

AEGON NV  
Form 6-K  
June 19, 2018  
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**Securities and Exchange Commission**

**Washington, D.C. 20549**

**Form 6-K**

**Report of Foreign Issuer**

**Pursuant to Rule 13a-16 or 15d/16**

**of the Securities Exchange Act of 1934**

**June 2018**

**AEGON N.V.**

**Aegonplein 50**

**2591 TV THE HAGUE**

**The Netherlands**



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Aegon's 2017 Solvency and Financial Condition Report, dated June 11, 2018, are included as appendix and incorporated herein by reference.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AEGON N.V.  
(Registrant)

Date: June 19, 2018

By /s/ J.H.P.M. van Rossum  
J.H.P.M. van Rossum  
Head of Corporate Financial Center

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### 4 Introduction **Scope of the report**

#### **Scope of the report**

This report is Aegon N.V.'s Group Solvency and Financial Condition Report (SFCR) for the year 2017. This report informs Aegon N.V.'s stakeholders about its:

Business and performance;

System of governance;

Risk profile;

Valuation for solvency purposes; and

Capital management.

The material differences between the scope of Aegon Group used for the consolidated financial statements based on IFRS-EU and the scope of Aegon Group for the consolidated data determined in accordance with Article 335 of the Delegated Regulation Solvency II, are discussed in more detail 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 article 256 of the Solvency II Directive, articles 359–371 and 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).

Aegon N.V. is referred to in this document as Aegon, or the Company, and is together with its member companies referred to as Aegon Group or the Group. For such purposes member companies means, in relation to Aegon, those companies required to be consolidated in accordance with Solvency II requirements.

The figures reflecting monetary amounts in the SFCR are presented in euro (unless stated otherwise). Aegon 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).



Under Solvency II, Aegon uses a combination of method 1 (Accounting Consolidation) and method 2 (Deduction & Aggregation) for the calculation of the Solvency II Group Solvency. The Solvency II consolidated data (the data included in accordance with method 1) does not include the entities that are included in the Group Solvency calculation in accordance with method 2 (US Life insurance entities, Bermuda, Japan, Mexico and Brazil). Furthermore, joint ventures are partially consolidated under Solvency II, whereas joint ventures are not consolidated under IFRS. As part of method 1 under Solvency II, Other Financial Sector (OFS) entities are included as related undertakings based on local sectoral rules, whereas, when OFS are controlled entities, such are consolidated under IFRS.

The consolidation under Solvency II is set out in more detail in chapter D. Valuation for solvency purposes and E. Capital management of the SFCR.

The 2017 SFCR of Aegon Group has been prepared and disclosed under the responsibility of the Executive Board. This document was approved on 11 June 2018 by Aegon's Executive Board.

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### 5 Introduction **Summary**

#### **Summary**

The 2017 Solvency Financial Condition Report provides Aegon's stakeholders insight in:

#### **A. Business and performance**

Aegon is an international life insurance, pensions and asset management group. Its listed holding company, Aegon N.V., is a public limited liability company with its corporate seat and head office in the Netherlands.

Through its subsidiaries and joint ventures, Aegon employs over 28,000 people worldwide. Aegon's common shares are listed on stock exchanges in Amsterdam (Euronext) and New York (NYSE). Aegon's main operating units are separate legal entities that operate under the laws of their respective countries. The shares of these legal entities are directly or indirectly held by three intermediate holding companies incorporated under Dutch law: Aegon Europe Holding B.V., the holding company for all European activities; Aegon International B.V., which serves as a holding company for the Aegon Group companies of all non-European countries; and Aegon Asset Management Holding B.V., the holding company for a number of its asset management entities. Aegon has the following operating segments: the Americas, which includes the United States, Mexico and Brazil; the Netherlands; the United Kingdom; Central

& Eastern Europe; Spain & Portugal; Asia and Aegon Asset Management. The separate operating segments of the Netherlands, the United Kingdom, Central & Eastern Europe and Spain & Portugal may be referred together as Europe, although Europe is not an operating segment.

Aegon exists to help people achieve a lifetime of financial security. It uses a multi-brand, multichannel distribution approach to meet its customers' needs, and fosters an entrepreneurial spirit within its businesses, encouraging the development of innovative products and services.

Aegon's business model focuses on the following items:

**Products & Services:** Aegon begins with the customer. Aegon assesses the customer's needs, price risk and develop products and services that fit with those needs. Aegon's products and services are then branded and marketed.

**Distribution:** Some of Aegon's products and services are sold directly to customers. Aegon sells most, however, via intermediaries, including brokers, agents, banks and financial advisors.

**Asset Management:** In exchange, customers pay fees or regular premiums. On pensions, savings and investments, customers make deposits. Aegon invests the money received and, over time, work to increase value.

**Claims & Benefits:** From the returns Aegon makes, Aegon pays customer claims and benefits, and make profits for Aegon's shareholders. Customers also make regular withdrawals from pensions and savings products. For more information on Aegon's strategy, please see [Aegon's 2017 Review](#).

Key events in 2017:

In the first quarter Aegon became the UK's #1 investment platform after completing Aegon's acquisition of Cofunds and the worksite DC pensions business of Blackrock. This is aligned with Aegon's strategy to focus on fee-based business.

In the second quarter Aegon finalized the sale in the US of Aegon's payout annuity and BOLI/COLI businesses. These businesses had already been placed in run-off. This transaction is in line with Aegon's strategic objective of accelerating the release of capital allocated to these businesses and enhances the financial flexibility of the group.

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**6 Introduction Summary**

In the third quarter Aegon injected EUR 1 billion in capital into Aegon's Dutch business, using proceeds from planned divestments. This allows Aegon the Netherlands to regain focus on executing the strategy, invest in core fee-based solutions, and execute its illiquid investment strategy. Furthermore, Aegon announced the sale of Aegon's Dutch financial advisory business Unirobe Meeus Group (UMG) to Aon Groep Nederland. This sale is in line with Aegon's strategy to focus on innovation in core insurance, banking and services businesses. Lastly, Aegon decided to divest Aegon Ireland, which sells unit-linked contracts with guarantees and offshore bonds, mainly in the UK.<sup>1</sup> This transaction will further optimize Aegon's portfolio of businesses and increase its financial flexibility.

In the fourth quarter Aegon announced the sale of a further tranche of Aegon US's run-off life reinsurance business to the French group SCOR. The transaction is consistent with Aegon's stated strategic objective to reduce the amount of capital allocated to its run-off businesses. Additionally, the US tax reform was approved by the US government which is considered to have a net positive outcome for Aegon over time.

From an underlying earnings perspective, Aegon's underlying earnings before tax has increased to EUR 2,103 million in 2017 (EUR 1,913 million in 2016). This was mainly driven by expense reductions, an improvement in claims experience in the Americas, and higher fee revenue resulting from favorable equity market performance.

Premium income amounted to EUR 22.8 billion, down by 3% from 2016 (EUR 23.5 billion). This was mostly driven by lower premium income from life business in Aegon UK and lower premium income in Aegon the Netherlands across all business lines.

Commissions and expenses decreased by 7% compared with 2016 to EUR 5.9 billion in 2017, mainly driven by lower sales of life and annuity products in the United States. Operating expenses increased by 3% compared with 2016 to EUR 3.7 billion in 2017. Expense savings were more than offset by the inclusion of Cofunds and integration related activities in the United Kingdom.

Total policyholder claims and benefits amounted to EUR 45.6 billion in 2017 compared to EUR 42.0 billion in 2016. The increase of EUR 3.6 billion is mainly attributable to changes in the valuation of liabilities of insurance contracts and investment contracts. The changes in valuation of liabilities for insurance contracts and investment contracts reflect changes in technical provisions resulting from net fair value changes on financial assets for account of policyholder included in results from financial transactions. This increase is partly offset by lower claims and benefits paid, mainly from lower claims and benefits paid for Aegon's life and non-life business.

Investment income amounted to EUR 7.3 billion in 2017 compared to EUR 7.8 billion in 2016. Aegon Americas is the largest contributor to the investment income with EUR 3.4 billion, followed by Aegon the Netherlands, EUR 2.2 billion, and Aegon UK with EUR 1.5 billion.

Results from financial transactions amounted to EUR 20.1 billion in 2017 compared to EUR 15.9 billion in 2016. The main contributor is the net fair value change on for account of policyholder financial assets of EUR 20.5 billion in 2017 and is driven by favorable equity markets results, which were partly offset by losses from interest rates movements.

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

## **B. System of governance**

### **General governance**

Aegon is incorporated and established in the Netherlands and therefore must comply with Dutch law, such as the provisions of Book 2 of the Dutch Civil Code. In addition, Aegon is subject to the Dutch Corporate Governance Code.

Aegon is governed by three main corporate bodies: the Executive Board, the Supervisory Board, and the General Meeting of Shareholders. The Executive Board is assisted in its work by the Management Board who provides vital support and expertise in safeguarding Aegon's strategic goals. The Supervisory Board has established an Audit Committee, Risk Committee, Remuneration Committee and Nomination and Governance Committee from amongst its members. There were no material changes in the system of governance during the reporting period.

- 1 On April 3, 2018, Aegon completed the sale of Aegon Ireland plc to Athora Holding Ltd. (formerly AGER Bermuda Holding Ltd.)

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7 Introduction **Summary**

Aegon's Executive Board is charged with the overall management of the Company and is therefore responsible for achieving Aegon's aims and developing the strategy and its associated risk profile. In addition, it oversees any relevant sustainability issues and the development of the Aegon's earnings. Aegon's Executive Board is assisted in its work by the Management Board. Aegon's Articles of Association determine that for certain decisions the Executive Board must seek prior approval from the Supervisory Board and/or the approval of the General Meeting of Shareholders. In addition, the Supervisory Board may also subject other Executive Board decisions to its prior approval.

Aegon's Management Board is comprised of the members of Executive Board, the Group Chief Risk Officer (CRO) and Chief Executive Officers (CEOs) of the Americas, United Kingdom, Continental Europe and Asset management, General Counsel, Global Head of HR and the Chief Technology Officer.

Aegon's Supervisory Board oversees the management of the Executive Board, in addition to the Company's business and corporate strategy. The Supervisory Board members, nine members as per December 31, 2017, are appointed by the shareholders at the General Meeting of Shareholders and Aegon aims the Supervisory Board to be well-balanced in terms of professional background, geography and gender. The following Supervisory Board committees exist:

Audit Committee;

Risk Committee;

Remuneration Committee; and

Nomination and Governance Committee.

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

In addition to the corporate bodies, described above, Aegon 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's risk management framework is designed and applied to identify and manage potential events and risks that may affect Aegon. This is established in the Enterprise Risk Management (ERM) framework which aims to identify and manage individual and aggregate risks within Aegon's risk tolerance in order to provide reasonable assurance regarding the achievement of Aegon's objectives. The ERM framework applies to all material businesses of Aegon for which it has operational control. Aegon's businesses are required to either adopt the Group level ERM framework directly, or tailor it to local needs, while meeting the requirements of the Group level ERM framework. Aegon's ERM framework is based on a well-defined risk governance structure. In addition to the Supervisory, Management and Executive Boards, the risk governance structure includes the following committees:

Group Risk & Capital Committee and its sub-committees; and

Regional Risk & Capital Committees.

**Control environment**

In addition to risk management, Aegon's Solvency II control environment consists of an internal control system, which includes a compliance function, an actuarial function and an internal audit function. The internal control system serves to facilitate compliance with applicable laws, regulation and administrative processes and it provides for 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 tolerances. Aegon's internal audit function is independent and objective from operational functions, including in performing its duties in evaluating the effectiveness of Aegon's internal control system. Full details on the Aegon's system of governance are described in chapter B. System of governance.

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

**Table of Contents**8 Introduction **Summary****C. Risk profile**

As an insurance group, Aegon accepts and manages risk for the benefit of its customers and other stakeholders. Aegon's risk management and control systems are designed to ensure that these risks are managed effectively and efficiently in a way that is aligned with the Company's strategy. The targeted risk profile is determined by customer needs, Aegon's competence to manage the risk, Aegon's preference for risk, and whether there is sufficient capacity to take the risk. Aegon currently targets an equal balance between financial market and credit risks and underwriting risks. The targeted risk profile is set at Aegon Group level and developed in more detail within the subsidiaries where insurance business is written. Aegon's risk strategy provides direction for the targeted Aegon risk profile while supporting Aegon's business strategy. Aegon is exposed to a range of underwriting, market, credit, liquidity and operational risks.

The table provides for a quantitative representation of the key risks of Aegon Group on the basis of the Solvency II framework:

**Composition of Group SCR**

Amounts in EUR millions

<b>SFCR section</b>	<b>QRT S.25.02.22</b>	<b>2017</b>	<b>2016 revised<sup>1)</sup></b>	<b>2016<sup>2)</sup></b>
C.3.2 Market risk	Market Risk (SF)	1,056	1,342	1,342
	Market Risk (IM)	2,258	3,316	3,316
C.3.3 Credit risk <sup>3)</sup>	Counterparty default risk (SF)	371	314	314
	Counterparty default risk (IM)	18	19	19
C.3.1 Underwriting risk	Life underwriting risk (SF)	1,137	1,145	1,145
	Life underwriting risk (IM)	2,156	2,248	2,248
	Health underwriting risk (SF)	306	321	321
	Health underwriting risk (IM)			
	Non-life underwriting risk (SF)	130	137	137
	Non-life underwriting risk (IM)			
C.3.5 Operational risk	Operational risk (SF)	304	678	678
	Operational risk (IM)	301		
E.2.1 Solvency Capital Requirement	LAC-DT	(714)	(839)	(839)
	<b>Total undiversified components</b>	<b>7,321</b>	<b>8,679</b>	<b>8,679</b>
	Diversification <sup>4)</sup>	(2,851)	(3,152)	(3,152)
	<b>PIM SCR after diversification (AC only) <sup>5)</sup></b>	<b>4,470</b>	<b>5,527</b>	<b>5,527</b>
		3,304	3,874	6,036



Capital requirements for D&A and  
OFS <sup>6)</sup>

<b>Group PIM SCR</b>	<b>7,774</b>	<b>9,401</b>	<b>11,563</b>
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- <sup>1</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.
- <sup>2</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report based on the revised component representation (in 2016 totals per risk component were presented, in 2017 the split into IM (Internal Model) and SF (Standard Formula) is presented).
- <sup>3</sup> To align with the SCR in QRT s.25.02.22 and section E, Aegon will only discuss Counterparty Default Risk (as defined in the Delegated Regulation) in section C3.3. More generally, Aegon considers 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.25.02.22 consistent throughout the SFCR, these other components of credit risk are discussed instead in section C3.2 Market risk.
- <sup>4</sup> In the 2016 Aegon Group SFCR, diversification of EUR 6,2 bln was shown in the S.25.02.22, which included the diversification between risk components of EUR 3,2 bln (shown in this SFCR) as well as diversification within components of EUR 3,0 bln which is not shown in the 2017 disclosure. The 2017 disclosure in QRT S25.02.22 now shows components for IM and SF separately after diversification within components. Diversification between components and between Standard Formula and Internal Model components are included in this line.
- <sup>5</sup> AC stands for Accounting Consolidation method for the calculation of the Solvency II group solvency.
- <sup>6</sup> Includes capital requirements for Deduction & Aggregation (D&A) and Other Financial Sector entities (excluding Aegon Bank in line with Group supervisor requirement). The decrease in 2017 is mainly related to the revised method in calculating the Solvency II contribution of the Aegon US Insurance entities under D&A.

Material movements in risk profile during 2017 mainly include the following:

Positive market movements, mainly influencing market risks and underwriting risks;

The implementation of approved major model changes to Aegon's PIM, which mainly related to adjusting the calculation of spread risk and introduction of currency risk to the internal model, lowered the contribution of market risk to Aegon's risk profile;

Separate account derisking by Aegon the Netherlands, mainly impacting market risk;

The sale of the payout annuity, BOLI/COLI, and half of the remaining run-off life reinsurance businesses in the Americas resulting in a decrease in the exposure to underwriting risks (capital requirements for US insurance entities are captured in the other capital requirements line in the table above); and

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### 9 Introduction **Summary**

The legal transfer of the Scottish Equitable annuity portfolio was completed in 2017, thereby removing the counterparty exposure to Rothesay and Legal & General;  
Full details on Aegon's risk profile are described in chapter C. Risk profile.

#### **D. Valuation for solvency purposes**

Aegon 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 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) can be summarized as follows:

Revaluation differences mainly on assets and liabilities using a method other than fair value in the IFRS balance sheet;

Differences in scope, where Aegon's Non-EEA (re)insurance entities are aggregated based on the Deduction & Aggregation method and the net asset values is represented in the line Participation on Aegon's Solvency II economic balance sheet; and

De-recognition of items on the Solvency II economic balance sheet which are admissible on the IFRS statement of financial position but not under Solvency II, for instance deferred policy acquisition costs, Goodwill and Intangible assets.

After receiving a confirmation from the Dutch Central Bank (DNB) Aegon started to apply a revised method in calculating the Solvency II contribution of the Aegon United States Insurance entities under Deduction & Aggregation (D&A). This influences the amount recorded for these entities on the participation line of the Group Solvency II balance sheet.

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

#### **E. Capital Management**

Aegon's target capital ratio is between 150% - 200%. At December 31, 2017, the Solvency II ratio of 201% was in excess of this target range.

In the following table the Solvency II key figures for Aegon are presented as at December 31, 2017:

**Aegon Group capital position**

Amounts in EUR millions	<b>December 31, 2017<sup>1) 2)</sup></b>	December 31, 2016 revised <sup>3)</sup>	December 31, 2016 <sup>4)</sup>
Group own funds	15,628	15,957	18,119
Group PIM SCR	7,774	9,401	11,563
Group Solvency II ratio	201%	170%	157%
Group Solvency II ratio (Matching Adjustment set to zero)	199%		154%
Group Solvency II ratio (Volatility Adjustment set to zero)	169%		132%
Group Solvency II ratio (excluding transitional arrangements)	200%		156%
Group Solvency II ratio (excluding Long term guarantees and transitional measures)	168%		130%
Group eligible own funds to meet minimum consolidated group SCR	6,152		4,417
Minimum consolidated Group SCR	1,930		1,856
Group MCR ratio <sup>5)</sup>	319%		238%

- <sup>1</sup> The Group own funds information is based on the revised method which was confirmed by the DNB in 2017. Based on the old method, the December 31, 2017 Group Solvency II ratio is equal to 182%.
- <sup>2</sup> Group Solvency II ratio at December 31, 2017 does not reflect impact of NAIC tax factor changes following the US tax reform. At this point it is unclear when the NAIC will update the tax factors used in the RBC calculation.
- <sup>3</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes. The Group Solvency II ratio Matching Adjustment / Volatility adjustment / excluding transitionals arrangements have not been recalculated.
- <sup>4</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V. s 2016 Solvency and Financial Condition Report based on the revised component representation.
- <sup>5</sup> Ratio of Eligible own funds to meet the minimum consolidated Group SCR.

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	December 31, 2017 <sup>1)</sup>			December 31, 2016 revised <sup>2)</sup>		December 31, 2016 <sup>3)</sup>		Eligible own funds to meet minimum consoli- dated Group SCR
	Avail- able own funds	Eligible own funds	Eligible own funds to meet mini- mum consoli- dated Group SCR	Available own funds	Eligible own funds	Available own funds	Eligible own funds	
<b>Solvency II Group own funds</b>								
Amounts in EUR millions								
Unrestricted Tier 1	10,428	10,428	4,613	10,081	10,081	10,656	10,656	3236
Restricted Tier 1	3,540	2,451	1,153	3,817	2,373	3,817	2,517	809
Tier 2 own funds	1,213	2,302	386	1,291	2,735	2,008	3,309	371
Tier 3 own funds	448	448		768	768	1,638	1,638	
<b>Total Tiers</b>	<b>15,628</b>	<b>15,628</b>	<b>6,152</b>	<b>15,957</b>	<b>15,957</b>	<b>18,119</b>	<b>18,119</b>	<b>4417</b>

<sup>1</sup> The tiering information is based on the revised method which was confirmed by DNB in 2017

<sup>2</sup> Pro forma tiering based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.

<sup>3</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report.

Aegon uses a combination of Accounting Consolidation (method 1) and Deduction & Aggregation (method 2) for the calculation of the Solvency II Group Solvency. In addition, Aegon uses a Partial Internal Model (PIM) to calculate the solvency position of Aegon Levensverzekering N.V., Scottisch Equitable Plc, Aegon Spaarkas N.V., Optas Pensioen N.V., and Aegon N.V. (which is a mixed financial holding company). Other entities included via the Accounting Consolidation method, excluding Other Financial Sector entities, use the Solvency II determined Standard Formula approach. The capital requirements of Other Financial Sector entities are based on relevant sectoral capital requirements. Aegon Bank is excluded from the Group Solvency II ratio, as required by the Group Solvency II supervisor, DNB.

In Aegon's Non-EEA regions, (re)insurance entities domiciled in third countries deemed (provisional) equivalent (US life insurance entities, Bermuda, Japan, Mexico and Brazil), the capital requirement is based on local capital requirements.

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 this contains Company specific modelling and sensitivities as opposed to industry-wide approximations included in the standard formula methodology.

