# Aegon Spaarkas N.V.

Solvency and Financial Condition Report 2019



# Contents

Execut	ive Summary	3
A. Busi	ness and Performance	7
A.1.	Business	7
A.2.	Underwriting performance	8
A.3.	Investment performance	8
A.4.	Performance of other activities	10
A.5.	Any other information	10
B. Syst	em of Governance	11
B.1.	General information on the system of governance	11
B.2.	Fit and proper requirements	17
B.3	Risk management system including the own risk and Solvency assessment	18
B.4.	Internal control system	23
B.5.	Internal audit function	24
B.6.	Actuarial function	25
B.7.	Outsourcing	25
B.8.	Any other information	25
C. Risk	Profile	26
Gen	eral	26
Pruc	lent Person Principle	28
C.1.	Underwriting risk	29
C.2.	Market risk	30
C.3.	Credit risk (counterparty default risk)	32
C.4.	Liquidity risk	33
C.5.	Operational risk	34
C.6.	Other Material Risks & Uncertainties	35
C.7.	Any other information	35
D. Valu	ation for Solvency Purposes	36
D.1.	Assets	38
D.2.	Technical provisions	43
D.3.	Other liabilities	47
D.4.	Alternative methods of valuation	48
D.5.	Any other information	49
E. Capi	tal Management	50
E.1	Own funds	50
E.2.	Solvency Capital Requirement and Minimum Capital Requirement	52
E.3.	Use of duration-based equity risk sub-module in the calculation of the Solvency Capital Requirement	56
E.4.	Differences between internal model and standard formula	56
E.5.	Non-compliance with the Minimum Capital Requirement and non- compliance with the Solvency Capital Requirement	57
E.6.	Any other information	57
Additic	nal Information	58
Glos	sary	58
Caut	ionary note	59

# Executive summary

### Scope of the report

This report is Aegon Spaarkas' Solvency and Financial Condition Report ("SFCR") for the year 2019. This report informs Aegon Spaarkas' stakeholders about its:

- Business and performance;
- System of governance;
- Risk profile;
- Valuation for solvency purposes; and
- Capital management.

The SFCR report contains both quantitative and qualitative information. The main focus of this report is on the Solvency II balance sheet, its relation to IFRS and on the Solvency Capital Requirement ("SCR"). Material differences between Aegon Spaarkas' financial statements based on IFRS-EU and the Delegated Regulation Solvency II, are discussed in chapter D. Valuation for Solvency Purposes.

### **Basis of presentation**

This report is prepared in accordance with the requirements of Solvency II Directive and Delegated Regulation (in particular articles 51, 53 – 55 of the Solvency II Directive, articles 290-298 of the Delegated Regulation, and relevant EIOPA Guidelines, in particular 'Guidelines on reporting and public disclosure' (EIOPA-BoS-15/109) as issued by the European Insurance and Occupational Pensions Authority (EIOPA)).

The figures reflecting monetary amounts in the SFCR are presented in Euro ( $\in$ ) unless otherwise stated. Aegon Spaarkas discloses monetary amounts in millions of units for disclosing purposes. All values are rounded to the nearest million unless otherwise stated. The rounded amounts may therefore not add up to the rounded total in all cases. All ratios and variances are calculated using the underlying amount rather than the rounded amount.

In case IFRS figures are disclosed, the figures are prepared in accordance with the International Financial Reporting Standards as adopted by the European Union (IFRS-EU).

The 2019 SFCR of Aegon Spaarkas has been prepared and disclosed under the responsibility of the Executive Board. This document was approved on March 24, 2020 by Aegon Spaarkas' Executive Board.

## Summary

The 2019 Solvency Financial Condition Report provides Aegon Spaarkas' stakeholders with insight into:

### A. Business and performance

Aegon Spaarkas is incorporated and domiciled in the Netherlands with a life insurance portfolio of mainly tontine plans.

#### Strategy of Aegon Spaarkas

As part of the Aegon Nederland individual life service book, Aegon Spaarkas has a closed book strategy. The in-force portfolio is declining rapidly due to expiration and policies being lapsed. Aegon Spaarkas is still faced with legacy issues: potential claims related to alleged mis-selling of unit linked products. However, most of the material issues have been addressed through the steps that Aegon Spaarkas has initiated in recent years. The outstanding issues are comparatively minor. The closed book portfolio and the legacy issues have resulted in the following key strategic pillars, in order of priority, for Aegon Spaarkas:

- Resolve outstanding issues with regard to legacy issues
- Strict cost control

With regard to the first strategic principle we would like to highlight that we are analyzing and segmenting our portfolio on a continuous basis to see whether there are any specific client and/ or product groups that require additional actions. As stated, over the last few years we have successfully implemented several, one sided, product improvements. We will continue doing so if and when appropriate. Also, we closely monitor court cases and rulings in order to assess their potential impact on our portfolio. Dealing with the legacy issue is our top priority for the service book.

The second strategic pillar reflects the fact that the size of our in force book is diminishing rapidly. As a result, we need to lower costs at a similar level. Long-term plans have been put in place to monitor this closely. Besides a reduction in workforce we also focus on lowering IT costs substantially.

Aegon Spaarkas' consolidated income before tax decreased to  $\notin$  5 million ( $\notin$  23 million in 2018). The gross written premium decreased to  $\notin$  34 million ( $\notin$  42 million in 2018), which is mainly attributed to the shrinking insurance portfolio following high lapses and the lack of new production. The commissions and expenses were in line with previous year. The claims and benefits paid to policyholders and the change in valuation of liabilities for

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

insurance and investment contracts are mainly the result of volatile fair value changes on for account of policyholder financial assets. The policyholder claims and benefits in 2019 (in total) increased to  $\notin$  356 million (2018:  $\notin$  70 million).

Full details on the Aegon Spaarkas' business and performance are described in chapter A. Business and performance.

# **B. System of governance**

The system of governance has been put in place centrally at Aegon Nederland, which is the holding company of Aegon Spaarkas and several other companies, and is used throughout Aegon Nederland. Aegon Spaarkas complies with the policies of both Aegon Group and Aegon Nederland. The Aegon Nederland policies are tailored to fit local circumstances and therefore imply additional restrictions to the Group policies.

In 2019 we embarked on a program to improve our corporate agility to drive productivity, time to market, quality and customer and employee satisfaction. As a result Aegon Nederland created a new organization structure & governance, aligned its function-house to incorporate agile functions and responsibilities and implemented SAFE processes to support our delivery of value to our clients. As per November 1st 2019, a new Agile Target Operating Model came into effect. All existing Charters, Committees and Boards have been re-assessed in order to align with the new system of governance. More information is provided in Chapter B.

#### General governance

Aegon Spaarkas' Executive Board is charged with the overall management of the Company and is responsible for achieving Aegon Spaarkas' goals, developing the strategy and its associated risk profile. In addition to overseeing any relevant sustainability issues and the development of Aegon Spaarkas' earnings, Aegon Spaarkas' Executive Board is assisted in its work by the Management Team Aegon Netherlands. The Management Team Aegon Netherlands is comprised of the members of Executive Board, the chief technology officer, the chief people officer (director of human resources), the chief strategy and change officer, the chief investment officer and the director Legal Affairs.

Aegon Spaarkas' Supervisory Board oversees the management of the Executive Board, in addition to the Company's business and strategy. It is also responsible for advising the Executive Board. The Supervisory Board counts five members as per December 31, 2019. The majority of the members of the Supervisory Board are independent and operate independently in accordance with the Principles and requirements of DNB's Suitability Policy Rule 2012 (Beleidsregel geschiktheid 2012). Given the members' different professional and educational backgrounds, ages and range of knowledge and experience, the Supervisory Board has a broadbased membership. The following Supervisory Board committees exist:

- Risk & Audit Committee; and
- Compensation Committee.

These committees are exclusively comprised of Supervisory Board members and deal with specific issues related to Aegon Spaarkas' financial accounts, risk management, the remuneration policy and executive appointments.

In addition to the corporate bodies, described above, Aegon Spaarkas has in place a number of key functions, as required under Solvency II. These key functions are described below, in the section 'control environment'.

#### Risk management

Aegon Spaarkas' risk management framework is designed and applied to identify and manage potential events and risks that may affect Aegon Spaarkas. It is established through the Enterprise Risk Management (ERM) framework, which aims at identifying and managing individual and aggregate risks within Aegon Spaarkas' risk tolerance limits in order to provide reasonable assurance on the achievement of Aegon Spaarkas' objectives. Aegon Spaarkas' ERM framework is based on a welldefined risk governance structure:

- Supervisory Board;
- Executive Board;
- Management Team Aegon Nederland; and
- Risk & Capital Committee.

#### Control environment

In addition to the risk management framework, Aegon Spaarkas' Solvency II control environment consists of an internal control system, an actuarial function and an internal audit function. The internal control system serves to facilitate compliance with applicable laws, regulation and administrative processes. It also provides Aegon Spaarkas with an adequate control environment including appropriate control activities for key processes. The actuarial function has end-to-end accountability for the adequacy and reliability of reported technical provisions, including policy setting and monitoring of compliance regarding actuarial risk tolerance. Aegon Spaarkas' internal audit function is independent and objective in performing its duties in evaluating the effectiveness of Aegon Spaarkas' internal control system.

Full details on the Aegon Spaarkas' system of governance are described in chapter B. System of governance.

B. System of governance

Components description

C. Risk profile

D. Valuation for Solvency Purposes

2018

1

26

4

-

33

2

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-

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-

3

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-/- 18

-/- 8

44

## C. Risk profile

Aegon Spaarkas accepts and manages risk for the benefit of its customers and other stakeholders. Aegon Spaarkas' risk management and control systems are designed to ensure that these risks are managed effectively and efficiently, aligned with the strategy of Aegon Spaarkas. The targeted risk profile is determined by customers' needs, Aegon Spaarkas' competence to manage the risk, Aegon Spaarkas' preference for risk as well as by the availability of sufficient capacity to take the risk. Aegon Spaarkas is exposed to a range of underwriting, market, credit, liquidity and operational risks.

## **D. Valuation for Solvency purposes**

Aegon Spaarkas values its Solvency II balance sheet items on a basis that reflects their economic value. Where the IFRS fair value is consistent with Solvency II requirements, Aegon Spaarkas follows IFRS for valuing assets and liabilities other than technical provisions.

The reconciliation of Excess Assets over Liabilities (Solvency II basis) and Shareholder's Equity (IFRS-EU basis) is driven by revaluation differences on assets and liabilities using a method other than fair value in the IFRS balance sheet.

Full details on the reconciliation between Aegon Spaarkas' economic balance sheet based on Solvency II and consolidated financial statements based on IFRS-EU are described in chapter D. Valuation for solvency purposes.

2019

#### Market risk (SF) 1 C.2 Market risk 25 Market risk (IM) Counterparty default risk (SF) 1 C.3 Credit risk Counterparty default risk (IM) Life underwriting risk (SF) 41 Life underwriting risk (IM) 2 Health underwriting risk (SF) C.1 Underwriting risk Health underwriting risk (IM) \_ Non-life underwriting risk (SF) \_ Non-life underwriting risk (IM) \_ Operational risk (SF) 2 C.5 Operational risk Operational risk (IM) Diversification -/- 17 E.2.1 Solvency Capital Requirement LAC Deferred Taxes -/- 9 **Total SCR** 47

Aegon Spaarkas Partial Internal Model SCR amounted to  $\notin$  47 million on December 31, 2019 (2018:  $\notin$  44 million). The overall SCR has increased over 2019. We observe significant movements in underwriting risk. The increase in underwriting risk relates to the increase in lapse risk as a result of model and assumptions

Full details on the Aegon Spaarkas' risk profile are described in chapter C. Risk profile.

# Key risks reflect the following:

Amounts in € million

updates.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

# E. Capital management

Aegon Spaarkas' target capital range has a bottom-end of 155 %. At December 31, 2019, the Solvency II ratio of 395% was well above this bottom-end.

Solvency II key figures for Aegon Spaarkas are presented as of December 31, 2019, in the following tables:

Table: Aegon Spaarkas' capital position

Amounts in € million	December 31, 2019	December 31, 2018
Own funds	186	220
PIM SCR	47	44
Solvency II ratio	395%	501%
Solvency II ratio without Volatility Adjustment	393%	500%
Minimum Capital Requirement	12	12

Total eligible Own funds to meet the SCR	186	220
Tier 3	-	-
Tier 2	-	-
Non-available	-/- 105	-/- 100
Unrestricted Tier 1 – before adjustments	290	320

The decrease in eligible Own funds is related to market movements.

Aegon Spaarkas uses a Partial Internal Model (PIM) to calculate the solvency position. Aegon's internal model was approved by the College of Supervisors as part of the Internal Model Application Process. Aegon is of the opinion a (partial) internal model is a better representation of the actual risk, since it contains Company specific modelling and sensitivities as opposed to industry-wide approximations included in the standard formula methodology. When using the standard formula of the Solvency II legislative framework, Aegon Spaarkas does not apply simplified calculations or undertaking specific parameters for any of the risk modules and sub-risk modules.

With respect to the own funds of Aegon Levensverzekering, the liability calculation includes the use of the Volatility Adjustment ("VA"), but include neither the use of transitional measures, nor of the matching adjustment. Aegon Levensverzekering uses a PIM to

calculate the SCR for its life insurance activities under Solvency II. The PIM was approved by DNB on November 26, 2015, concluding the Internal Model Application Process ("IMAP"). After the initial IMAP, Aegon Levensverzekering has implemented several major changes, solving a number of outstanding methodological matters with respect to the partial internal model in 2018, following DNB approval.

Following agreement on the interpretation of DNB's guidance on the loss absorbing capacity of deferred taxes (LAC DT), Aegon Spaarkas has applied a LAC DT factor of 75%. The LAC DT factor is recalibrated on a quarterly basis using the agreed methodology. The Solvency II balance sheet of Aegon Spaarkas does not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon Spaarkas in the past, as the potential liability cannot be reliably quantified at this point.

Aegon Spaarkas was compliant with the Minimum Capital Requirement (MCR) over the reporting period 2019. Furthermore, there was no non-compliance with the SCR.

Full details on the Aegon Spaarkas' available and eligible Own funds are described in section E.1 Own funds. Aegon Spaarkas' PIM SCR is described in section E.2.1 Solvency capital requirement.

D. Valuation for Solvency Purposes

# A. Business and performance

# A.1. Business

#### A.1.1. Name, details and legal form of the undertaking

Aegon Spaarkas N.V., ('Aegon Spaarkas') incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law. Aegon Spaarkas is wholly owned by Aegon Nederland N.V. ("Aegon Nederland"). Aegon Nederland's share capital is 100% held by Aegon Europe Holding B.V. Aegon Europe Holding B.V. share capital is 100% held by Aegon Nederland N.V. and Aegon N.V. are public limited liability companies, Aegon Europe Holding B.V. are public limited liability company. Aegon N.V., Aegon Nederland N.V. and Aegon N.V. are public limited liability company. Aegon N.V., Aegon Nederland N.V. and Aegon Europe Holding B.V. is a private limited liability company. Aegon N.V., Aegon Nederland N.V. and Aegon Europe Holding B.V. have their statutory seats in The Hague, the Netherlands. All of these companies are mixed financial holding companies, as defined in article 212 (1) (h) of the Solvency II Directive. Solvency II group supervision, as well as supplementary supervision in accordance with EU Directive 2002/87/EC is exercised at the level of Aegon N.V.

Aegon N.V.'s largest shareholder is Vereniging Aegon, a Dutch association located in The Hague, the Netherlands, with the special purpose to protect the broader interests of Aegon N.V. and its stakeholders. On December 31, 2019, Vereniging Aegon held a total of 288,702,769 common shares and 559,712,240 common shares B. Under the terms of the 1983 Merger Agreement as amended in May 2013, Vereniging Aegon has the option to acquire additional common shares B. Vereniging Aegon may exercise its call option to keep or restore its total stake to 32.6% of the voting rights, irrespective of the circumstances that caused the total shareholding to be or become lower than 32.6%. In the absence of a 'Special Cause' Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds.

As 'Special Cause' qualifies the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. If, in its sole discretion, Vereniging Aegon determines that a Special Cause has occurred, Vereniging Aegon will notify the General Meeting of Shareholders and retain its right to exercise the full voting power of one vote per common share B for a limited period of six months. Accordingly, at December 31, 2019, the voting power of Vereniging Aegon under normal circumstances amounted to approximately 14.75 %, based on the number of outstanding and voting shares (excluding issued common shares held in treasury by Aegon N.V.). In the event of a Special Cause, Vereniging Aegon's voting rights will increase, currently to 32.6%, for up to six months.

# Investments in associates, joint ventures and Investments in structured entities

Aegon Spaarkas has no investments in associates, joint ventures or investments in structured entities.

# A.1.2. Name of the Supervisory Authority responsible for the financial supervision of the undertaking and group

For both Aegon Spaarkas N.V. and Aegon N.V., the supervisory authority responsible for prudential supervision is De Nederlandsche Bank ('DNB';

De Nederlandsche Bank N.V. Westeinde 1 1017 ZN Amsterdam, The Netherlands Postbus 98, 1000 AB Amsterdam, The Netherlands

Telephone: +31(0)20-5249111

# A.1.3. Name and contact details of the external auditor of the undertaking

The external auditor of Aegon Spaarkas N.V. is PricewaterhouseCoopers Accountants N.V.;

PricewaterhouseCoopers Accountants N.V. Thomas R. Malthusstraat 5 1066 JR Amsterdam Postbus 90357 1006 BJ Amsterdam, The Netherlands

Telephone: +31(0)88-7920020

The external auditor's mandate does not cover an audit on the information disclosed in this SFCR.

# A.1.4. The undertaking's material lines of business and material geographical areas where it carries out business

Aegon Spaarkas is active in life insurance products, mainly tontine plans. Aegon Spaarkas operates exclusively in The Netherlands.

B. System of governance

C. Risk profile

# A.1.5. Any significant business or other events that have occurred over the reporting period that have had a material impact on the undertaking

The insurance industry has been in a period of major change for a number of years, partly as a result of developments in the economy, but also because customers, legislators and regulators require it. This trend is expected to continue in 2020.

The world is changing rapidly. Technological developments lead to new customer behavior. These changes in society and the market also have an impact on Aegon Spaarkas' business. As we have stressed in recent years, technological developments and the digitization of financial services are accelerating. The traditional financial institutions are starting to transform their business towards a new era. Addressing these developments is at the core of our strategy.

Finally, economic conditions, the situation in the financial markets and the shrinking insurance market are driving an increased focused on cost efficiency in our markets. All these trends combined require Aegon Spaarkas to deliver enhanced performance for all our stakeholders at reduced expense levels.

## A.2. Underwriting performance

In this paragraph the key attributors to the underwriting performance are highlighted. The figures below are based on the IFRS annual report 2019 of Aegon Spaarkas.

#### Table: Underwriting Performance Aegon Spaarkas

Amounts in € million	2019	2018
1 Premium income	34	42
2 Commissions and expenses	-/-4	-/-3
3 Claims and benefits paid to policyholders	-/-275	-/-377
4 Change in valuation of liabilities for insurance and investment contracts	-/- 80	447
5 Income before tax	5	23

#### 1 Premium income

Premium income for 2019 amounts to  $\notin$  34 million, which is  $\notin$  8 million lower compared to 2018. The insurance portfolio of Aegon Spaarkas is shrinking due to relatively high lapse rates and the lack of new production.

#### 2 Commissions and expenses

The commissions and expenses were in line with previous year. From the  $\in$  6 million reported in 2018  $\in$  3 million management fees was rebooked to Fee and Commission income, resulting in  $\in$  3 million commissions and expenses, which means a small increase is shown in 2019.

# 3 and 4 Claims and benefits paid to policyholders and change in valuation of liabilities for insurance and investment contracts

Claims and benefits fluctuate mainly as a result of volatile fair value changes on for account of policyholder financial assets. The policyholder claims and benefits in 2019 were an expense of € 356 million (2018: a revenue of EUR 70 million).

#### 5 Income before tax

The income before tax for 2019 was  $\in$  5 million (2018:  $\notin$  23 million) mainly as a result of volatile fair value changes on for account of policyholder financial assets in 2019.

### A.3. Investment performance

In this paragraph the key attributors to the investment performance are highlighted. The figures below are based on the annual report 2019 of Aegon Spaarkas.

### A.3.1. Breakdown of investments

Aegon Spaarkas holds investments both for the own general account and for the account of policyholders. The composition of the assets in the balance sheet is presented in the following table.

