percentage of promoters minus the percentage of detractors, giving the NPS. The NPS can therefore range from -100% to +100%.
Responsible investment	is an approach to investment that explicitly acknowledges the relevance to the investor of environmental, social and governance (ESG) factors, and the long-term health and stability of the market as a whole.
Responsible investment, exclusions	<p>Compliance with our Fundamental Investment Principles will be assessed based on two main criteria:</p> <ol style="list-style-type: none"> 1) Repeated or systematic involvement in activities covered by our principles, as well as failure to sufficiently remedy such involvement. 2) Inadequate preparedness to prevent this involvement from occurring in the future – <i>companies only</i>
Scope 1	all direct GHG emissions.
Scope 2	indirect GHG emissions from consumption of purchased electricity, heat or steam.
Scope 3	other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.
Solvency	is the ability to meet our long-term financial obligations.
Solvency II	is an EU Directive that collects and harmonises the EU insurance regulation. Its primary concern is the amount of capital that insurance companies must hold to reduce the risk of insolvency
Simplicity score	is a measure to which extent our customers (solely private clients) find our products are clear and understandable following a survey in April and September. Simplicity score (relation based) reflects our customers' perception on simplicity on a scale from 0% to 100% (1 = unclear and fully not understandable, 100% = clear and fully understandable).
TCF	Treating Customers Fairly is a principle that intends to raise the standards in the way company's carry on their business. The aim is to induce changes that will benefit consumers and increase their confidence in the financial services industry.
Transparency benchmark	annual recurring research on the content and quality of sustainability reporting by Dutch companies. This is an initiative of the Ministry of Economic Affairs.