In 2017, Aegon implemented approved major model changes, mainly reflecting the introduction of operational risk (Scottish Equitable Plc only) and currency risk (Scottish Equitable Plc and Aegon N.V. only) as internal model components, and changing the calculation of spread risk. This allows Aegon to more accurately model risks for Solvency II purposes.

After receiving a confirmation from the Dutch Central Bank (DNB) Aegon started to apply a revised method in calculating the Solvency II contribution of the Aegon US Insurance entities under Deduction & Aggregation (D&A), affecting Aegon's tiering of capital in 2017. It includes lowering the conversion factor from 250% to 150% Risk-Based Capital Company Action Level and reducing own funds by a 100% RBC Company Action Level requirement to reflect transferability restrictions. The methodology is subject to annual review. This methodology is consistent with EIOPA's guidance on Group Solvency calculation in the context of equivalence, and in line with methods applied by European peer companies. As a consequence, this adjustment improves the comparability to capital positions of European insurance groups with substantial insurance activities in the US.

After discussions with the DNB, Aegon resolved a number of outstanding methodological matters with respect to its partial internal model in 2017. Following agreement on the interpretation of the 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, 2017. The LAC-DT factor will be recalibrated on a quarterly basis using the agreed methodology.

The Solvency II capital ratios of the Group and Aegon the Netherlands do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

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11 Introduction **Summary**

Aegon applies the matching adjustment, in Aegon UK and Aegon Spain, which has a positive impact to the Group own funds of EUR 55 million as of December 31, 2017 (2016: EUR 107 million) and an impact of EUR (65) million (2016: EUR (105) million) on the Group Solvency capital requirement. The matching adjustment methodology has been approved by local regulators. In addition, Aegon applies the volatility adjustment in Aegon the Netherlands, Aegon UK and Aegon Spain, which has a positive impact to the Group own funds of EUR 205 million (2016: EUR 651 million) and an impact of EUR (1,273) million (2016: EUR (1,636) million) on the Group Solvency capital requirement.

Aegon applies the transitional measure on technical provisions in Aegon Spain, which has a positive impact on Group own funds of EUR 56 million as of December 31, 2017. This increases the Group Solvency II ratio by 1%.

The combined positive impact of the matching adjustment, volatility adjustment and transitional measures on the Group Solvency II ratio is 33% (2016: 27%).

Aegon Group and all of the EEA (re)insurance entities subject to the Solvency II regulation did not face any form of non-compliance with the Minimum Capital Requirement or significant non-compliance with the Solvency Capital Requirement during the reporting period.

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

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**A. Business and performance**

**A.1 Business**

**A.1.1 Overview**

Aegon is an international life insurance, pensions and asset management group. Its listed holding company, Aegon N.V., is a public limited liability company with its corporate seat and head office in the Netherlands. The Company's history dates back over 170 years. Aegon N.V. was formed in 1983 through the merger of AGO and Ennia, both of which were successors to insurance companies founded in the 1800s.

Aegon is headquartered in the Netherlands, and through its subsidiaries and joint ventures it employs over 28,000 people worldwide. Aegon's common shares are listed on stock exchanges in Amsterdam (Euronext) and New York (NYSE). Aegon's main operating units are separate legal entities that operate under the laws of their respective countries. The shares of these legal entities are directly or indirectly held by three intermediate holding companies incorporated under Dutch law: Aegon Europe Holding B.V., the holding company for all European activities; Aegon International B.V., which serves as a holding company for the Aegon Group companies of all non-European countries; and Aegon Asset Management Holding B.V., the holding company for a number of its asset management entities.

Aegon exists to help people achieve a lifetime of financial security. It uses a multi-brand, multichannel distribution approach to meet its customers' needs, and fosters an entrepreneurial spirit within its businesses, encouraging the development of innovative products and services.

Aegon's financial results are impacted by a number of external factors, including demographic trends, market conditions, and regulation. Furthermore, the business is affected by corporate actions taken by the Group, including acquisitions, disposals and other action in order to achieve Aegon's strategy. The key significant business events or other events that have occurred over the reporting period that have had a material impact on Aegon are mentioned in the summary of section A on page 5. Below more information on the impact of US tax reform on Aegon Group:

On December 22, 2017, the US Tax Cuts and Jobs Act was signed into law. The key item of this change to tax law is the lowering of the nominal corporate tax rate from 35% to 21%, lowering the year-end estimated RBC ratio of the US Life entities by approximately 16%-points. This was mainly driven by the reduction of deferred tax assets that are part of available capital. The estimated RBC ratio of the US business per year-end 2017 was 472%;

Contingent on the decision by the National Association of Insurance Commissioners (NAIC) to reflect the new tax rate in its RBC requirements, an additional one-time increase to required capital is expected in the future;

The group's Solvency II ratio is expected to remain well within the upper half of the 150 to 200% target range despite the potential increase in required capital. Aegon expects increased capital generation as a result of the

lower effective tax rate, which increases its financial flexibility;

All ongoing impacts will fluctuate depending on market conditions and other elements affecting taxable income and the company's tax position. In terms of the impact on required capital, Aegon has made assumptions with regard to the use of a single corporate tax rate of 21% for Aegon's US business, and application of concepts currently exposed by the NAIC regarding capital requirements. Outcomes are dependent on changes to NAIC requirements, which may deviate from Aegon's current assumptions.

**A.1.2 Regulators and auditor**

The supervisory authority responsible for Solvency II group supervision on the Aegon Group and for supplementary group supervision in accordance with the EU Financial Conglomerates Directive (FCD) is:

De Nederlandsche Bank (DNB), the Dutch Central Bank

Address: Westeinde 1, 1017 ZN, Amsterdam

Telephone: +31(0)20 524 91 11

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Aegon's external auditor is PricewaterhouseCoopers Accountants N.V. The external auditor's mandate does not cover an audit on the information disclosed in this SFRCR. Their contact details are:

PricewaterhouseCoopers Accountants N.V.

Address: Thomas R. Malthusstraat 5, 1066 JR, Amsterdam

Telephone: +31 (0)88 792 00 20

**A.1.3 Holders of qualifying holdings**

A qualifying holding means a direct or indirect holding in Aegon N.V. which represents 10% or more of the capital or of the voting rights or which makes it possible to exercise a significant influence over the management of Aegon N.V. Only Vereniging Aegon qualifies based on this definition.

Vereniging Aegon, a Dutch association located in The Hague, the Netherlands, with a special purpose to protect the broader interests of Aegon N.V. and its stakeholders. On December 31, 2017, Vereniging Aegon, Aegon's largest shareholder, held a total of 279,236,609 common shares and 569,676,480 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, 2017, the voting power of Vereniging Aegon under normal circumstances amounted to approximately 14.34 %, 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.

**A.1.4 Aegon's Group structure**

Aegon's main operating units are separate legal entities that operate under the laws of their respective countries. The shares of these legal entities are directly or indirectly held by three intermediate holding companies incorporated under Dutch law: Aegon Europe Holding B.V., the holding company for all European activities; Aegon International B.V., which serves as a holding company for the Aegon Group companies of all non-European countries; and Aegon Asset Management Holding B.V., the holding company for a number of its asset management entities.

Aegon has the following operating segments: the Americas, which includes the United States, Mexico and Brazil; the Netherlands; the United Kingdom; Central & Eastern Europe; Spain & Portugal; Asia and Aegon Asset Management. The separate operating segments of the Netherlands, the United Kingdom, Central & Eastern Europe and Spain &

Portugal may be referred together as Europe , but Europe is not an operating segment.

For more information on Aegon s governance structure, please see section B.1.1. Corporate Governance.

#### **A.1.5 List of material related undertakings**

The principal undertakings of the parent company Aegon N.V. are listed by geographical segment. All are wholly owned, directly or indirectly, unless stated otherwise, and are involved in insurance or reinsurance business, asset management or services related to these activities. The voting power in these undertakings held by Aegon is equal to the shareholdings unless otherwise specified.

For information on the material differences between the scope of the group used for the consolidated financial statements and the scope for the consolidated data used for the Group Solvency calculation, see section D Valuation of Solvency Purposes and section E.1.4 Difference between Solvency II own funds and IFRS shareholders equity .

#### **Americas**

Transamerica Advisors Life Insurance Company, Little Rock, Arkansas (United States);

Transamerica Casualty Insurance Company, Columbus, Ohio (United States);

Transamerica Corporation, Wilmington, Delaware (United States);

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Transamerica Financial Life Insurance Company, Albany, New York (United States);

Transamerica Life Insurance Company, Cedar Rapids, Iowa (United States);

Transamerica Premier Life Insurance Company, Cedar Rapids, Iowa (United States);

Akaan-Aegon, S.A.P.I. de C.V., Mexico City (Mexico), (99.99%, 50% voting rights); and

Mongeral Aegon, Seguros e Previdencia S.A., Rio de Janeiro (Brazil), (50%).

**Europe**

The Netherlands

Aegon Bank N.V., The Hague;

Aegon Hypotheken B.V., The Hague;

Aegon Levensverzekering N.V., The Hague;

Aegon Schadeverzekering N.V., The Hague;

Aegon Spaarkas N.V., The Hague;

Optas Pensioenen N.V., Rotterdam;

TKP Pensioen B.V., Groningen;

Unirobe Meeùs Groep B.V., The Hague (until November 1, 2017);

Aegon PPI B.V., The Hague;

CAPPITAL Premiepensioeninstelling B.V., Groningen; and

AMVEST Vastgoed B.V., Utrecht (50%), property management and development.  
United Kingdom

Aegon Investment Solutions Ltd., Edinburgh;

Scottish Equitable plc, Edinburgh; and

Cofunds Limited, London.  
Central & Eastern Europe

Aegon Magyarország Általános Biztosító Zártkörűen Működő Részvénytársaság, Budapest (Aegon Hungary Composite Insurance Co.);

Aegon Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna, Warsaw (Aegon Poland Life);

Aegon Powszechne Towarzystwo Emerytalne Spółka Akcyjna, Warsaw (Aegon Poland Pension Fund Management Co.);

Aegon Emeklilik ve Hayat A.Ş., Istanbul (Aegon Turkey);

Aegon Pensii Societate de Administrare a Fondurilor de Pensii Private S.A., Cluj (Aegon Romania Pension Administrator Co.);

Aegon Poji tovná, a.s., Prague (Aegon Czech Life);

Aegon životná poisťovňa, a.s., Bratislava (Aegon Slovakia Life); and

Aegon, d.s.s., a.s., Bratislava (Aegon Slovakia Pension Management Co.).  
Spain & Portugal

Aegon España S.A.U. de Seguros y Reaseguros, Madrid (Spain);

Aegon Administracion y Servicios A.I.E., Madrid (Spain);

Aegon Activos A.V., S.A., Madrid (Spain);

Aegon Mediacion, S.L.U, Madrid (Spain);

Santander Generales Seguros y Reaseguros, S.A., Madrid (Spain), (51%);

Aegon Santander Portugal Vida Companhia de Seguros de Vida S.A., Lisbon (Portugal), (51%);

Aegon Santander Portugal Não Vida Companhia de Seguros S.A., Lisbon (Portugal), (51%);

Santander Vida Seguros y Reaseguros, S.A., Madrid (Spain), (51%); and

Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A., Oviedo (Spain), (50%).

**Asia**

Transamerica Life (Bermuda) Ltd., Hamilton (Bermuda);

Aegon Insights Limited, Hong Kong (Hong Kong);

Aegon Sony Life Insurance Co., Tokyo (Japan), (50%);

Aegon THTF Life Insurance Co., Ltd., Shanghai (China), (50%); and

SA Reinsurance Ltd, Hamilton (Bermuda), (50%).

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Aegon Asset Management Holding B.V., The Hague (The Netherlands);

Aegon Custody B.V., The Hague (The Netherlands);

Aegon Asset Management Pan-Europe B.V., The Hague (The Netherlands);

Kames Capital plc, Edinburgh (United Kingdom);

TKP Investments B.V., Groningen (The Netherlands);

Aegon USA Investment Management, LLC, Cedar Rapids (United States);

Aegon USA Realty Advisors, LLC, Des Moines (United States);

Aegon Magyarország Befektetési Alapkezelő Zártkörűen Működő Részvénytársaság (Aegon Hungary Asset Management Company ZrtA), Budapest (Hungary);

Aegon Investment Management B.V, The Hague (The Netherlands);

Aegon Industrial Fund Management Co., Ltd, Shanghai (China), (49%); and

La Banque Postale Asset Management, Paris (France), (25%).

For a complete list of related undertakings, please refer to QRT S.32.01.22 Undertakings in scope of the group. A list of Aegon's branches is provided below:

<b>Aegon's branches</b>	<b>Ownership</b>	<b>Trading at town/city</b>	<b>Country</b>
<b>Company name</b>			

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Aegon Asia B.V. - Hong Kong Branch	100%	Hong Kong	Hong Kong
Aegon Asset Management Pan-Europe B.V. - Germany Branch	100%	Frankfurt	Germany
Aegon Asset Management Pan-Europe B.V. - Japan Branch	100%	Tokyo	Japan
Aegon Asset Management Pan-Europe B.V. - Spain Branch	100%	Madrid	Spain
Aegon CEE B.V., Hungarian Branch Office	100%	Budapest	Hungary
Aegon Industrial Fund Management Co., LTD, Beijing Branch	100%	Beijing	China
Aegon Industrial Fund Management Co., LTD, ShenZhen Branch	100%	ShenZhen	China
Aegon Industrial Fund Management Co., LTD, Xiamen Branch	100%	Xiamen	China
Aegon Insights Limited - Singapore Branch	100%	Singapore	Singapore
Aegon Ireland plc. - German Branch	100%	Frankfurt am Main	Germany
Aegon Magyarország Általános Biztosító Zártkörűen Csehországi Fióktelepe - Czech Branch	100%	Prague	Czech Republic
Aegon Magyarország Általános Biztosító Zártkörűen Szlovákiai Fióktelepe - Slovakian Branch	100%	Bratislava	Slovakia
Aegon Ubezpieczenia Majątkowe Oddział w Polsce Zakładu Aegon Magyarország Általános Biztosító Spółka Akcyjna w Budapeszcie - Polish Branch	100%	Chorzów	Poland
Aegon UK Corporate Services Limited - Irish Branch	100%	Dublin	Ireland
S.C. Aegon Towarzystwo Ubezpieczeń na Życie S.A. Varsovia-Sucursala Floresti - Romanian Branch	100%	Floresti	Romania
TLIC-UK Branch Office	100%	Edinburgh	Scotland
Transamerica Life (Bermuda) Ltd. - Hong Kong Branch	100%	Hong Kong	Hong Kong
Transamerica Life (Bermuda) Ltd. - Singapore Branch	100%	Singapore	Singapore

**A.1.6 Material lines of business and material geographical areas**

Below is an overview, region by region, of Aegon's different business units and the material lines of business that they provide.

**Americas**

**Life**

Products offering protection against mortality, morbidity and longevity risks, including traditional and universal life, in addition to endowment, term, and whole life insurance products.

**Accident & health**

Products offering supplemental health, accidental death and dismemberment insurance, critical illness, cancer treatment, credit/ disability, income protection, travel and long-term care insurance.

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Mutual funds

Wide range of specialized mutual funds, including asset allocation, US equity, global/international equity, alternative investments, hybrid allocation, fixed income and target date funds.

Retirement plans

Comprehensive and customized retirement plan services to employers across the entire spectrum of defined benefit, defined contribution and non-qualified deferred compensation plans. Includes services to individuals rolling over funds from other qualified retirement funds or Individual Retirement Accounts (IRAs).

Variable annuities

Variable annuities allow the holder to accumulate assets for retirement on a tax-deferred basis and to participate in equity or bond market performance, in addition to receiving one of many payout options designed to provide income in retirement.

Fixed annuities

Fixed annuities allow customers to make a lump-sum payment or a series of payments and receive income in the form of periodic payments that can begin immediately or after a period of time.

Stable value solutions

Synthetic Guaranteed Investment Contracts (GICs) in the United States offered primarily to tax-qualified institutional entities such as 401(k) plans and other retirement plans.

Brazil

Life and critical illness insurance; private and company pensions; pension scheme administration; and investment funds.

Mexico

Individual life, group life, and health insurance; and saving plans.

**Europe**

The Netherlands

Life

Products with mortality, morbidity, and longevity risks, including traditional and universal life, in addition to employer, endowment, term, whole life insurance products; mortgages; annuity products; and banking products,



including saving deposits.

#### Pensions

Individual and group pensions usually sponsored by, or obtained via, an employer. Administration-only services are offered to company and industry pension funds.

#### Non-life

General insurance, consisting mainly of automotive, liability, disability, household insurance, and fire protection.

#### Distribution

Independent distribution channel, offering both life and non-life insurance solutions.

#### United Kingdom

##### Life

Individual protection products, such as term insurance, critical illness, income protection and international/offshore bonds.

##### Pension

Individual pensions, including self-invested personal pensions and drawdown products, such as guaranteed income drawdown products; group pensions, sponsored by, or obtained via, an employer. Also includes the tied-agent distribution business.

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Central & Eastern Europe

Activities in the Czech Republic, Hungary, Poland, Romania, Slovakia, and Turkey. Includes life insurance, individual and group pension products, savings and investments, in addition to general insurance.

Spain & Portugal

Distribution partnerships with Santander in Spain & Portugal and with Liberbank in Spain. Includes life insurance, accident and health insurance, general insurance and investment products.

**Asia**

High net worth businesses

Life insurance marketed to high-net-worth individuals in Hong Kong and Singapore.

Aegon Insights

Full range of direct insurance solutions from product design, customer analytics insights, marketing campaign design and multi-channel product distribution to policy administration and claims management.

Strategic partnerships

Joint ventures in China and India offering (term) life insurance and savings products, and in Japan offering variable annuities.

**Aegon Asset Management**

Americas

Investment products covering third-party customers, insurance-linked solutions, and Aegon's own insurance companies.

The Netherlands

Investment products covering third-party customers, insurance-linked solutions, and Aegon's own insurance companies in addition to manager selection and tailored advice on balance sheet solutions for the pension market.

United Kingdom

Fixed income, equities, real estate and multi-asset solutions to Aegon's own insurance companies as well as external UK and international customers.

Rest of the world

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Asset management activities in Central & Eastern Europe and Spain & Portugal and distribution in Asia.

Strategic partnerships

China

Aegon Asset Management owns 49% of the shares of Aegon Industrial Fund Management Company, a Shanghai-based asset manager.

France

Aegon Asset Management has a strategic asset management partnership with La Banque Postale through its 25% equity stake in La Banque Postale Asset Management.

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Amounts in EUR millions	2017	2016	%
<b>Net underlying earnings</b>	<b>1,543</b>	<b>1,483</b>	4
Tax on underlying earnings	559	429	30
<b>Underlying earnings before tax geographically</b>			
Americas	1,381	1,249	11
The Netherlands	520	534	(2)
United Kingdom	116	59	98
Central & Eastern Europe	67	55	20
Spain & Portugal	4	8	(47)
<i>Europe</i>	707	655	8
Asia	49	21	131
Asset Management	136	149	(9)
Holding and other activities	(170)	(162)	(5)
<b>Underlying earnings before tax</b>	<b>2,103</b>	<b>1,913</b>	<b>10</b>
Fair value items		(645)	100
Gains / (losses) on investments	413	340	21
Net impairments	(39)	(54)	28
Other income / (charges)	(68)	(771)	91
Run-off businesses	30	54	(45)
<b>Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)</b>	<b>2,437</b>	<b>836</b>	<b>192</b>
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	44	31	45
Income tax	(76)	(250)	69
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(44)	(31)	(45)
<b>Net income</b>	<b>2,361</b>	<b>586</b>	<b>n.m.</b>
Commissions and expenses	6,309	6,696	(6)
of which operating expenses	3,878	3,764	3

**New life sales**

Amounts in EUR millions	<b>2017</b>	2016	%
Americas	472	542	(13)
The Netherlands	99	111	(11)
United Kingdom	37	66	(44)
Central & Eastern Europe	88	83	6
Spain & Portugal	48	39	23
<i>Europe</i>	273	299	(9)
Asia	151	128	18
<b>Total recurring plus 1/10 single</b>	<b>896</b>	<b>969</b>	<b>(8)</b>

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Amounts in EUR millions	2017	2016	%
Americas	38,543	40,881	(6)
The Netherlands	8,061	6,686	21
United Kingdom	35,896	5,791	n.m.
Central & Eastern Europe	323	265	22
Spain & Portugal	36	31	15
<i>Europe</i>	44,316	12,773	n.m.
Asia	222	304	(27)
Asset Management	61,332	46,366	32
<b>Total gross deposits</b>	<b>144,412</b>	<b>100,325</b>	<b>44</b>

**Net deposits (on and off balance)**

Amounts in EUR millions	2017	2016	%
Americas	(29,713)	(1,015)	n.m.
The Netherlands	1,067	1,909	(44)
United Kingdom	4,665	(846)	n.m.
Central & Eastern Europe	176	176	
Spain & Portugal	13	20	(37)
<i>Europe</i>	5,921	1,260	n.m.
Asia	129	259	(50)
Asset Management	6,913	2,964	133
<b>Total net deposits excluding run-off businesses</b>	<b>(16,750)</b>	<b>3,468</b>	<b>n.m.</b>
Run-off businesses	(338)	(759)	55
<b>Total net deposits / (outflows)</b>	<b>(17,088)</b>	<b>2,709</b>	<b>n.m.</b>

Worldwide revenues									Holding, other Asset Management activities and eliminations	Segment total	Associates and Joint Ventures eliminations	Consolidated
	Americas	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe	Asia	Europe				
Amounts in EUR millions												
Life insurance gross premiums	7,437	1,857	9,603	411	208	12,079	983	(1)	20,498	(546)	19,952	
Accident and health insurance premiums	2,115	203	32	1	83	319	97		2,531	(20)	2,511	

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General insurance premiums	148	216	103	467	(0)	466	(103)				
<b>Total gross premiums</b>	<b>9,553</b>	<b>2,208</b>	<b>9,635</b>	<b>628</b>	<b>394</b>	<i>12,865</i>	<b>1,080</b>	<b>(2)</b>	<b>23,496</b>	<b>(670)</b>	<b>22,826</b>
Investment income	3,368	2,172	1,517	49	37	3,774	246	4	5	7,396	(58)
Interest and commission income	1,919	326	235	43	17	621	63	609	(221)	2,991	(189)
Other revenue	5				3	3	1		4	13	(5)
<b>Total revenues</b>	<b>14,844</b>	<b>4,706</b>	<b>11,387</b>	<b>720</b>	<b>450</b>	<i>17,263</i>	<b>1,390</b>	<b>613</b>	<b>(214)</b>	<b>33,895</b>	<b>(922)</b>
Number of employees, including agent employees	10,951	3,089	3,435	2,337	610	9,471	6,025	1,500	371	28,318	

**Table of Contents**20 Business and performance **Business****Underlying earnings before tax by line of business**

Amounts in EUR millions	2017	2016	%
Life	939	779	21
Individual Savings & Retirement	520	534	(3)
Pensions	603	555	8
Non-life	64	34	85
Asset management	136	149	(9)
Other	(158)	(139)	(14)
<b>Underlying earnings before tax</b>	<b>2,103</b>	<b>1,913</b>	<b>10</b>

**Net income**

Net income amounted to EUR 2,361 million in 2017 driven by underlying earnings before tax of EUR 2,103 million, realized gains and an effective tax rate of only 3% as a result of a benefit related to US tax reform.