#### Table: Breakdown financial assets

Amounts in € million	2019		
	General	Account	Total
	Account	Policyholder	assets
Debt securities	132	230	362
Loans	47	27	64
Other investments	-	207	207
Shares	-	1,174	1,174
Total	179	1,638	1,817

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

The composition of the asset portfolio for both General account and for the account of policyholders remained relatively stable throughout 2019 compared to 2018.

#### Table: Breakdown financial assets

Amounts in € million	2018		
	General	Account	Total
	Account	Policyholder	assets
Debt securities	129	142	271
Loans	54	28	82
Other investments	-	232	232
Shares	-	1,148	1,148
Total	183	1,550	1,773

#### A.3.2. Investment performance

The investment performance consists of attributors shown in (a) IFRS income statements and of attributors (b) directly through equity in the IFRS balance sheet.

#### Investment performance through Profit and loss

Amounts in € million	2019	2018
1 Investment income	40	40
2 Results from financial transactions	287	-/- 129

#### 1 Investment income

The investment income in 2019 amounts to  $\in$  40 million and is further explained in the table below:

### Table: Breakdown Investment Income

Amounts in € million	2019	2018
Debt securities (Interest):	7	4
Loans (Interest)	1	1
Other investments (Interest)	0	0
Shares (Dividend income)	32	35
Total	40	40

#### 2 Results from financial transactions

The results from financial transaction in 2019 amounts to  $\notin$  287 million (2018: -/-  $\notin$  129 million) and is further explained in the table below:

Table: Breakdown Results from financial transactions

Amounts in € million	2019	2018
Realized gains / (losses) on financial investments	4	2
Net fair value change of derivatives	-/- 19	3
Net fair value change on financial assets at fair value through profit or loss for account of policyholder	302	-/- 134
Total	287	-/- 129

The asset portfolio of Aegon Spaarkas has relatively a large amount of investment in shares, which increased in value during 2018.

#### Information about Investment performance through equity

*Table: Investment performance through equity* 

Amounts in € million	2019	2018
Gains / (losses) on revaluation of available-for-sale investments	4	1
Net gains / (losses) transferred to income statement	-/- 4	-/- 2

The gains / (losses) on revaluation of available-for-sale investments and net gains / (losses) transferred to income statement of available-for-sale investments are relevant attributors that are included in the statement of other comprehensive income in the IFRS financial statements. Both attributors relate to the revaluation of assets that classified as available for sale, such as certain debt securities.

D. Valuation for Solvency Purposes

#### A.3.3. Investments in securitization

Aegon Spaarkas' interests in unconsolidated structured entities can be characterized as basic interests. Spaarkas does not have loans, derivatives or other interests related to these investments.

For unconsolidated structured entities in which Aegon Spaarkas has an interest, the following tables present the amounts invested.

Table - Investments in securitizations

Amounts in € million	2019	2018
Residential mortgage backed securities	27	27
Asset Backed Securities	5	5
Total	32	32

There has been no material income on these investments over 2019.

# A.4. Performance of other activities

Aegon Spaarkas does not perform any other activities than underwriting and investment activities. Therefore, overall performance is disclosed under A.2 Underwriting performance and A.3 Investment Performance.

# A.5. Any other information

All relevant information is covered in the previous sections.

# B. System of governance

# **B.1. General information on the system of governance**

# B.1.1. Structure, roles and responsibilities of the Administrative, Management or Supervisory Body (AMSB)

#### Structure

Aegon Nederland N.V. (hereafter: Aegon Nederland) is the holding company of Aegon Spaarkas N.V. (hereafter: Aegon Spaarkas) and several other companies, such as Aegon Levensverzekering N.V., Aegon Schadeverzekering N.V., Optas Pensioenen N.V. (as of April 1st 2019 merged with Aegon Levensverzekering), and Aegon Bank N.V., which together form the Aegon Nederland-group. The Executive Board of Aegon Nederland centrally manages the Aegon Nederland-group and also forms the statutory board in charge of the day- to-day management of Aegon Spaarkas. Because Aegon Spaarkas is part of the Aegon Nederland-group, the report on the system of governance will also contain various references to Aegon Nederland, amongst others the key functions that are centrally organized at Aegon Nederland. Until November 1st 2019, the organization was divided in the following four customer segments: i) Retail, ii) Wholesale, iii) Knab and iv) Aegon Bank & Beleggen. The following entities were organized within the Retail segment: Aegon Schadeverzekering N.V. (object), Aegon Levensverzekering N.V. (individual life) and Aegon Spaarkas N.V. The entities Aegon Schadeverzekering N.V. (health & accident) and Aegon Levensverzekering N.V. (pensions) were organized within the Wholesale segment.

In 2019 we embarked on a program to improve our corporate agility to drive productivity, time to market, quality and customer and employee satisfaction. As a result Aegon Nederland created a new organization structure & governance, aligned its function-house to incorporate agile functions and responsibilities and implemented SAFE processes to support our delivery of value to our clients. The processes are designed to find the optimal balance between 'value, time criticality and risk reduction' and align 'strategy with execution'. This ensures a way of working in which Quality by Design is embedded.

As per November 1st 2019, a new Agile Target Operating Model came into effect. All existing Charters, Committees and Boards have been re-assessed in order to align with the new system of governance. Refer to below figure for an overview of the new Agile Target Operating Model.



D. Valuation for Solvency Purposes

As a consequence, the governance of the Risk and Audit Committee (RAC) has been changed to align with the new governance.

With this new Agile Target Operating Model three new governance departments are introduced:

- Value Stream (VS): the VS is integral responsible for running and changing the business and has end-to-end responsibility.
- **Enabling Shared Service (ESS):** An ESS enables the VS to deliver value to customers by delivering generic services.
- **Center of Expertise (COE):** the COE delivers expertise and dedicated people to the VS and ESS

From the perspective of VSB, ESS and COE the reporting lines are as follows:

Departments	Reporting line to
VSB Insured Pension	Chief Operating Officer
VSB Accident & Health	Chief Operating Officer
VSB P&C	Chief Operating Officer
VSB Defined Contribution	Chief Operating Officer with regard to Aegon Levensverzekering N.V. CEO Aegon Cappital with regard to Aegon Cappital B.V.
VSB Mortgages	Chief Investment Officer
VSB Life	Chief Transformation Officer
ESS	Chief Transformation Officer
COE	Chief Operating Officer

#### Roles and responsibilities

The Supervisory Board, the Executive Board, the Management Team NL (MTNL) and the relevant committees form together Aegon Nederland's administrative, management and supervisory body (AMSB).

#### Supervisory Board

Aegon Nederland has a Supervisory Board which is responsible for supervising the policies of the Executive Board and the general course of affairs within Aegon Nederland and its related entities. The Supervisory Board is also responsible for advising the Executive Board. The Supervisory Board has adopted rules on its way of working and decision making. The supervision by the Supervisory Board shall also include: (i) focusing on the client's interests; (ii) achieving Aegon Nederland's objectives; (iii) the strategy; (iv) the risks associated with Aegon Nederland's activities, including Aegon Nederland's risk policy and risk appetite; (v) the structure and operation of the internal risk management and control systems; (vi) the financial reporting process; (vii) implementation of the Aegon Nederland Remuneration Policy; and (viii) compliance with the applicable legislation and regulations.

The majority of the members of the Supervisory Board are independent and operate independently in accordance with the Principles and requirements of DNB's Suitability Policy Rule 2012 (Beleidsregel geschiktheid 2012). Given the members' different professional and educational backgrounds, ages and range of knowledge and experience, the Supervisory Board has a broadbased membership.

As per January 1, 2019 Mr. Vrancken was appointed. As per May 13, 2019 Mrs. Hoek was appointed and Mr. Terpstra resigned. The terms of the Supervisory Board members are as follows:

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

Name	Year of first appointment	(Re-) Appointment	Resigns
Mrs. D.H. Jansen Heijtmajer	2016	August 4, 2016	2020
Mrs. M.J.E. Hoek	2019	May 13, 2019	2023
Mrs. D. Terpstra	2007	September 15, 2015	2019
Mr. D.F.R. Jacobovits de Szeged	2018	January 1, 2018	2022
Mr. G.J.M. Vrancken	2019	January 1, 2019	2023
Mr. G.T. Kepecs	2012	June 30, 2017	2021

#### Executive Board

The Executive Board is charged with the management of Aegon Nederland and its related entities, which means, among other things, that the Executive Board is responsible for setting and achieving Aegon Nederland's objectives, and the associated risk strategy and risk tolerance. The Executive Board is accountable for these matters to the Supervisory Board and the General Meeting of Shareholders. The Executive Board members are collectively responsible for the management of Aegon Nederland and for ensuring that Aegon Nederland and its related entities are compliant with all relevant laws and regulations. The Executive Board reports on these issues to and discusses the internal risk management and control systems with the Supervisory Board.

### Changes in the Executive Board during 2019

As of July 1, 2019, Mrs. I.M.A. de Swart resigned from the Executive Board to pursue her career outside of Aegon Nederland. After almost 12 years with Aegon Nederland, the Chief Financial Officer (CFO) Mr. Zomer indicated that he will leave Aegon Nederland as of April 1, 2020. He will move on to new opportunities and will make room for others in a smaller Management Team of Aegon Nederland. He will be succeeded by Mr. B. Magid.

Mrs. A. Schlichting will combine her current role with that of Transformation Officer.

Finally, Mr. W. Hekstra was appointed as Chief Operating Officer for Aegon Nederland.

The composition of the Executive Board as of April 1, 2020 is as follows:

- Mr. M.J.P. Edixhoven (chief executive officer)
- Mr. B. Magid (chief financial officer)
- Mr. W. Horstmann (chief risk officer)
- Mr. W.A. Hekstra (chief operating officer)
- Mrs. A. Schlichting (chief technology/transformation officer).

#### Management Team Aegon Netherlands

The Executive Board has established the Management Team Aegon Netherlands ('MT NL') which advises the Executive Board at strategic and tactical level. In 2019 the MT NL consisted of the following members:

- all members of the Executive Board
- chief technology officer
- chief people officer (director of human resources)
- chief strategy and change officer
- chief investment officer
- director Legal Affairs

### **Committees and Boards**

The Supervisory Board and/or the Executive Board have established Committees and Boards which sometimes have an advisory role and are sometimes authorized to take certain decisions on behalf of the Executive Board. These Committees and Boards always report and escalate to the Supervisory Board and/or the Executive Board of Aegon Nederland. The composition, tasks, responsibilities and reporting and escalation lines are laid down in a charter for each Committee and Board. The charters are made accessible to the organization via the Aegon Nederland Policy House. These Committees and Boards are the:

- Risk and Audit Committee (RAC): the RAC is instituted by the Supervisory and the Executive Board and focuses on the effectiveness and appropriateness of the internal risk management strategy, risk management framework and risk controls (collectively Enterprise Risk Management) of Aegon Nederland.
- Risk and Capital Committee (RCC): the RCC is instituted by MTNL and is a decision - making and an advising body. The purpose of the RCC is to perform management of financial risks, capital and associated expected return, in order to maintain a strong capital position of the Aegon Nederlandgroup as a whole.
- Compensation Committee: the Compensation Committee is instituted by the Supervisory Board and is designated to safeguard sound remuneration policies and practices within Aegon Nederland by overseeing the development and execution of these policies and practices.

B. System of governance

C. Risk profile

- Proposition Approval Board: The Proposition Approval Board is instituted by the Executive Board of Aegon Nederland and has the purpose to assess whether propositions meet requirements from the perspective of customer interest, internally set policies and procedures and the applicable laws and regulations as well as from the perspective of Social Responsibility.
- **Reputation Board:** The Reputation Board is instituted by the Executive Board of Aegon Nederland. The Reputation Board is responsible for the Reputation Policy that fits in with the vision of Aegon Nederland as a customer focused company. It ensures that there is structural attention for and guaranteeing the desired reputation with all (internal and external) stakeholders of Aegon Nederland.
- Pricing Board: The Pricing Board is instituted by the Executive Board of Aegon Nederland. The Pricing Board has the generic goal of making good quality pricing decisions and to guarantee the quality of the processes to arrive at these decisions. In this Board the alignment of actuarial pricing, commercial interest, business interest and customer interest as proposed by a value stream is assessed.
- Data Governance Board: The Data Governance Board is instituted by the Executive Board of Aegon Nederland. Data Governance is an important part of the way Aegon Nederland deals with data management. The Data Governance Board will supervise and outline frameworks for consistent and accurate data processing.

#### An assessment of the adequacy of the system of governance

As assessed during the DNB Risk Management Function onsite, the DNB Compliance onsite and the DNB Q&A Key Functions with regard to SII requirements as applicable to Aegon Nederland, Aegon Nederland must perform an integral evaluation of the system of governance in order to assess its appropriateness in relation to the strategy and the business operations. Aegon Nederland will perform such an assessment in the second quarter of 2020.

#### **B.1.2. Key Functions**

Apart from the Supervisory Board, the Executive Board and the Management Team Aegon Nederland, in line with Solvency II Delegated Regulation, Aegon Nederland has identified the following individuals as Key Function Holders.

Actuarial	Risk	Compliance	Internal
Function	Function	Function	Audit Function
Holder	Holder	Holder	Holder
Tjeerd	Willem	Heleen	Mark
Degenaar	Horstmann	Rietdijk	Zantman

- Risk management: The CRO is the key function holder for risk management. The CRO is also a member of the Executive Board and of top level risk committees. Several of the other Solvency II key functions reside under the CRO to ensure a holistic approach. The organization, roles and responsibilities of the risk management function are more extensively described in paragraph (B.3.2).
- Compliance: The Chief Compliance Officer is the key function holder for compliance. The Chief Compliance Officer reports to the CRO and is therefore a second line role given Solvency II independence requirements and responsibility for ensuring that the risk profile is managed in line with risk tolerance. The compliance function holder has an escalation possibility to the CEO and the Supervisory Board and a periodic reporting line to the Risk & Audit committee of the Supervisory Board. The organization, roles and responsibilities of the compliance function are more extensively described in paragraph (B.4.2).
- Internal audit: The Chief Audit Executive is the function holder for Internal Audit. In line with the requirements, Internal Audit is fully objective and independent from all other functions, reporting directly to the CEO and Supervisory Board Risk & Audit Committee. The organization, roles and responsibilities of the internal audit function are more extensively described in paragraph (B.5).
- Actuarial function: The function holder is the Head of the Model validation team and Underwriting Risk Management, and reports to the CRO within the second line of defense. The actuarial function holder has an escalation possibility to the CEO and reports periodically to the Risk & Audit committee of the Supervisory Board. The organization, roles and responsibilities of the Internal Audit function are more extensively described in paragraph (B.6).

The key functions stated above have the necessary resources to carry out their tasks. Resourcing of staff and other means required to execute control is documented as part of the charters agreed with the Executive Board and the Supervisory Board. Issues in resourcing can be brought forward to the Executive and the Supervisory Board. The necessary operational independence of the key functions is also documented as part of the charters.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

#### **B.1.3. Remuneration policy**

# **B.1.3.1.** General Information on the remuneration policy and practices

The remuneration policy is centralized at Aegon Nederland level and also applies to Aegon Spaarkas.

Aegon Nederland pursues a careful, sound and sustainable remuneration policy. As Aegon Nederland has adopted the Regulation on Sound Remuneration Policies (Regeling beheerst beloningsbeleid as issued by DNB), the Aegon Nederland remuneration policy is in line with the requirements stipulated in the regulation.

Aegon Nederland's remuneration policy applies to the Executive Board, management teams, senior management and other employees of Aegon Nederland and subsidiaries, and complies with the applicable national and international regulations. The policy is in accordance with the Aegon Group Global Remuneration Framework (AGGRF) drawn up by Aegon N.V. and has due regard for developments in society.

The remuneration policy is in line with the strategy, vision, core values and risk appetite of Aegon Nederland. This means that the level of variable remuneration for employees is discussed in meetings of the Supervisory Board, as well as the financial performance criteria which are applied to variable remuneration. These are adjusted for the estimated risks and cost of capital, whereby the variable remuneration components are in line with Aegon Nederland's long-term objectives. The maximum variable remuneration for the management team of Aegon Nederland (including the statutory board members) is 20% of the fixed income and in 2019 was at target 13.3%. In line with the Law on Remuneration Policies for Financial Institutions (Wet beloningsbeleid financiële ondernemingen, or 'Wbfo'), which has been in force since from February 28, 2016, the total variable remuneration of senior management (including members of the management team) does not exceed 20% of fixed income for the whole of Aegon Nederland. In 2019, there were no individuals for which the total annual compensation paid out to was equal to or higher than € 1 million.

Regarding the form and timing of payments, the regulation requires a portion of the variable remuneration paid to Material Risk Takers (i.e. members of the Management Team) to be deferred and partially paid in shares.

Variable remuneration is based on performance relating to present targets on the following three levels: (i) Aegon N.V., (ii) Aegon Nederland and (iii) personal. The targets are a mix of financial and non-financial performance criteria, which are as objective as possible. The financial criteria were adjusted for estimated risks and cost of capital upon assessment of the actual performance.

Under the governance provisions of Aegon Nederland's remuneration policy, the Supervisory Board is authorized, following the results of an ex-post assessment, to suspend or cancel all or part of the variable remuneration granted conditionally to Identified Staff ('malus clause'). This malus clause on variable remuneration granted conditionally to Identified Staff was not applied in 2019.

The governance provisions in Aegon Nederland's remuneration policy state that the Supervisory Board is authorized to recover variable remuneration previously paid to members of the management team and senior management, if it was granted on the basis of inaccurate financial or other information ('claw back' clause). In 2019, there was no claw back of variable remuneration.

#### Governance

In accordance with Aegon Nederland's remuneration policy, the Supervisory Board has the following duties and responsibilities: (i) approval of the general principles of the remuneration policy, (ii) regular assessment of the general principles of the remuneration policy, (iii) responsibility for the remuneration policy of the Executive Board, (iv) review of the remuneration of Identified Staff, (v) instructing the Executive Board to implement the remuneration policy and (vi) instructing the Remuneration Steering Group and/ or Internal Audit to assess the application of the policy and the procedures covered.

The remuneration policy and its implementation was discussed in meetings held by the Supervisory Board on several occasions during 2019. The Supervisory Board also discussed the level of variable remuneration. As of 2016, the so-called bonus pool has been established and applied for the performance years 2017, 2018 and 2019. The Supervisory Board approved the 2019 variable remuneration targets for Identified Staff within the framework set out in the AGGRF. It also approved payment of the variable remuneration to Identified Staff relating to prior years that vested in 2019, with due regard to the assessments required under the AGGRF. This remuneration was within Aegon Nederland's remuneration policy. No retention payments were made. Welcome and exit arrangements were granted at Aegon Nederland in 2019 within the guidance of the policy.

The total income of members of the Management Team is regularly assessed against the compensation package for similar positions in other financial companies in the Netherlands. When setting the remuneration policy for the Executive Board, the aim is for total compensation levels to be slightly below the median of comparable positions in the market. The total income of the Executive Board is in line with the remuneration policy.

A. Business and Performance

B. System of governance C.

C. Risk profile

In 2019, there were no dismissals in the Management Team. None of the members of the Management Team were entitled to a variable remuneration of more than 60% of the annual salary. On average, no more than 20% variable compensation was allocated.

#### B.1.3.2. Principles of the remuneration policy

Members of the Executive Board as well as other selected jobholders have been defined as 'Material Risk Takers' in accordance with new rules, guidelines and interpretations. Of these, the Dutch 2015 Wbfo, the DNB Regulation on Sound Remuneration policies 2014 and the guidelines issued by the European Banking Authority and its predecessor issued under the successive European CRD frameworks (in particular CRD III and IV) are prominent examples. The rules have been adopted in Aegon N.V.'s Global Remuneration Framework and consistently applied within Aegon Nederland in the Aegon Nederland Remuneration Policy. After the performance period, and based on the framework, variable compensation, if any, is partially made available and partly deferred.

Variable compensation is paid in both cash and in Aegon N.V. shares. The shares are conditionally granted at the beginning of the year at the average share price on the Euronext stock exchange in Amsterdam during the period between December 15 preceding a plan year and January 15 of the plan year. The performance indicators apply over a performance period of one year and consist of Aegon N.V. and/or Aegon Nederland targets (both financial and non-financial) set by the Supervisory Board or the remuneration committee and personal/strategic targets. The conditional grant of variable compensation is also dependent on continued employment of the individual employee to whom the rights have been granted. An ex-post assessment is applicable to determine whether allocated (unvested) variable compensation should become unconditional or should be adjusted. In addition, for Members of the Executive Board, Aegon Nederland's Supervisory Board has the right to reclaim variable compensation that has already been paid out or vested. For members of the Executive Board all variable compensation has vested after three years following the performance period. At vesting, the variable compensation is transferred to the individual employees. Additional holding periods may apply for vested shares. Members of the Executive Board are not entitled to execute any transactions regarding the shares for a period of three years following vesting (with the exception of shares withheld to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the company holds a withholding obligation in connection with the vesting of the shares). In compliance with regulations under Dutch law, no transactions regarding the shares may be exercised in closed periods.