**Underlying earnings before tax**

Aegon's underlying earnings before tax increased compared with 2016 to EUR 2,103 million in 2017. This was mainly driven by expense reductions, an improvement in claims experience in the Americas, and higher fee revenue resulting from favorable equity market performance.

Underlying earnings before tax from the Americas increased compared with 2016 to EUR 1,381 million in 2017. Expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows.

In Europe, underlying earnings before tax in 2017 increased by 8% compared with 2016 to EUR 707 million. This was mainly driven by higher fee income in the United Kingdom compared with 2016 from favorable equity markets and net inflows. In addition, the inclusion of Cofunds in 2017 led to higher underlying earnings before tax compared with 2016.

In Asia, underlying earnings before tax increased in 2017 compared with 2016 to EUR 49 million as a result of increased underlying earnings before tax from the High Net Worth business, Aegon Insights and the Strategic Partnership in China. This was in part driven by lower expenses compared with 2016 as well as favorable mortality experience, favorable persistency and favorable intangible adjustments related to anticipated investment yields.

Underlying earnings before tax from asset management decreased by 9% in 2017 compared with 2016 to EUR 136 million. This decline was mainly driven by lower underlying earnings before tax from the United Kingdom



due to lower management fees.

Total holding costs amounted to EUR 170 million in 2017 compared with EUR 162 million in 2016 impacted by regulatory projects.

**Fair value items**

The results from fair value items amounted to nil in 2017. EUR 170 million fair value gains in the United States in 2017 were driven by positive results on hedging programs and the outperformance of real estate investments. These positive results on hedging programs were the result of favorable equity market movements and reflect changes made to the macro equity hedge program throughout 2017 to a 100% option-based program. Fair value losses in Europe amounted to EUR 194 million, as gains on real estate investments in the Netherlands were more than offset by a fair value loss on the guarantee provision in the Netherlands, as well as negative fair value changes on equity hedges in the United Kingdom, and interest rate hedges in the Netherlands to protect Aegon's capital position. Gains on interest rate swaps were the main driver of the EUR 24 million fair value gains in 2017 at the holding.

**Realized gains on investments**

Realized gains on investments amounted to EUR 413 million in 2017 and were primarily related to normal trading activity, the sale of an equity investment in the United States, and gains on bonds to optimize the general account investment portfolio in the Netherlands and the United Kingdom.

**Impairment charges**

Net impairments of EUR 39 million in 2017 primarily related to a single commercial mortgage loan in the United States and loan loss provisions in connection to growing consumer loan origination in the Netherlands.

**Other income/charges**

Other charges amounted to EUR 68 million in 2017. The book gains on the divestments of UMG (EUR 208 million) and the majority of the run-off businesses in the Americas (EUR 231 million) were more than offset by the loss on the divestment of an additional block of life reinsurance business in the Americas (EUR 105 million), charges related to assumption changes and model updates (EUR 276 million), a provision in anticipation of a possible settlement in connection with an investigation by the US Securities

and Exchange Commission at Aegon's Asset Management business in the United States (EUR 85 million), and restructuring and integration charges.

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#### **Run-off businesses**

The results of run-off businesses declined compared with 2016 to EUR 30 million in 2017, mainly as a result of the divestment of the majority of the run-off businesses.

#### **Income tax**

Income tax amounted to a charge of EUR 76 million in 2017, and included a EUR 554 million one-time benefit from US tax reform driven by a reduction in net deferred tax liabilities. As a result of this benefit and the tax exempt gain on the sale of UMG, the effective tax rate on total income for 2017 amounted to 3%. The effective tax rate on underlying earnings before tax amounted to 27%.

#### **Commissions and expenses**

Commissions and expenses decreased by 6% compared with 2016 to EUR 6.3 billion in 2017, mainly driven by lower sales of life and annuity products in the United States. Operating expenses increased by 3% compared with 2016 to EUR 3.9 billion in 2017. Expense savings were more than offset by higher expenses associated with the acquisitions of Cofunds and BlackRock's defined contribution business in the United Kingdom.

#### **Production**

Compared with 2016, gross deposits in 2017 were up by 44% to EUR 144.4 billion, driven by higher gross deposits in Asset Management and the acquisition of Cofunds. Net outflows amounted to EUR 17.1 billion as inflows in Asset Management and the United Kingdom were more than offset by contract discontinuances from the business acquired from Mercer. These outflows were in line with the guidance provided in 2017, and are driven by the conversion of customers to the Transamerica recordkeeping platform. New life sales declined by 8% compared with 2016 to EUR 896 million in 2017, mostly driven by lower indexed universal life and term life production in the United States and the sale of the annuity business in the United Kingdom, which more than offset the increase in sales in Asia driven by the continued success of the whole life critical illness product. New premium production for accident & health and general insurance decreased by 7% compared with 2016 to EUR 885 million in 2017, mainly as product exits and lower supplemental health sales in the United States more than offset increased general insurance production supported by a portfolio acquisition in Hungary.

#### **A.1.8 Related party transactions**

This section provides information about the material transactions during the reporting period with Aegon's shareholders, with persons who exercise a significant influence on Aegon and with members of the administrative, management or supervisory body. The second part of this section provides information on relevant operations and transactions within the Group.

#### **Material transactions with shareholders**

Referring to section A.1.3 Holders of qualifying holdings, Aegon largest and only material holder of qualifying holdings is Vereniging Aegon. All other qualifying holdings in Aegon are less than 10% and considered not having

significant influence over the management of the company. The transactions with Vereniging Aegon during the financial year 2017 were:

On December 19, 2017, Aegon N.V. repurchased 13,042,592 common shares B from Vereniging Aegon for the amount of EUR 1,725,169.73 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon's issuance of shares on June 23, 2017, being the final dividend 2016 in the form of stock dividend; and

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

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**Material transactions with persons who exercise a significant influence on the undertaking**

There are no material transactions with other persons who exercise a significant influence on the undertaking.

**Relevant operations and transactions within the Group**

Aegon facilitates intra-group transactions (IGTs) to support intra group efficiencies, including optimizing economies of scale, processes, liquidity and capital management. Due to the nature of these activities, there is interaction with business units and affiliates within the Group, resulting in a diverse set of IGTs. These include amongst other intercompany loans, derivatives, guarantees, internal reinsurance and capital injections. Aegon's IGT Policy establishes definitions, governance, reporting and monitoring of IGTs ensuring a consistent standard of IGT usage across the Aegon Group for new and existing IGTs. All IGTs are further covered by the Aegon Global Transfer Pricing policy in order to ensure compliance with the internationally accepted at arm's length principle, which dictates that related entities transact with each other as if they are third parties.

**Loans**

Aegon utilizes intercompany loans for operational liquidity and capital purposes. Within the Group, the following material uncollateralized intra-group loans are granted:

Loans granted by Aegon N.V. to Transamerica Corporation, for an amount of EUR 2,172 million (2016: EUR 3,666 million), to finance activities in the US;

Loans granted by Coöperatieve Aegon Financieringsmaatschappij U.A. (Coop) to Transamerica Corporation for an amount of EUR 333 million (2016: EUR 662 million), to finance activities in the US;

Loans granted by Aegon Funding Company LLC to Transamerica Corporation, for an amount of EUR 416 million (2016: nil), to finance activities in the US;

Loans granted by Aegon Global Investment Fund B.V. to Aegon Nederland N.V. for an amount of EUR 2,500 million (2016: EUR 2,692 million, classified as current account balance);

Loans granted by Aegon Levensverzekering N.V. to Aegon Hypotheken B.V. for an amount of EUR 510 million (2016: nil), to finance the issuing of mortgages;

A subordinated loan granted by Aegon Nederland N.V. to Aegon Levensverzekering N.V. for an amount of EUR 600 million (2016: EUR 636 million) to provide Aegon Levensverzekering N.V. with capital; and

A loan granted by Optas Pensioenen N.V. to Aegon Nederland N.V. for an amount of EUR 850 million (2016: EUR 850 million).

#### Derivatives

Aegon Derivatives N.V., a 100% pass-through vehicle, centralizes and mitigates counterparty risk related to the use of OTC derivatives across the Aegon Group in one entity. Primarily European entities (except UK domiciled entities), make use of Aegon Derivatives N.V. In addition, foreign exchange derivatives are centrally managed within Aegon N.V. ensuring netting advantages. As of December 31, 2017, the net (credit) exposure on the abovementioned internal arrangements was limited as most of these are supported by collateral arrangements.

#### Guarantees

Aegon N.V. and its subsidiaries provide guarantees for performance under contracts for certain aspects of the business transacted within the group. The agreements include, but are not limited to, letters of credit, (re)insurance contracts, maintenance of liquidity, capital and net worth. The performance of the various entities under the terms of the agreements are regularly assessed to ensure that the entity has sufficient resources on a best estimate basis to meet the obligations guaranteed under the agreement. As a result there is minimum exposure for these guarantees to the group.

#### Internal reinsurance

Subsidiaries of Aegon N.V. enter into reinsurance agreements in the normal course of business to (among other reasons), pool risks, improve group diversification, facilitate higher group risk retention for smaller units and efficiently manage capital. All transactions are executed with the arm's length principle and in accordance with the Aegon Global Transfer Pricing Framework. In many cases, the reinsurance is supported by trusts, funds withheld and / or letters of credit. Any exposure above these amounts are assessed based on Aegon N.V.'s IGT policy to ensure the exposure is within policy limits. As of December 31, 2017, there are no exposures greater than the policy levels set for affiliated reinsurance.

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Capital injections

Capital injections are done to strengthen the capital position of the legal entities making the request and are typically provided by the centrally-managed Dutch holding companies. In the third quarter of 2017, EUR 1 billion was injected in Aegon's Dutch business.

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Underwriting performance by line of business	2017				2016		
	Group	Life	Non-Life	Other <sup>1)</sup>	Group	Life	Non-Life
in EUR millions							
<b>Premium income</b>	<b>22,826</b>	<b>19,952</b>	<b>2,874</b>		23,453	20,400	3,053
<b>Claims paid to reinsurers</b>	<b>3,431</b>	<b>3,214</b>	<b>217</b>		3,176	2,932	244
<b>Under claims and benefits</b>	<b>45,599</b>	<b>43,455</b>	<b>2,144</b>		41,974	39,620	2,354
<b>Commissions and expenses</b>							
Commissions	2,661	2,278	590	(208)	2,929	2,495	662
Expenses	3,658	2,478	484	696	3,560	2,363	513
Expenses	(980)	(905)	(74)		(1,203)	(1,110)	(92)
Amortization of intangibles	586	504	82		1,065	978	83
<b>Commissions and expenses</b>	<b>5,925</b>	<b>4,355</b>	<b>1,081</b>	<b>488</b>	<b>6,351</b>	<b>4,726</b>	<b>1,166</b>

Underwriting performance by line of business  
 Holding and Asset Management.

Underwriting performance by geographical area	2017					2016			
	Group	Americas	The Netherlands	United Kingdom	Other <sup>1)</sup>	Group	Americas	The Netherlands	United Kingdom
in EUR millions									
<b>Premium income</b>	<b>22,826</b>	<b>9,383</b>	<b>2,208</b>	<b>9,635</b>	<b>1,600</b>	23,453	9,433	2,491	9,924
<b>Claims paid to reinsurers</b>	<b>3,431</b>	<b>2,996</b>	<b>16</b>	<b>369</b>	<b>50</b>	3,176	2,609	13	593
<b>Under claims and benefits</b>	<b>45,599</b>	<b>25,407</b>	<b>3,096</b>	<b>15,616</b>	<b>1,480</b>	41,974	15,497	5,713	18,874
<b>Commissions and expenses</b>									
Commissions	2,661	2,392	110	139	19	2,929	2,613	149	175
Expenses	3,658	1,537	818	546	757	3,560	1,609	821	394
Expenses	(980)	(760)	(11)	(62)	(146)	(1,203)	(970)	(11)	(79)
Amortization of intangibles	586	336	27	134	89	1,065	761	32	177
<b>Commissions and expenses</b>	<b>5,925</b>	<b>3,505</b>	<b>944</b>	<b>757</b>	<b>719</b>	<b>6,351</b>	<b>4,013</b>	<b>991</b>	<b>667</b>

<sup>1)</sup> includes all other businesses except for Americas, NL and UK.

**Premium income**

Americas total premium income for the year 2017 amounted to EUR 9.4 billion (2016: EUR 9.4 billion) and is comprised of recurring premiums for an amount of EUR 8.8 billion (2016: EUR 8.9 billion) and single premiums for

an amount of EUR 0.6 billion (2016: EUR 0.6 billion). The main lines of businesses contributing to Americas' total premium income are Life for EUR 6.4 billion (2016: EUR 6.4 billion) and Individual Savings & Retirement for EUR 1.4 billion (2016: EUR 1.3 billion). Premiums related to run-off business for the Americas amounted to EUR 1.6 billion (2016: EUR 1.7 billion), and were mainly driven by the run-off for Life reinsurance.

Total premium income of Aegon the Netherlands amounted to EUR 2.2 billion (2016: EUR 2.5 billion) and almost entirely reflects recurring premiums. Most of Aegon the Netherlands' premium income relates to the Pensions EUR 1.3 billion (2016: EUR 1.3 billion) and Life business EUR 0.6 billion (2016: EUR 0.7 billion), both reported in the Life segment, and the Non-life segment with EUR 0.4 billion (2016: EUR 0.5 billion). The decrease in premium income compared to 2016 is caused by the decrease in premium income in all business lines.

Total premium income of Aegon UK amounted to EUR 9.6 billion (2016: EUR 9.9 billion) of which EUR 2.5 billion (2016:

EUR 2.8 billion) relates to recurring premiums and EUR 7.1 billion (2016: EUR 7.2 billion) to single premiums (including premiums related to insurance policies upgraded to the retirement platform in the UK (EUR 5.1 billion (2016: EUR 5.3 billion))). Most of Aegon UK's premium income relates to the Pensions business (EUR 9.3 billion (2016: EUR 9.3 billion))). The decrease in premium income compared to 2016 is driven by Life, as the total premium income for Life decreased by EUR 0.3 billion compared to 2016.

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**Commissions and expenses**

In 2017, commissions and expenses in the Americas decreased by 13% compared with 2016 to EUR 3.5 billion (2016: EUR 4.0 billion). Operating expenses in the Americas decreased by 4% compared with 2016 to EUR 1.5 billion in 2017 (2016: EUR 1.6 billion) as a result of expense savings, which were partly offset by investments in business transformation and project expenses.

Commissions and expenses in the Netherlands decreased by 5% compared with 2016 to EUR 944 million (2016: EUR 991 million) in 2017. Operating expenses in the Netherlands were down by 1% compared with 2016 to EUR 818 million (2016: EUR 821 million) in 2017, reflecting the sale of UMG. Expense savings in the insurance businesses were more than offset by investments in growth.

Commissions and expenses in the UK increased by 14% compared with 2016 to EUR 757 million (2016: EUR 667 million) in 2017. Operating expenses in the UK increased by 39% compared with 2016 to EUR 546 million (2016: EUR 394 million) in 2017, mainly due to the inclusion of Cofunds and integration related activities.

**Policyholder claims and benefits**

Total policyholder claims and benefits amounted to EUR 45.6 billion in 2017 compared to EUR 42.0 billion in 2016. The increase of EUR 3.6 billion is mainly attributable to changes in the valuation of liabilities of insurance contracts (2017: EUR 22.7 billion and 2016: EUR 16.2 billion) and investment contracts (2017: EUR (2.6) billion) and (2016: EUR (0.1) billion).

The changes in valuation of liabilities for insurance contracts and investment contracts reflect changes in technical provisions resulting from net fair value changes on financial assets for account of policyholder included in results from financial transactions of EUR 20,524 million (2016: EUR 15,121 million) (please see section A.3.2 Investment related results and impairments). In addition, the change in valuation of liabilities for insurance contracts includes an increase in technical provisions for life insurance contracts of EUR 601 million (2016: increase of EUR 2,349 million).

Total claims and benefits paid amounted to EUR 25.5 billion (2016: EUR 25.9 billion) and is comprised of claims and benefits paid for Aegon's life business amounting to EUR 23.6 billion (2016: EUR 23.9 billion) and claims and benefits paid for Aegon's non-life business amounting to EUR 1.9 billion (2016: EUR 2.1 billion).

Of the total policyholder claims and benefits of EUR 45.6 billion (2016: EUR 42.0 billion), EUR 25.4 billion (2016: EUR 15.5 billion) relates to the Americas, EUR 3.1 billion (2016: EUR 5.7 billion) to the Netherlands and EUR 15.6 billion (2016: EUR 18.9 billion) to the UK.

**Table of Contents**26 Business and performance **Investment performance****A.3 Investment performance****Investment performance recognized in income statement**

Amounts in EUR millions	Note	2017	2016
Investment income	A.3.1	7,338	7,788
Results from financial transactions	A.3.2	20,108	15,949
Gains/(losses) on investments <sup>1)</sup>	A.3.2	413	340
Net impairments	A.3.2	(39)	(54)

<sup>1</sup> This relates to realized gains/(losses) on investments which are included in the line Results from financial transactions.

The following sections will provide more detail about Aegon's investment income in general and by asset class (section A.3.1) and its investment related results and impairments (section A.3.2). Section A.3.3 provides information about Aegon's gains and losses of investments recognized directly in equity. Finally, the last section A.3.4 provides information about Aegon's investments in securitizations.

**A.3.1 Investment income**

Aegon Americas is the largest contributor to the investment income with EUR 3,368 million (2016: EUR 3,717 million). Aegon Americas is followed by Aegon the Netherlands, EUR 2,172 million (2016 :EUR 2,135 million), and Aegon UK with EUR 1,517 million (2016: EUR 1,661 million).

Most of Aegon's investment income relates to investment income related to general account investments for an amount of EUR 5,394 million (2016: EUR 5,737 million), while the investment income for account of policyholders amounted to EUR 1,944 million (2016: EUR 2,051 million), mainly due to the fact that the investments for account of policyholders are on a fair value through profit or loss (FVTPL) basis.

**Investment income by asset class**

For interest-bearing assets, interest is recognized as it accrues and is calculated using the effective interest rate method. Fees and commissions that are an integral part of the effective yield of the financial assets or liabilities are recognized as an adjustment to the effective interest rate of the instrument. Investment income includes the interest income and dividend income on financial assets carried at fair value through profit or loss. Investment income also includes rental income due.

Investment Income by asset class	2017			Total	2016			Total
	Interest income	Dividend income	Rental income		Interest income	Dividend income	Rental income	
Amounts in EUR millions								
Shares		1,164		1,164		1,180		1,180

Debt securities and money market instruments	4,248		4,248	4,838	4,838
Loans	1,686		1,686	1,752	1,752
Real estate		121	121		129
Other	119		119	(111)	(111)
<b>Total</b>	<b>6,052</b>	<b>1,164</b>	<b>121</b>	<b>7,338</b>	<b>6,479</b>
				<b>1,180</b>	<b>129</b>
					<b>7,788</b>

Included in interest income is EUR 190 million (2016: EUR 230 million) in respect of interest income accrued on impaired financial assets. The interest income on financial assets that are not carried at fair value through profit or loss amounted to EUR 5,056 million (2016: EUR 5,642 million).