# **B.1.3.3.** Share options, shares or variable components of remuneration

Variable remuneration for the Management Team and other Identified Staff were paid 50% in cash and 50% in shares of Aegon N.V. In 2019, in accordance with Aegon Nederland's Remuneration policy, 40% of the 2018 variable remuneration was paid directly to statutory members of the Executive Board of Aegon Nederland and the remaining 60% was conditional. The 60% will be paid in three equal parts over a period of three years, unless an ex-post risk assessment should indicate reasons for lowering the amounts or not pay at all. For non-statutory MT members 60% of the 2019 variable remuneration was paid directly (up-front) and 40% conditionally (deferred). The 40% will be paid in three equal parts over a period of three years, unless an ex-post risk assessment should indicate reasons for lowering the amounts or not pay at all.

With the exception of shares withheld to cover payment of any applicable taxes, social security premiums and/or other possible deductions by the government (for which the company holds a withholding obligation in connection with the vesting of the shares), an additional holding period of three years applies to shares that have vested for the CEO and one or two years for the other members of the Executive Board of Aegon Nederland.

As stated earlier, all employees working at Aegon Spaarkas are employed at and have a labour contract with Aegon Nederland. The salaries, social security contributions and pension contributions for staff working for Aegon Spaarkas are charged to Aegon Spaarkas by Aegon Nederland.

# **B.1.3.4.** Supplementary pension or early retirement schemes for the members of the administrative, management or supervisory body and other key function holders

Members of the Executive Board, Supervisory Board and key function holders are offered pension arrangements and retirement benefits in conformity with the standard Aegon Nederland arrangement. Pension arrangements do not include discretionary elements.

Aegon Spaarkas does not grant Executive Board members and Supervisory Board members personal loans, guarantees or other such arrangements, unless in the normal course of business and on terms applicable to all employees, and only with the approval of Aegon Nederland's Supervisory Board.

# B.1.4. Disclosure on material transactions

There were no material transactions with members of the Supervisory Board, the Executive Board and/or MT NL.

# **B.1.5.** Material changes in the system of governance

Reference is made to B.1.1. of this SFCR.

B. System of governance

C. Risk profile

# **B.2. Fit and proper requirements**

#### B.2.1. Requirements for skills, knowledge and expertise

#### **Executive Board**

To fulfil their tasks, the specific skills that members of the Executive Board of Aegon Nederland should have at their disposal include: i) Leadership (i.e. ideas, people and change); ii) Strategic thinking and sound judgment; iii) Financial and commercial acumen, particularly around complex and inorganic change activities; iv) Influencing and relationship building; v) Communication; vi) Delivery with clear focus on outcomes; vii) Innovation and problem solving; and viii) Customer-centricity. Moreover, the members of the Executive Board should possess knowledge and experience in the areas of:

- Strategic understanding of and insight into the financial services industry, with particular emphasis on the challenges and opportunities associated with achieving success for a market leading life and pensions and digitized platform company;
- Specifically, good understanding of the different regimes associated with Insurance and Investments, including capital management and regulatory frameworks; and
- Extensive industry and executive management experience in a number of financial, operational and strategic roles – an industry leader respected by regulators, trade associations and government bodies; and Proven ability to lead complex transactions across an organization, including inorganic activity.

Requirements for skills, knowledge and expertise are also reflected in the Executive Board profile which has been drawn up for the Executive Board and which is updated periodically.

#### Supervisory Board

The Supervisory Board, as a collective, should have qualifications including an international composition; experience with, and understanding of the administrative procedures and internal control systems; an affinity with and knowledge of the industry, its clients, its products and services, the financial services market and Aegon Nederland's business and strategy; knowledge and experience in (digital) marketing and distribution and the applications of information technology; expertise and experience in digital transformation; experience in the business world, both nationally and internationally; and financial, accounting and business economics' expertise and the ability to judge issues in the areas of risk management, solvency, actuarial currencies, and investment and acquisition projects. Requirements for skills, knowledge and expertise are also reflected in the Supervisory Board profile, which has been drawn up for the Supervisory Board and which is updated periodically.

#### Solvency II key function holders

The existing Permanent Education program of Aegon Nederland for key function holders and their direct reports is being strengthened. Aegon Nederland has set up a Permanent Education program that enters into force in 2020. Aegon Nederland has developed this program together with the University of Amsterdam (UvA) and is certified by the UvA.

# B.2.2. Process for assessing the fitness and the propriety requirements

In accordance with the Dutch Financial Supervision Act, Aegon Nederland has identified, in addition to the members of the Executive Board and Supervisory Board, those persons that fulfil "key functions". This group of persons concerns the so-called 'second-tier senior officers' (to which fit and proper testing is applicable as stipulated in the Wft), which includes the key functions as referred to in art. 294 (2) of the Solvency II Delegated Regulation. These second-tier senior officers are subject to an internal pre-employment screening prior to their employment within Aegon Nederland in which Aegon assesses their integrity, as well as an assessment of their fitness and suitability for the relevant function. These persons also undergo an integrity assessment performed by the Dutch supervisory authorities prior to their appointment in a key function. Ongoing compliance with fit and proper requirements is a joint responsibility of the respective person as well as Aegon Nederland. Persons that fulfil key functions also undergo an internal fitness assessment process. Within this process the resume of the candidate will be assessed, interviews are held and the skills and expertise of the candidate are checked against the function profile.

Aegon Nederland has a pre- and in-employment screening process in place. Whereas pre-employment screening aims to assess the internal fitness of employees ahead of hiring, in-employment screening aims to periodically reassess the internal fitness during employment. Aegon Nederland facilitates various education programs for Executive Board, Supervisory Board and other key functions.

#### **Executive Board**

The members of the Executive Board have broad-based commercial backgrounds and experience in the financial sector in general and in insurance in particular. With this wide range of experience they have the knowledge and fully understand the valuable function of insurance companies in society and are making their decisions in the interests of all Aegon Nederland's stakeholders. Each member of the Executive Board also has the necessary knowledge to be able to assess and determine the main points of Aegon Nederland's overall policy and to form a balanced and independent opinion on the risks that Aegon Nederland faces.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

All members of the Executive Board have been made subject to fit and proper testing by the DNB, prior to their appointment and fulfil these requirements on an ongoing basis. The members of the Executive Board are also subject to an internal pre-employment screening prior to their employment within Aegon Nederland in which Aegon Nederland assesses their integrity, as well as an assessment of their fitness and suitability for the relevant function within the Executive Board.

The knowledge of the members of the Executive Board is kept up to standard and is improved by means of Aegon Nederland's permanent education program, which is organized by the Secretary of the Board together with the HR Learning & Development department. The latter is also responsible for keeping records on participation. The ongoing program covers national and international developments in the financial sector as well as corporate governance in general and in the financial sector in particular. The program further includes topics such as the duty of care towards customers and putting customers' interests first, integrity, risk management, financial reporting and audit.

In its decisions, the Executive Board takes into account Aegon Nederland's risk appetite. The Board considers whether or not a decision to be taken is within the risk appetite, thus ensuring a careful balance between its commercial objectives and the interests and the risks involved.

#### Supervisory Board

Individual members of the Supervisory Board will be assessed on the basis of personal qualifications including: managerial experience and skills at the highest levels; experience with large listed companies; understanding of a global business; entrepreneurial attitude; sound business judgment, common sense and decisiveness; independence and a sufficiently critical attitude with regard to the other Supervisory Board members and the Executive Board and international orientation and outside experience.

All members of Aegon Nederland's Supervisory Board have been made subject to fit and proper testing by DNB prior to their appointment and fulfil these requirements at an ongoing basis.

In Aegon Nederland's view, the members' knowledge and experience complement each other. Aegon Nederland has set out in detail the Supervisory Board's duties in the Supervisory Board Charter. Aegon Nederland has a profile of the Supervisory Board, further specifying and recording its vision on the membership. The profile is tailored to Aegon Nederland's nature, size and complexity and also incorporates the competences in DNB's Suitability Matrix for Supervisory Boards. The members of the Executive Board act in a careful, expert and fair manner. They keep up to date with developments in legislation and regulations, partly through the permanent education program. All members of the Executive Board signed the ethics statement as required in the Principles and requirements of DNB's Suitability Policy Rule 2012 (Beleidsregel geschiktheid 2012). They also took the oath or affirmation as required by the Financial Sector Oath or Affirmation Regulations.

# **B.3.** Risk management system including the own risk and Solvency assessment

#### B.3.1. Risk management system

ERM is a framework which is designed and applied to manage risk in creating, preserving and realizing value that may affect Aegon Nederland. ERM builds on the current level of risk management that exists in the normal course of business. The aim is to manage risk within Aegon Nederland's risk tolerance in order to provide reasonable assurance regarding the achievement of Aegon Nederland's objectives.

For Aegon Nederland, ERM involves:

- 1. Understanding which risks the company is facing.
- Establishing a firm wide framework through which the maturity of risk management practices can be monitored.
- 3. Establishing risk tolerances, and supporting policies, for the level of exposure to a particular risk or combination of risks.
- Monitoring risk exposure and actively maintaining oversight over the company's overall risk and solvency positions.

The ERM framework is based on the international accepted standard COSO ERM and lays the foundation for managing risk throughout Aegon Nederland's operations. Aegon Nederland's subsidiaries must adhere to Aegon Nederland's ERM framework and be able to demonstrate compliance to the extent, nature and size that is appropriate to the organization. The ERM framework applies to all material business of Aegon Nederland over which it has operational control.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

#### **ERM Building Blocks**

Aegon Nederland's enterprise risk management framework considers risk from various perspectives and can be decomposed into multiple components. However, enterprise risk management is not strictly a serial framework, where one component affects only the next. It is a multidirectional, iterative framework in which almost any component can and does influence another. The principles and requirements of ERM apply on all organizational levels and concern both financial and operational risks. Risks are managed from multiple perspectives, including culture, economic, regulatory and accounting. Relevant metrics in ERM include capital, earnings, liquidity and franchise value.

Figure: Building blocks of Enterprise Risk Management framework



B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

Risk Strategy:	The first building block in the enterprise risk management process is the formulation of an enterprise risk management strategy. The risk strategy forms the basis for the risk tolerance statements, which are specified in terms of financial strength, continuity, culture and risk balance and are translated into operating guidelines for the various risk types.
Risk Tolerance:	Risk Tolerance includes the risk appetite of Aegon Nederland including qualitative and quantitative risk tolerances that are the basis to support the business in making decisions about whether risks are within appetite, acceptable or need to be mitigated or avoided. Qualitative and quantitative tolerances are to be determined by management based on the values and principles of Aegon Nederland and should be in line with the company's purpose, values, objectives, Code of Conduct, and Market Conduct Principles.
Risk Identification:	The risks that Aegon Nederland faces are identified and presented in the risk universe. An emerging risk process ensures that the risk universe will capture the full spectrum of risks. In order to assess the risks, Aegon Nederland has developed a methodology for measuring the risks as defined in the risk universe.
Risk Assessment:	Aegon Nederland's approach to evaluating operational risks is based on the quantitative and qualitative rating of those risks with regard to their potential impact and likelihood after consideration of the effectiveness of controls. Risk impact is assessed along the following four impact dimensions: financial loss, customer, reputation and financial misstatement. The resulting ratings reflect the uncontrolled (residual) risk the business area is running.
Risk Response:	Once the risks have been identified, evaluated and prioritized, an appropriate risk response needs to be defined. Action plans are developed and managed if Aegon Nederland's risk tolerances are violated.
Risk Reporting (& Monitoring) :	Compliance with the risk tolerance statements and the risk policy requirements is monitored and reported on a periodic basis to senior management. Through a formal Risk and Audit Committee and Risk and Capital Committee senior management is informed on their forward looking risk profile on a quarterly basis, together with details of action plans that address key risks. In the quarterly report the CRO's opinion on, among others, the effectiveness of those plans is formalized.

Aegon Nederland controls the risk it faces along various dimensions through its risk governance framework, risk monitoring, model validation, and embedding of risk management into functional areas, such as business planning, capital planning and management, remuneration, pricing and product development. Risk control is further supported by a strong risk culture and effective compliance risk management. The execution of these building blocks is a continuous and iterative undertaking, including periodic or ad hoc adjustment of the strategy and risk tolerance based on new risk information or changes in the business (environment). The full enterprise risk management methodology is formalized in the ERM Manual, ERM policy and underlying detailed policies and manuals.

#### Implementation of risk management system

The Risk Management Function is headed by the Risk management function holder in the position of the CRO. For a visual overview we refer to the illustration below. The Risk Management Function is responsible for advising the Executive Board and Supervisory Board on the assessment and definition of the Risk Appetite and the risk tolerance levels, and to advise the Executive Board on the mitigation or acceptance of both risk events (incidents) and risk based upon impact analysis. Furthermore the Risk Management function supports the management teams to raise awareness on Risk Appetite and established good business practices and in identifying, assessing and overseeing the mitigation of Risks.

The Risk Management function reports periodically and, if needed ad hoc, on risk matters that require the attention of the Executive Board. These reports includes, as a minimum, exceeded risk tolerance levels and unacceptable business practices. The CRO reports each quarter on topics such as incidents and other information about risks, and meets with the Supervisory Board Risk and Audit Committee at least four times a year. Immediate reporting is required regarding significant incidents and are sent to both the next higher level within the Risk Management Function and simultaneously to the responsible business manager. If required by external rules or supervisors they also report the incidents to the external supervisor. The CRO has an escalation reporting line to the Supervisory Board (Risk & Audit Committee) and a functional reporting line to the Group CRO. The CRO is head of the Risk Management Function, the Risk Managers and other staff reporting to the CRO. These include the Risk Managers appointed as such and working within Aegon for its relevant business segments (e.g. retail and wholesale) those working for Aegon Nederland subsidiaries (e.g. Aegon Bank N.V. and TKP Pensioen B.V.). To ensure a consistent approach within the entire organization all aforementioned Risk Managers will meet regularly. In addition to this the Risk Managers for the aforementioned business lines will meet periodically.

Table: Governance and structure of the three lines of defence within Aegon NL



B. System of governance

C. Risk profile

The Risk Management Function operates independently from the business, this is established using the following principles:

- The Risk Management Function has a formal status, which is stated and communicated through the Risk management charter;
- Risk Managers within report to the CRO via head of ORM, head of FRM and head of Model Validation;
- The CRO has a functional reporting line to the Group CRO in accordance with the responsibility matrix and consultation process set forth in the Group Risk Management Charter;
- 4. A Risk Manager, in particular the CRO, is not placed in a position where possible conflict of interest may occur between risk responsibilities and any other responsibilities; and
- The Risk Management Function staff is entitled to have access to the information and personnel necessary to carry out their responsibilities.

#### **B.3.2. Solvency II PIM Governance**

The governance of Aegon Nederland's Solvency II Partial Internal Model (PIM) is fully integrated in Aegon Nederland's risk management system and governance structure. Aegon Nederland's methodology for assessing risks includes the Solvency II PIM and is used to measure and aggregate risks and to calculate the Solvency Capital Ratio. Changes in the PIM models are called major or minor model changes based on their materiality. Minor changes are reviewed by the Risk Management & Compliance department, major changes are validated by the Model Validation team. After approval is obtained, the proposed methodology is first presented to the Assumptions and Methodology Committee (AMC). Depending on the magnitude of the impact of the change, further stages in the governance may be required (e.g. approval from the Risk and Capital Committee (RCC), approval from groups Enterprise Risk Management Actuarial and Accounting Committee (ERMAAC). This is defined in the charters of each committee.

Next to methodology, a similar governance holds for models and / or tools. In this case the Finance Change Board (FNCB) fulfils the same role as the AMC.

The tasks and responsibilities of the FNCB are to support Management Team Finance in managing operational, process and IT changes with respect to (changes in) models for valuation and assumption settings and capital management. The AMC is responsible for preparing proposals for decision making by the RCC on Framework, Methodology and Assumption changes. The RCC performs the management of financial risks, capital and associated expected return, in order to maintain a strong capital position and supports the Aegon Nederland strategy.

#### **PIM Validation process**

All Solvency II PIM models have been independently validated as part of the Internal Model Application Process in 2015. After passing the initial validation, the models are part of the regular validation program in which models are subject to validation on a rolling basis to secure ongoing appropriateness.

In addition to the validation of individual models, the Solvency II PIM is also subject to a top-down analysis as part of the overarching validation performed by the Model Validation function. The overall purpose of the overarching validation is to provide an independent assessment of the overall appropriateness of the Solvency II PIM as adopted and used within Aegon Nederland. The overarching validation of the Solvency II PIM is updated annually. The last overarching validation was completed in May 2019 with a positive conclusion.

There were no material changes to the internal model governance during the reporting period.

#### B.3.3. Own risk and solvency assessment

The Own Risk and Solvency Assessment ('ORSA') is a key internal process with key elements of the capital management and risk management processes which support the business in pursuit of fulfilling its business strategy. The ORSA is presented and reviewed, at least annually, key sections are updated as required throughout the year following changes in risk profile. This helps management to anticipate potential capital needs and take appropriate action.

The ORSA is an annual process which builds on the existing risk and capital management and business planning processes across the Aegon Nederland-group. The frequency of the ORSA process may increase if there is reason for such increase. The ORSA unites these processes under a single framework, ensuring key business decisions are based on an internal assessment of risk and associated capital requirements. It connects and aligns risk and capital management, business planning, and strategic decision making processes, and delivers the "ORSA outcomes" (from "Solvency II" Directive 2009/138/EC, Article 45(1)) namely:

- "the assessment of overall solvency needs taking into account the specific risk profile, approved risk tolerance limits and the business strategy of the undertaking;
- the compliance, on a continuous basis, with the capital requirements and with the requirements regarding technical provisions; and
- the comparison of the risk profile with the assumptions underlying the SCR and internal model."

A graphical overview of the ORSA process is provided below. The process is iterative and subject to on-going monitoring to ensure the ORSA responds to major changes impacting the business.

- The business strategy for Aegon Nederland is set. The financial strategy for Aegon Nederland must be set to support the business strategy.
- 2. The business plan combines the business and financial strategy to calculate key results.
- 3. The risk & capital assessment must include the identification, measurement, management and monitoring of risk. The capital needs of the business must be considered taking account of the proposed strategy and the acceptable level of the associated risks in pursuit of that strategy. The assessment must take into account both the present and the future. Aegon Nederland's Partial Internal Model and Economic Framework are key tools used in the measurement and quantification of risk. The output from the business strategy, financial strategy, business plan and the risk and capital assessments (together the Budget MTP) must be used in the decision making process.
- "Use" applies across a spectrum of areas including Asset & Liability Modelling, product development and pricing,



All of the above is evidenced and documented in Aegon Nederland's annual ORSA report.

## **B.4.** Internal control system

#### B.4.1. Internal control system

In order to ensure conscious risk-return decisions and limit the magnitude of potential losses within defined levels of certainty, Aegon Nederland's internal control environment has been established based on the principles of the 'Three lines of defense' model.



The three lines of defense are represented by the following: 1) risk owners, 2) risk managers, and 3) independent assurance. The overall responsibility for risk management lies with the Executive Board. The application of the three lines of defense structure enables a professional risk culture where risk management can be optimally embedded within the business.

First line of defense: Risks naturally arise out of Aegon Nederland's business activities, in particular through the sales and administrative processing of insurance policies, and balance sheet and capital management. Business management is directly responsible for the processes on which achievement of the company's objectives depends. They are responsible for risk identification, risk assessment and, especially, the control of all material risks in their area of activity, consistent with applicable risk tolerances and risk policies. B. System of governance C.

C. Risk profile

D. Valuation for Solvency Purposes

Second line of defense: The risk functions and committees, being the second line of defense, facilitate and oversee the effectiveness and integrity of ERM across the company. They facilitate ERM by developing, maintaining, and supporting the implementation of risk governance, risk tolerances, risk policies, risk methodology and risk management information. The role of the second line is also to oversee policy compliance, to maintain objectivity in business decisions and to challenge business management in this context. Risk policy breaches and excessive risk taking are escalated as needed. In this regard, the CRO has the authority to defer Risk & Capital Committee decisions that can have a material adverse impact on the company's solvency, liquidity or operations to Board meetings. In addition to those mentioned above, second line of defense is also responsible for model validations.

Third line of defense: Audit along with its committees provide the third line of defense and is a function directed by and accountable to the Executive Board, principally through its Risk and Audit Committee. It is independent of senior management, which has responsibility for the first and second lines of defense, and is therefore able to provide independent assurance opinions on the effectiveness of the systems of internal control and risk management.

### B.4.2. Implementation of the compliance function

Within its mission it is the purpose of the Compliance Function to advise the Executive Board and the Supervisory Board on the assessment and definition of the Compliance Risk Appetite and related risk tolerance levels, and to advise the Executive Board on the acceptance of specific risk events based on impact analysis. Furthermore, the Compliance function supports management by raising awareness of Compliance Risk Appetite and established good business practices, and by identifying, assessing and overseeing the mitigation of Compliance Risks.

The Compliance Function consists of the Chief Compliance Officer and all Compliance Officers and other staff reporting to the Chief Compliance Officer. These include the compliance officers appointed as such and working within Aegon Nederland for all organizational business units (segments), and those working for Aegon Nederland subsidiaries. Furthermore, the Conduct Risk team and the Regulatory Office report to the Chief Compliance Officer as of November 1, 2019. To ensure a consistent approach within the entire organization the aforementioned Compliance Officers and the other teams reporting tor the Chief Compliance Officer meet regularly to coordinate. All Compliance Officers at Aegon Nederland, including the Compliance Officers of the Aegon Nederland subsidiaries, have a functional reporting line to the Chief Compliance Officer. The CRO or the Chief Compliance Officer on his behalf, has a 'veto right' in relation to the appointment and terminations of Compliance Officers in the aforementioned subsidiaries. The Chief Compliance Officer has an escalation reporting line to the Supervisory Board (Risk & Audit Committee) and to the Global Head of Regulatory Compliance and Global Head of Operational & Conduct Risk Management. Furthermore, the Chief Compliance Officer is entitled to investigate or have investigated (independently or on its behalf) compliance with this Charter by performing Compliance monitoring activities. The Chief Compliance Officer reports each quarter to the Management Board, through the CRO, on the topics mentioned above and meets with the Supervisory Board and/or or the Risk & Audit Committee at least four times a year.

The Compliance Function shall be independent from the business, this is established using the following principles:

- 1. The Compliance Function has a formal status, which is stated and communicated through this Charter;
- A Compliance Officer, in particular the Chief Compliance Officer, is not placed in a position where possible conflicts of interest may occur between compliance responsibilities and any other responsibilities; and
- The Compliance Function staff are entitled to have access to the information and personnel necessary to carry out their responsibilities.

# **B.5. Internal audit function**

### B.5.1. Implementation of the internal audit function

Aegon Nederland's Internal Audit Function ("Internal Audit") assists the Executive Board, the Risk & Audit Committee of the Supervisory Board and Senior Management in protecting Aegon Nederland's assets, reputation, and sustainability by independently and objectively evaluating the effectiveness of internal controls, risk management and governance processes. Aegon Nederland has implemented the 'three lines of defense model'. The (line) management control is the first line of defense. Risk management, the risk control and compliance over- sight functions are the second line of defense, and independent assurance is the third line of defense. As part of this assurance Internal Audit recommends improvements which are agreed with management and pursues corrective actions on identified issues until implementation.

B. System of governance

C. Risk profile

Additionally, Internal Audit executes advisory services related to the evaluation and improvement of the management control environment of Aegon Nederland. When providing advisory services, Internal Audit needs to maintain operational independence. Opportunities to strengthen the existing management control environment, effectiveness and Aegon Nederland's reputation may be identified during all our activities. Internal Audit derives its authority from their respective Boards and is authorized to examine the internal controls, risk management and governance processes in all areas of Aegon Nederland.

#### B.5.2. Independence of the internal audit function

Internal Audit executes its duties freely and objectively in accordance with the Institute of Internal Auditors' International Professional Practices Framework. The purpose, objectives and responsibilities of the Internal Audit function of a Country Unit and of the Group Internal Audit function are covered in the Internal Audit Charter and are aligned with the (inter)national professional auditing standards. Internal Audit avoids any conflicts of interest and accesses the expertise and knowledge necessary to undertake work in respect of specialist business functions.

Internal Audit does not execute any operational duties for Aegon Nederland and will not review a business area or function in which they have had recent management or operational responsibility or are otherwise conflicted. The Aegon Nederland Chief Audit Executive reports to the Chief Executive Officer. To ensure the independence of the auditors and effective governance, the Aegon Nederland Chief Audit Executive has a reporting line to the Group Chief Audit Executive, as well as to the respective Country Unit Risk and Audit Committee and to the Supervisory Board.

#### **B.6. Actuarial function**

The Actuarial Function Holder is positioned under the statutory board member who directs the department of Risk & Compliance, i.e. the Chief Risk Officer (CRO). The AFH operates independently from the first line functions and other functions and reports (and escalates if necessary), next to the CRO, also periodically to the Executive Board, to the Risk & Audit Committee of the Supervisory Board and to the Global Chief Actuary.

Aegon Nederland implemented various "actuarial roles" to ensure proper and efficient pricing and valuation of policyholder liabilities and to embed actuarial considerations in key management decisions in order to ensure continuity of Aegon Nederland and to support the creation of sustainable value for all our stakeholders.

### **B.7. Outsourcing**

Aegon Nederland has outsourced certain critical and/or important operational functions or activities related to front-, mid- and backoffice processes. As stated earlier all employees working at Aegon Spaarkas are employed at and have a labor contract with Aegon Nederland. This also means that Aegon Spaarkas has outsourced the key functions to Aegon Nederland.

Outsourcing may affect business exposure to operational risk through material changes to, and reduced control over, people, processes and systems used in outsourced activities. Aegon Nederland has developed and formalized an outsourcing Risk Policy to ensure that outsourcing arrangements entered into by Aegon Nederland, which can result in material risk, are subject to appropriate due diligence, approval and on-going monitoring. All material risks arising from outsourcing activities should be appropriately managed to ensure that Aegon Nederland is able to meet both its financial and service obligations. The outsourcing risk policy will be further enforced and strengthened due to the implementation of the third party risk management policy.

The policy applies to all entities and business units of Aegon Nederland, including arrangements where Aegon Nederland has a controlling interest in other business units and entities. Furthermore both to outsourcing arrangements with vendor/ suppliers as well as to internal outsourcing arrangements within a business unit or between business units of Aegon Nederland are in scope of this policy. Aegon Nederland has implemented the policy to ensure that outsourcing activities that can result in material risk are managed and under supervision of Aegon Nederland.

#### **B.8.** Any other information

All relevant information is covered in the previous sections.

D. Valuation for Solvency Purposes

# C. Risk profile

This section is outlined as follows. The first subsection describes the risk assessment and measurement, sensitivity analyses and risk concentrations in general. The second subsection discusses the Prudent Person Principle, which relates to Market, Credit, Liquidity and Operational risk.

In subsections C.1 through C.5, more detailed information is provided on Underwriting, Market, Credit, Liquidity and Operational risk, respectively.

Finally, subsection C.6 comments on other risks and uncertainties.

## General

Amounts in £ million

Assessment of the risk profile of Aegon Spaarkas forms part of the ERM Framework, which is discussed in section B.3. Within this framework, risk policies provide specific operating guidelines for Aegon Spaarkas' risk governance and risk tolerance statements. Aegon Spaarkas complies with the risk policies of both Aegon Group and Aegon Nederland. The Aegon Nederland risk policies are tailored to fit local circumstances and therefore imply additional restrictions to the Group policies. Within the ERM Framework, risk exposures are identified and quantified using Aegon Spaarkas' PIM. The PIM, which has been developed in close cooperation with Aegon Group, has been validated by Aegon Nederland's Risk Function and approved by Aegon Spaarkas' supervisor DNB. The main output of the PIM is the SCR.

The SCR of Aegon Spaarkas is the minimum level of Own funds required in accordance with Solvency II legislation, to absorb unexpected developments of all risk exposures of Aegon Spaarkas in combination. It serves to ensure that obligations to policyholders can be met with a very high degree of certainty. When available Own funds are in excess of the aggregate SCR, Aegon Spaarkas will be able to meet obligations to policyholders with a likelihood of at least 99.5% over a period of one year.

The PIM contains separate modules for Market Risk, Counterparty Default Risk, Underwriting risk, and Operational Risk. For each of these a separate SCR is derived. Major risks within the PIM are assessed using an internally developed model. For the other risks, the Solvency II Standard Formula is applied.

Key risks for Aegon Spaarkas reflect the following:

Amounts in c million	Components description	2019	2018
C 2 Market dale	Market risk (SF)	1	1
C.2 Market risk	Market risk (IM)	25	26
	Counterparty default risk (SF)	1	4
C.3 Credit risk	Counterparty default risk (IM)	-	-
	Life underwriting risk (SF)	41	33
	Life underwriting risk (IM)	2	2
C.1. Under wither viels	Health underwriting risk (SF)	-	-
C.1 Onderwhiling risk	Health underwriting risk (IM)	-	-
	Non-life underwriting risk (SF)	-	-
	Non-life underwriting risk (IM)	-	-
	Operational risk (SF)	2	3
C.5 Operational risk	Operational risk (IM)	-	-
	Diversification	-/- 17	-/- 18
Requirement	LAC Deferred Taxes (negative amount)	-/- 9	-/- 8
	Total SCR	47	44

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

Mitigating effects of diversification between risks, as well as the loss absorbing capacity of deferred taxes (LAC DT) are taken into account in the aggregate SCR. Diversification exists as the degree to which different risks are related to one another and is, in many cases, limited. As a result, the likelihood of severely adverse developments of all risks occurring within the same year is extremely remote. The impact of diversification is measured separately within the PIM. Further explanation on the LAC DT and diversification is provided in Section E.2.1.

Furthermore, with regard to the methodology to derive the SCR, it should be noted that for Liquidity Risk no SCR has been determined as the Liquidity Risk policy ensures that sufficient liquidity is available with a very high degree of certainty over a period of two years. Liquidity risk is discussed further in section C.4.

#### Solvency Ratio, Sensitivity Analysis & Stress Testing

The Solvency II ratio is the main indicator of the ability of Aegon Spaarkas to meet all of its obligations to policyholders and other stakeholders, as and when they fall due. It is defined as follows:

Solvency II ratio = Own funds / SCR

The Own funds are the assets of the company, valued according to Solvency II principles, in excess of all obligations to policyholders as well as other liabilities that are not subordinated. Own funds, SCR and Solvency II ratio at 31 December 2019 are shown below.

#### Table : Own Funds & SCR 31 December (million €)

Amounts in € million	Own funds	SCR	Solvency Ratio 31/12/2019
Solvency Ratio	186	47	395%

The Solvency II ratio of 395% indicates that available Own funds amount to almost four times the SCR. The processes that are in place for monitoring and managing the Solvency II ratio are discussed in section E. Also the components of the Own funds are further discussed in chapter E.

In addition to the derivation of the SCR, Aegon Spaarkas performs sensitivity analyses and stress testing on a regular basis in order to assess the impact of the scenarios considered in these tests.

#### Sensitivity Analyses

Sensitivity analyses are performed on a bi-annual basis. In these analyses, the impact of instantaneous changes of external factors related to various risk types on Aegon Spaarkas is assessed. For each sensitivity analysis, the immediate impact on Aegon Spaarkas' Solvency II ratio as per year-end 2019 is as follows:

Table: Overview of sensitivity analyses

Scenario	Change to
	Solvency ratio
5% decrease in Mortality rates	+2%
Interest rate curve +0.5%	+ 3%
Interest rate curve -/-0.5%	-/- 3%
25% increase in Equities	-/- 2%
25% decline in Equities	+ 1%
Credit spreads – Non-Gov +0.5%	+0%
Credit spreads – Non- Gov -/- 0.5%	+0%
Credit spreads – Gov +0.5%	-/- 2%
Credit spreads – Gov -/- 0.5%	+4%
Mortgage spreads +0.5%	-/- 2%
Mortgage spreads -/- 0.5%	+2%
EIOPA VA +5bps	+1%
EIOPA VA -/- 5bps	-/-1%
Loss Absorbency Factor -/-25%	-/-25%
UFR down to 3.75%	-/- 0%

The methods and outcomes of the sensitivity analyses are described in more detail by risk type in the next sections.

#### **Extreme Event Scenarios**

Spaarkas develops extreme events scenarios on an annual basis. These scenarios form part of the Own Risk and Solvency Assessment ("ORSA").

In the extreme event scenarios, the impact of extreme but plausible scenarios are determined over a multiyear business planning period. Scenarios considered are for example a severe recession, adjustments to the Volatility Adjustment (VA) and the Ultimate Forward rate (UFR), improvement of life expectancy and changes in laws and regulations.

In each scenario, the impact on net earnings, Own funds, SCR and Solvency II ratio is analyzed, taking into account the mitigating impact of management actions or other applicable measures.

A. Business and Performance B. System of governance

C. Risk profile

#### **Risk Concentrations - Identification & Approach**

Aegon Spaarkas considers Concentration Risk to be either one of the following types of exposure:

- A relatively high exposure to a single risk within a portfolio of risks. An example is a loan with a high amount to a single counterparty;
- An exposure to a large number of risks that exhibit a high degree of correlation with one another. An example is the outbreak of an epidemic that may cause a large number of deaths simultaneously.

Specific attention to concentration risk is needed in case its impact is not yet reflected in the SCR, or another risk assessment method, of the risk type where it manifests itself. In this case, an additional amount of SCR (add-on) for Concentration Risk may be required. If there is no SCR for the risk in question, additional consideration must be given in case concentrations are not reflected in the original risk assessment.

The potential occurrence of risk concentrations is further discussed below in the sections on each of the main risk types: C.1. Underwriting Risk, C.2. Market Risk, C.3. Credit Risk, C.4. Liquidity and C.5. Operational risk.

# **Prudent Person Principle**

The prudent person principle ensures that assets are managed on behalf of policyholders or other stakeholders in a prudent manner, and covers aspects that relate to market, credit, liquidity and operational risk.

Mandates for investments for own account and for account of policyholders are set out in internal guidelines of Aegon Spaarkas, in order to ensure that prudent person principles are satisfied. Besides that, each investment program is tested on several criteria and authorized by the Risk & Capital Committee (RCC).

The investment mandates section of the Standard of Practice paper ensures that the prudent person principles are satisfied when relevant. The risks on the investment side are presented in Risk Reporting with more detailed reporting performed by Aegon Asset Management. Aegon's Risk Appetite Framework is in place to ensure that the assets held are appropriate to the nature of the liabilities without taking on excessive risks:

• Risk limits for market and financial risks are set and form part of the Aegon Risk Appetite Framework;

- The Investment and Counterparty Risk Policy establishes the prudent person principle requirements;
- Concentration in exposures is avoided by testing adverse plausible scenarios in the Budget/MTP process and by setting single counterparty limits in the Group Credit Name Limit Policy;
- The requirements related to use of derivatives can be found in the Derivative Use Policy. This policy ensures that a consistent standard of responsible derivative usage is in place across the Aegon Group. In addition, the consolidated reporting of derivative positions provides transparency to derivative usage as well as a demonstration of controls;
- The Securities Lending and Repo Policy ensures a consistent standard for Securities Lending and Repurchase (Repo) programs within the Aegon Group. This Policy sets out the minimum required processes and documentation standards that must be in place for any unit to operate in these instruments; and
- The Reinsurance Use Policy establishes the process with which reinsurance use is conducted at Aegon in order to ensure a consistent high standard of reinsurance use across the Group, to ensure proper internal controls are in place around risks arising from reinsurance wherever material (e.g. counterparty risk and basis risk), and to ensure globally consistent information on Aegon's reinsurance treaties is available.

The requirements related to the use of derivatives are specified in the Derivative Use Policy. Key principle here is that derivative programs should be documented and are used for risk mitigation purposes. In general, Aegon Spaarkas manages the asset allocations to prudent levels on the basis of ALM and risk management frameworks.

The prudent person principle requires specific attention to be paid to assets that are not traded on regulated financial markets. In this category, mortgages are particularly relevant, as they form a major asset class in which, Aegon Spaarkas holds investments. Within the Aegon Netherlands holding, of which , Aegon Spaarkas forms part, mortgage loans have been originated and serviced for over thirty years. As a consequence, considerable expertise exists within Aegon Netherlands in these areas.

In addition, the prudent person principle requires that specific attention be given to illiquid assets. Illiquid assets held by Aegon Spaarkas, including mortgages, form a good match with the illiquid profile of Aegon Spaarkas' liabilities. As such, these assets provide an excellent risk-return trade-off for Aegon Spaarkas and its policyholders.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

# **C.1. Underwriting risk**

# C.1.1. Description of the measures used to assess underwriting risks

Underwriting risk, sometimes referred to as "insurance risk", arises from deviations of observed actuarial parameters from those used in product pricing assumptions. These are typically actuarial assumptions that cover policyholder behavior and claims. Underwriting risk is the result of both the inaccuracies in projecting liability cash flows over several future time periods, as well as fluctuations in the incidence of claims.

The material underwriting risks for Aegon Spaarkas are policyholder behavior risk and expense risk.

#### Mortality/longevity risk

Mortality risk arises from economic losses due to mortality levels deviating from expectations (when mortality is lower than expected, this is referred to as longevity). Policyholders are typically grouped into different classes in which each class is expected to have the same mortality rates. Best estimate assumptions are then developed for each policyholder class. Aegon is exposed to the risk that the best estimate assumptions are inaccurate.

Aegon Spaarkas sells mainly tontine plans, which are at risk if mortality increases.

#### Policyholder behavior risk

Policyholder behavior risk arises from economic losses due to policyholder behavior deviating from expectations. Insurance contracts typically provide policyholders with a variety of options that they may or may not exercise. Policyholder behavior risk is the risk that actual policyholder behavior deviates from the assumptions built into the reserves calculations. This includes assumptions about lapses, withdrawals, premium payment levels, allocation of funds, and the utilization of possible options in the products.

The above mentioned elements of policyholder behavior risk all relate to insurance contracts. The prepayment risk on mortgages constitutes another important component of policyholder behavior risk; it's the risk of higher or lower prepayments that anticipated, including early redemption rates, thus impacting the value of the mortgage portfolio.

In general, Aegon Spaarkas is especially at risk if policy lapses increase as this leads to lower future fees.

#### Expense risk

Expense risk is the risk that the expenses arising from servicing (re)insurance contracts develop differently than expected. Various types of expense risk are distinguished:

- Expense inflation risk is the risk that expenses inflate at a higher rate than assumed in the calculation of the technical provisions. It does not cover the risk of general price inflation increases, which would be covered by mismatch risk; and
- Expense level risk is the risk that unexpected changes in maintenance expenses for in-force business will occur (assuming that the volumes of business are unchanged from best estimate assumptions). The risk therefore corresponds to an increase in the total expenses spread among the same number of policies – i.e., the per policy expenses increase. It is effectively the change in the best estimate expense assumption given a 1-in-200 year expense event.

Most expenses Aegon Spaarkas has within its business will be subject to expense risk if not contractually defined. These types of expenses may include salaries, office space, software licenses and fees to intermediaries.

#### Underwriting risk assessment

Aegon Spaarkas monitors and manages its underwriting risk by underwriting risk type. Attribution analysis is performed on earnings and reserve movements in order to understand the source of any material variation in actual results from what was expected. Aegon Spaarkas also performs experience studies for underwriting risk assumptions, comparing Aegon Spaarkas' experience to industry experience as well as combining Aegon Spaarkas' experience and industry experience based on the depth of the history of each source to Aegon Spaarkas' underwriting assumptions. Where policy charges are flexible in products, Aegon Spaarkas uses these analyses as the basis for modifying these charges, with a view to maintain a balance between policyholder and shareholder interests. Aegon Spaarkas also has the ability to (partly) reduce expense levels over time, thus mitigating unfavorable expense variation.

#### C.1.2. Risk Concentrations

In addition to the risk tolerance limits as measured by gross ERC, it's common practice to address 'concentration' of risk on insured lives, using a risk limit per single life (or joint lives). The exposures on a few lives with a much higher risk than the average in the portfolio can create too high volatility in the results. Limiting such exposure reduces the impact of process risk and also increases the stability of the underwriting results. These risk limits per single life (or joint lives) will be further referred to as 'retention limits'. The retention limits are typically chosen in such a way that the remaining exposure is acceptable, relative to the size of the earnings and the size of the balance sheet of the company. Risk mitigation and managing compliance with the retention limits can be achieved by reinsurance (external or internal), by the underwriting process or by the product design.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

#### C.1.3. Risk mitigation techniques used for underwriting risks

No risk mitigating contracts, such as hedges or reinsurance, are in place to mitigate the underwriting risk of Aegon Spaarkas.