Most of Aegon's investment income relates to debt securities and money market instruments, namely EUR 4,248 million (2016: EUR 4,838 million), which represent 58% (2016: 62%) of total investment income. The expenses related to debt securities and money market instruments mainly consisted of transaction costs. As the transaction costs are included in the fair value at the date of recognition, these are not separately disclosed.

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First, this section will provide more information about Aegon's results from financial transactions amounting to EUR 20,108 million (2016: EUR 15,949 million), followed by its gains/(losses) on investments amounting to EUR 413 million (2016: EUR 340 million). Finally, information about Aegon's net impairments is provided, amounted to EUR (39) million (2016: EUR (54) million).

**Results from financial transactions**

The income arising from financial transactions during the years 2017 and 2016 comprises of:

<b>Results from financial transactions</b>		
Amounts in EUR millions	<b>2017</b>	<b>2016</b>
Net fair value change of General Account investments at FVtPL other than derivatives	232	(42)
Realized gains and losses on financial investments	431	327
Gains and (losses) on investments in real estate	193	70
Net fair value change of derivatives	(1,301)	435
Net fair value change of policyholder assets at FVtPL	20,524	15,121
Net fair value change of investments in real estate for policyholder	38	(26)
Net foreign currency gains and (losses)	(20)	41
Net fair value change on borrowing and other financial liabilities	10	21
Realized gains and (losses) on repurchased debt	1	1
<b>Total results from financial transactions</b>	<b>20,108</b>	<b>15,949</b>

The net fair value change on for account of policyholder financial assets amounted to EUR 20,524 million in 2017 (2016: EUR 15,121 million) and is driven by favorable equity markets results, which were partly offset by losses from interest rates movements. Net fair value changes on for account of policyholder financial assets at fair value through profit or loss are offset by changes in technical provisions reported as part of the lines Change in valuation of liabilities for insurance contracts and Change in valuation of liabilities for investment contracts.

**Realized gains/(losses) on investments**

Realized gains on investments amounted to EUR 413 million in 2017 (2016: EUR 340 million) and were primarily related to normal trading activity, the sale of an equity investment in the United States, and gains on bonds to optimize the general account investment portfolio in the Netherlands and the United Kingdom.

**Net impairments**

Net impairments amounted to EUR (39) million in 2017 (2016: EUR (54) million), and were primarily related to a single commercial mortgage loan in the United States and loan loss provisions in connection to growing consumer loan investments in the Netherlands.

### A.3.3 Gains and losses recognized directly in equity

This section provides information about the gains and losses of investments recognized directly in equity. The gains and losses of investments recognized directly in equity consist of the unrealized gains or losses of available-for-sale investments.

<b>Items that may be reclassified subsequently to profit and loss</b>		
Amounts in EUR millions	<b>2017</b>	<b>2016</b>
Gains/(losses) on revaluation of available-for-sale investments	1,283	854
(Gains)/losses transferred to income statement on disposal and impairment of available-for-sale investments	(1,330)	(2,122)

Gains on revaluation of available-for-sale investments amounted to EUR 1,283 million (2016: EUR 854 million) reflecting favorable markets resulting in credit spreads tightening and an overall positive revaluation of available-for-sale investments.

As of December 2017, gains transferred to the income statement on disposal and impairment of available-for-sale investments amounted to EUR (1,330) million (2016: EUR (2,122) million) and reflect the sale in the US of our pay-out annuity and BOLI/ COLI business.

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This section provides information about any of Aegon's investments in securitizations.

**Residential mortgage-backed securities**

Aegon Americas, Aegon the Netherlands and Aegon UK hold EUR 3,557 million (December 31, 2016: EUR 4,162 million) of residential mortgage-backed securities available-for-sale (RMBS), of which EUR 2,985 million (December 31, 2016: EUR 3,494 million) is held by Aegon Americas, EUR 556 million (December 31, 2016: EUR 649 million) by Aegon the Netherlands, and EUR 17 million (December 31, 2016: EUR 19 million) by Aegon UK. Residential mortgage-backed securities are securitizations of underlying pools of non-commercial mortgages on real estate. The underlying residential mortgages have varying credit characteristics and are pooled together and sold in tranches. The following table shows the breakdown of Aegon USA's RMBS available-for-sale (AFS) portfolio.

AFS RMBS by quality	2017					Total amortized cost	Total fair value
	AAA	AA	A	BBB	<BBB		
Amounts in EUR millions							
GSE guaranteed	1,025	270				1,295	1,298
Prime jumbo				5	124	130	136
Alt-A		33	20	8	277	337	437
Negative amortization floaters					502	502	584
Other housing		9	17	30	397	453	530
<b>At December 31, 2017</b>	<b>1,025</b>	<b>312</b>	<b>37</b>	<b>43</b>	<b>1,300</b>	<b>2,717</b>	<b>2,985</b>
Of which insured			24	5	146	175	166

AFS RMBS by quality	2016					Total amortized cost	Total fair value
	AAA	AA	A	BBB	<BBB		
Amounts in EUR millions							
GSE guaranteed	771	500				1,272	1,271
Prime jumbo		1	1	11	170	182	194
Alt-A		39	27	11	403	479	572
Negative amortization floaters				1	679	679	712
Other housing		50	71	43	519	683	745
<b>At December 31, 2016</b>	<b>771</b>	<b>589</b>	<b>98</b>	<b>65</b>	<b>1,771</b>	<b>3,295</b>	<b>3,494</b>
Of which insured			43	8	203	254	237

A significant part of Aegon USA's RMBS holdings are rated < BBB, as the issuances took place before the United States housing downturn that started in 2007. Additionally, Aegon USA has investments in RMBS of EUR 40 million (December 31, 2016: EUR 89 million), which are classified as fair value through profit or loss.

For more information about Aegon's residential mortgage-backed securities, reference is made to pages 193-195 of the consolidated Annual Report 2017 of Aegon N.V.

### **Commercial mortgage-backed securities**

As of December 31, 2017, Aegon Americas, Aegon the Netherlands and Aegon UK hold EUR 3,549 million (December 31, 2016: EUR 5,579 million) of AFS commercial mortgage-backed securities (CMBS), of which EUR 3,375 million (December 31, 2016: EUR 5,340 million) is held by Aegon USA, EUR 146 million (December 31, 2016: EUR 195 million) by Aegon UK and EUR 28 million (December 31, 2016: EUR 44 million) by Aegon the Netherlands. CMBS are securitizations of underlying pools of mortgages on commercial real estate. The underlying mortgages have varying risk characteristics and are pooled together and sold in different rated tranches. The company's CMBS include conduit, large loan, single borrower, commercial real estate collateralized debt obligations (CRE CDOs), collateralized debt obligations (CDOs), government agency, and franchise loan receivable trusts.

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The total gross unrealized loss on available-for-sale CMBS of Aegon Americas amounted to EUR 22 million as of December 31, 2017 (December 31, 2016: EUR 67 million). The total net unrealized gain on the available-for-sale CMBS as of December 31, 2017, is EUR 81 million (December 31, 2016: EUR 87 million), of which EUR 36 million (December 31, 2016: EUR 34 million) relates to positions of Aegon USA, followed by Aegon UK at EUR 44 million. CMBS fundamentals remain supportive with commercial property prices above their prior peak. Commercial real estate valuation increases have slowed. The delinquency rate has started to fall as loan resolutions outpace new defaults and positive net supply increases the total outstanding balance. Liquidity remains reasonable for the CMBS market; however, credit spreads on legacy subordinate CMBS tranches remain at wide levels.

The tables below summarize the credit quality of Aegon USA's available-for-sale (AFS) CMBS portfolio. Additionally, Aegon USA has no investments in CMBS (December 31, 2016: EUR nil), which are classified as fair value through profit or loss.

CMBS by quality	2017					Total	
	AAA	AA	A	BBB	<BBB	amortized cost	Total fair value
Amounts in EUR millions							
CMBS	2,626	559	63	3	84	3,335	3,372
CMBS and CRE CDOs					4	4	3
<b>At December 31, 2017</b>	<b>2,626</b>	<b>559</b>	<b>63</b>	<b>3</b>	<b>88</b>	<b>3,339</b>	<b>3,375</b>

CMBS by quality	2016					Total	
	AAA	AA	A	BBB	<BBB	amortized cost	Total fair value
Amounts in EUR millions							
CMBS	4,295	688	141	73	105	5,301	5,337
CMBS and CRE CDOs					5	5	3
<b>At December 31, 2016</b>	<b>4,295</b>	<b>688</b>	<b>141</b>	<b>73</b>	<b>110</b>	<b>5,306</b>	<b>5,340</b>

For more information about Aegon's commercial mortgage-backed securities, reference is made to pages 195-196 of the 2017 Annual Report of Aegon N.V.

**Asset-backed securities**

Aegon Americas, Aegon the Netherlands and Aegon UK hold EUR 4,314 million (December 31, 2016: EUR 6,188 million) of AFS ABS instruments of which EUR 2,429 million (December 31, 2016: EUR 3,377 million) is held by Aegon USA, EUR 1,799 million (December 31, 2016: EUR 2,714 million) by Aegon the Netherlands and EUR 88 million (December 31, 2016: EUR 97 million) by Aegon UK. Additionally, Aegon Americas has investments in ABS of EUR 10 million (December 31, 2016: EUR 13 million), which are classified as fair value through profit or



loss. ABS are securitizations of underlying pools of credit card receivables, auto financing loans, small business loans, bank loans, and other receivables. The underlying assets of the asset backed securities have been pooled together and sold in tranches with varying credit ratings.

The total gross unrealized loss on available-for-sale ABS of Aegon Americas, Aegon the Netherlands and Aegon UK amounted to EUR 15 million as of December 31, 2017 (December 31, 2016: EUR 54 million). Aegon USA has EUR 12 million (December 31, 2016: EUR 44 million) of this gross unrealized loss and Aegon the Netherlands EUR 2 million (December 31, 2016: EUR 10 million). In the United States, increasing investor demand has been met with new issuance in the asset-backed sector. The combination of these factors has led to varied performance by sector with most sectors exhibiting tighter credit spreads over the course of the year. During 2017, the European ABS spreads tightened considerably on the backdrop of a benign macro environment. The majority of European ABS sectors is now trading at their tightest levels since the financial crisis. The more basic sectors are slowly approaching their all-time lows helped by very low issuance volumes and the support of the European Central Bank asset backed securities purchase program. Due to the ample liquidity provided through the different programs of the Central Banks issuance levels for European ABS will remain subdued and in combination with further improving fundamentals this leads to continued downward pressure on spreads going forward.

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The breakdown by quality of the available-for-sale (AFS) ABS portfolio of Aegon USA, Aegon the Netherlands and Aegon UK is as follows:

Amounts in EUR millions	2017					Total amortized cost	Total fair value
	AAA	AA	A	BBB	<BBB		
Credit cards	170	19		30		219	229
Autos	226		64	2		292	292
Small business loans			3	6	62	70	74
CDOs backed by ABS, Corp. bonds, Bank loans	1,467	407	224	120	46	2,265	2,281
Other ABS	494	76	738	81	6	1,395	1,438
<b>At December 31, 2017</b>	<b>2,357</b>	<b>503</b>	<b>1,029</b>	<b>238</b>	<b>114</b>	<b>4,242</b>	<b>4,314</b>

Amounts in EUR millions	2016					Total amortized cost	Total fair value
	AAA	AA	A	BBB	<BBB		
Credit cards	482	28	35	30		575	589
Autos	277	9	46	42		375	374
Small business loans		1	7	6	104	118	116
CDOs backed by ABS, Corp. bonds, Bank loans	2,108	790	368	134	94	3,493	3,504
Other ABS	627	165	697	85	22	1,596	1,606
<b>At December 31, 2016</b>	<b>3,495</b>	<b>992</b>	<b>1,153</b>	<b>296</b>	<b>220</b>	<b>6,156</b>	<b>6,188</b>

For more information about Aegon's asset-backed securities, reference is made to page 196 of the 2017 Annual Report of Aegon N.V.

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31 Business and performance **Performance of other activities**

**A.4 Performance of other activities**

**A.4.1 Other activities income and expenses**

Aegon did not recognize other material income or expenses related to other activities during 2017 (2016: nil).

**A.4.2 Material leasing arrangements**

**Aegon is the lessee**

Leases that do not transfer substantially all the risks and rewards of ownership are classified as operating leases. Payments made under operating leases, where the Group is the lessee, are charged to the income statement on a straight line basis over the period of the lease.

In the United States, Aegon owns many of the buildings that the Company uses in the normal course of its business, primarily as offices. Aegon owns 16 offices located throughout the United States with a total square footage of 2 million. Aegon also leases space for various offices located throughout the United States under long-term leases with a total square footage of 1 million.

Other principal offices owned by Aegon are located in The Hague, the Netherlands and Budapest, Hungary. Aegon owns its headquarters and leases other offices in the Netherlands (Hoofddorp, Leeuwarden and Groningen), in the United Kingdom and in Spain under long-term leases. Aegon believes that its properties are adequate to meet its current needs.

**Future lease payments**

The operating lease obligations relate mainly to office space leased from third parties. The operating lease rights relate to non-cancellable commercial property leases.

**Aegon is the lessor**

Where the Group is the lessor under an operating lease, the assets subject to the operating lease arrangement are presented in the statement of financial position according to the nature of the asset. Income from these leases are recognized in the income statement on a straight line basis over the lease term, unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished.

Aegon USA has entered into a commercial property portfolio, consisting of office, retail and industrial buildings. These non-cancellable leases have remaining lease terms up to 20 years. Most leases include a clause to enable upward revision of the rental charge on an annual basis according to either a fixed schedule or prevailing market conditions.

Aegon the Netherlands has entered into long-term residential property leases that can be terminated subject to a short-term notice. Under Dutch law, the maximum annual rent increase on residential property rented in the affordable housing segment is specified by the Dutch national government and equals the annual inflation rate plus a small

margin.

**Investment in real estate for account of policyholders**

As of December 31, 2017, the investment property amounted to EUR 655 million (2016: EUR 686 million) and is leased out under operating leases.

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32 Business and performance **Any other information**

**A.5 Any other information**

Aegon does not have any other material information regarding its business and performance.

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33 System of governance **General information on the system of governance**

**B. System of governance**

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

**B.1.1 Corporate governance**

Aegon is governed by three main corporate bodies: the Executive Board, the Supervisory Board, and the General Meeting of Shareholders. The Executive Board is assisted in its work by the Management Board who provides vital support and expertise in safeguarding Aegon's strategic goals. The Supervisory Board has established an Audit Committee, Risk Committee, Remuneration Committee and Nomination and Governance Committee from amongst its members.

**B.1.1.1 The Supervisory Board and its committees**

Aegon's Supervisory Board oversees the management of the Executive Board, in addition to the Company's business and corporate strategy. The Supervisory Board must take into account the interests of all Aegon stakeholders. The Supervisory Board operates according to the principles of collective responsibility and accountability.

**Composition of the Supervisory Board**

Members of the Supervisory Board are appointed by the General Meeting of Shareholders, following nomination by the Supervisory Board itself. Aegon aims to ensure that the composition of the Company's Supervisory Board is in line with Aegon's diversity policy for the Supervisory Board, Executive Board and Management Board and is as such well-balanced in terms of professional background, geography, gender and other relevant aspects of the diversity policy. A profile, which is published on [aegon.com](http://aegon.com), has been established that outlines the required qualifications of its members. Supervisory Board members are appointed for a four-year term, and may then be reappointed for another four-year period. Subsequently, the Supervisory Board member can be reappointed again for a period of two years, and then extended by two years at the most. Supervisory Board members are no longer eligible for (re)appointment after reaching the age of 70, unless the Supervisory Board decides to make an exception. Remuneration of the Supervisory Board members is determined by the General Meeting of Shareholders. In 2017, no transactions were concluded between the Company and any of the Supervisory Board members. Furthermore, the Company did not provide loans or issue guarantees to any members of the Supervisory Board. At present, Aegon's Supervisory Board consists of nine members, all of whom qualify as independent in accordance with the Dutch Corporate Governance Code.

**Committees**

The Supervisory Board also oversees the activities of its committees. These committees are composed exclusively of Supervisory Board members and deal with specific issues related to Aegon's financial accounts, risk management, executive remuneration and appointments. These committees are the:

Audit Committee;

Risk Committee;

Remuneration Committee; and

Nomination and Governance Committee.  
Audit Committee

As Aegon has both an Audit Committee and a Risk Committee, the risk management responsibilities stated in the Dutch Corporate Governance Code are assigned to the Risk Committee. With regard to the oversight of the operation of the risk management framework and risk control systems, including supervising the enforcement of relevant legislation and regulations, the Audit Committee operates in close coordination with the Risk Committee as established by the Board. Certain Board members participate in both committees and a combined meeting of the Audit and Risk Committees is scheduled on an annual basis.

The main role and responsibilities of the Audit Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding:

The integrity of the consolidated interim and full-year financial statements and financial reporting processes;

Internal control systems and the effectiveness of the internal audit process; and

The performance of the external auditors and the effectiveness of the external audit process, including monitoring the independence and objectivity of PwC.

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34 System of governance **General information on the system of governance**

The Audit Committee reports to the Supervisory Board on its activities, identifying any matters about which it considers action or improvements are needed, and making recommendations as to the steps to be taken. For more information about the functioning of the Audit Committee, please see the Audit Committee Charter on [aegon.com](http://aegon.com).

**Risk Committee**

The main role and responsibilities of the Risk Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding the effectiveness of the design, operation and appropriateness of both the Enterprise Risk Management (ERM) framework and the internal control systems of the Company and the subsidiaries and affiliates that comprise the Aegon Group. This includes:

Risk strategy, risk tolerance and risk governance;

Product development and pricing;

Risk assessment;

Risk response and internal control effectiveness;

Risk monitoring;

Risk reporting;

Operational risk; and

**Transformation risks**

Furthermore, the Risk Committee regularly reviews risk exposures as they relate to capital, earnings and compliance with risk policies. The Company's risk management is an important topic for the Supervisory Board. For more information about the functioning of the Risk Committee, please see the Risk Committee Charter on [aegon.com](http://aegon.com).

**Remuneration Committee**

The main role and responsibilities of the Remuneration Committee are to advise the Supervisory Board and prepare decisions to be taken by the Board. The Committee is designated to safeguard sound remuneration policies and practices within the Company by overseeing the development and execution of these policies and practices. In order to



ensure that the remuneration policies and practices take all types of risks properly into account, in addition to liquidity and capital levels, the Remuneration Committee assesses in particular the remuneration governance processes, procedures and methodologies adopted. Furthermore, the Committee ensures that the overall remuneration policy is consistent with the longer-term strategy of the Company and the longer-term interest of its shareholders, investors and other stakeholders. This includes:

Reviewing the Aegon Group Global Remuneration Framework and making recommendations on the outcomes;

Preparing recommendations regarding variable compensation both at the beginning and after the end of the performance year;

Overseeing the remuneration of the Executive Board, Identified Staff and Heads of Group Control functions; and

Preparing the information provided to shareholders on remuneration policies and practices, including the Remuneration Report.

Nomination and Governance Committee

The main role and responsibilities of the Nomination and Governance Committee are to assist and advise the Supervisory Board in fulfilling its responsibilities in the areas of Human Resources Management and Corporate Governance. This include:

Board member and senior management succession planning;

Drawing up selection criteria and procedures for Board members, together with supervising the selection criteria and procedures for senior management;

Advising and proposing nominations, appointments and reappointments;

Reviewing and updating the Supervisory Board profile and charters for the Supervisory Board and its committees;

Periodically assessing the functioning of individual members of the Supervisory Board and the Executive Board;

Discussing the annual global employee survey;

Overseeing the corporate governance structure of the Company, compliance with the Dutch Corporate Governance Code and any other applicable corporate governance legislation and regulations; and

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Assessing and advising on the responsible business strategy as part of the corporate strategy, and overseeing the execution of the responsible business strategy.

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35 System of governance **General information on the system of governance**

**B.1.1.2 The Executive Board**

Aegon's Executive Board is charged with the overall management of the Company and is therefore responsible for achieving

Aegon's aims and developing the strategy and its associated risk profile, in addition to overseeing any relevant sustainability issues and the development of the Company's earnings. Each member has duties related to his or her specific area of expertise.

Aegon's Articles of Association determine that for certain decisions the Executive Board must seek prior approval from the Supervisory Board and/or the approval of the General Meeting of Shareholders. In addition, the Supervisory Board may also subject other Executive Board decisions to its prior approval.

Composition of the Executive Board

Aegon's Executive Board consists of Alexander R. Wynaendts, who is Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, who is Chief Financial Officer (CFO), and member of the Executive Board, having been appointed to the Executive Board at the Annual General Meeting of the Company on May 19, 2017.

The number of Executive Board members and their terms of employment are determined by the Company's Supervisory Board. Executive Board members are appointed by the General Meeting of Shareholders for a four-year term, following nomination by the Supervisory Board.

The members of the Executive Board have an engagement agreement with the Company rather than an employment contract. The Company's Remuneration Policy for the Executive Board limits exit arrangements to a maximum of one year of the fixed component of the salary.

**B.1.1.3 The Management Board**

Aegon's Executive Board is assisted in its work by the Company's Management Board, which has ten members, including the members of the Executive Board.

Composition of the Management Board

Aegon's Management Board is composed of Alex Wynaendts, Matthew J. Rider, Mark Bloom, Adrian Grace, Allegra van Hövell-Patrizi, Marco Keim, Onno van Klinken, Carla Mahieu, Mark Mullin and Sarah Russell.

Role of the Management Board

Aegon's Management Board works in unison with the Executive Board, and helps oversee operational issues and the implementation of Aegon's strategy. Members are drawn from Aegon's business units and from Aegon's global functions. The members have both regional and global responsibilities. This ensures that Aegon is managed as an integrated international business. While the Executive Board is Aegon's sole statutory executive body, the

Management Board provides vital support and expertise in pursuit of the Company's strategic objectives.

In the relation between the Management Board and the Supervisory Board, the CEO shall be the first contact for the Supervisory Board and its Chairman. In addition thereto, and in connection with how the contacts between the Supervisory Board and the Management Board committee have been given shape, the members of the Management Board will act in accordance with the provisions provided therefore in the Management Board Charter, the Executive Board Charter and the Supervisory Board Charter.

#### **B.1.1.4 General Meeting of Shareholders**

A General Meeting of Shareholders is held at least once a year and, if deemed necessary, the Supervisory or Executive Board of the Company is able to convene an Extraordinary General Meeting of Shareholders. The main function of the General Meeting of Shareholders is to decide on matters such as the adoption of annual accounts, the approval of dividend payments and (re) appointments to the Supervisory Board and Executive Board of Aegon.

#### **B.1.1.5 Key Functions**

A description of the main roles and responsibilities of key functions, as well as their necessary and operational independence is disclosed in section B.2 Fit and proper requirements. Reference is made to sections B.3, B.4, B.5 and B.6 for more details on Aegon's key functions.

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### 36 System of governance **General information on the system of governance**

#### **B.1.1.6 Material changes in the system of governance**

During 2017, there were no material changes to the system of governance. For the changes in the composition of the Supervisory Board and Executive Board during 2017, please refer to page 116 of the Annual Report 2017.

Risk management, internal control systems and reporting procedures

For a description of how the risk management and internal control systems and reporting procedures are implemented consistently, please see section B.4 Internal control system. There were no material changes during 2017 on how the risk management and internal control systems and reporting procedures are implemented.

#### **B.1.2 Remuneration policy**

The Aegon Group Global Remuneration Principles, as set out in the Aegon Global Remuneration Framework, have been applicable in the Aegon Group and consistently applied to regional and local remuneration policies and practices. The below provides a summary of Aegon's Remuneration policy and its governance. During the reporting period no material changes have taken place in this policy and its governance. For further details, reference is made to the Remuneration Report on pages 126 - 133 of the IFRS Annual Report 2017 of Aegon Group.

#### **Global Remuneration Principles**

Aegon's Global Remuneration Framework (AGRF) contains the guiding principles to support sound and effective remuneration policies and practices by ensuring consistency throughout Aegon.

Aegon's remuneration policies are derived from the AGRF. These policies define specific terms and conditions for the employment of various groups of staff.

#### **Role of risk management and compliance**

The risk management and compliance functions, together with the Human Resources and Finance functions, are responsible for the execution of the various measures that ensure the AGRF and associated practices are aligned with the defined risk tolerances and behaviors.

#### **Supervisory Board Remuneration Policy**

The Supervisory Board Remuneration Policy was adopted at the General Meeting of Shareholders on May 15, 2013. The Policy will remain in force until such time as the Supervisory Board proposes changes or amendments. Any material changes in the Supervisory Board Remuneration Policy will be referred to the General Meeting of Shareholders for adoption.

Aegon's Remuneration Policy for members of its Supervisory Board is aimed at ensuring fair compensation, and protecting the independence of the Supervisory Board's members. Terms and conditions for members of the Supervisory Board are part of Aegon's broader Remuneration Policy, and are the responsibility of the Company's Remuneration Committee.

Members of Aegon's Supervisory Board receive a fee for their services. They do not receive any performance or equity-related compensation, and do not accrue pension rights with the Company. These measures are designed to ensure the independence of Supervisory Board members and to strengthen the overall effectiveness of Aegon's corporate governance.

The total remuneration in 2017 of active and retired members of the Supervisory Board amounted to EUR 932,375 excluding VAT (2016: EUR 935,875). Not included in the total remuneration is a premium for state health insurance paid on behalf of Dutch Supervisory Board members. There are no outstanding balances such as loans, guarantees or advanced payments.

### **Executive Board remuneration**

The Executive Board Remuneration Policy was adopted at the General Meeting of Shareholders on May 12, 2011. The Policy will remain in force until such time as the Supervisory Board proposes changes or amendments. Any material changes in the Executive Board Remuneration Policy will be referred to the General Meeting of Shareholders for adoption. During the reporting period no material changes have taken place in the system of governance.

In 2017, Mr. Rider was appointed to the Executive Board for a term of four years by the shareholders on May 19, 2017 as CFO. Amounts and numbers are disclosed for the period Mr. Rider has been part of the Executive Board. Under the current remuneration structure, rewards are paid out over a number of years, or in the case of shares, vest over a number of years. This remuneration structure has made it more relevant to present rewards earned during a certain performance year instead of what was received in a certain year.

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The total amount of remuneration, consisting of the fixed compensation, conditional variable compensation awards, other benefits and pension contributions, for Mr. Wynaendts related to 2017 was EUR 4,683 thousand (2016: EUR 4,538 thousand) and for Mr. Rider EUR 1,342 thousand (2016: EUR nil). The total remuneration for the members of the Executive Board over 2017 was EUR 6.0 million (2016: EUR 7.3 million).

At the reporting date no loans with Aegon or outstanding balances such as guarantees or advanced payments exist for either Mr. Wynaendts or Mr. Rider.

#### **Role of the Remuneration Committee**

The Supervisory Board has overall responsibility for the Company's Remuneration Policies, including the Executive Board Remuneration Policy. Members of the Remuneration Committee are drawn from the Supervisory Board.

Each year, Aegon's Remuneration Committee reviews Aegon's remuneration policies to ensure they remain in line with prevailing international standards. This review is based partly on information provided by Aegon's external advisor, Towers Watson. The advisor does not, however, advise individual members of the Executive and Supervisory Boards.

The Remuneration Committee may recommend changes to the policies to the Supervisory Board.

#### **Review of the Remuneration Policy**

Aegon's Executive Board Remuneration Policy is reviewed every year by the Remuneration Committee. The policy applies to all members of Aegon's Executive Board.

#### **Ensuring pay remains competitive**

The Company regularly compares its levels of executive remuneration with those of other comparable companies.

The Supervisory Board reviews compensation on the basis of an international peer group and a reference group based on companies listed on Euronext Amsterdam. The composition of the two groups is regularly reviewed in order to ensure that they continue to provide a reliable and suitable basis for comparison.

#### **Total compensation**

For each member of the Executive Board, Aegon's Supervisory Board determines a maximum total compensation, reflecting the specific roles and responsibilities of the individual.

The Supervisory Board conducts regular scenario analysis to determine the long-term effect of company performance on the level and structure of compensation granted to members of the Executive Board. The Supervisory Board (Remuneration Committee) discussed and endorsed the 2017 total compensation for the Executive Board.

#### **Fixed compensation**

It is the responsibility of the Supervisory Board to determine fixed compensation for members of the Executive Board based on their qualifications, experience and expertise.

**Variable compensation**

Variable compensation is based on a number of individual and company performance indicators that are linked to the Company's objectives, business strategy, risk tolerance and long-term performance.

Performance is determined by using a mix of financial and non-financial indicators. The individual performance criteria concern a basket of strategic and personal objectives related to Aegon's strategy. The type of performance indicators are selected in accordance with the long-term goals of the Company. The targets and levels are agreed by the Supervisory Board.



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38 System of governance **General information on the system of governance**

Performance is assessed by Aegon's Remuneration Committee and validated by the full Supervisory Board. Each year, a one-year target is set for each performance indicator. By paying half of the variable compensation in cash and the other half in shares, together with adding deferral and additional holding periods to the variable compensation that is allocated, Aegon believes that the long-term interests of Executive Board members is aligned with the long term performance of the company and aligned with the interests of Aegon's stakeholders.

Variable compensation is conditionally granted at the beginning of the performance period. Variable compensation is allocated once the accounts for the financial year in question have been adopted by the Company's General Meeting of Shareholders and after an ex-ante assessment.

The allocated variable compensation consists of equal parts of cash and shares, of which 40% is paid out (or vests) in the year following the performance year, and 60% is deferred to later years and vests in equal individual parts in the 3 years following. These deferred portions remain conditional until it vests.

At the end of the performance period, but prior to allocation of variable compensation, the Supervisory Board assesses whether (downward) modifications are needed (so called Ex-ante risk adjustment methodology). For this purpose, quantitative and qualitative measures at Aegon Group, regional unit and individual level are taken into account.

**Ex-post assessment, discretionary adjustments, circuit breaker and claw back provisions**

The Supervisory Board uses judgment in the assessment of the outcome of strategic/personal targets to ensure that, taken together, they represent a fair reflection of the overall performance of the Executive Board member over the performance period.

In addition, the Supervisory Board applies an ex-post risk assessment to deferred payouts of variable compensation to determine whether allocated (that is, unvested) variable compensation should become unconditional (meaning it vests) or should be adjusted. This ex-post assessment is based on informed judgment by the Supervisory Board, taking into account significant and exceptional circumstances that are not (sufficiently) reflected in the initially applied performance indicators.

Deferred variable compensation may only be adjusted downwards. Ex-post, risk-based assessments concern deferred variable compensation, not fixed compensation.

For each performance indicator, variable compensation is only paid if the threshold level set for that performance indicator is reached.

Aegon's Supervisory Board is obliged to claim back variable compensation that has already been paid out or vested where required based on the regulations that apply from time to time, if variable compensation is based on incorrect data (including non-achievement of performance indicators in hindsight), or in the event of material financial restatements or individual gross misconduct.

**Pension arrangements**

Members of Aegon's Executive Board are offered pension arrangements and retirement benefits. Benefits offered are consistent with Executive Board members' agreements. Pension arrangements do not include discretionary elements.

The arrangements with Mr. Wynaendts include retirement provisions that allow benefits to be taken at the end of the term. This retirement arrangement stems from pre-Executive Board membership. The arrangement with Mr. Rider is similar to the arrangements for other staff in the Netherlands and consists of a so-called career average defined benefits plan up to EUR 103,317 (2017 threshold) base salary and a defined contribution plan for the amount above EUR 103,317. Details are not disclosed due to the individual nature of such arrangement.

### **Loans**

Aegon does not grant Executive 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 the Company's Supervisory Board.

### **Terms of Engagement Agreement**

Members of the Executive Board are appointed for four years, and may then be re-appointed for successive mandates also for a period of four years.

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Executive Board members have an engagement agreement with Aegon N.V., rather than a contract of employment. Members of the Executive Board may terminate their engagement agreement with a notice period of three months. The Company may terminate the board agreement by giving six months' notice if it wishes to terminate the agreement of Mr. Wynaendts, and three months' notice if it wishes to terminate the agreement of Mr. Rider.

The arrangements with current members of the Executive Board contain provisions for severance payments in the event that their agreement is terminated as a result of a merger or takeover.

Currently, it is expected that the terms of the engagement agreements will remain largely unchanged during 2018.

### **Management Board remuneration**

Members of the Management Board, who are not on the Executive Board, are rewarded on the basis of local remuneration policies and in line with local market practice for roles with a similar scope and complexity. These policies are derived from the Aegon Global Remuneration Framework and are updated regularly.

Their remuneration includes fixed compensation, variable compensation and benefits.

The variable compensation is determined by a similar approach as for the members of the Executive Board. It is also based on a mix of individual and company performance indicators that are linked to the Company's objectives, business strategy, risk tolerance and long-term performance. However their targets, levels and performance assessment are agreed and determined by their local Remuneration Committee.

The Executive Board and/or their local Remuneration Committee decide on a potential downward modification of the variable compensation (based on either an Ex-ante or Ex-post risk assessment) or claw back.

The allocated variable compensation is paid in cash and shares. Depending on location, this mix ranges from 50% cash and 50% shares (in the Netherlands) up to 33% cash and 67% shares (outside the Netherlands). At least 50% of the variable compensation is deferred. Additional holding periods may apply to the allocated shares.

Depending on local practices the pension arrangements may include provisions allow for early retirement.

The total remuneration for the members of the Management Board over 2017 was EUR 19.8 million (2016: EUR 18.6 million), consisting of EUR 7.4 million (2016: EUR 7.0 million) fixed compensation, EUR 7.8 million variable compensation awards (2016: EUR 6.4 million), EUR 0.9 million (2016: EUR 1.9 million) other benefits and EUR 3.7 million (2016: EUR 3.4 million) pension premiums. Amounts are reflective of time spent on the Management Board.

### **Material transactions with Aegon's boards**

There were no material transactions with members of the Supervisory, Executive, or Management Board.



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40 System of governance **Fit and proper requirements**

**B.2 Fit and proper requirements**

**B.2.1 Requirements**

**The Executive Board**

The Executive Board is charged with the management of the Company, which means, among other things, that it is responsible for setting and achieving the Company's objectives, strategy and the associated risk strategy and risk tolerance, and ensuring delivery of results and corporate social responsibility issues that are relevant to the Company. The Executive Board is accountable for these matters to the Supervisory Board and the General Meeting of Shareholders. Responsibility for the management of the Company is vested collectively in the Executive Board. The Executive Board is responsible for compliance with all relevant laws and regulations, for managing the risks attached to the Company's activities and for the financing of the Company. The Executive Board reports on these issues to and discusses the internal risk management and control systems with the Supervisory Board, the Audit Committee of the Supervisory Board, and the Risk Committee of the Supervisory Board.

Individual members of the Executive Board may be charged with specific parts of the managerial tasks, without prejudice to the collective responsibility of the Executive Board as a whole. The Executive Board is collectively responsible for decisions, even if they are prepared by individual members of the Executive Board. An individual member of the Executive Board may only exercise such powers if these are explicitly attributed or delegated to the individual member and the individual member may never exercise powers beyond those exercisable by the Executive Board as a whole. The division of tasks within the Executive Board is determined (and amended, if necessary) by the Executive Board, subject to the approval of the Supervisory Board. Executive Board members especially charged with particular managerial tasks are primarily responsible for the risk control and monitoring of the managerial tasks concerned.

To fulfil these tasks, the specific skills that members of the Executive Board should have at their disposal include:

Leadership (i.e. ideas, people and change);

Strategic thinking and sound judgment, financial and commercial acumen, particularly around complex and inorganic change activities;

Influencing and relationship building;

Communication;

Delivery with clear focus on outcomes; and

Innovation and problem solving and customer-centric.

Moreover, the members of the Executive Board should possess knowledge and experience in the areas of having a 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, a good understanding of the different regimes associated with insurance and investments, including capital management and regulatory frameworks. The Executive Board should possess extensive industry and executive management experience in a number of financial, operational and strategic roles in addition to being - an industry leader recognized by regulators, trade associations and government bodies. In addition, the Executive Board should have a proven ability to lead complex transactions across an organization, including inorganic activity.

### **The Management Board**

As stated in section B.1.1.1, the Executive Board is assisted in its work by the Company's Management Board. The Management Board is entrusted with the overall strategic direction of Aegon Group, particularly with respect to Aegon Group's business objectives and strategy as well as ensuring delivery of results, Aegon Group's policies, Enterprise Risk Management, corporate responsibility issues that are relevant to Aegon Group.

Management Board members are collectively responsible for managing Aegon's senior leadership talent. Management Board members have a responsibility to manage talent consistently at all Aegon's business units around the world. The Management Board has full information rights vis-à-vis all countries and business lines within the Aegon Group.

The Management Board has, in performing its duties, access to the expertise of and support and services from all Corporate Center departments. In undertaking its responsibilities the Management Board acts in accordance with the interests of Aegon Group and the business units connected with it, taking into consideration the interests of Aegon Group's stakeholders. Members of the Management

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### 41 System of governance **Fit and proper requirements**

Board express views with respect to important affairs, matters of principle and matters of general interest in accordance with final decision-making, and with due observance of each member's individual responsibilities.

All members of the Executive and Management Boards (as day-to-day policymakers of Aegon) have been approved by the Dutch supervisory authorities on fitness and propriety prior to their respective appointments and fulfil these requirements on an ongoing basis.

#### **The Supervisory Board**

Aegon's Supervisory Board oversees the management of the Executive Board, in addition to the Company's business and corporate strategy. The Supervisory Board must take the interests of all Aegon stakeholders into account. The Supervisory Board operates according to the principles of collective responsibility and accountability.

The Supervisory Board, as a collective, should have the following qualifications:

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's businesses 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

Expertise in financial, accounting and business economics, and the ability to judge issues in the areas of risk management, solvency, actuary, currencies and investment and acquisition projects.

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 critical attitude with regard to the other Supervisory Board members and the Executive Board; an international orientation; and outside experience.

Aegon aims to ensure that the composition of the Company's Supervisory Board is in line with Aegon's diversity policy for the Supervisory Board, Executive Board and Management Board and is as such well-balanced in terms of

professional background, geography, gender and other relevant aspects of the diversity policy.

All members of Aegon's Supervisory Board have been approved by the Dutch supervisory authorities, the Dutch Central Bank (DNB) and the Netherlands Authority of Financial Markets (AFM), with regard to fitness and propriety prior to their appointment and fulfil these requirements on an ongoing basis.

### **Other key functions**

Furthermore, with regard to the Solvency II Delegated Regulation, Aegon has implemented the following four key control functions: risk management, compliance, internal audit and the actuarial function. These functions have been in place within Aegon for many years.

#### **Risk management**

The Aegon Group Chief Risk Officer (CRO) is the function holder for risk management. The Aegon Group CRO is also member of the Management Board and of high level Risk Committees. For more information about the risk management system and its functions, please refer to section B.3 Risk management system.

#### **Compliance**

During 2017, the Head of Operational & Conduct Risk Assessment has been the key function holder for the Solvency II compliance function. OCRM reports to the Aegon Group CRO and is responsible for ensuring that the risk profile is managed in line with risk tolerance. The regulatory compliance function supports the Head of OCRM in meeting its responsibilities as Solvency II key function holder for Compliance. In 2018, it is the intention to transfer the responsibility for the Solvency II compliance function to the head of Regulatory Compliance (reporting to the Group's General Counsel). For more details about the compliance function reference is made to section B.4 Internal control system.



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Internal Audit

The Global Head of Internal Audit 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 Audit Committee. For more details about the Internal Audit function refer to section B.5 Internal audit function.

Actuarial function

The actuarial function holder is the Global Chief Actuary/Head of Underwriting Risk Management and is part of the second line of defense at Aegon Group level with a functional line to the CFO for financial control related aspects. For more details about the Actuarial function please refer to section B.6 Actuarial function.

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 Supervisory Board of Aegon N.V. Changes to the resources require approval from the key function. Issues can be brought forward to the Supervisory Board of Aegon N.V. for resolution.

The necessary operational independence of the key functions is documented as part of the charters agreed with the Supervisory Board of Aegon N.V. Issues can be brought forward to the Supervisory Board of Aegon N.V. for resolution.

**B.2.2 Process for assessment**

In accordance with the Dutch Financial Supervision Act, Aegon has identified, in addition to the members of the Management Board and Supervisory Board, those persons that fulfil key functions as referred to in Articles 3:271 and 3:272, in connection with Articles 3:8 and 3:9 of the Dutch Financial Supervision Act. This group of persons is broader than but includes all persons that fulfil key functions as referred to in Art. 294 (2) of the Solvency II Delegated Regulation. These persons are subject to a pre-employment screening prior to their employment within Aegon, as well as a propriety assessment by the Dutch supervisory authorities prior to their appointment in a key function.

Ongoing compliance with propriety requirements of the persons that effectively run the undertaking or have other key functions is a joint responsibility of the respective person as well as Aegon.

Fitness of the persons that effectively run the undertaking or have other key functions is determined at the point of selection as well as thereafter. As regards the point of selection, Aegon has drawn up a specific job profile for each function. These profiles detail the requirements in terms of the level of skills, knowledge and experience required to successfully fulfil the specific position within the Company. The selection of the jobholder takes place by assessing the candidate for a position against these specific job requirements. The score on the three elements (expertise, knowledge and experience) is balanced and leads to potential recruitment in the position. Once selected, fitness of a specific person for a function is continuously assessed against this job profile. The ongoing compliance with fitness

requirements is monitored as part of the regular human resource cycle within Aegon. Regular formal assessments of performance against the requirements are part of this cycle and are documented for record keeping purposes. In the human resources cycle, performance management is an important element in which targets are set and the results are monitored to assess if the jobholder continues to meet both the specific job requirements and the fitness requirements.