#### C.1.4. Risk sensitivity for underwriting risks

In the scenario shown below, average mortality rates for each age cohort decrease by 5% in all future years.

Table: Impact of 5% decrease in Mortality rates

Scenario	Change to Solvency ratio
5% decrease in Mortality rates	+2%

For Aegon Spaarkas, this scenario, which has been adopted on a Group wide basis within Aegon Group, has a favorable impact on the Solvency II ratio. This can be explained by the product composition of Spaarkas which comprises mainly mortality risk (rather than longevity risk).

# C.2. Market risk

#### C.2.1. Description of the measures used to assess market risks

As a life insurance company, Aegon Spaarkas is exposed to a variety of risks. Aegon Spaarkas' largest exposures are to changes in financial markets (e.g. bond market, equity market, interest rates and credit risk relating to investments). When market prices fall, the value of Aegon Spaarkas' investments is reduced. For most of Aegon Spaarkas' products, insurance liabilities may also increase, as investments held for the benefit of policyholders reduce in value. In addition, the value of future fee income potential reduces. The cost of insurance liabilities are also determined with reference to interest rates.

To align with the SCR in QRT S.25.02 and section E, we only discuss Counterparty Default Risk (as defined in the Delegated Regulation) in section C.3. More generally, we consider the term 'credit risk' to also include spread risk, migration risk and default (market risk concentration) risk relating to financial investments. To keep this alignment with QRT S.25.02 consistent throughout the SFCR, these other components of credit risk are discussed instead in section C.3 Credit risk.

Further explanations of the material market risk components are provided below.

#### Credit risk

Internally, Aegon Spaarkas considers credit risk to consist of the following three components:

- Spread risk the risk that the value of bonds reduces due to a general widening of credit spreads;
- Migration risk the risk that the rating of bonds falls due to an increased risk of default and as a consequence its value falls; and
- Default risk the risk that counterparties fail to meet the agreed obligations.

Aegon Spaarkas mainly holds assets for the separate account. Aegon Spaarkas is as such indirectly exposed to credit risk on these investments, which are held for the benefit of policyholders. Credit losses reduce account values, leading to lower fee income for Aegon Spaarkas. For certain products, Aegon Spaarkas has also provided guarantees to protect customers against the risk of losses in the separate account. For these benefits Aegon Spaarkas is directly exposed to separate account credit losses.

#### Interest rate risk (Mismatch risk)

Aegon Spaarkas bears interest rate risk with many of its products. In cases where cash flows are highly predictable, investing in assets that closely match the cash flow profile of the liabilities can offset this risk. For some products, cash flows are less predictable as a result of policyholder actions that can be affected by the level of interest rates.

Aegon Spaarkas is exposed to interest rate risk, as both its assets and liabilities are sensitive to movements in short to mid-term interest rates. The majority of Aegon Spaarkas' products are mid-term in nature and, as a consequence, low interest rates or high interest rate volatility may adversely affect Aegon Spaarkas' profitability and shareholders' equity. It is also the case that a very rapid rise in interest rates could have negative consequences for Aegon Spaarkas.

#### Equity market risk and other investments risk

A decline in equity markets may adversely affect Aegon Spaarkas' profitability and shareholders' equity, sales of savings and investment products, and the amount of assets under management. There is a risk for both Aegon Spaarkas and its customers that the market value of its equity investments declines. Exposure to equity markets exists in both assets and liabilities. Asset exposure exists through direct equity investments in which Aegon Spaarkas bears all or most of the volatility in returns and investment performance risk. The existence of direct equity risk is limited, as defined by Aegon Spaarkas' Risk policies.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

Equity market exposure is also present in policyholders' accounts for insurance and investment contracts in which funds are invested in equities. Although most of the risk remains with the policyholder, guarantees within certain products may transfer some or all of this risk to Aegon Spaarkas. Lower investment returns also reduce the asset management fee that Aegon Spaarkas earns on the asset balance in these products, and prolonged investment underperformance may cause existing customers to withdraw funds and potential customers not to grant investment mandates.

Some of Aegon Spaarkas' insurance business have minimum return or accumulation guarantees that require Aegon Spaarkas to establish reserves to fund these future guaranteed benefits when equity market returns do not meet or exceed these guarantee levels. Deteriorating general economic conditions may again result in significant decreases in the value of Aegon Spaarkas' equity investments.

#### C.2.2. Risk Concentrations

Concentration of market risks could occur in case relatively high amounts are invested in a single security, or where a collection of highly correlated investments is held. Aegon Spaarkas specifically manages concentration risk within the investment portfolio to mitigate concentration risks. Where concentrations risks exist nonetheless, an additional amount of SCR is determined.

Within Spaarkas, market risk concentrations were limited. An SCR of  $\notin$  0.7 million was held for concentration risk at 31 December 2019.

#### C.2.3. Risk mitigation techniques used for Market risks

Aegon Spaarkas operates an Interest Rate Risk policy that limits the amount of interest rate risk to which it is exposed. Capital and risk monitoring result in actions to manage and, where necessary, mitigate, the interest rate mismatch. Aegon Spaarkas uses derivatives to closely manage its interest rate risk exposure.

In addition, hedges are in place to mitigate equity risk arising from guarantees issued to policyholders and volatility of asset management fees.

All derivative use is governed by Aegon Spaarkas' Derivative Use Policy.

### C.2.4. Risk Sensitivity for Market risks

FFor Market Risk, the following sensitivity tests are performed on a bi-annual basis with respect to Credit Spreads, Interest Rates and Equity Prices. The methods used and the results are discussed below.

#### Interest rates

The following sensitivities have been analyzed:

### 1 Increase (decrease) of interest rates by 0.5% point.

Interest rates used for the valuation of assets are increased (decreased) by 0.5% point through a parallel shift across the entire yield curve. Assets affected include bonds, loans, mortgages, and derivatives. Derivatives form part of the hedge program of Aegon Spaarkas to mitigate interest rate risk.

For technical provisions, only interest rates for maturities up to 20 years are increased (decreased) by 0.5% point. For technical provisions with maturities longer than 20 years, interest rates converge from the increased (decreased) 20 year rate to a fixed rate derived from the UFR of 3.90%. Liabilities other than the technical provisions are not affected.

The impact of these scenarios is shown below.

Scenario	Change to Solvency ratio in Scenario
Interest rate curve +0.5%	+ 3%
Interest rate curve -/-0.5%	-/- 3%

In the scenario where interest rates rise by 0.5% point, the Solvency II ratio increases by 3%-points due a reduction in the Own funds combined with a smaller reduction of the SCR. Own funds decrease as the value of government bonds, derivatives and mortgages decline and the decline is largely offset by a reduction in the value of technical provisions. The SCR also drops as the shock scenarios used in the derivation of the SCR are applied to lower base values of asset and liabilities.

Conversely, in the scenario where interest rates fall by 0.5% point, the value of Own funds increases more than the SCR. The Solvency II ratio will decrease by 3%-points.

#### 2 Increase (decrease) in Equity prices by 25%

Aegon Spaarkas does not hold equity investments for own account.

Hedges are in place to mitigate equity risk arising from guarantees issued to policyholders and volatility of asset management fees. Therefore, the impact of changes in equity values is limited, as shown below.

Scenario	Change to Solvency ratio
Equities + 25%	-/- 2%
Equities -/- 25%	+ 1%

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

#### 3 Sensitivity to Non-Government Credit spreads

In this scenario, credit spreads on mortgage loans, other loans and bonds, other than government bonds, increase by 0.5%-point. The increase in credit spreads results in a lower value of the mortgage and corporate bond portfolios. As a consequence, the Own Funds decrease.

As a result of the drop in asset value, the SCR for credit spread risk in this scenario is slightly lower than in the base scenario. The impacts on the Own Funds and the SCR have an offsetting effect resulting in an equal Solvency II ratio.

Conversely, in the scenario in which the credit spreads decrease by 0.5% point, the credit spreads on mortgage loans, other loans and bonds, other than government bonds, decrease by 0.5% point.

The decrease in credit spreads results in a higher value of the mortgage and corporate bond portfolios. As a consequence, the Own Funds increase. As a result of the increase in asset value, the SCR for credit spread risk is slightly higher than in the base scenario. This combination has no impact on the Solvency II ratio.

Scenario	Change to Solvency ratio in Senario
Credit Spreads non-gov + 0.5%	+0%
Credit Spreads non-gov -/- 0.5%	+0%

#### 4 Sensitivities to Mortgage spreads

In this scenario, credit spreads on government bonds increase by 0.5%-point. The increase in credit spreads results in a lower value of the government bond portfolios. As a consequence, the Own Funds decrease.

As a result of the drop in asset value, the SCR for credit spread risk in this scenario is slightly lower than in the base scenario. This results in a decrease of the Solvency II ratio of 2%.

Conversely, in the scenario in which the credit spreads decrease by 0.5% point, the credit spreads on government bonds decrease by 0.5% point.

The decrease in credit spreads results in a higher value of the government bond portfolios. As a consequence, the Own Funds increase. As a result of the increase in asset value, the SCR for credit spread risk is slightly higher than in the base scenario. This combination results in an increase of the Solvency II ratio of 4%.

Scenario	Change to Solvency ratio in Senario
Credit Spreads gov + 0.5%	-/- 2%
Credit Spreads gov -/- 0.5%	+ 4%

#### 5 Sensitivities to Mortgage spreads

In these scenarios, spreads on mortgage investments change by 0.5%-point. All other assumptions remain unchanged.

Own funds decline due to a lower value of the mortgage portfolio when increasing the spreads, while the SCR remains almost constant, resulting in a decrease in Solvency II ratio by 2%-points. For the decreasing scenario the opposite effect is shown.

Scenario	Change to Solvency ratio in Senario
Mortgage spreads + 0.5%	-/- 2%
Mortgage spreads -/- 0.5%	+ 2%

# C.3. Credit risk (Counterparty Default Risk)

#### C.3.1. Description of the measures used to assess credit risks

To align with the SCR in QRT S.25.02 and section E, we only discuss Counterparty Default Risk (as defined in the Delegated Regulation) in section C.6. More generally, we consider the term 'credit risk' to also include spread risk, migration risk and default (market risk concentration) risk relating to financial investments. To keep this alignment with QRT S.25.02 consistent throughout the SFCR, these other components of credit risk are discussed instead in section C.2 Market risk.

Counterparty default risk mainly covers exposure to risk mitigating contracts, cash at bank and receivables for which capital is calculated under the Standard Formula.

### C.3.2. Risk Concentrations

Concentration within Counterparty Default risk could occur in case relatively high amounts are outstanding with a single counterparty, or if default risks of many counterparties are highly correlated.

An important measure to avoid concentration within Counterparty Default risk is to diversify and limit exposure to individual issuers. More specifically, Aegon Spaarkas has put in place a policy to limit the aggregate exposure to any single counterparty. Exposures are monitored on a weekly basis and any potential violations of exposure limits must be reduced on short notice. Concentration in exposures are managed by setting limits on risk types and single counterparties, by testing extreme scenarios in the Budget/MTP process.

As a result, no Risk Concentrations within Counterparty Default Risk have been identified at 31 December 2019. B. System of governance

C. Risk profile

# C.3.3. Risk mitigation techniques used for Counterparty Default risks

Counterparty risks embedded in derivatives transactions are contained with strong collateral processes that Aegon Spaarkas has put in place in all of its derivatives, through the use of high quality collateral. Central clearing for parts of the derivatives markets has increased the collateral requirements and reduced counterparty risk.

# C.3.4. Risk sensitivity for Counterparty Default risks

Given the relatively small amount of the SCR for Counterparty Default Risk, no specific sensitivities have been determined.

# C.4. Liquidity risk

#### C.4.1. Description of the measures used to assess liquidity risks

In normal circumstances, a significant proportion of the investment portfolio can be quickly converted into cash. However, it may not be possible to sell some part of the asset portfolio, such as private loans, mortgage loans, real estate and holdings in unlisted enterprises at a reasonable price on short notice, if necessary.

Events that may have a sudden, adverse impact on available liquidity include the following:

- Large change in interest rates;
- Large change in credit spreads;
- Insolvency of a counterparty, credit facility or bank where current accounts are held; and
- Credit downgrade of Aegon NV.

Furthermore circumstances can arise in which liquidity/cash/ funding in the market become scarce.

Aegon Spaarkas operates a liquidity risk policy that focuses on holding sufficient highly liquid assets so that liquidity requirements can be met both in normal market conditions and under extreme conditions resulting from unforeseen circumstances.

The liquidity risk policy aims to ensure that sufficient liquidity exists in the asset portfolio to provide for timely payment of all potential cash demands under both normal business conditions and under extreme conditions resulting from unforeseen events. The liquidity tests quantitatively measure the ability of Aegon Spaarkas to meet all potential cash demands.

#### C.4.2. Risk Concentrations

The described stressed liquidity scenario can be regarded as a concentration with respect to liquidity risk. The liquidity risk policy requires that sufficient liquid assets are available in this scenario.

#### C.4.3. Risk mitigation techniques used for liquidity risks

No specific risk mitigation techniques, in the form of contracts with third parties, are currently in place for liquidity risk exposures.

### C.4.4. Expected Profits in Future Premiums

EPIFP reflects the current value of the net cash flow expected to arise from in-force contracts until the end date of each contract. Note that the EPIFP is determined only for contracts where such a value is positive. EPIFP forms part of the technical provisions of Aegon Spaarkas, where a positive EPIFP value of leads to a reduction of the total technical provisions.

A high value of EPIFP could impact liquidity, as future profits are not available in cash at present. As the total amount of the Expected Profits in Future Premiums (EPIFP) amounts to  $\notin$  22 million at the end of 2019. In 2019 a new calculation model was implemented, which improved the calculations. Moreover, the running costs are no longer deducted from future premiums in the calculations, which we deem a more realistic approach, as those cost would have to be borne in all situations, i.e. even if all policies were paid up. Note that the EPIFP value does not reflect derivatives contracts that have been put in place in previous years to hedge against the risk of low interest rates.

#### C.4.5. Risk sensitivity for liquidity risks

The liquidity position is tested in the following scenarios:

- Base scenario, assuming current market conditions; this is the 'business as usual' situation.
- 2. Stressed liquidity scenario, in which both liabilities and assets are stressed.

The stress scenario develops over a two-year period. Extreme withdrawals of liabilities occur as a result of an immediate major downgrade of both Aegon Nederland's long term financial health and short term credit rating. Furthermore, assets suffer an immediate capital market shock resulting in an inability to sell investments other than 'highly liquid' ones, over a one-year period. Assets and liabilities experience an instantaneous upwards shock to the risk free interest rate by 1.5 percentage points, which increases linearly to 3% after exactly one year. In addition, the value of non-highly liquid investments decreases further as a result of a credit spread shock of 1.5%.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

In this scenario, available liquidity remains in excess of required liquidity over the entire two year period. The following table shows available and required liquidity, prior to occurrence of the stress scenario at the end of 2019, and at the end of 2021 after the occurrence of the stress scenario.

	31 December 2019	31 December 2019 Stress Scenario	31 December 2021 Stress scenario
Available Liquidity	84	76	174
Required Liquidity	5	5	33
Excess Liquidity	80	71	141

# **C.5. Operational risk**

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# C.5.1. Description of the measures used to assess operational risk

Operational risk is defined as the risk of losses resulting from inadequate or failed internal processes and controls, people and

systems or from external events. These definitions highlight the four causes of operational risk events: (1) external events; (2) inadequate or failing processes and controls; (3) people; and (4) systems.

The SCR for Operational Risk is determined in line with the Standard Formula under Solvency II. It is based on volumes of premiums, technical provisions and expenses, with a distinction between index and unit linked, and other business. Additional measures have been developed internally for the day-to-day management and assessment of Operational risks.

Aegon Spaarkas has identified eight risk event categories in line with the Aegon risk universe. This risk event categorization also supports the preparation of operational risk reporting and analysis that can be interpreted meaningfully across Aegon Group as it defines a common language for the group.

The defined categories of Operational Risk are:

Risk Type	Description
Legal and Compliance risk	Legal and compliance risk is the risk that losses occur due to non-voluntary legal liabilities, inadequate legal documentation, inadequate patenting of brands and intellectual property, and the risk of impairment to the organization's business model, reputation, integrity and financial condition, resulting from failure to comply with laws, regulations and internal company rules and policies, as well as late identification of significant legal and regulatory developments, possibly resulting in an inability to influence the final outcome.
Processing risk	Processing risk is the risk of losses due to inadequate or failing administrative processes and related internal controls, capturing of source data, reporting errors, modeling errors and failing outsourcing and supplier arrangements.
Business risk	Business risk is the risk of losses due to failed or inadequate strategy execution, marketing and sales practices, distribution channels, pricing, investment returns, handling of customer complaints, or late reaction to changes in the business environment.
Tax risk	Tax risk is the risk of losses due to fiscal authorities challenging Spaarkas' tax treatment of transactions on technical grounds or as a result of inconsistent argumentation, imperfections in the tax planning, concentration risk and late identification of significant tax developments in relevant jurisdictions, possibly resulting in an inability to influence the final outcome.
Financial crime risk	Financial crime risk is the risk of losses due to a wrongful act, omission, breach of duty or trust, intentionally performed by a Spaarkas employee, intermediary or external party, which potentially could or results in a disadvantage to Aegon Spaarkas or another.
People risk	People risk is the risk of losses due to inadequate or failing employee practices (including discrimination, wrongful termination, and sexual harassment) and consideration for employees' health and well-being, including workplace safety.
Facility risk	Facility risk is the risk of losses due to inadequate or failing physical asset management (including physical security incidents and inefficient procurement) and events causing damage to physical assets (vandalism, water damage, fire, explosions, etc.).
Systems risk	Systems risk and business disruption risk is the risk of losses due to inadequate or failed business continuity planning, back-up and recovery, fallback arrangements, information security, IT maintenance and change management, identification of relevant technological developments and other technical causes for systems related failures and errors.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

Operational risk is inherent to Aegon Spaarkas' business and may manifest itself in many ways, including business interruption, poor vendor performance, information systems malfunctions or failures, regulatory breaches, processing errors, modeling errors, and/or internal and external fraud. These events may result in financial loss, harm Aegon Spaarkas' reputation, or hinder Aegon Spaarkas' operational effectiveness.

Aegon Spaarkas' approach to operational risk assessment is based on scenario analysis. Aegon Spaarkas utilizes this approach for internal monitoring and quantification of operational risk. Risk identification takes place through periodic Risk (& Control) Self Assessments (RSAs or RCSAs) to gain an understanding of business objectives and identification of operational risks for realizing these objectives.

#### C.5.2. Risk Concentrations

Operational risk concentration can occur where specific risk exposures are in excess of operational risk appetite. Aegon Spaarkas' management maintains a well-controlled environment and sound (conduct) policies and practices to control these risks and keep operational risk at appropriate levels. Operational risk capital (ORC) is held on the basis of the economic framework model and is determined annually. Operational risk for Aegon Spaarkas is dominated by the following material risk concentrations:

- Legal, regulatory, conduct & compliance; and
- Processing risk.

#### Legal, regulatory, conduct & compliance risk

ORC is held on the basis of potential but unlikely extreme loss events such as punitive damages issued by a court resulting from accusations of corporate misconduct, substantially changed legislation due to regulatory regime change, or inability to enforce policy terms. Further details are provided in Section D.5.

#### Processing risk

ORC is held on the basis of potential but unlikely extreme loss events such as a material financial misstatement, non-payment of claims by reinsurer, modelling errors, or failure of an outsourcing partner.

#### C.5.3. Risk mitigation techniques used for operational risks

No specific risk mitigation techniques are currently in place for Operational risk exposures, nor under consideration for purchase.

#### C.5.4. Risk sensitivity for Operational risk

Stress testing and sensitivity analysis for Operational risk takes place in the form of scenario analysis as described above.

# **C.6. Other Material Risks & Uncertainties**

Aegon Spaarkas has identified a number of uncertainties that may have a material impact on the valuation of its obligations and the level of the SCR in the near future. These are not included in the descriptions of the separate risk types. The identified uncertainties are:

- Adjustments to the Loss Absorbing Capacity of Deferred Taxes;
- 2. Adjustments to the UFR.

#### C.6.1. Loss Absorbing Capacity of Deferred Taxes

Another indirect risk that is considered by Aegon Spaarkas is an adjustment to the loss absorbing capacity of deferred taxes (LAC DT), as explained at the beginning of this chapter. Currently, Aegon Spaarkas assumes that in case a loss in the amount of the SCR were to occur, 75% of the maximum tax deductions can be recovered.

In the following scenario, the impact of a reduction of the LAC DT factor by 25% points is shown.