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**B.3 Risk management system including the Own Risk and Solvency Assessment**

**B.3.1 Risk management system**

**B.3.1.1 Aegon's Enterprise Risk Management framework**

Aegon's ERM framework is designed and applied to identify and manage potential risks that may affect Aegon. This means identifying and managing individual and aggregate risks within Aegon's risk tolerance in order to provide reasonable assurance regarding the achievement of Aegon's objectives. The ERM framework is designed in line with the Committee of Sponsoring Organizations of the Treadway Commission (COSO) model. The ERM framework applies to all of Aegon's businesses for which it has operational control. Aegon's businesses are required to either adopt the Group level ERM framework directly, or tailor it to local needs while meeting the requirements of the Group level ERM framework.

General

As an insurance group, Aegon manages risk for the benefit of its customers and other stakeholders. As a result, the Company is exposed to a range of underwriting, operational and financial risks. Aegon's risk management and control systems are designed to ensure that these risks are managed effectively and efficiently in a way that is aligned with the Company's strategy.

Definition and tolerances

For Aegon, enterprise risk management involves:

Understanding the risks that Aegon faces;

Maintaining a company-wide framework through which the risk-return trade-off associated with these risks can be assessed;

Maintaining risk tolerances and supporting policies to limit exposure to a particular risk or combination of risks; and

Monitoring risk exposures and actively maintaining oversight of the Company's overall risk and solvency positions.

By setting certain predefined tolerances and adhering to policies that limit the overall risk to which the Company is exposed, Aegon is able to accept risk with the knowledge of potential returns and losses.

The ERM framework consists of various components, as shown below:

## Risk strategy and risk tolerance

The formulation of the risk strategy starts with the principle that taking a risk should be based on serving a customer's need. In terms of Aegon's purpose statement, risk taking should be instrumental to helping people achieve a lifetime of financial security. The competence with which Aegon is able to manage the risk is assessed and Aegon's risk preferences are formulated, taking into account Aegon's risk capacity. The risk preferences eventually lead to a targeted risk profile that reflects the risks Aegon wants to keep on the balance sheet, and the risks Aegon would like to avoid. Aegon's tolerance for risk is established in order to assist management in carrying out Aegon's strategy using the resources available to Aegon Group. Aegon has defined four areas where risk tolerance plays an important role:

**Financial strength:** ensure Aegon meets long-term obligations to policyholders, thereby enabling Aegon to compete in key markets as a financially strong global insurer;

**Continuity:** ensure that Aegon remains solvent and liquid even under adverse scenarios;

**Culture:** encourage strong risk awareness by stressing the Company's low tolerance for operational risk. This helps to improve operational excellence and ensures that the Company is fair in its treatment of customers and other stakeholders; and

**Risk balance:** manage the concentration of risk and encourage risk diversification within Aegon.

### Risk identification and risk assessment

Aegon has identified a risk universe that captures all known material risks to which the Company is exposed. An Emerging Risk process is in place to ensure on-going appropriateness of both the risk universe and the risk management framework. In order to assess all risks, a consistent methodology for measuring risks is required. Aegon's methodology for this is documented in a manual and maintained up-to-date. The risk metrics are embedded in Aegon's key reports and are used for decision making.

### Risk response

Aegon distinguishes the following risk responses:

When the risk exposure is within the set risk tolerance, management can accept the risk; and

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When exposure exceeds the risk tolerance of management or cost-benefit analysis supports further actions, management can decide to control, transfer or avoid the risk.

Risk monitoring and reporting

Risks are monitored regularly and reported on at least a quarterly basis. The impact of key financial, underwriting and operational risk drivers on earnings and capital is shown in the quarterly risk dashboard for the various risk types both separately as well as on an aggregate basis.

Risk exposures are compared with the limits as defined by Aegon's risk tolerance statements. Reporting also includes risk policy compliance and incident and compliance reporting. Finally, the main risks derived from Aegon's strategy and the day-to-day business are discussed, as well as forward looking points for attention. If necessary, mitigating actions are taken and documented.

Risk control

A system of effective controls is required to mitigate the risks identified. In Aegon's ERM framework risk control includes risk governance, risk policies, internal control framework, model validation, risk embedding, risk culture and compliance.

**B.3.1.2 Aegon's risk governance framework**

Aegon's risk management is based on clear, well-defined risk governance. The goals of risk governance are to:

Define roles and responsibilities, and risk reporting procedures for decision makers;

Institute a proper system of checks and balances;

Provide a consistent framework for managing risk in line with the targeted risk profile; and

Facilitate risk diversification.

Governance structure

Aegon's risk management framework is represented across all levels of the organization. This ensures a coherent and integrated approach to risk management throughout the Company. Similarly, Aegon has a comprehensive range of company-wide risk policies that detail specific guidelines and limits. These policies include legal, regulatory and internally set requirements, and are designed to keep overall risk-specific exposures to a manageable level. Any breach of policy limits or warning levels triggers immediate remedial action or heightened monitoring. Further risk policies may be developed at a local level to cover situations specific to particular regions or business units. Aegon's risk management governance structure has four basic layers:

The Supervisory Board and the Supervisory Board Risk Committee (SBRC);

The Executive Board and the Management Board;

The Group Risk & Capital Committee (GRCC) and its sub-committees; and

The Regional Risk & Capital Committees (RCC).

1. Supervisory Board

The SBRC reports to the Supervisory Board on topics related to the ERM framework and the internal control system. The formal responsibility regarding the effectiveness and design, operation and appropriateness of the ERM and internal control system rests, however, with the Audit Committee of the Supervisory Board. The Audit Committee works closely together with the SBRC with regard to the oversight of and reports on the effectiveness of the ERM framework and the risk control systems of the Company. The Audit Committee relies on the findings of the SBRC. The SBRC is responsible for overseeing Aegon's ERM framework, including risk governance and measures taken to ensure risk management is properly integrated into the Company's broader strategy. The main roles and responsibilities of the SBRC are to assist and advise the Supervisory Board and the Audit Committee of the Supervisory Board in fulfilling their oversight responsibilities regarding the effective operation and appropriateness of the ERM framework and internal controls system of Aegon N.V., and its subsidiaries and affiliates that comprise the Aegon Group. These include:

Risk strategy, risk tolerance and risk governance;

Product development and pricing;

Risk assessment;

Risk responses and internal control effectiveness;

Risk monitoring;

Risk reporting;

Operational Risk; and

Transformation Risks.

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Furthermore, the SBRC regularly reviews risk exposures relating to capital, earnings and compliance with Group Risk policies. It is the responsibility of the Executive Board and the Group's Chief Risk Officer (CRO) to inform the Supervisory Board of any risk that directly threatens the solvency, liquidity or operations of the Company.

2. Executive Board and Management Board

Aegon's Executive Board has overall responsibility for risk management. The Executive Board adopts the risk strategy, risk governance, risk tolerance and material changes in risk methodology and risk policies. The Group's CRO has a standing invitation to attend Executive Board meetings and a direct reporting line to the Supervisory Board to discuss ERM and related matters, and is a member of the Management Board

The Management Board oversees a broad range of strategic and operational issues. While the Executive Board remains

Aegon's statutory executive body, the Management Board provides vital support and expertise in safeguarding Aegon's strategic goals. The Management Board discusses and sponsors ERM, in particular the risk strategy, risk governance, risk tolerance and the introduction of new risk policies.

The Executive Board and Management Board are supported by the Group Risk & Capital Committee.

3. Group Risk & Capital Committee (GRCC)

The GRCC is Aegon's most senior risk committee. It is responsible for managing Aegon's balance sheet at the global level, and is in charge of risk oversight, risk monitoring and risk management related decisions on behalf of the Executive Board in line with its charter. The GRCC ensures risk-taking is within Aegon's risk tolerances; that the capital position is adequate to support financial strength, credit rating objectives and regulatory requirements, and that capital is properly allocated. The GRCC informs the Executive Board about any identified (near) breaches of overall tolerance levels, as well as any potential threats to the Company's solvency, liquidity or operations.

The GRCC has three sub-committees: the ERM framework, Accounting and Actuarial Committee (ERMAAC), the Non-Financial Risk Committee (NFRC) and the Model Validation Committee (MVC).

The ERM framework, Accounting and Actuarial Committee (ERMAAC)

The purpose of the ERMAAC is to assist the GRCC, Executive Board and Management Board with framework setting and maintenance across all group-level balance sheet bases, including policies, standards, guidelines, methodologies and assumptions. The ERMAAC can seek advice on significant framework development from temporary working groups comprised of subject-matter experts from across the Company's businesses. These working groups are established by the ERMAAC, including their membership, scope of work and deliverables.

The Non-Financial Risk Committee (NFRC)

The NFRC exchanges information on non-financial risk matters and prepares decision making for the GRCC or relevant Board, in line with applicable governance requirements. The NFRC receives and reviews the regular reports



from the regions on non-financial risk exposure, including issues related to regulatory compliance and conduct.

#### The Model Validation Committee (MVC)

The MVC is responsible for approving all model validation reports across Aegon. This is an independent committee that reports into the GRCC and Executive Board to provide information on model integrity and recommendations for further strengthening of models.

#### 4. Regional Risk & Capital Committee (RCC)

Each of Aegon's regions has a Risk & Capital Committee (RCC). The responsibilities and prerogatives of the RCCs are aligned with the GRCC and further set out in their respective charters, which are tailored to local circumstances.

#### Group-wide risk function

In addition to the four basic layers described above, Aegon has an established group-wide risk function. It is the mission of the Risk Management function to ensure the continuity of the Company through safeguarding the value of existing business, protecting Aegon's balance sheet and reputation, and through supporting the creation of sustainable value for all stakeholders.

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In general, the objective of the Risk Management function is to support the Executive Board, Management Board, Supervisory Board, and regional and business unit boards in ensuring that the Company reviews, assesses, understands and manages its risk profile. Through oversight, the Risk Management function ensures the group-wide risk profile is managed in line with Aegon's risk tolerances, and stakeholder expectations are managed under both normal business conditions and adverse conditions caused by unforeseen negative events.

The following roles are important in order to realize the objective of the Risk Management function:

Advising on risk-related matters including risk tolerance, risk governance, risk methodology and risk policies;

Supporting and facilitating the development, incorporation, maintenance and embedding of the ERM framework and sound practices; and

Monitoring and challenging the implementation and effectiveness of ERM practices.

In the context of these roles, the following responsibilities can be distinguished:

Advising on risk-related matters:

Bringing businesses together to facilitate information exchange, sharing best practices and working together on relevant case studies and external standards in order to develop, adopt and maintain relevant standards of practice throughout Aegon; and

Optimizing the use of capital and growth within risk/return and consumer conduct criteria.

Supporting and facilitating:

Developing and maintaining the global ERM framework for identifying, measuring and managing all material risks the Company is exposed to as defined in Aegon's risk universe and protecting Aegon's reputation;

Developing and maintaining Aegon's risk methodology as described in the Aegon Market Consistent Reporting Manual (AMCRM);

Supporting the businesses with implementing the ERM framework, risk methodology and standards of practice where needed;

Supporting the Management Board in ensuring the effective operation of the ERM framework and related processes, providing subject matter expertise to businesses as appropriate and facilitating information exchange on good risk practices;

Identifying and analyzing emerging risks, being input for ongoing risk strategy development and to ensure that Aegon's risk universe remains up to date;

Designing the Solvency II PIM, including the validation thereof. Model validation ensures independent review of methodology, assumptions, data, testing, production, reporting and use of the Solvency II PIM;

Analyzing Solvency II PIM outputs and performance and reporting results to the Boards and relevant (Supervisory) Committees;

Providing subject matter expertise from the Centers of Excellence of the global Risk Management function to business areas through review of key initiatives, transactions, programs, projects, assumptions, methodologies and results across all important paradigms;

Providing assurance on the integrity of models and cash flows through model validations and maintenance of model validation policies and standards; and

Promoting a strong risk management culture across Aegon, including review of performance targets and remuneration in line with the Aegon Group Global Remuneration Framework.

Challenging and monitoring:

Monitoring the ERM framework and overseeing compliance with group-wide risk governance requirements, risk strategy and risk tolerances, risk policies and risk methodology, which are applicable to all businesses for which Aegon has operational control;

Ensuring appropriate risk management information is prepared for use by the GRCC, the Management Board, the Executive Board and Supervisory Board;

Overseeing material risk, balance sheet and business decisions taken throughout Aegon in line with established risk governance arrangements;

Monitoring and reporting on risk exposures and advising the Boards and (Supervisory) Committees on risk management related matters, including in relation to strategic affairs such as corporate strategy, mergers and acquisitions and major projects and investment;

Monitoring that the internal model is and remains appropriate to the Company's risk profile and informing the Management Board and the Supervisory Board about the on-going performance, suggesting improvements;

Monitoring risk exposures and risk policy compliance, including review of the Own Risk and Solvency Assessment (ORSA) and Recovery Plan defined triggers and early warning indicators;

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Acting as independent business partner with focus on talent development, control excellence, customer conduct, capital allocation and by providing management focused risk tools or fostering debates and proactively challenging on key business developments that may create significant exposure for example through hedging and investment remits;

Providing subject matter expertise and overseeing critical business initiatives to strengthen risk management activities, to improve the risk profile and to resolve risk events and control issues noted;

Embedding robust oversight and risk management culture and processes; and

Protecting group capital for all stakeholders.

Aegon's Group and business unit's risk management staff structure is fully integrated. Business unit CROs have either a direct reporting line to the Group CRO or one of the regional CROs that reports directly to the Group CRO.

Lines of defense

Aegon's risk management structure is organized along three lines of defense to ensure conscious risk-return decisions, and to limit the magnitude of potential losses within defined levels of certainty. The objective of this structure is to avoid surprises due to the materialization of unidentified risks, or from losses that exceed predefined risk tolerance levels and related limit structures.

The Company's three lines of defense are its business and support functions, the risk management department, and the audit function. The Company's first line of defense, the business and support functions, has direct responsibility for managing and taking risk in accordance with defined risk strategy, risk tolerances and risk policies. The second line of defense - which includes the risk management department, including the operational and conduct risk management function - facilitates and oversees the effectiveness and integrity of ERM across the Company. The third line of defense - the audit function - provides independent assurance opinions on the effectiveness of the internal control, risk management and governance systems.

Model validation process

Aegon has group-wide requirements in place on model validation. The requirements are covered in the Model Validation Framework, including the Model Validation and Model Change policies. The Model Validation function is part of the Risk Management function, and is independent from model owners and business users. The model validation reports are approved in the independent Model Validation Committee (MVC).

The purpose of the model validation process is to assess the model's integrity, including the performance of the model and the ongoing appropriateness of its specifications. Before model validation by Aegon's second line of defense can

take place, responsible management – the first line of defense – should have ensured that the model in scope of the validation meets the requirements as set out in the Model Validation Framework. Among other things, the Model Validation function assesses the appropriate use of test tools under the responsibility of local management and also performs its own independent testing. The findings of the model review are documented and result in a model opinion. Identified gaps need to be closed by the model owners according to a gap closure plan.

#### Solvency II PIM governance

The governance of Aegon’s Solvency II Partial Internal Model (PIM) is fully integrated in Aegon’s risk management system and governance structure. Aegon’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.

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The Risk Management function is responsible for design of the Solvency II PIM. All Solvency II PIM models have been independently validated. After passing the initial validation, 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. The overarching validation of the Solvency II PIM is updated annually. The last overarching validation was completed in August 2017, with a positive conclusion.

In 2017, the Model Validation Framework was further updated to include recommendations from the College of Supervisors following the major model change application.

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

#### **B.3.2 Own Risk and Solvency Assessment**

##### **B.3.2.1 ORSA process overview**

The Own Risk and Solvency Assessment ( ORSA ) Process has a primary purpose of providing a holistic, inter-connected view of a) Aegon's business strategy, b) the risks to which the business is exposed and c) Aegon's capital levels. It assesses the financial security of the business given the risks Aegon is exposed to. The ORSA captures the key elements of the risk management and capital management processes which support the Company in pursuit of fulfilling its business strategy. The ORSA process (as illustrated below) encapsulates the link between business strategy, risk and capital.

#### **Own Risk and Solvency Assessment**

The ORSA is integrated within the Company through Aegon's annual Budget/Medium Term Plan (MTP) process and the ongoing Risk and Capital assessments.

The Budget/MTP contains the business plan over a three-year period. This includes business projections on a variety of bases to indicate different economic assumptions. The business plan combines the business and financial strategy. Also included within the Budget/MTP are stress testing techniques and scenario analysis to provide details of how the Company would be impacted by particular changes in macro and micro economic factors, in addition to non-financial factors impeding the fulfilment of Aegon's strategic objectives. The outcomes of the process inform management, enabling them to determine appropriate mitigating actions and define capital and solvency needs.

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A Risk and Capital assessment takes into account the proposed strategy and the acceptable level of the associated risks in pursuit of that strategy. Aegon's risk management process and ORSA cover Aegon's risk universe and also give explicit attention to strategic risks, emerging risks and top risk themes.

The ORSA process is iterative and subject to on-going monitoring. The Budget/MTP and ORSA Steering Committee is responsible for the direction, integration of the business strategy and key decision making in respect of the Budget/MTP and ORSA process. The committee oversees the delivery of the Budget/MTP and ORSA and acts as an escalation point for decisions, risks or issues up to the Management Board. It approves all key deliverables throughout the process. The ORSA process is also used for decision making and responding to changes impacting the business.

Use of the ORSA process relates to actions recommended to the Board arising from the ORSA process.

All of the above is evidenced and documented in Aegon's annual ORSA report. More frequent, quarterly reports are produced internally that document the ongoing Risk and Capital assessments of the ORSA process throughout the year. The outcomes of these reports contribute to the annual ORSA report.

The ORSA report is targeted primarily at the Management Board, Executive Board and Group Risk & Capital Committee as key approval bodies. However, the concepts of ORSA are business wide and all senior management engage with the ORSA process in developing business plans that are aligned with Aegon's overall risk and capital strategy. The Executive Board approves and signs off the annual (and any non-regular) ORSA reports.

**B.3.2.2 ORSA frequency**

The ORSA is performed annually or more often if deemed necessary, like in situations where the business, solvency or risk profile significantly changes. A non-regular ORSA does not necessarily require all sections to be re-produced. Management is responsible for the monitoring of the triggers that may initiate the execution of a non-regular ORSA. The Executive Board is responsible for the execution of a non-regular Aegon Group ORSA.

**B.3.2.3 Aegon's own solvency needs**

An important element of Aegon's ERM framework is establishing the organization's tolerance for risk in order to assist management in carrying out Aegon's strategy within the limits of available resources. To achieve this, Aegon has defined the following key areas in which risk tolerance plays an important role:

Financial strength;

Continuity;

Culture; and



Risk balance

The **financial strength** statements are integrated within the Capital Management Policy. The primary measure of group capital adequacy that Aegon manages is Aegon Group's Solvency ratio. Aegon's Capital Management policy sets the targeted capitalization level for Aegon Group. Capital management zones are set to provide adequate protection against a breach of the set risk tolerance. The use of the capital management zones is instrumental to trigger appropriate and timely adjustments to capital plans and appropriate and timely management actions with increasing intensity if necessary. For more details about the Capital Management Policy and the capital management zones, please refer to section E. Capital management.

Capitalization is also featured in the **continuity** related risk tolerance statements. Aegon has identified adverse scenarios for testing the continuity of the Company given its current business and risk profile. The ability to meet the obligations to policyholders under the identified adverse scenarios is measured by testing whether regulatory minimum capital requirements continue to be met. For more information about the Solvency Capital Requirement and Minimum Capital Requirement, reference is made to section E.2 Solvency capital requirement. A breach of any of the continuity risk tolerances needs to be followed by a review of business plans and identification of management actions, in order to successfully pass the subsequent risk tolerance testing

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Capitalization is not an explicit factor in the risk **culture** tolerance statements, which link risk management to the organization culture and sets tolerances for operational risk events, ensuring business integrity and operational resilience.

Capitalization is a relevant factor in the **risk balance** related risk tolerance statements. The targeted risk balance or risk profile is the outcome of Aegon's risk strategy setting process. This process assesses by risk type whether the risk serves a customer need, whether Aegon has the competence to manage the risk, if Aegon has a preference for the risk and if the risk fits within Aegon's risk taking capacity. The risk taking capacity is determined by the available capital. Ultimately, the risk taking capacity is allocated to specific risks through risk limits in line with the Company's risk preferences.

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Aegon has developed an internal control system that serves to facilitate its compliance with applicable laws, regulations and administrative processes, and the effectiveness and efficiency of operations with regard to its objectives, in addition to the availability and reliability of financial and non-financial information. The overall internal control system ensures appropriate control activities for key processes and the documentation and reporting of administrative and accounting information. The internal control system is embedded through policies and frameworks such as the ERM framework, the Model Validation Framework and the Operational and Conduct Risk Management (OCRM) Framework, and is considered wider than the Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013), on which criteria for the internal control system are based.

The internal control system was developed in accordance with regulations that Aegon must comply with (i.e. Sarbanes-Oxley Act and Solvency II). Aegon's control activities should assure an adequate level of internal control over Aegon's objectives and in particular compliance, operational and financial reporting objectives including the production of Solvency II and IFRS numbers. The objective is to provide assurance regarding the reliability, accuracy, completeness, timeliness and quality of internal and external (regulatory) reporting, the safeguarding of assets, and compliance with internal and external requirements. A key element of Aegon's internal control system is to facilitate action planning and embed continuous improvement regarding the internal control environment throughout the organization.

As part of the internal control system, a financial reporting internal control framework has been established supported by Aegon's Group Sarbanes Oxley methodology. For more information about Aegon's internal control framework, reference is made to section B.4.2 OCRM Risk Framework. Furthermore, as required by Solvency II, Aegon's internal control framework includes a compliance function, which is described in section B.4.3.

The internal audit function and actuarial function are described in section B.5 and B.6 respectively.

**B.4.1 General principles of Aegon's internal control system**

The general principles of Aegon's internal control system apply to all undertakings, functional areas or departments. These principles are as follows:

All employees must comply with the Code of Conduct. The Code of Conduct states that all employees will conduct their work in an ethical manner;

If employees become aware or observe fraud, questionable accounting practices, or other unethical behavior, they should report it to a member of management, human resources or to their local ethics hotline;

Employees are instructed regarding the sensitivity and confidentiality of the Group and policyholder information or client information;

All departments should develop a system of internal control to ensure that the assets and records of the Group are adequately protected from loss, theft, alteration or unauthorized access;

All departments embed and maintain adequate segregation of duties. Where adequate segregation cannot be achieved, other risk mitigating controls are designed, implemented, effectively performed and results documented;

All departments have business continuity plans in place that are periodically updated;

The interest of the customer is considered when designing, approving and reviewing products and distribution channels (in line with Aegon's market conduct principles); and

Records of the Group are maintained in compliance with record retention policies and local regulatory requirements.

#### **B.4.2 OCRM risk framework**

A key element of Aegon's internal control system is to facilitate action planning and embed continuous improvement regarding the internal control environment throughout the organization. From an OCRM perspective and given the different nature of operational risks vis-à-vis financial and underwriting risks, the OCRM risk framework is considered an integral part of the internal control system to facilitate its compliance with applicable laws, regulation and administrative processes and the effectiveness and efficiency of operations in view of its objectives. The ORCM framework is part of the more comprehensive ERM Framework, which is not limited to operational risk. From that perspective the Operational & Conduct Risk Management (OCRM) function applies building blocks of the ERM framework. The figure below provides a graphical illustration of this OCRM risk framework.

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**Table of Contents**52 System of governance **Internal control system****Aegon s OCRM Risk Framework**

**Process Mapping** encompasses the identification of significant processes and their owners. Process owners are responsible for the effective execution of risk management activities within their processes.

**A Risk (Self) Assessment (RSA)** is achieved through periodic risk control self-assessments (RCSAs). These are performed to understand business objectives, identify operational risks for realizing these objectives, assess the adequacy of the risk mitigating factors or controls in place given the identified risks, and assess the impact and likelihood of losses (including financial reporting errors). These assessments contribute to the understanding of all known risks for which key control activities can be determined to (partly) mitigate those risks. This risk identification is supported by a value chain contributing to the completeness of the risk assessment and the identification of handover points.

Scenario Analysis (SA) is the process of developing scenarios along structured dimensions, using opinions from subject matter experts and business leaders, and deriving reasoned risk assessment of the severity and frequency, thereby enabling business improvements, enhanced risk management and improved measurement of required operational risk capital.

**Risk Monitoring** is accomplished through the effective design and implementation of Key Risk Indicators (KRIs) or other monitoring mechanisms that inform about current risk and control profiles. Relative to financial reporting, management actively monitors processes and key controls to ensure that they are designed and operating effectively. Management s active monitoring of key controls, KRIs, or other measurements along with identifying and implementing related action plans reflects the proactive nature of risk management efforts. Appropriate metrics or measurements should be identified to the extent that they are indicators of potential risk or control deficiencies.

**Risk Validation** is obtained through the identification, collection and analysis of operational loss events, or through validating the effectiveness of controls that mitigate risks. The operational loss events are collected and analyzed in a centralized loss database (LDB). To stimulate learning within and as an organization, root causes of operational loss events or control deficiencies are analyzed and shared. By sharing the root causes, Aegon facilitates more effective risk management and continuous process improvement. The number of loss events or control deficiencies confirm that the risk assessments are effective, and that the KRIs are effective to monitor or predict risk.

**Risk Response & Action Plans** follow the risk identification, monitoring and validation process. Risk response is the decision-making process to accept, control, transfer or avoid risks. Action plans are developed and activities performed to achieve the desired risk mitigation. Action plans arise from losses incurred, risk assessments performed, monitoring activities (including key risk indicators identified) and control testing results.

**Risk Reporting** covers all aspects of operational risk management, validating and demonstrating the importance of risk management to Aegon s operations. Reporting of (key) risks, loss events, control weaknesses and trends in KRIs provides a mechanism for taking appropriate and adequate actions on a timely basis, enhancing the decision making process and providing feedback that gauges the success for the OCRM program as a whole.

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**B.4.3 Compliance function**

**B.4.3.1 Introduction**

For Aegon, compliance is based on integrity risk which is defined as the threat to the reputation of, or the current or future threat to the capital or the results of Aegon due to insufficient compliance with the law and regulations, internal company rules and policies governing.

The business is supported by the Aegon Group Regulatory Compliance (RC) function and business unit-level compliance teams by:

Identifying new and revised regulations and managing the regulatory compliance universe;

Identifying and assessing risks stemming from these regulations;

Advising how to comply with new changes and existing regulations;

Policy setting and implementation;

Investigating compliance breaches; and

Periodic and *ad hoc* reporting on regulatory developments, and compliance and integrity incidents.

**B.4.3.2 Aegon Group Compliance function**

In 2017, at Aegon Group level, the key function holder for Compliance assurance with Solvency II requirements is the Global Head of Operational and Conduct Risk Management. The key function holder, who carries out an oversight role, is supported by the Group Regulatory Compliance Function which conducts many of the compliance-related activities. At the business unit level, there are also regulatory compliance and operational and conduct risk management personnel who support local management in the development of the local programs. They also report to their counterparts at Global level about the effectiveness of the local program.

**B.4.3.3 Objective of the Regulatory Compliance function**

The objective of the Regulatory Compliance function is to support the Executive Board, Management Board and business unit's Management Boards in ensuring that Aegon acts in line with relevant legal, regulatory requirements and Aegon Group risk tolerance. In this role, the function will promote and foster compliance with laws and regulations. Conducted effectively, strong regulatory compliance enables the organization to act with integrity, and

provide optimal service delivery to Aegon's clients.

#### **B.4.3.4 Activities**

The Regulatory Compliance function is responsible for the identification and assessment of regulatory developments and associated risks, the management and implementation of programs to respond to regulatory developments (risk mitigation) and first line monitoring, and reporting of compliance with existing regulations and internal policies to ensure that Aegon operates within its integrity risk tolerance.

The following thematic regulatory areas fall within the scope of the regulatory compliance function:

Market Conduct Regulation (Treating Customers Fairly);

Prudential Financial Regulation (Solvency II, et al.);

Organizational Conduct Regulation (Market Abuse, Anti-Trust and Competition);

Privacy;

Personal Conduct Regulation (Conflict of Interest, Fitness & Propriety; Personal Conduct Regulation)

Customer Conduct Regulation (Sanctions); and

Financial Crime Regulation (Anti-Money Laundering, Counter Terrorist Financing, Fraud, Anti-Bribery and Corruption).

#### **B.4.3.5 Role of Management**

Regulatory compliance and Operational and Conduct Risk Management are global functions within Aegon. The Executive Board, together with the Management Board, is responsible for the effectiveness of the Aegon organization as a whole, at all times. They are responsible for the establishment of an effective compliance function that meets the requirements set out in the Regulatory Compliance and OCRM Charters.

#### **B.4.3.6 Responsibilities & roles of the Regulatory Compliance function**

Regulatory Compliance acts as a gatekeeper within the organization to identify regulatory requirements, and, working with business unit management, to ensure compliance. The function is supported by the relevant external professionals and good market practice standards, as applicable. The function maintains a charter, a framework and a suite of global policies designed to manage the risk of non-compliance



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54 System of governance **Internal control system**

In realizing the objective of the function, the following aspects are important:

**Advise** the Executive Board, Management Board, and Supervisory Board Audit Committee on:

the (potential) impact of regulatory developments on Aegon;

the development of a regulatory compliance framework that encompasses the relevant regulatory requirements and risks pertaining to Aegon and serves as a standard for all entities of Aegon; and

the status of Aegon's compliance with laws, regulations and appropriate Aegon Group's policies.

**Support and facilitate** the Executive Board, Management Board, business unit Management Boards and the business in the implementation, maintenance and embedding of the regulatory compliance framework.

**Monitor** on behalf of the Executive Board, Management Board and business unit Management Boards in cooperation with local teams the implementation and effectiveness of the regulatory compliance framework.

**B.4.3.7 Responsibilities & role of the OCRM function**

The OCRM function supports the effective establishment of the Regulatory Compliance function. The following roles and compliance-related objectives are set out in the OCRM function charter:

Advise:

Keep well informed of good practices, regulatory and industry standards and trends in the fields of conduct risk management, and determine relevancy and the impact on Aegon; and

Advise on the development of the Operational & Conduct Risk framework, and the development of improvements and new initiatives that encompasses the relevant, material compliance risks pertaining to the Aegon organization.

Support and facilitate:

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Provide challenge and oversight of the regulatory compliance framework, monitoring the effectiveness of implementation on all elements (including methodology, policies, programs) in managing regulatory risks, and report to the Management Board, the Executive Board and senior management;

Support identification and assessment of material risks by facilitating Risk Control Self-Assessment sessions in relation to operational, conduct and regulatory risks;

Challenge:

Report to the Management Board and senior management on the actual compliance and conduct risk profile compared with the risk tolerance levels. This includes monitoring of the effectiveness of the risk management and internal control framework related to compliance risks, and of the effectiveness of the performance management and remuneration processes; and

Provide oversight and reporting to the Management Board and senior management on the effectiveness of remediation measures including action plan monitoring.

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55 System of governance **Internal Audit function**

**B.5 Internal Audit function**

**B.5.1 Internal Audit function**

Aegon's Internal Audit function (Internal Audit) assists the Executive Board, the Supervisory Board and Senior Management in protecting Aegon's assets, reputation, and sustainability by independently and objectively evaluating the effectiveness of internal controls, risk management and governance processes. The Internal Audit function is the third line of defense.

The Aegon Group Chief Audit Executive reports functionally and administratively to Aegon's Group Chief Executive Officer and the Audit Committee of the Supervisory Board. Internal Audit's main tasks and responsibilities are to:

Prepare and execute a risk based audit plan that is approved (semi-)annually by the Risk and Audit Committees of the business units, the Audit Committee of the Supervisory Board and the Executive Board;

Identify, and agree with management, opportunities to improve the internal control framework, risk management and governance processes, and verify that such improvements are implemented effectively within a predetermined period of time;

Occasionally assist with the following activities: investigating significant suspected fraudulent activities, performing special reviews and providing consulting services;

Periodically issue reports to management and the Audit Committee, summarizing the progress and results with respect to the annual audit plan; and

Perform audits on the functioning of the first and second line of defense.

**B.5.2 Independence and objectivity of the Internal Audit function**

Internal Audit executes its duties freely and objectively in accordance with the Institute of Internal Auditors International Standards for the Professional Practices of Internal Audit, in addition to Aegon policies and procedures. Internal Audit's policies also align with the local professional auditing standards.

Internal Audit avoids any conflict of interest and accesses the knowledge necessary to perform audit activities in specific areas of expertise. If required, temporary resourcing constraints can be alleviated by outsourcing of Internal Audit activities.

The business units' Chief Audit Executives verify as to whether any resource not employed by Internal Audit departments (for example contractors or other externally hired resources) possesses the necessary knowledge, skills

and other competencies to execute the duties of Internal Audit. These resources are appropriately assigned to audit teams or otherwise assist the internal auditors, and comply with the principles of the Aegon Internal Audit Charter.

Resources employed within the Internal Audit function do not execute any operational duties for Aegon and will not review a business area or function in which they have had recent management or operational responsibility or are otherwise conflicted.

To ensure the independence of the auditors and effective governance, the business units' Chief Audit Executives have a reporting line to the Aegon Group Chief Audit Executive, as well as to their respective business units' Risk and Audit Committee and business units' Chief Executive Officer.

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**Table of Contents**56 System of governance **Actuarial function****B.6 Actuarial function****B.6.1 Global functions**

The Executive Board has defined the Global Chief Actuary function (first line of defense in Finance) and the Underwriting Risk Management (URM) function (second line of defense in Risk). Both functions are present at Aegon Group level and at business unit level. Aegon has decided to allocate both Global functions to one person at Group level.

**Chief Actuary function** is to advise, to support, to facilitate, to monitor and to challenge on matters relating to insurance liabilities, pricing and product development, reinsurance use, underwriting practices, required capital assessment and maintenance of a strong risk culture.

**URM function** is to monitor and to challenge on matters relating to actuarial risk analysis, risk policy and limit framework setting, risk management and compliance, assessment of required capital methodology and modelling, in addition to related risk controls. Furthermore, the role of the Head of URM is to set frameworks in which the Chief Actuary operates, and to perform independent peer reviews of the Actuarial Function reports.

The Chief Actuary function is a sub-function of the Finance function falling under the responsibility of the CFO. The URM function is a sub-function of the Risk Management function falling under the responsibility of the CRO.

**B.6.2 Objectives of the functions**

The objectives of the actuarial functions consist of end-to-end accountability for the adequacy and reliability of reported technical provisions, including risk margins by ensuring a proper control framework, accurate reporting and appropriate data, modeling, methodology and assumptions. A further objective that it has is to provide senior management with actuarial analysis on: quarterly changes in technical provisions, product pricing, actual and expected assumption experience including expert judgments, and in general the impact of strategic or management decisions on liabilities and actuarial risks.

In addition, the actuarial functions' objectives contain framework/policy setting, monitoring compliance with respect to actuarial risks and supporting management in the execution of an effective underwriting policy, also covering the pricing and product development, by providing expert opinions.

Finally, the actuarial function aims to ensure compliance with regulatory actuarial (reporting) requirements, including local actuarial sign-off on the adequacy and reliability of technical provisions (also referred to as reserves).

The Chief Actuary function reports periodically about the adequacy and reliability of the technical provisions (Actuarial Function Report), actuarial assumption Assumed/Expected results and analysis, analysis of annual actuarial financials (source of earnings), pricing developments, reinsurance use, underwriting practices, actuarial content in regulatory reports (e.g. SFCR and ORSA), and required capital methodology for actuarial risks. The Chief Actuary function is responsible for the Solvency II Actuarial Function report except in the case of operating insurance entities

in the Netherlands, where the regulatory framework requires a second line Actuarial Function Holder to provide and sign off the Solvency II Actuarial Function report.

### **B.6.3 Reporting**

The URM function reports periodically about peer reviews of actuarial assumptions and Actuarial Function reports (except for insurance companies operating in the Netherlands), actuarial/underwriting risks versus risk limits, compliance with pricing & product development policies, reinsurance counterparty risk exposure and policy compliance, actuarial risk framework developments, and relevant risk controls.

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**Table of Contents**

57 System of governance **Outsourcing**

**B.7 Outsourcing**

**B.7.1 External outsourcing arrangements**

Outsourcing arrangements are arrangements of any form between an Aegon entity and a third party, in which the third party performs a function or an activity, whether directly or by sub-outsourcing, which would otherwise be performed by the Aegon entity itself.

External outsourcing arrangements are those where the third party is not a member of the Aegon Group of companies.

An external outsourcing arrangement is considered to be a material risk under Solvency II and by Aegon when it covers a critical or important function or activity that is essential to the operation of the undertaking as it would be unable to deliver its services to policyholders without the function or activity. Aegon defines material external outsourcing arrangements based on a vendor classification matrix, which is included in Aegon's Outsourcing & Supplier Risk Policy .

Material suppliers are performing critical or important functions or activities that Aegon is unable to perform itself and which are essential to the operation of the undertaking and in the absence of which Aegon would be unable to deliver its services to policy holders.

Material outsourcing arrangements and material suppliers have an impact on operational risk as a result of potential material changes to and reduced control over the related people, processes and systems. To manage material outsourcing arrangements and material suppliers, Aegon has an Outsourcing & Supplier Risk Policy. The aim of this policy and other procurement related documentation is to ensure that all arrangements entered into by Aegon are subject to appropriate assessment and approval. In case arrangements are identified as material outsourcing arrangements (i.e. risk classification severe and significant) due diligence, approval and on-going monitoring is performed in line with the policy. All material risks arising from external material outsourcing arrangements and material suppliers are appropriately managed to ensure that Aegon is able to meet both its financial and service obligations.

**B.7.2 Intra-group outsourcing arrangements**

Aegon has material intra-group outsourcing agreements. At business unit level, Aegon makes use of several ancillary service companies. These companies perform a range of services for Aegon entities. These ancillary service companies are fully owned by Aegon and in most cases (hierarchical) managed by the local business units. Aegon's insurance entities have outsourced their asset management to Aegon Asset Management. Aegon Asset Management manages investments for Aegon's insurance companies based on investment mandates.

The Outsourcing & Supplier Risk Policy also covers the intra-group outsourcing. For intra-group outsourcing (i.e. the supplier is a legal entity fully owned by Aegon) the examination of the vendor may be less detailed, provided that the business unit has greater familiarity with the vendor, and if the business unit has sufficient control over, or can influence the actions of, the vendor. However, for intra-group outsourcing agreements, Aegon requires a written agreement, including a service level agreement (SLA) (if applicable), stipulating duties and responsibilities of both parties.

### **B.7.3 Material intra-group outsourcing arrangements**

The material intra-group outsourcing arrangements at Aegon Group level are:

An intra-group agreement between Transamerica Life Insurance Company and Aegon N.V., signed on September 1, 2010. The different services provided by Transamerica Life Insurance Company relate to information and technology services mutually agreed upon, which may be modified from time to time;

The business unit Aegon Asset Management manages a large part of the assets of Aegon's insurance companies, including Transamerica. The contracting entities Aegon Investment Management B.V. (AIM), Aegon USA Investment Management, LLC (AUIM) and Aegon USA Realty Advisors, LLC (AURA) are part of this Unit; and

#### Aegon Derivatives

The purpose of Aegon Derivatives is to facilitate the use of derivatives by Aegon Group companies by among other things: mitigating counterparty risk related to the use of derivatives through netting and collateral management, and monitoring regulatory and legal developments. Pursuant to mandate agreements with certain Aegon Group entities, Aegon Derivatives enters into derivatives transactions with third parties. Aegon Derivatives does so in its own name, but for the account and risk of internal clients.



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58 System of governance **Any other information**

**B.8 Any other information**

**B.8.1 Assessment of adequacy**

Corporate governance at Aegon is determined by the Executive Board and Supervisory Board of Aegon N.V. Regulations and (inter) national guidelines are taken into account and the roles and responsibilities of the Executive Board and Supervisory Board are reflected in the respective board charters. Those board charters are reviewed on a regular basis and revisions will follow required approval processes.

In addition, all Aegon employees are committed to the Code of Conduct, which consists of Aegon's purpose, core values and rules of conduct. The Code of Conduct also addresses governance aspects and reflects compliancy with laws and regulations, information sharing and the identification and management of risks in a prudent way (for instance internal guidelines and policies).

Aegon's risk management system is an important part of Aegon's system of governance. Both its risk governance framework, as described in section B.3.1.2, and its ERM framework, as described in section B.3.1.1, are designed to adequately manage risks according to the nature, scale and complexity. Where appropriate, the risk governance structure is updated to meet changing demands.

Escalation thresholds for decision making are linked to the scale and impact of the risks to the organization. Risk tolerances, policies, methodologies and models are regularly reviewed to ensure they remain appropriate and up-to-date. Aegon's Solvency II PIM is fully integrated into Aegon's risk management system and governance structure, and the model validation function regularly assesses the Solvency II PIM and underlying components. The model integrity is assessed, including performance of the model and ongoing appropriateness of its specifications.

The conclusion of the latest assessment was that the Solvency II PIM, including underlying internal models, standard formula shocks, and aggregation methodology, is considered fit for purpose for use within SCR calculations. Aegon's risk management is continuously being improved to ensure capabilities remain at a high level in changing conditions. In this context, ERM maturity assessments are conducted throughout the group to inform the business unit as to where they are on the ERM maturity ladder, and more specifically as to whether the actual maturity levels are consistent with target maturity levels as defined by management based on the size and complexity of the business unit and the related nature, scale and complexity of risks. The assessment results are also used as input for identifying and prioritizing ERM areas for further development in the business units.

In 2017, risk management and internal control topics were discussed by the relevant management committees and bodies, including the Management Board, the Executive Board, the Risk Committee and the Audit Committee of the Supervisory Board, and the Supervisory Board, according to their roles and responsibilities as outlined in the respective frameworks and charters. No material weaknesses was observed, and no significant changes or major improvements were made or planned to the risk management and internal control systems following from material weaknesses.

**Table of Contents**59 Risk profile **General****C. Risk profile****General**

This section provides general information regarding Aegon's risk profile.

**Introduction to Aegon's risk profile**

As an insurance group, Aegon accepts and manages risk for the benefit of its customers and other stakeholders.