Scenario	Change to Solvency ratio in Scenario
LAC DT Factor -/-25%	-/-25%

In this scenario, Own funds are not affected as no of loss or change in value of assets or liabilities is assumed. Only the SCR increase as a result of the reduced recoverability of taxes in case a large loss were to occur. As a result, the Solvency II ratio declines by 25%-points.

#### C.6.2.Adjustment of the Ultimate Forward Rate (UFR)

The UFR is the risk free interest rate over a one year period that is expected after an extremely long period, i.e. after 60 years. It is used, in combination with market observed interest rates up to 20 years, to derive interest rates for maturities longer than 20 years.

The current UFR of 3.90% has been set by the European Insurance and Occupational Pensions Authority ("EIOPA"). It is based on historically observed real interest rates in combination with long term inflation expectations. In recent communications, EIOPA has proposed a gradual adjustment of the UFR over a number of years, including a decrease to 3.75% in 2020.

In the scenarios shown below, the impact of an immediate adjustment of the UFR from its current level of 3.9% to the announced adjustment of 3.75%.

Scenario	ratio in Scenario
UFR down to 3.75%	-/-0%

The impact of the lowering of the UFR on Own funds and SCR is small, as almost all contractual obligations of Aegon Spaarkas expire within 20 years.

# C.7. Any other information

All relevant information is covered in the previous sections.

D. Valuation for Solvency Purposes E. Capital Management

# D. Valuation for Solvency Purposes

In chapter D the valuation for Solvency purposes is disclosed and the differences with the valuation under IFRS in the annual report will be addressed in alignment with the QRT S.02.01 disclosure. The overall balance sheet under Solvency II and under IFRS statutory reporting is shown below.

Table: Balance Sheet (in € million)

Balance Sheet	Section	Solvency II value	Statutory accounts value
Assets			
Investments (other than assets held for index-linked and unit- linked contracts)	D.1.2.1.	133	132
Bonds	D.1.2.2.	133	132
Government Bonds		43	42
Corporate Bonds		58	58
Collateralized securities		32	32
Derivatives		1	1
Assets held for index-linked and unit-linked contracts	D.1.2.3.	1,638	1,638
Loans and mortgages	D.1.2.4.	168	162
Loans on policies		0	0
Loans and mortgages to individuals		39	38
Other loans and mortgages		128	124
Insurance and intermediaries receivables		7	9
Receivables (trade, not insurance)	D.1.2.5.	0	0
Cash and cash equivalents	D.1.2.6.	41	41
Any other assets, not elsewhere shown	D.1.2.7.	0	0
Total assets		1,988	1,982

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

Liabilities	Section	Solvency II value	Statutory accounts value
Technical provisions - life (excluding index-linked and unit-linked)	D.2.	0	0
Technical provisions - life (excluding health and index-linked and unit-linked)	D.2.	0	0
Best estimate		0	0
Technical provisions - index-linked and unit-linked		1,634	1,696
Best estimate		1,617	1534
Risk margin		17	16
Deferred tax liabilities	D.3.1.1.	17	1
Derivatives	D.3.1.2.	0	6
Insurance & intermediaries payables	D.3.1.3.	39	46
Payables (trade, not insurance)	D.3.1.4.	6	0
Total liabilities		1,697	1,749
Excess of assets over liabilities		290	234

The difference between equity as shown in the financial statements and the Solvency II value excess of assets over liabilities is explained in paragraph E.1.3.

D. Valuation for Solvency Purposes E. Capital Management

# **D.1. Assets**

The overview in table below shows the value of assets by material asset class under Solvency II and IFRS statutory reporting.

Table: Balance Sheet (in € million)

Balance Sheet	Section	Solvency II value	Statutory accounts value	Delta
Assets				
Investments (other than assets held for index-linked and unit- linked contracts)	D.1.2.1.	133	132	1
Bonds	D.1.2.2.	133	132	1
Government Bonds		43	42	1
Corporate Bonds		58	58	0
Collateralized securities		32	32	0
Derivatives		1	1	0
Assets held for index-linked and unit-linked contracts	D.1.2.3.	1,638	1,638	0
Loans and mortgages	D.1.2.4.	168	162	6
Loans on policies		0	0	0
Loans and mortgages to individuals		39	38	1
Other loans and mortgages		128	124	4
Insurance and intermediaries receivables		7	9	-/- 2
Receivables (trade, not insurance)	D.1.2.5.	0	0	0
Cash and cash equivalents	D.1.2.6.	41	41	0
Any other assets, not elsewhere shown		0	0	0
Total assets		1,988	1,982	6

### D.1.1. Solvency II valuation

In this paragraph the valuation under Solvency II is described per main asset class. Where the valuation method or classification differs between IFRS and Solvency II, a qualitative and quantitative explanation is provided by asset category.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset). A fair value measurement assumes that the transaction to sell the asset takes place:

- a. in the principal market for the asset; or
- b. in the absence of a principal market, in the most advantageous market for the asset.

Aegon Spaarkas uses the following hierarchy for measuring and disclosing the fair value of assets:

- Level I: quoted prices (unadjusted) in active markets for identical assets that Aegon Spaarkas can access at the measurement date;
- **Level II:** inputs other than quoted prices included within Level I that are observable for the asset, either directly (that is, as prices) or indirectly (that is, derived from prices of identical or similar assets) using valuation techniques for which all significant inputs are based on observable market data; and
- Level III: inputs for the asset that are not based on observable market data (that is, unobservable inputs) using valuation techniques for which any significant input is not based on observable market data.

C. Risk profile

The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active or quoted market prices are not available, a valuation technique is used.

The degree of judgment used in measuring the fair value of assets generally negatively correlates with the level of observable valuation inputs. Aegon Spaarkas maximizes the use of observable inputs and minimizes the use of unobservable valuation inputs when measuring fair value. Financial instruments, for example, with quoted prices in active markets, generally have more pricing observability and therefore less judgment has to be used in measuring fair value. Conversely, financial instruments for which no quoted prices are available have less observability and are measured at fair value using valuation models or other pricing techniques that require more judgment.

The asset categorization within the fair value hierarchy is based on the lowest level that is significant to the fair value measurement.

The evaluation as to whether a market is active may include, although not necessarily limited to lower transaction volumes, reduced transaction sizes and, in some cases, no observable trading activity for short periods. In inactive markets, assurance is obtained that the transaction price provides evidence of fair value or determined that the adjustments to transaction prices are necessary to measure the fair value of the instrument.

The majority of valuation techniques employ only observable market data, ensuring high reliability of the fair value measurements. However, certain assets are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable and, for such assets, the derivation of fair value is more judgmental. An instrument is classified in its entirety and valued using significant unobservable inputs (Level III) if a significant portion of the instrument's carrying amount is driven by unobservable inputs. "Unobservable" in this context means that there is little or no current market data available from which to determine the price at which a transaction at arm's length would be likely to occur. It generally does not mean that there is no market data available at all upon which to base a determination of fair value. The use of different methodologies or assumptions to determine the fair value of certain instruments (both financial and non-financial) could result in a different estimate of fair value at the reporting date.

To operationalize the fair value hierarchy of Aegon Spaarkas, individual instruments (both financial and non-financial) are assigned a fair value level based primarily on the type of instrument and the source of the prices (e.g. index, third-party pricing service, broker, internally modelled). Periodically, this logic for assigning fair value levels is reviewed to determine if any modifications are necessary in the context of the current market environment.

# D.1.2. Differences between Solvency II and IFRS valuation per asset class

In this section of the report, the valuation bases under Solvency II and IFRS of the main asset classes and the reconciliation are discussed. The value of the assets is disclosed in the balance sheet at the beginning of Chapter D.

# D.1.2.1.Investments (other than assets held for index-linked and unit-linked funds)

If financial assets are valued at amortized cost under IFRS, insurers will need to convert them to fair value under Solvency II. This requirement is particularly relevant for financial instruments that are classified as held-to-maturity or Loans and receivables under IAS39. The fair value measurement is applicable.

The Solvency II balance sheet contains an investment position of  $\notin$  133 million. The IFRS balance sheet contains an investment position of  $\notin$  132 million.

General account investments of Aegon Spaarkas comprise financial assets excluding derivatives .

#### Financial assets, excluding derivatives

Financial assets excluding derivatives are recognized on the trade date when Aegon Spaarkas becomes a party to the contractual provisions of the instrument. They are classified for accounting purposes depending on the characteristics of the instruments and the purpose for which they were purchased.

#### Classification

The following financial assets are measured at fair value through profit or loss: 1) financial assets held for trading; 2) financial assets managed on a fair value basis in accordance with the investment strategy of Aegon Spaarkas; and 3) financial assets containing an embedded derivative that is not closely related and that cannot be reliably bifurcated. In addition, in certain instances, Aegon Spaarkas designates financial assets to this category when by doing so a potential accounting mismatch in the financial statements is eliminated or significantly reduced.

Financial assets with fixed or determinable payments, that are not quoted in an active market and that Aegon Spaarkas does not intend to sell in the near future, are classified as loans. Those for which the holder may not recover substantially all of its initial investment, for other reasons than credit deterioration, are accounted for as available-for-sale

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

All remaining non-derivative financial assets are classified as available-for-sale.

### Measurement

Financial assets are initially recognized at fair value excluding interest accrued to date plus, in the case of a financial asset not at fair value through profit or loss, any directly attributable incremental transaction costs.

Loans and financial assets held-to-maturity are subsequently carried at amortized cost using the effective interest rate method. Financial assets at fair value through profit or loss are measured at fair value with all changes in fair value recognized in the income statement as incurred. Available-for-sale assets are recorded at fair value with unrealized changes in fair value recognized in other comprehensive income. Financial assets that are designated as hedged items are measured in accordance with the requirements for hedge accounting.

The effective interest rate method is a method of calculating the amortized cost and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the debt instrument or, when appropriate, a shorter period to the net carrying amount of the instrument. When calculating the effective interest rate, all contractual terms are considered. Possible future credit losses are not taken into account. Charges and interest paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts are included in the calculation.

### Amortized cost

The amortized cost of a debt instrument is the amount at which it is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization of any difference between the initial amount and the maturity amount and minus any reduction for impairment.

#### Fair value

The financial statements provide information on the fair value of all financial assets, including those carried at amortized cost where the fair values are provided in the notes to the financial statements.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). For quoted financial assets for which there is an active market, the fair value is the bid price at the balance sheet date. In the absence of an active market, fair value is estimated by using present value based on other valuation techniques. Where discounting techniques are applied, the discount rate is based on current market rates applicable to financial instruments with similar characteristics. The valuation techniques that include unobservable inputs can result in a different outcome than the actual transaction price at which the asset was acquired. Such differences are not recognized in the income statement immediately but are deferred. They are released over time to the income statement in line with the change in factors (including time) that market participants would consider in setting a price for the asset. Interest accrued to date is not included in the fair value of the financial asset.

#### Derecognition

A financial asset is derecognized when the contractual rights to the asset's cash flows expire and when Aegon Spaarkas retains the right to receive cash flows from the asset or has an obligation to pay received cash flows in full without delay to a third party and either has transferred the asset and substantially all the risks and rewards of ownership, or has neither transferred nor retained all the risks and rewards but has transferred control of the asset.

Financial assets of which Aegon Spaarkas has neither transferred nor retained significantly all the risk and rewards are recognized to the extent of Aegon Spaarkas' continuing involvement. If significantly all risks are retained, the assets are not derecognized.

On derecognition, the difference between the proceeds from disposal and the carrying amount is recognized in the income statement as a realized gain or loss. Any cumulative unrealized gain or loss previously recognized in the revaluation reserve in shareholders' equity is also recognized in the income statement.

#### Collateral

With the exception of cash collateral, assets received as collateral are not separately recognized as an asset until the financial asset they secure defaults. When cash collateral is recognized, a liability is recorded for the same amount.

# D.1.2.2. Bonds

Solvency II and the IFRS balance sheet both measure bonds at fair value. The Solvency II balance sheet contains a bonds position of € 133 million. The IFRS balance sheet contains a bonds position of € 132 million. The Solvency II balance sheet is € 1 million higher due to the reclassification of accrued interest from Any other assets.

#### D.1.2.3. Derivatives

Solvency II and the IFRS balance sheet both measure derivatives at fair value. The derivatives position is not material,  $\notin$  0.5 million on both balance sheets.

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

## D.1.2.4. Assets held for index-linked and unit-linked contracts

IFRS does not distinguish between index-linked and/or unit-linked funds. Investments held for account of policyholders consist of investments in financial assets, as well as investments in real estate. Investment return on these assets is passed on to the policyholders. Also included are the assets held by consolidated investment funds which are backing liabilities towards third parties. Investments for account of policyholders are valued at fair value through profit or loss.

The difference between the Solvency II balance sheet and the IFRS balance sheet is not material.

## D.1.2.5. Loans and mortgages

Loans and mortgages are measured at amortized cost in the financial statements. Under Solvency II, fair value measurement is required.

#### Mortgages

The valuation methodology for Aegon Spaarkas is the same as applied for entities within Aegon Nederland. The methodology for mortgages follows the following steps:

- 1. Projection of future cash flows of mortgage loans;
- 2. Determination of the interest rate curve to use for discounting;
- 3. Net present value calculation.

In this approach, cash flows for each mortgage loan part in Aegon Spaarkas' portfolio are projected separately, based on product characteristics, mortgage rates and interest reset dates. Aegon's methodology recognizes four mortgage cash flow profile types, being: Interest only, Annuity, Linear and Savings mortgages.

Cash flows are adjusted for expected early repayments (also known as prepayments). The rate of early repayments is based on a historical analysis and assessment of market circumstances.

The interest rate curve used for discounting is determined by applying a spread over the risk free yield curve, which is constant over the maturity of the term structure. The spread for each mortgage loan part is dependent on the Loan to Value and remaining time until the next interest reset date.

The spread is derived from the most recent, most competitive consumer mortgage rates observed in the market, after deduction of a 'Margin Earned', which serves to cover the expenses of originating and servicing the mortgage portfolio. The consumer rate minus the Margin Earned reflects the yield that an external investor would be able to obtain when investing in mortgage loans. This method of obtaining the spread is also known as a top-down approach. The prevailing consumer rate is determined as the single average of the mortgage rates offered by the top three providers in the market (not including Aegon affiliated entities) for a particular Loan to Value and duration.

For the purpose of valuation, it is assumed that each mortgage will be redeemed at the next interest reset date of that mortgage. This is the date at which the mortgage provider can reset the interest rate and the mortgagee can terminate the contract without a penalty.

The assumption that all mortgages will be terminated at the first interest reset date will, generally speaking, lead to some degree of underestimation of the value of a portfolio. As interest rates can be set or reset to a profitable level at the interest reset date, profits occurring after this date are not included in the valuation. This assumption is made nonetheless, as mortgagees do not have a contractual obligation to continue their mortgage after the interest reset date and can exit without a penalty.

The estimated rate of repayment is compared annually against actual repayment rates for verification, and the prepayment rate in the valuation is updated accordingly.

Prevailing consumer rates are collected by an external party on a weekly basis. The mortgage valuation spreads are updated monthly on the basis of the latest consumer rates.

The Margin Earned, which is deducted from the consumer rate to derive the discount rate, is benchmarked against mortgage portfolio transactions conducted by Aegon Asset Management as well as other transactions. The margin is verified annually on the basis of the most recently completed transactions.

The valuation of the mortgage portfolio is based on a number of factors that are not known precisely or may change over time, creating a degree of uncertainty. Main uncertainties relate to the rate of early repayments, and the dependence of the valuation on mortgage rates offered by other providers in the market.

#### Loans

Fair value measurement of loans on policies, IC loans and other loans on the Solvency II balance sheet is based on amortized cost measurement on the IFRS balance sheet. The fair value of floating interest rate mortgage loans, policy loans and private placements used for disclosure purposes is assumed to be approximated by their carrying amount, adjusted for changes in credit risk. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

D. Valuation for Solvency Purposes E. Capital Management

# Reconciliation difference IFRS to Solvency II: Adjustments of Loans and Mortgages

The difference between Solvency II balance sheet and statutory balance sheet is  ${\bf \xi}$  6 million.

### D.1.2.6. Cash and cash equivalents

The fair value of assets maturing within a year is assumed to be approximated by their carrying amount adjusted for credit risk where appropriate. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

Solvency II balance sheet cash and cash equivalents position of  $\notin$  41 million is equal to the IFRS position.

## D.1.2.7. Any other assets, not elsewhere shown

Both the Solvency II balance sheet and the IFRS balance sheet show no any other assets.

D. Valuation for Solvency Purposes

# **D.2. Technical provisions**

# D.2.1. Technical provisions analyzed by each material line of business

The table below shows the Solvency II and IFRS (statutory) liabilities at year-end 2019 (in € million).

Liabilities	Section	Solvency II value	Statutory accounts value	Difference
Technical provisions - life (excluding index-linked and unit- linked)		0	0	0
Technical provisions - life (excluding health and in- dex-linked and unit-linked)		0	0	0
Insurance with profit participation		0		
Best estimate life with options and guarantees		0		
Best estimate life without options and guarantees		0		
Risk margin life		0		
Technical provisions - index-linked and unit-linked	D.2.	1,634	1,696	-/- 61
Best estimate index-linked and unit-linked with options and guarantees		272		
Best estimate index-linked and unit-linked without options and guarantees		1,345		
Risk margin index-linked and unit-linked		17		

The provisions are split in 'Technical provisions - Life' and 'Technical provisions - index-linked and unit-linked' and further in provisions with profit participation, with options and guarantees and without options and guarantees.

For Solvency II the default valuation approach is to use market prices whenever available. If these prices are not available, alternative valuation methods can be applied. As no active market for insurance liabilities exists, Spaarkas calculates the Solvency II provisions as the sum of the probability weighted average of future cash flows, the time value of options and guarantees and the risk margin.

The calculation of the best estimate liability is on a policy by policy basis, using a market consistent basis and current risk-free rate as prescribed by EIOPA and including indirect overhead expenses. Scaling is applied if products are not modelled and when data are incomplete or not available at all.

For products that include options and/or guarantees, the fair value of the options and guarantees is taken into account. These provisions are calculated separately on a stochastic basis, taking into account risk and volatility. The provisions for options and guarantees are calculated using model points.

Aegon Spaarkas determines homogeneous risk groups in such a way that the risk groups are stable over time. The following criteria are taken into account in determining the homogeneous risk groups:

- Underwriting criteria;
- Claims pattern;
- Risk profile;
- Specific product features; and
- Administrative unit (Own account Aegon Spaarkas or risk policyholder).

Based on the features described above, Aegon Spaarkas has split the portfolio into three homogenous risk groups.

Aegon Spaarkas does not offer products with profit participation where the policyholder participates in the profit of the firm. All profit sharing is in the form of index or unit-linked.

The total technical provisions index-linked and unit-linked include the fund values of the underlying insurances ( $\notin$  1,611 million) and the guarantee provisions for products where the premiums are invested in funds with a guaranteed return ( $\notin$  6 million).

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

### **Discounted Best Estimate Cash Flows**

Cash flows are projected on a best estimate basis, i.e. as a probability weighted average taking into account all uncertainties affecting these cash flows. The cash flows are split in claims, expenses and premiums and are based on specific product characteristics.

The main assumptions used to derive the discounted best estimate cash flows are set by Spaarkas, are updated annually and are approved by management. The underwriting assumptions are the following:

- Mortality;
- Policy holder behavior; and
- Expenses.

Below we discuss the drivers for the calculation of the market value of liabilities.

#### Mortality rates

Mortality rate tables applied are generally developed based on a blend of company experience and industry wide studies, taking into consideration product characteristics, own risk selection criteria, the insured population, mortality trend and past experience. Mortality experience is monitored through regular studies, the results of which are fed into the pricing cycle for new products and reflected in the liability calculations when appropriate.

#### Cancellation Rates / Policyholder behavior

Aegon Spaarkas is exposed to considerable potential financial impact from changes in the value of its liabilities caused by policy cancellations. Cancellation rates depend on product features, policy duration and external circumstances such as the interest rate environment and competitor and policyholder behavior.

Policyholder behavior can be reflected in several ways, depending on the product and policy agreements:

- Full or partial surrender or termination;
- Policy conversion (fund switching, reduce or reverse paid up status); and
- Utilization of policyholder fund allocation privileges.

Adverse changes in underlying risk drivers will affect Aegon Spaarkas' ability to meet business objectives and in particular to ensure business continuity. Reliable own experience, as well as available industry wide data, are used in establishing assumptions.

#### Expenses

The cost base for the determination of the maintenance expenses allocated to the insurance contracts is determined at Aegon Spaarkas' level, using the results from the Activity Based Costing analyses. In such analyses, the expenses are determined per cost place for each business line and support units. The maintenance expenses allocated to the insurance contracts are transformed into expenses per policy, taking into account product/ contract features like type of contract or status (active, retired or inactive).

The cash flow projections for expenses are based on budget 2020 expense levels and take into account inflation in future periods. In addition, fixed expense levels are assumed in the long run and an outsourcing future management action is assumed based on certain thresholds.

#### Discounting

The cash flows are discounted using the Solvency II yield curve, including VA, UFR and a credit risk adjustment.

The risk-free yield curves used for the purposes of the Solvency II valuation are published by EIOPA for each relevant currency. The curves are determined by EIOPA using principles outlined in the Solvency II regulations.

The UFR is the risk free interest rate over a one year period that is expected to prevail after an extremely long period, i.e. after 60 years. It is used, in combination with market observed interest rates up to 20 years, to derive interest rates for maturities longer than 20 years.

EIOPA has set the current UFR at 3.90%. It is based on historically observed real interest rates in combination with long term inflation expectations.

For index-linked and unit-linked products the expected investment return is equal to de Solvency II yield curve. Expenses incurred and deducted in case of surrender or other charges (e.g. risk premiums and service fees) are also taken into account in the best estimate and discounted with the Solvency II yield curve.

Any guarantees given with respect to the performance of the funds are valued separately, as explained further below.

#### **Options & Guarantees**

A part of the Aegon Spaarkas portfolio contains guaranteed investment returns. When investing in a fund with a guarantee attached (mix or interest fund), the proportion of the policy invested in this fund will accumulate at a guaranteed rate of 3%, 3.6% or 4% (after deduction of asset management fees and before deduction of service fees). The accumulation rate varies by fund resulting in fund specific guarantees. The market value of the guarantee is calculated separately on a stochastic basis, taking into account risk and volatility.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

The market value contains an intrinsic as well as a time value. The basis curve to calculate the market value of the options and/ or guarantees is the Solvency II swap curve including UFR and VA. Market volatilities are used to create a scenario set for investment returns and interest rates. Market volatilities are derived from market prices of tradable financial instruments.

#### **Risk Margin**

The risk margin is to ensure that the value of technical provisions is equivalent to the amount that insurance undertakings would be expected to require in a take-over and to meet the insurance and reinsurance obligations. A Cost of Capital approach is applied to determine the value of the risk margin.

The risk margin captures the following risks:

- Underwriting risk;
- Credit risk with respect to reinsurance contracts, arrangements with special-purpose vehicles, intermediaries, policyholders and any other material exposures which are closely related to the insurance and reinsurance liabilities; and
- Operational risk.

In order to calculate the risk margin, the SCRs for above mentioned risks for future years need to be determined. The expected SCR in future years is projected using the projected best estimate liability as "risk driver" and the SCR at reporting date as starting point. Aegon Spaarkas applies a cost of capital percentage of 6%, in accordance with the Delegated Acts. Note that the application of the risk driver is a simplification compared to recalculating the expected SCR in each point in time in the future. This simplification does not lead to a material misstatement of the risk margin.

#### **Contract boundaries**

According to Solvency II regulations, the valuation of insurance and reinsurance obligations should include obligations related to existing insurance and reinsurance business. Obligations related to future business should not be included in the valuation. Where insurance and reinsurance contracts include policyholder options to establish, renew, extend, increase or resume the insurance or reinsurance cover, or undertaking options to terminate the contract or amend premiums or benefits, a contract boundary should be defined to specify whether the additional cover arising from those options is regarded as existing or future business.

For the Aegon Spaarkas portfolio, the contract boundary is equal to the end date of the contract.

# D.2.2. Uncertainty associated with the value of technical provisions

The main source of uncertainty associated with the technical provisions is in the assumptions setting, where a significant level of judgment may be required about how future experience may differ from past experience. The assessment of uncertainty is addressed by sensitivity testing of key assumptions such that the governing body can understand how different choices would impact the technical provisions. Main uncertainties affecting the technical provisions of Aegon Spaarkas relate to mortality rates, cancellation rates and expense levels.

The risk margins relate to the cost of holding capital to allow for uncertainty around the best estimate assumptions and are included in the technical provisions as addition to the bestestimate liabilities.

Other sources of uncertainties are associated with scaling (applied to portfolio segments for which accurate portfolio data are incomplete or unavailable at all) and the applied UFR and VA.

# D.2.3. Differences between Solvency II valuation and local GAAP/IFRS valuation of Technical Provisions analyzed by each material line of business

Refer to table in chapter D.2.1 for the difference between the IFRS and Solvency II liabilities, split in life and index-linked and unitlinked. Below we describe the difference in the valuation basis for IFRS and Solvency II.

#### **IFRS** measurement

All Aegon Spaarkas' insurance products are classified as insurance contracts for account of policyholders. The IFRS liability for the insurance contracts for account of policyholders is measured at the policyholders account balance. In the case that guarantees are applicable, the fair value of the guarantee is not included in the technical provisions but is presented as a derivative liability. Contracts with unit-denominated payments are measured at current unit values, which reflects the fair values of the assets of the fund.

A liability adequacy test (IFRS LAT) is performed every reporting period. The IFRS LAT provision is calculated as the sum of the best estimate provisions, including a risk margin and provisions for options and guarantees. The measurement for IFRS LAT also includes provisioning for expected expenses and longevity. If the IFRS LAT shows a deficit, which is not the case at year-end 2019, the IFRS provisions will be set equal to the IFRS LAT provision.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

#### Differences between IFRS and Solvency II measurement

For details on the methodology and the underlying assumptions to calculate the Solvency II technical liabilities we refer to chapter D.2.1.

The difference between the IFRS liabilities (€ 1,696 million) and Solvency II liabilities (€ 1,634 million) for Aegon Spaarkas is, amongst others, that under Solvency II future fees are taken into account resulting in a lower Solvency II technical provision.

#### D.2.4. Matching adjustment

The Matching Adjustment is a mechanism that (partially) mitigates the impact of spread movements on the net balance sheet numbers, where assets and liabilities are cash flow matched. Aegon Spaarkas does not apply the Matching Adjustment.

#### D.2.5. Volatility adjustment (VA)

The Volatility Adjustment ('VA') is applied by Aegon Spaarkas and is equal to 7 basis points at year-end 2019. The VA aims to avoid pro-cyclical investment behavior of insurers when bond prices deteriorate due to low liquidity of bond markets or exceptional expansion of credit spreads. Removing the VA would lead to lower discount rates for calculating the technical provisions, which leads to higher technical provisions and thereby lower Own funds.

The impact of the application of the VA on the Solvency II ratio is as follows:

Solvency II Capital	Own funds	SCR	Ratio
Spaarkas 4Q 2019	186	47	395%
Spaarkas 4Q 2019 – no VA	186	47	393%

#### D.2.6. Transitional measures

Insurance undertakings may, subject to prior approval by the Supervisory Regulator, apply a transitional measure to the relevant risk free interest rate term structure to calculate the provisions or to apply a temporary deduction of the technical provisions (articles 308c and 308d of Directive 2009/138/EC). Aegon Spaarkas decided not to apply transitional measures.

# D.2.7. Recoverables from reinsurance contracts and special purpose vehicles

At the end of 2019 Aegon Spaarkas has no active reinsurance contracts.

# D.2.8 Material changes in the relevant assumptions made in the calculation of technical provisions compared to the previous reporting period

In total the technical provisions increased during 2019 by  $\in$  84 million. The main driver is the economic variance, which results in an increase of  $\in$  319 million. This increase is offset by the decrease of the unwind of the best estimate as the result of portfolio developments during 2019, resulting in a decrease of  $\in$  235 million.

Model and assumption changes resulted in a decrease of the provisions by  $\notin$  7 million.

D. Valuation for Solvency Purposes

# **D.3. Other liabilities**

The break-out in table below shows the value of the other liabilities by material liability class under Solvency II and IFRS.

Table: Balance Sheet (in € million)

Liabilities	Section	Solvency II value	Statutory accounts value	Delta
Deferred tax liabilities	D.3.1.1.	17	1	16
Derivatives	D.3.1.2.	0	6	-/- 6
Insurance & intermediaries payables	D.3.1.3.	39	46	7
Payables (trade, not insurance)	D.3.1.4.	6	0	6

# D.3.1. Solvency II valuation for each material class of other liabilities

In this paragraph the valuation under Solvency II is described per material other liability class. Where the valuation method or classification differs between IFRS and Solvency II, a qualitative and quantitative explanation is provided per other liability category.

In accordance with Solvency II regulation, amounts are based on fair value. To assure consistency with annual reporting, fair value under IFRS and market value under Solvency II are the same.

#### D.3.1.1. Deferred tax liabilities

Solvency II methodology for the calculation of deferred taxes follows the provisions of IAS 12 in the financial statements. Deferred tax assets and liabilities are recognized for the estimated future tax effects of temporary differences between the carrying value of an item and its tax value, with the exception of differences arising from the initial recognition of goodwill and of assets and liabilities that do not impact taxable or accounting profits.

Deferred tax assets and liabilities are reviewed at the balance sheet date and are measured at tax rates that are expected to apply when the asset is realized or the liability is settled. Since there is no absolute assurance that these assets will ultimately be realized, management reviews Aegon Spaarkas' deferred tax positions periodically to determine if it is probable that the assets will be realized. Periodic reviews include, among other things, the nature and amount of the taxable income and deductible expenses, the expected timing when certain assets will be used or liabilities will be required to be reported and the reliability of historical profitability of businesses expected to provide future earnings. Furthermore, management considers tax-planning strategies it can utilize to increase the likelihood that the tax assets will be realized. These strategies are also considered in the periodic reviews. The carrying amount is not discounted and reflects the expectations of Aegon Spaarkas concerning the manner of recovery or settlement.

#### Reconciliation difference IFRS to Solvency II

IFRS to Solvency II reconciliation of deferred tax items should comprise of DTA and DTL adjustments reflecting the tax impact of all the individual revaluations processed for all components of the balance sheet. This item is captured under Revaluation Adjustments below, and in cases, where the sum of all above adjustments results in a DTA or DTL changing their sign to negative – effectively becoming DTL and DTA, respectively – additional reclassification is required to move the new balance to the correct – opposite – side of the balance sheet. The Solvency II balance sheet contains a Deferred Tax Liability position of  $\notin$  17 million. The IFRS balance sheet contains a net Deferred Tax Liability position of  $\notin$  1 million.

The revaluation of the DTL ( $\notin$  16 million) from IFRS to Solvency II relates to the tax on the 'IFRS – Solvency II revaluation' of the Technical provisions.

The weighted average applicable statutory tax rate for Aegon Spaarkas in was 25% in 2019. In 2020 the applicable statutory tax rate is 22.25% and in 2021 and onwards will be 20.5%. The changes in the statutory tax rate have been taken into account in the (reversal of) deferred taxes.

#### D.3.1.2. Derivatives

The Solvency II and the IFRS balance sheet both measure derivatives at fair value. However, differences in classification exist. Under IFRS, the guarantee provisions of unit linked polices are classified as derivatives or 'Technical provisions – Life', since policyholders don't bear investment risk. Under Solvency II, the guarantee provisions related to unit linked policies are classified as 'Technical provisions – Index-linked and Unit-Linked', instead.

## D.3.1.3. Insurance and intermediaries payables

The fair value of liabilities maturing within a year is assumed to be approximated by their carrying amount adjusted for credit risk where appropriate. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

D. Valuation for Solvency Purposes E. Capital Management

The Solvency II balance sheet position of  $\notin$  39 million is  $\notin$  6 million lower than the IFRS position. In the IFRS position the payables (see next section) are added to the insurance and intermediaries payables.

#### D.3.1.4. Payables (trade, not insurance)

The fair value of liabilities maturing within a year is assumed to be approximated by their carrying amount adjusted for credit risk where appropriate. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

The Solvency II balance sheet position amounts to  $\in$  6 million, while the IFRS position is zero, as explained in the previous section.

# **D.4. Alternative methods of valuation**

The valuation methodology for mortgage loans includes the following procedures:

- I Projection of future cash flows of mortgages loans;
- II Determination of the interest rate curve to use for discounting; and
- III Net present value (NPV) calculation.

In this approach, cash flows for each mortgage loan part in Aegon's portfolio are projected separately, based on product characteristics, mortgage rates and interest reset dates. Aegon's methodology recognizes four mortgage cash flow profile types, being: Interest only, Annuity, Linear and Savings mortgages. Cash flows are adjusted for expected early repayments (also known as prepayments). The rate of early repayments follows from a model calibrated with historical data. Cash flows of non-performing loans are adjusted based on their estimated probability of default and loss given default.

The interest rate curve used for discounting is determined by applying a spread curve over the risk free yield curve, which varies over the maturity of the term structure. The spread curve applicable to each mortgage loan part is dependent on the Loan to Value and remaining time until the next interest reset date.

The spread is derived from the most recent, most competitive consumer mortgage rates observed in the market, after deduction of a 'Margin Earned', which serves to cover the risks and expenses of originating the mortgage portfolio. The consumer rate minus the Margin Earned reflects the yield that an external investor would be able to obtain when investing in mortgage loans. The method described above for obtaining the spread is also known as a top-down approach. The prevailing consumer rate is determined as the single average of the mortgage rates offered by the top three providers in the market after filtering for representative mortgage products (not including Aegon affiliated entities), for a particular Loan to Value and duration.

For the purpose of valuation, it is assumed that each mortgage will be redeemed at the next interest reset date of that mortgage, i.e. at the date at which the mortgage provider can reset the interest rate and the mortgagee can terminate the contract without a penalty. The assumption that all mortgages will be terminated at the first interest reset date will, generally speaking, lead to some degree of underestimation of the value of a portfolio. As interest rates can be set or reset to a profitable level at the interest reset date, profits occurring after this date are not included in the valuation. This assumption is made nonetheless, as mortgagees do not have a contractual obligation to continue their mortgage after the interest reset date and can exit without a penalty.

The estimated rate of prepayment is compared annually against actual prepayment rates for verification, and the prepayment rate in the valuation is updated accordingly. Prevailing consumer rates are collected by an external party on a weekly basis. The mortgage valuation spreads are updated monthly on the basis of the latest consumer rates.

The Margin Earned, which is deducted from the consumer rate to derive the discount rate, is benchmarked against mortgage fund fees of Aegon Asset Management. The margin is verified annually on the basis of the most recent data.

The valuation of the mortgage portfolio is based on a number of factors that are not known precisely or may change over time, creating a degree of uncertainty. Main uncertainties relate to the rate of early repayments, and the dependence of the valuation on mortgage rates offered by other providers in the market.

#### Loans

Fair value of private loans is based on an internal valuation model. On a monthly basis, the Dutch government curve and additional spreads are received and used as input for matrix pricing. The curves per sector are uploaded into the system. Based on private loan characteristics and classifications, the system selects the appropriate curve and yield per security. Via the net present value ("NPV") component combining yields and security cash flow the system calculates prices via interpolation where bid, mid and ask are populated with the same price.

D. Valuation for Solvency Purposes

### **D.5.** Any other information

Aegon Spaarkas is involved in litigation in the ordinary course of business, including litigation where compensatory or punitive damages and mass or class relief are sought. In September 2014, consumer interest group Vereniging Woekerpolis.nl filed a claim against Aegon Spaarkas in court. The claim related to a range of unit-linked products that Aegon sold in the past, including products over which Aegon was involved in litigation in the past, like the KoersPlan product. While the number of products to which the claim may relate was reduced by the court in its interlocutory ruling of October 28, 2016, it still concerns the majority of Aegon's unit-linked portfolio. The claim challenges a variety of elements of these products, on multiple legal grounds, including allegations made in earlier court cases. In June 2017 (and revised in December 2017), the court issued its verdict which upheld the principle that disclosures must be evaluated according to the standards at the time when the relevant products were placed in-force. Most of the claims of Vereniging Woekerpolis.nl were dismissed under this standard, although the court found that Aegon did not adequately disclose certain charges on a limited set of policies. The court did not give a judgement about the reasonableness of the cost levels and whether the previous compensation arrangements provide sufficient compensation. This court decision has been appealed by both parties. Aegon expects the claims and litigation on unit-linked policies to continue for the foreseeable future. Developments in similar cases against other Dutch insurers currently before regulators, KIFID and courts may also affect Aegon. These matters will be defended vigorously; however, at this time, due to the nature and the type of claims, it is not practicable for Aegon to quantify a range or maximum liability or the timing of the financial impact, if any. There can be no assurance that such claims may not have a material adverse effect on Aegon's results of operations or financial position.

All relevant information is covered in the previous sections.

D. Valuation for Solvency Purposes

# E. Capital Management

# E.1 Own funds

#### E.1.1. Objective, policies and processes for managing Own funds

#### Objective and policies

The capital and risk strategy for Aegon Spaarkas is aligned with the Aegon Group risk strategy. The principles laid out in the Group risk strategy form the foundation for limit and appetite setting in the Aegon Nederland capital management policy.

Under the Aegon Nederland capital management policy, a level of additional capital is targeted such that the company can withstand plausible risk events and still meet its regulatory capital requirements. Where capital coverage is in excess of the upper end of this range, the expectation is that it provides opportunity for accelerated investment in its growth strategy or payment of a dividend to the shareholder. Where coverage is below the lowerend of this range, it would become necessary to develop plans to strengthen the capital position back to within the target range over a limited period of time.

The policy contains statements on risk appetite and limits that are in place for each type of risk, the desired and minimum level of Own funds, as well as the escalation procedures (including governance processes) in case limits are breached. Projections of Own funds and required capital are made as part of the Budget / Medium Term Plan and ORSA. These longer term projections are also taken into account in dividend assessments. The projections consider regular, mildly adverse as well as extreme scenarios, in order to ascertain that Spaarkas is able to fulfil its obligations to policyholders in these scenarios.

### Key figures

Eligible Own funds of Aegon Spaarkas equaled 395% of the SCR at year-end 2019. This ratio being greater than 100%, evidences Aegon Spaarkas' ability to meet policyholder obligations when they fall due, even under stressed conditions.

The bottom-end of the capitalization target range for the Solvency II ratio (Eligible own funds divided by SCR) of Aegon Spaarkas is set by the company's Executive Board at 155%. The current capitalization of Aegon Spaarkas is well above this bottom-end.

#### E.1.2. Own Funds – Quality & Amounts

Own funds are classified into different tiers, indicating their quality and availability to fully absorb losses. Total Own funds of Aegon Spaarkas only includes Unrestricted Tier 1 capital. Under the Solvency II regime, Own funds are split into the tiers as shown in the table below.

Tier 1			Tier 2		Tier 3	
Un	restricted Tier 1	•	Dated or perpetual	•	Dated or perpetual	
• Re:	Equity (Share capital and share premium) Reconciliation Reserve stricted Tier 1 Perpetual subordinated capital instruments	•	<ul> <li>Subordinated capital instruments</li> <li>With an original maturity of at least 10 years</li> <li>Limited loss absorption</li> <li>With suspension of payments and deferral of interest</li> </ul>	•	<ul> <li>Subordinated capital instruments</li> <li>With an original maturity of at least 5 years</li> <li>Limited loss absorption</li> <li>With suspension of payments and deferral of interest</li> </ul>	
	with loss absorption			•	Net deferred tax assets	

Executive summary	A. Business and	B. System of governance	C. Risk profile	D. Valuation for	E. Capital Management
	Performance			Solvency Purposes	

An overview of own fund components including an allocation by tier is given below.

	2019	2018
Unrestricted Tier 1 – before adjustments	290	320
Non-available	-/- 105	-/- 100
Tier 2	0	0
Tier 3	0	0
Total eligible Own funds to meet the SCR	186	220

The components of the Own funds of Aegon Spaarkas are described below:

Element of Own funds Description Tier 1 capital: consists of ordinary The Reconciliation Reserve is determined as the excess of assets over liabilities minus the

shares. share premium and are no obligations to redeem these maturity date applies

ordinary share capital and share premium account related to ordinary share capital. As reconciliation reserve, which are fully mentioned in in the table below, the Reconciliation Reserve amounts to approximately € 290 available without restrictions. There million and as such, is the dominant component of the Own funds. It originates mostly from earnings accumulated in previous years, which have not been distributed to shareholders. A own fund items at any time, hence no downwards adjustment to total capital amounts to € 105 million for non-available items. This restriction relates to intercompany loan between Aegon Nederland and Aegon Spaarkas.

# E.1.2.1 Detailed breakdown eligible amount of Own funds to cover the Solvency Capital Requirement and Minimum Capital Required

Eligible Own funds to meet SCR of Aegon Spaarkas amounts to € 186 million. This is shown in below mentioned table:

	Total Tier	U-Tier 1	Tier 2	Tier 3
Ordinary share capital- gross of own share	1	1		
Share premium account related to ordinary share capital	0	0		
Reconciliation reserve	289	289		
Subordinated liabilities	0		0	
Deferred tax assets	0			0
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II Own funds	-/- 105	-/- 105		
Eligible Own funds to meet SCR	186	186		0

# Eligible Own funds to meet SCR and MCR

There is no capital loss or capital overflow after applying capital restrictions as all capital is unrestricted Tier 1 for both SCR and MCR coverage.

# E.1.3. Difference between equity as shown in the financial statements and the Solvency II value excess of assets over liabilities

The below mentioned graph shows the reconciliation between statutory IFRS equity and Solvency II Own funds.



The main reason for the differences in valuation IFRS and Solvency II is the revaluation of liabilities in the amount of  $\in$  50 million, mainly related to technical provisions, which are valued using different economic and non-economic assumptions in both frameworks. The revaluation of assets in the amount of  $\notin$  6 million mainly reflects the mortgages and private loans held for index-linked and unit-linked insurance contracts, which are valued at amortized cost under IFRS, but at market value under Solvency II. The amount of non-available funds relates to the intercompany loan Aegon Spaarkas has provided to Aegon Nederland.

A more extensive analysis on the Solvency II to IFRS reconciliation is given in Chapter D.

# E.2. Solvency Capital Requirement and Minimum Capital Requirement

### E.2.1. Solvency Capital Requirement

#### SCR methodology based on the Solvency II PIM

Aegon Spaarkas uses a Solvency II Partial Internal Model (PIM) to calculate the solvency position of its insurance activities under Solvency II. Aegon Spaarkas' internal model was approved by the College of Supervisors as part of the Internal Model Application Process. An internal model is in general a better representation of the actual risk since it contains Aegon Spaarkas' specific modelling and sensitivities as opposed to industry-wide approximations included in the Standard Formula methodology. The purpose of the internal model is to better reflect the actual risk profile of Aegon Spaarkas in the SCR. The most material risk types for Aegon Spaarkas are therefore covered by the internal model as part of the Solvency II PIM, and less material risk types and business units are covered by the Standard Formula part of the Solvency II PIM. Below is a visual representation of the structure of the internal model.

A. Business and Performance B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

Risk Class	QRT 5.25.02	Risk	Type Application	ı
Mismatch risk		Interest rate level	IM	
		Interest rate volatility	IM	
		Currency	SF	
	Market risk	Fixed income	IM & SF	
		Equity level	IM & SF	
Investment & Counterparty risk		Equity volatility	IM	
		Alternative investment	SF	
	Counterparty default risk	Counterparty	SF	
	Life Underwriting risk	Mortality Contagion	SF	
		Mortality Parameter	IM	
		Longevity Parameter	IM	
		Disability/morbidity	SF	
Underwriting risk		Persistency	IM & SF	
		Expense risk	SF	
	Health Underwriting risk	Health	n/a	
	Non-life Underwriting risk	P&C	SF	
Operational risk	Operational risk	Operational	SF	
Diversification	Aggregation		IM	
	PIM - integration		Integration technique 3	

For every risk factor, a marginal probability distribution function is fitted by making use of historical data and expert judgement. The overall joint probability distribution function of all the risk factors combined takes into account the dependency structure between the risks. The loss from 2 million scenarios simulating the samples from this joint distribution are used to fit an overall empirical loss distribution function, from which we derive the 1-200 loss by taking the 99.5% point.

Additional purposes for which Aegon Spaarkas uses the Solvency II PIM include:

- Quantification of risk exposures in order to set adequate capital buffers;
- Monitoring of these exposures against the stated risk appetite and risk tolerance;
- Product pricing, where the cost of capital has a significant impact on overall costs;
- Assessment of the value of new business sold, in particular the value of options and guarantees contained therein; and
- Budgeting of capital requirements, Dividend Policy & Contingency Planning.

The following risk types are modelled under the internal model component of the Solvency II PIM:

Within the Mismatch risk category:

• Interest rate risk and interest rate volatility risk.

Within the Investment and counterparty risk category:

- Regular equity risk excluding private equity;
- Equity volatility risk;
- Spread, default and migration risk for fixed income securities including mortgages, but excluding illiquid investments; and
- Property risk for the direct real estate investments intended for rentals.

Within the Underwriting risk category:

- Mortality and longevity risk; and
- Mortgage prepayment risk.

All risk types that are not covered by the internal model are covered under the Standard Formula component of the Solvency II PIM. The risk measure used in all components of the Solvency II PIM is the 99.5% value at risk applied over a one-year time horizon. The

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

Standard Formula SCRs and internal model SCRs are combined to calculate the Solvency II PIM SCR using Integration Technique 3 (IT3) as listed in annex XVIII.D of Commission Delegated Regulation (EU) 2015/35 (Delegated Acts).

# Diversification within the Solvency II PIM SCR

Under Solvency II PIM, Spaarkas calculates the diversification benefit across risk types. Within the Standard Formula components, diversification is determined following the prescribed correlation matrices.

Within the internal model components, diversification is calculated as follows: For each risk type, a worst case shock is calibrated at the 99.5% confidence level over a one-year time horizon. These shocks reflect the adverse value change of the assets and liabilities over the time horizon including the amounts paid during the one year time horizon, as well as the change in present value of cash flow projections at the end of the projected time horizon. The combination of these adverse value changes are the Own funds losses.

To calculate the total SCR and diversification, the Own funds losses are determined not only at the 99.5% confidence level of the risk types, but also at two million equally likely scenarios. This is a Monte Carlo simulation approach. These scenarios are generated using a scenario generator and a dependency structure, defining the dependency (correlation) between risk drivers based on market data and expert judgment. Each scenario contains values for risk drivers such as interest rates, equity returns and mortality levels.

In order to calculate the Own funds losses in all these scenarios, Aegon Spaarkas uses loss functions. These loss functions are fitted using full valuations at several points (percentiles) of the distribution of the applicable risk type. For each of the two million scenarios, the Own funds losses are summed over the risk types and business units under internal model to get the total Own funds loss in the scenario. By ordering these scenarios based on their aggregated losses, the 99.5 percentile of the losses is determined. The total net SCR (after diversification) is then determined by the average loss in Own funds of the 5,001 scenarios around the 99.5 percentile.

Diversification is defined as the difference between the sum of the standalone SCRs of the risk types and the total net SCR.

Diversification between the internal model and the Standard Formula components of the Solvency II PIM are calculated using Integration Technique 3 (IT3) in accordance with Solvency II regulation. IT3 describes how an implied linear correlation coefficient between the internal model and Standard Formula components is calculated. This correlation coefficient is then used to calculate the total Solvency II PIM SCR using a square root formula.

# Data quality

Aegon Spaarkas has implemented the Data Quality Policy of Aegon Group for the Solvency II reporting processes, including the required data directory and an explanation on the data criteria completeness, accurateness and appropriateness. Data used in the internal model originate from internal as well as external sources, for example:

- Policy Data level detailing characteristics and coverage of individual insureds;
- Data specifying the portfolio of assets, e.g. type of asset, amount, and maturity date; and
- Data from external sources such as population mortality tables and prices of traded securities.

The internal model design aims to make optimal use of all available data in the stages of model design and execution. An assessment of the appropriateness of data usage forms part of the model validation process.

# Composition of the SCR at year end 2018

Aegon Spaarkas Partial Internal Model SCR amounted to  $\notin$  47 million on December 31, 2019 (2018:  $\notin$  44 million). The overall SCR increased in 2019. This is mainly due to the model and assumption changes that have an impact on the underwriting risks. Mostly the lapse and expense risk are impacted by these changes.

The table below shows the breakdown of the Solvency II PIM SCR for Aegon Spaarkas at year-end 2019, as reported in QRT S.25.02:

Executive summary	A. Business and	B. System of governance	C. Risk profile	D. Valuation for	E. Capital Management
	Performance			Solvency Purposes	

Amounts in € million	Components description	2019	2018
	Market risk (SF)	1	1
C.2 Market risk	Market risk (IM)	25	26
C 3 Cradit rick	Counterparty default risk (SF)	1	4
C.5 Clean risk	Counterparty default risk (IM)	-	-
	Life underwriting risk (SF)	41	33
C.1 Underwriting risk	Life underwriting risk (IM)	2	2
	Health underwriting risk (SF)	-	-
	Health underwriting risk (IM)	-	-
	Non-life underwriting risk (SF)	-	-
	Non-life underwriting risk (IM)	-	-
	Operational risk (SF)	2	3
C.5 Operational fisk	Operational risk (IM)	-	-
E.2.1 Solvency Capital	Diversification (negative amount)	-/- 17	-/- 18
Requirement	LAC Deferred Taxes	-/- 9	-/- 8
	Total SCR	47	44

Diversification of  $\notin$  17 million shown in QRT S.25.02 includes the integration between the SF and IM parts of the PIM SCR and diversification between the risk categories, but does not include diversification within each risk component.

Diversification is observed within each of the QRT S.25.02 risk categories, mainly:

- Market Risk (MR) diversification, driven by diversification between spread and equity risk, as well as diversification between interest rate level and non-market risk types. Diversification benefits for interest rate level risk are relatively large as Aegon Spaarkas is exposed to an increase in interest rates, which has a low correlation with the spread widening scenarios. Diversification benefits for spread risks are relatively small as spread risk (exposure to spread widening) is the largest risk category for Aegon in terms of market risk SCR and therefore drive the aggregated Own funds losses in a 1-in-200 year event;
- Underwriting risks (UR) diversification benefits are driven by lapse risk which has a relatively low correlation with other underwriting risk types. Underwriting risks typically also have low correlations with market risk types, like spread risk, that drive the aggregated Own funds losses around the 99.5th percentile.

LAC DT is calculated after diversification and lowered the net PIM SCR by  $\in$  9 million (2018:  $\in$  8 million). Following agreement on the interpretation of DNB's guidance on the loss absorbing capacity of deferred taxes ("LAC DT"), Aegon has applied a LAC DT factor in the Netherlands of 75% as of December 31, 2019, unchanged from 2018, while the corporate tax rate was lowered to reflect the upcoming tax rate changes in 2020 and 2021. The LAC DT factor will be recalibrated on a quarterly basis using the agreed methodology.

The LAC DT factor is based on tax benefits of previous year fiscal profits (carry back), current year fiscal profits and potentially current deferred tax liabilities existing pre-shock in the base balance sheet. Furthermore, eligible future profits, including tax planning, are taken into account to underpin the tax recovery on SCR losses, which occur in the future.

#### E.2.2. Minimum Capital Requirement

The Minimum Capital Requirement has been determined as the sum of the following components, with a minimum of 25% and a maximum of 45% of the Solvency Capital Requirement, as stipulated in article 292(2)(g) of the Delegated Regulation:

Component MCR 2019	Charge	Capital at Risk	MCR (€ million)
Technical Provisions for index-linked and unit-linked insurance, exclud- ing the risk margin, net of reinsurance with a floor equal to zero	0.70%	1,617	11
Technical Provisions for all other life insurance, excluding the risk mar- gin, net of reinsurance with a floor equal to zero.	2.10%	0	0
Capital at Risk by policy summed over for all life insurance policies	0.07%	1,356	1
Total			12

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

As a comparison, the MCR on December 31, 2018 is shown below.

Component MCR 2018	Charge	Capital at Risk	MCR (€ million)
Technical Provisions for index-linked and unit-linked insurance, exclud- ing the risk margin, net of reinsurance with a floor equal to zero	0.70%	1,534	11
Technical Provisions for all other life insurance, excluding the risk mar- gin, net of reinsurance with a floor equal to zero.	2.10%	0	0
Capital at Risk by policy summed over for all life insurance policies	0.07%	1,501	1
Total			12

# E.3. Use of duration-based equity risk sub-module in the calculation of the Solvency

Aegon Spaarkas does not make use of the duration-based equity risk sub-module set out in article 304 of Directive 2009/138/EC for the calculation of the Standard Formula SCR.

# E.4. Differences between internal model and Standard Formula

The main differences between the methodologies and assumptions of the Solvency II PIM and the Standard Formula are discussed by risk type below.

### Market risk

The fixed income risk for bonds differs because Solvency II PIM shocks are calibrated on the basis of Aegon Spaarkas' fixed income portfolio. In contrast to the Standard Formula, government bonds are shocked with a factor larger than zero.

For mortgages, the Solvency II PIM contains a spread shock, while the Standard Formula implies a counterparty default risk shock.

Equity risk shocks are calibrated based on Aegon Spaarkas' own portfolio. In addition, the equity exposures are also shocked for equity volatility risks.

The Solvency II PIM results for interest rate risk differ from the Standard Formula results for the following reasons:

- The Standard Formula interest rate risk shock only considers a shift in the interest rate curve, whereas the Solvency II PIM does not only consider a shock for a parallel shift, but also for a flattening/steepening and twisting of the interest rate curve;
- The Solvency II PIM interest rate curve shocks are calibrated based on historical market data;

- The Solvency II PIM assumes that the Ultimate Forward Rate (UFR) does not change in a shock scenario, while the Standard Formula interest rate shock assumes that the whole curve moves, including the UFR;
- In addition, the Solvency II PIM includes a capital requirement for interest rate volatility risk.

## Underwriting risk

The Solvency II PIM for longevity and mortality risk differs from the Standard Formula as follows:

- The Solvency II PIM makes a distinction between a population mortality shock and an experience factor shock while the Standard Formula assumes a fixed decrease in all mortality rates; and
- The Solvency II PIM projects mortality rates by age and gender while the Standard Formula assumes the same shock for all ages and both genders.

For Aegon Spaarkas, the Solvency II PIM includes pre-payment (lapse) risk on the mortgage portfolio.

## Diversification

Diversification between the internal model and the Standard Formula components of the Solvency II PIM are calculated using IT3. IT3 describes how an implied linear correlation coefficient between the internal model and Standard Formula components is calculated. This correlation coefficient is then used to calculate the total Solvency II PIM SCR using a square root formula. The Standard Formula makes use of correlation matrices to calculate the diversifications by risk module and on total level. B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes

# E.5. Non-compliance with the Minimum Capital Requirement and non-compliance with the Solvency Capital Requirement

During 2019, no instances occurred in which the estimated Aegon Spaarkas solvency ratio was below the MCR and the SCR level. To ensure that Aegon Spaarkas maintains adequate solvency levels, actual and expected capital positions are monitored against capitalization zones that are defined in the Aegon NL Capital Management Policy. Several activities are performed to monitor and assess the future development of Aegon Spaarkas' solvency position, such as the annual Budget/Medium Term Plan process and periodic management reporting. Decisions to return capital to shareholders are based on solvency assessments that consider the impact of the decisions on the current and projected solvency position.

Any solvency position is subject to risks and Aegon Spaarkas therefore constantly monitors such risks. These are quantified to determine the impact on the current and the projected solvency position. The Capital Management policy provides actions that need to be performed as soon as the identified risks could cause the projected Solvency II ratio to fall within a particular capitalization zone.

# E.6. Any other information

#### E.6.1. G-SII designation

On November 3, 2015, Aegon was designated by the Financial Stability Board (FSB) as a Global Systemically Important Insurer (G-SII), based on an assessment methodology developed by the International Association of Insurance Supervisors (IAIS). Up until 2019, the FSB reviewed the G-SII designation annually. However, the FSB, in consultation with the IAIS and national authorities, decided not to publish a new list of G-SIIs for 2017 or 2018. In November 2019, in recognition of the fact that the Holistic Framework (see below), consistently implemented, provides an enhanced approach to assessing and mitigating systemic risk in the global insurance sector, the FSB decided to suspend the identification of global systemically important insurers (G-SIIs). In November 2022, the FSB will, based on the initial years of implementation of the Holistic Framework, review the need to either discontinue or re-establish an annual identification of G-SIIs. Consequently, Aegon continues to be designated at the time of publication of this Solvency and Financial Condition Report. Due to its G-SII status, Aegon has been subject to an additional layer of direct supervision at group level. In accordance with these requirements. Aegon submitted a liquidity risk management plan, a systemic risk management plan, and an ex ante recovery plan to DNB and to the G-SII crisis management group (CMG) that was established. Aegon has updated these plans on an annual basis. In addition, the Aegon Group's Resolution Authority (the Dutch Central Bank) was made responsible for the development of Aegon's resolution plan.

In November 2019, the IAIS adopted the Holistic Framework for the assessment and mitigation of systemic risk in the insurance sector. Some of the provisions of the Holistic Framework are included in the IAIS Insurance Core Principles (that apply to all insurers), while others are included in ComFrame (the Common Framework for the Supervision of Internationally Active Insurance Groups, or IAIGs). The Holistic Framework consists of an enhanced set of supervisory policy measures and powers of intervention, an annual IAIS global monitoring exercise and collective discussion on the outcomes and appropriate supervisory responses, and an assessment of consistent implementation of supervisorymeasures. ComFrame establishes supervisory standards and guidance focusing on the effective group-wide supervision of IAIGs. ComFrame is a comprehensive and outcome-focused framework that provides supervisory minimum requirements tailored to the international activity and size of IAIGs. ComFrame builds on the Insurance Core Principles that are applicable to the supervision of all insurers. If the FSB would, as referred to above, discontinue the annual identification of G-SIIs after the review of the Holistic Framework in November 2022 or, alternatively, Aegon would not be identified as a G-SII, Aegon would still be subject to ComFrame and ICS, to the extent these would be implemented in local legislation.

A. Business and Performance

B. System of governance

C. Risk profile

D. Valuation for Solvency Purposes E. Capital Management

# Glossary

**Collateral** is an asset pledged by a borrower to secure a loan and is subject to seizure in the case of default.

**Credit risk** is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss.

**Diversification** is the general concept of reducing the total risk of a portfolio of assets and/or liabilities by spreading it across a mix of different risk exposures. Risk reduction occurs due to the less than perfect correlation among the individual risk exposures in the portfolio, meaning risks will not materialize all at the same time.

**Financial risks** are risks of a possible future change in one or more of the following variables: a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index or prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable, that the variable is not specific to a party to the contract.

**Insurance contract** is 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.

**Insurance risk** is a risk, other than financial risk, transferred from the holder of a contract to the issuer.

**Interest rate risk** is a market risk, more specifically the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.

**Liquidity risk** is the risk that an entity will encounter difficulty in raising funds to meet commitments associated with financial instruments.

**Loss absorbing capacity of deferred taxes** is a loss compensating effect of taxes taken into account in the solvency capital requirement.

**Minimum capital requirement** is the absolute minimum level of capital an insurance company must hold in excess of its Technical Provisions under Solvency II.

**Operating expenses** are all expenses associated with selling and administrative activities (excluding commissions) after reallocation of claim handling expenses to benefits paid.

**Partial Internal Model** is a combination of a Standard Formula and Internal Model, used to calculate the Solvency II capital requirement.

**Policyholder** is a party that has a right to compensation under an insurance contract if an insured event occurs.

**Solvency II** is the fundamental reform of European insurance legislation.

**Solvency capital requirement** is the level of capital an insurance company must hold in excess of its Technical Provisions under Solvency II.

**Spread** is the difference between the current bid and the current ask or offer price of a given security.

**Standard Formula** is a risk-based approach to the calculation of an insurer's solvency capital requirement, prescribed by the regulator.

**Stochastic modeling** is a statistical process that uses probability and random variables to predict a range of probable investment performances.

**Transitional measures** allow EEA entities to gradually move to a full implementation of Solvency II over a period of time.

**Volatility adjustment** is a volatility adjustment to the discount rates for calculating technical provisions aiming at avoiding pro-cyclical investment behavior of insurers when bond prices deteriorate owing to low liquidity of bond markets or exceptional expansion of credit spreads. The adjustment has the effect of stabilizing the capital resources of insurers and will be calculated by EIOPA.

D. Valuation for Solvency Purposes

# Cautionary notes

### Intended use of the SFCR

This Solvency and Financial Condition Report is prepared and published in accordance with the requirements of the Solvency II regulations and EIOPA guidelines and follows a prescribed format. The Group SFCR is primarily prepared for prudential considerations, which includes informing policyholders and other beneficiaries of Aegon's insurance products. While the document is made available to the public in general and may be of interest to stakeholders such as investors in Aegon shares and other financial instruments, it is not specifically aimed at them.

# Statement pursuant to article 297 (2) of the Solvency II Delegated Regulation

The Netherlands, as a Member State, uses the option that the capital add-on or the impact of the specific parameters, that Aegon is required to use, do not need to be separately disclosed during a transitional period ending no later than December 31, 2020 (third subparagraph of Article 51(2) of Directive 2009/138/EC).