As a result of its activities, the Company is exposed to a range of underwriting, market, credit, liquidity and operational risks. See table below for more information on the solvency II capital requirement for these risks. The other capital requirements category mainly includes capital requirements for entities under Deduction & Aggregation on a (provisional) equivalence basis, being US Life insurance entities, Bermuda and Japan. In addition, the capital requirements of Other Financial Sector entities (excluding Aegon Bank) are also part of this category.

**Composition of Group SCR**

Amounts in EUR millions

<b>SFCR section</b>	<b>QRT S.25.02.22</b>	<b>2017</b>	<b>2016 revised<sup>1)</sup></b>	<b>2016<sup>2)</sup></b>
C.3.2 Market risk	Market Risk (SF)	1,056	1,342	1,342
	Market Risk (IM)	2,258	3,316	3,316
C.3.3 Credit risk <sup>3)</sup>	Counterparty default risk (SF)	371	314	314
	Counterparty default risk (IM)	18	19	19
C.3.1 Underwriting risk	Life underwriting risk (SF)	1,137	1,145	1,145
	Life underwriting risk (IM)	2,156	2,248	2,248
	Health underwriting risk (SF)	306	321	321
	Health underwriting risk (IM)			
	Non-life underwriting risk (SF)	130	137	137
	Non-life underwriting risk (IM)			
C.3.5 Operational risk	Operational risk (SF)	304	678	678
	Operational risk (IM)	301		
E.2.1 Solvency Capital Requirement	LAC-DT	(714)	(839)	(839)
	<b>Total undiversified components</b>	<b>7,321</b>	<b>8,679</b>	<b>8,679</b>

	Diversification <sup>4)</sup>	(2,851)	(3,152)	(3,152)
	<b>PIM SCR after diversification (AC only) <sup>5)</sup></b>	<b>4,470</b>	<b>5,527</b>	<b>5,527</b>
	Capital requirements for D&A and OFS <sup>6)</sup>	3,304	3,874	6,036
	<b>Group PIM SCR</b>	<b>7,774</b>	<b>9,401</b>	<b>11,563</b>

<sup>1</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.

<sup>2</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report based on the revised component representation (in 2016 totals per risk component were presented, in 2017 the split into IM (Internal Model) and SF (Standard Formula) is presented).

<sup>3</sup> To align with the SCR in QRT s.25.02.22 and section E, Aegon will only discuss Counterparty Default Risk (as defined in the Delegated Regulation) in section C3.3. More generally, Aegon considers 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.25.02.22 consistent throughout the SFCR, these other components of credit risk are discussed instead in section C3.2 Market risk.

<sup>4</sup> In the 2016 Aegon Group SFCR, diversification of EUR 6,2 bln was shown in the S.25.02.22, which included the diversification between risk components of EUR 3,2 bln (shown in this SFCR) as well as diversification within components of EUR 3,0 bln which is not shown in the 2017 disclosure. The 2017 disclosure in QRT S25.02.22 now shows components for IM and SF separately after diversification within components. Diversification between components and between Standard Formula and Internal Model components are included in this line.

<sup>5</sup> AC stands for Accounting Consolidation method for the calculation of the Solvency II group solvency.

<sup>6</sup> Includes capital requirements for Deduction & Aggregation (D&A) and Other Financial Sector entities (excluding Aegon Bank in line with Group supervisor requirement). The decrease in 2017 is mainly related to the revised method in calculating the Solvency II contribution of the Aegon US Insurance entities under D&A.

When managing its day-to-day risk exposures, Aegon includes the D&A businesses in its analyses and mitigation of underwriting risk, market risk, credit risk, liquidity risk and operational risk. Aegon's risk management and control systems are designed to ensure that these risks are managed effectively and efficiently in a way that is aligned with the Company's strategy. Risk management and control system are designed to be applied consistently across the Group.

**Table of Contents**60 Risk profile **General**

Aegon's risk strategy provides direction for the targeted risk profile while supporting Aegon's business strategy. The targeted risk profile is determined by customer needs, Aegon's competence to manage the risk, the preference of Aegon for the risk, and whether there is sufficient capacity to take the risk. Aegon currently targets an equal balance between financial market and credit risks and underwriting risks. The targeted risk profile is set at Aegon Group level, and developed in more detail within the subsidiaries where insurance business is written.

To manage its risk exposure, Aegon has risk policies in place. Many of these policies are group-wide while others are adapted to the situation of local businesses. As mentioned in B.3.1.2 Risk governance framework, Group level policies limit the Group's exposure to major risks such as equity, interest rates, credit, and currency. The limits in these policies in aggregate remain within the Group's overall tolerance for risk and the Group's financial resources.

Factors influencing Aegon's risk preferences include expected returns, alignment between Aegon, counterparty and customer interests, the existing risk exposures and other risk characteristics such as diversification, the severity of the risk in an extreme market event and, the speed at which risk can materialize in Aegon's capital position, liquidity position and net income.

To monitor Aegon's position against its risk appetite the framework sets out Risk Tolerances and Risk Limits. Adherence to these tolerances and limits is tested on a frequent basis using actual results in addition to sensitivity and scenario analyses. For limits related to statutory capital purposes EEA legal entities use methods and assumptions that are defined by Solvency II, in some cases this is Partial Internal Model based while in others it is Standard Formula based. For non-EEA legal entities the methods and assumptions are based on local regulatory requirements. When relevant local rules will be applied, for example when allowing for the impact of tax upon results.

The sections C.1 Underwriting risk; C.2 Market risk; C.3 Credit risk; C.4 Liquidity risk; C.5 Operational risk and C.6 Other material risk include qualitative and quantitative information with respect to specific risks.

Applicable risk mitigation techniques are described in each section. Furthermore, the aforementioned sections include a description of the methods used, the assumptions made and the outcome of sensitivity analysis. Management actions that are "business as usual" are factored into the sensitivity analysis. Reactive management actions are not factored into the sensitivity analysis. The impact of established hedge programs are taken into account where applicable. The sensitivities do not, in general, reflect what the Solvency ratio for the period would have been if risk variables had been different. This is because the analysis is based on the existing exposures on the reporting date, rather than on those that actually occurred during the year. The results of the sensitivities are also not intended to be an accurate prediction of Aegon's Solvency ratio.

In addition, these sections do not consider all methods available to management to respond to changes in the financial environment, such as changing investment portfolio allocations or adjusting premiums and crediting rates. Furthermore, the results of the analyses cannot be extrapolated for wider variations because effects do not tend to be linear. No risk management process can clearly predict future results.

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61 Risk profile **Prudent person principle**

**Prudent person principle**

The prudent person principle has been embedded into Aegon's system of governance, and is applicable for Underwriting risk, Market risk and Credit risk.

In accordance with the Investment and Counterparty Risk policy, the business unit is required to explain how the Solvency II prudent person principle requirements are met.

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.

**Table of Contents**62 Risk profile **Off-balance positions and special purpose vehicles****Off-balance positions and special purpose vehicles**

This section provides information regarding Aegon's risk exposure arising from off-balance sheet positions and the transfer of risk to special purpose vehicles. The off-balance sheet positions at the end of 2017, which consist of other commitments and contingencies and contractual obligations, are disclosed including a description of the risk exposure arising from them. Aegon has no exposure to special purpose vehicles as defined by Article 13(26) of Directive.

**Other commitments and contingencies**

As of December 31, 2017, guarantees amounted to EUR 483 million (2016: EUR 682 million) and include those guarantees associated with the sale of investments in low-income housing tax credit partnerships in the United States. Standby letters of credit amounts reflected in the table below are liquidity commitment notional amounts. In addition to the guarantees shown in the table, guarantees have been given for fulfillment of contractual obligations such as investment mandates related to investment funds.

**Other commitments and contingencies**

Amounts in EUR millions	2017	2016
Guarantees	483	682
Standby letters of credit	12	29
Share of contingent liabilities incurred in relation to interests in joint ventures	39	40
Other guarantees	16	18
Other commitments and contingent liabilities	32	12

**Contractual obligations**

An Aegon N.V. indirect US life subsidiary has a net worth maintenance agreement with its subsidiary Transamerica Life (Bermuda) Ltd, pursuant to which Transamerica Life Insurance Company, a US life insurance subsidiary, will provide capital sufficient to maintain a S&P AA financial strength rating and capital sufficient to comply with the requirements of the countries in which its branches are located.

Transamerica Corporation, a wholly-owned subsidiary of Aegon N.V., has provided a parental guarantee to TLIC Riverwood Reinsurance, Inc. (TRRI), an affiliated captive reinsurer, for the cash payments required fulfilling reinsurance payments to Transamerica Life Insurance Company, to the extent that the assets in the captive (TRRI) are not sufficient to cover reinsurance obligations. As of December 31, 2017, this amounted to EUR 1,793 million (2016 EUR: 2,002 million).

Aegon International B.V., a wholly-owned subsidiary of Aegon N.V., has entered into a contingent capital letter for an amount of JPY 6.5 billion (EUR 49 million) to support its joint venture Aegon Sony Life Insurance Company meeting local statutory requirements.

Aegon N.V. has guaranteed and is severally liable for the following:

Due and punctual payment of payables due under letter of credit agreements applied for by Aegon N.V. as co-applicant with its captive insurance companies that are subsidiaries of Transamerica Corporation and Commonwealth General Corporation. At December 31, 2017, the letter of credit arrangements utilized by captives to provide collateral to affiliates amounted to EUR 3,025 million (2016: EUR 3,720 million); as of that date no amounts had been drawn, or were due under these facilities. Other letter of credit arrangements for subsidiaries amounted to EUR 55 million (2016: EUR 104 million); as of that date no amounts had been drawn, or were due under these facilities;

Due and punctual payment of payables due under letter of credit agreements or guarantees provided for subsidiaries of Transamerica Corporation at December 31, 2017 amounted to EUR 3,079 million (2016: EUR 3,563 million). As of that date no amounts had been drawn, or were due under letter of credit facilities. The guarantees partly related to debt amounted to EUR 1,322 million (2016: EUR 1,505 million) and is included in the Operational funding table in note 39 Borrowings of the consolidated financial statements of the Group in the line USD 1.54 billion Variable Funding Surplus Note ;

Due and punctual payment of payables by the consolidated group companies Transamerica Corporation, Aegon Funding Company LLC and Commonwealth General Corporation with respect to bonds, capital trust pass-through securities and notes issued under commercial paper programs amounted to EUR 585 million (2016: EUR 633 million); and

Due and punctual payment of any amounts owed to third parties by the consolidated group company Aegon Derivatives N.V. in connection with derivative transactions. Aegon Derivatives N.V. only enters into derivative transactions with counterparties with which ISDA master netting agreements, including collateral support annex agreements, have been agreed. Net (credit) exposure on derivative transactions with these counterparties was therefore limited as of December 31, 2017.

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Underwriting risk, sometimes referred to as insurance risk, arises from deviations 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.

Underwriting risk can be broken down into five distinct risk types: mortality risk, morbidity risk, policyholder behavior risk, property & casualty risk and expense risk. These five risk types are relevant across many of Aegon's businesses and are detailed hereafter.

**Mortality/longevity risk**

Mortality risk arises from economic losses due to mortality levels deviating from expectation (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. Best estimate assumptions are then developed for each policyholder class. Aegon is exposed to the risk that the best estimate assumptions are inaccurate.

From Aegon's perspective, mortality risk translates into increased policyholder benefits.

In Aegon's life insurance business (i.e. term assurance and other death protection products), mortality risk is the risk that mortality is higher than expected; and

In Aegon's immediate annuity business (i.e. annuity portfolios, survivorship pensions) and Long Term Care (providing living accommodation for people with a chronic illness or disability), mortality risk is the risk that mortality is lower than expected. This is referred to as longevity risk, as Aegon is exposed to an increase in life expectancy.

Material changes over the reporting period

The sale of the BOLI/COLI and payout annuity businesses to Wilton Re in the Americas during the year resulted in a lower exposure to mortality and longevity risk in 2017. Furthermore, in 2017, Aegon agreed to divest a block of life reinsurance business to SCOR. Under the terms of the agreement, Aegon's Transamerica life subsidiaries reinsured approximately USD 750 million of liabilities. This deal resulted in a decrease of Aegon's exposure to mortality risk.

**Morbidity risk**

Morbidity risk arises from economic losses due to morbidity levels deviating from expectation. These variations can be driven by changes in policyholder illness, disability and disease rates. Similar to mortality risk, policyholders are typically grouped into different classes that are expected to have the same morbidity. Assumptions are then developed



for each class.

Morbidity risk is inherent to income protection plans (disability insurance), health insurance, and critical illness protection products. For these products, increased incidence of illness increases the likelihood of policyholder claims. For many products, such as disability insurance, both the increased frequency and severity of claims are significant sources of exposure.

### **Policyholder behavior risk**

Policyholder behavior risk arises from economic losses due to policyholder behavior deviating from expectation. 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 varies from the assumptions built into the reserve calculations. This includes assumptions about lapses, withdrawals, premium payment levels, allocation of funds, and the utilization of possible options in the products.

Material changes over the reporting period

The sale of the BOLI/COLI and payout annuity businesses to Wilton Re in the Americas during the year resulted in a decrease in the exposure to policyholder behavior risk.

### **Property & Casualty risk**

Property & Casualty risk (P&C) covers the risk that the parameters used in setting reserves or premiums for property and casualty business are inaccurate. Due to the different nature of setting reserves for property & casualty business it has its own risk type.

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In practice, Aegon's overall exposure to P&C-related risk is relatively small. Examples of Property & Casualty risks within Aegon are:

Motor, which includes automobile property damage and third-party liability coverage;

Commercial property: commercial structures and contents;

Marine, aviation and transport;

Liability: public/third-party liability; and

Homeowners: buildings and contents coverage.

**Expense risk**

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

Expense inflation risk: this is the risk that expenses inflate at a higher rate than that assumed in the calculation of the technical provisions. This does not cover the risk of general price inflation increases, which would be covered by mismatch risk; and

Expense level risk: this is the risk that there will be unexpected changes in maintenance expenses for in-force business (assuming that the volumes of business are unchanged from best estimate assumptions). This risk therefore corresponds to an increase in the total expenses spread among the same number of policies meaning 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 has within their businesses will be subject to expense risk if not contractually defined. These types of expenses include for example: salaries, office space, software licenses and fees to intermediaries.

**C.1.2 Underwriting risk assessment**

Aegon 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 in comparison to expectations. Aegon's units also perform experience studies for underwriting risk assumptions, comparing Aegon's experience with industry experience as well as combining Aegon's experience and industry

experience based on the depth of the history of each source for use in Aegon's underwriting assumptions. Where policy charges are flexible in products, Aegon uses these analyses as the basis for modifying these charges, with a view to maintain a balance between policyholder and shareholder interests. Aegon also has the ability to reduce expense levels over time, thus mitigating unfavorable expense variation.

Aegon reviews its actuarial and economic assumptions periodically. In addition, as part of an ongoing commitment to deliver operational excellence, the company reviews and refines its models where necessary.

As part of Aegon's continuous effort to strengthen risk management, the following adjustments were made to the assessment and management of longevity risk, which is one of the most significant underwriting risks:

Achieving a consistent internal best practice for measuring the risk which is built on a One-Year-Value at Risk framework. Consistent measurement of the risk helps Aegon to achieve a level playing field when allocating capital; and

Aegon decided to require more Return on Capital to take on longevity risk in new business pricing. In 2016, this measure was adopted by Aegon Americas as well, creating a consistent longevity pricing framework, ensuring sufficient pricing margins are added given the uncertainty of future mortality improvements. In addition to the longevity transactions in Aegon the Netherlands which occurred over the last years and the divestment of Aegon UK's annuity portfolio, Aegon also looked for opportunities to reduce the longevity risk of Aegon Americas. During 2017, Aegon sold the BOLI/COLI and payout annuity businesses in Aegon Americas. Furthermore, in 2017, Aegon agreed to divest a block of life reinsurance business to SCOR. Under the terms of the agreement, Aegon's Transamerica life subsidiaries reinsured approximately USD 750 million of liabilities. This deal resulted in a decrease of Aegon's exposure to mortality risk.

For other underwriting risks, Aegon manages the risks by regularly reviewing the experience, holding capital to cover the extreme events, monitoring the risk exposures against risk limits (which are set in accordance to the Risk Strategy) and continuing to look for risk mitigation opportunities.

There were no material changes to the measures used over the reporting period.

### **C.1.3 Risk concentration**

Besides the risk tolerance limits as measured by gross ERC at group and business unit level, it's a common practice to address concentration of risk on insured lives or, for property and casualty business, on insured objects, using a risk limit per single life (or joint lives) and per insured object. The exposures on a few lives (or objects) with a much higher risk than the average in the portfolio

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can create a too high volatility in the results. Limiting such exposures reduces the impact of process risk and also increases the stability of the underwriting results. These risk limits per single life (or joint lives) and per insured object 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.

Aegon also monitors on a regular basis underwriting geo-concentration risk. This is the risk that an event causes losses on more than one underwriting exposure. An example of such an event is a terrorist attack on a single building leading to property damage, multiple deaths and severe injuries in the building and surrounding areas.

**C.1.4 Risk mitigation**

Aegon's risk management and control systems are designed to ensure that risks are managed effectively and efficiently in a way that is aligned with the Company's strategy. Risk management involves, among others, the monitoring of risk exposures and actively maintaining oversight of the Company's overall risk and solvency positions. Underwriting risk is mitigated through various processes:

**Underwriting process**

Underwriting serves as a key risk management tool to manage the underwriting risk by selecting or controlling the individual applications. The underwriting process determines whether a cover should be provided to a prospective policyholder, whether exclusions or amendments to the cover are required, and whether additional rates or standard terms are appropriate. Underwriting process also collects data to be used in the risk management cycle. The underwriting process is conducted by following an Underwriting Manual which includes: the underwriting classes; procedures to ensure the appropriateness, completeness and accuracy of data for use in underwriting process and controls to prevent anti-selection.

**Claim process**

Claims are the outcome of the risks on an individual case-by-case basis. When a claim is made on a policy, an assessment needs to be made as to whether the terms of the insurance policy have been met such that a claim payment is due. Where this is the case, claims are paid out. Where evidence shows potential non-disclosure of relevant information or fraudulent claims, further investigation is undertaken. Aegon's business units must have a Claims Manual in place that includes among others: how claims are assessed and paid; how relevant regulation is being adhered to; and procedures to follow to identify fraudulent claims and the handling of claim disputes.

**Best estimate assumption review process**

Aegon's business units must set up and maintain an underwriting assumption catalogue that contains all the underwriting risks that may impact financials of the company. Each risk must be reviewed periodically in which frequency is based on materiality. Material assumptions must be reviewed at least annually.

### **Underwriting risk limits**

Aegon Risk Strategy sets out risk tolerance limits for each risk type including underwriting risks. These limits define the maximum risk that Aegon is willing to be exposed to. Business units actively monitor the actual risk exposure (measured by gross required capital) and management takes actions when these limits are breached. In addition to risk tolerance limits, it is common practice to address concentration of risk on one insured life or, for property and casualty business, insured object, using retention limit per life or per insured object. Exposure on a few lives with a much higher net amount at risk than the average in the portfolio can create additional volatility in results. A retention limit reduces the impact of process risk and also increases the stability of the underwriting results.

### **Using derivatives and reinsurance to hedge existing risk**

Furthermore, Aegon also mitigates existing underwriting risk by entering into reinsurance arrangements and longevity derivatives with external parties. Reinsurance arrangements allow Aegon to fix part of the uncertainty in the mortality/longevity dependent payments and serve to mitigate the mortality/longevity risk. Derivative contracts will pay out when mortality rates have decreased more than initially expected, and therefore serve to hedge Aegon's longevity risk.

**Table of Contents**66 Risk profile **Underwriting risk**

Aegon ensures the effectiveness of these mitigation measures through the policies in place, the yearly policy attestations where our business units attest to complying with the policies and the periodic measuring of the underwriting risks and setting these against the risk limits.

**C.1.5 Risk sensitivity****Longevity sensitivity**

An important underwriting sensitivity Aegon applies internally is a longevity shock of 5%, which implies an additional 1-time reduction in annual mortality rates by 5%. This shock decreases the Solvency II ratio of Aegon Group by 10% points. Lower mortality rates increase the longevity exposed liabilities, especially for Aegon the Netherlands and Aegon UK, the latter mainly via the own pension scheme. The higher liability values decrease own funds, as longevity is only partially hedged, and increase the SCR.

<b>Sensitivities</b>	<b>Scenario</b>	<b>Estimated Group Solvency II ratio impact</b>
Longevity shock	+5%	(10%)

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**C.2 Market risk**

**C.2.1 Market risk description**

As an insurance group, Aegon is exposed to a variety of risks. Aegon's largest exposures are to changes in financial markets (e.g. bond market, equity market, interest rate, currency exchange rate risks and credit risks). When market prices fall, the value of Aegon's investments is reduced. For certain products, Aegon's 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 and the liabilities associated with long term benefits (such as annuities) increase and decrease as interest rates fall and rise.

To align with the SCR in QRT s.25.02.22 and section E, only Counterparty Default Risk (as defined in the Delegated Regulation) is discussed in section C.3. More generally, Aegon considers the term "credit risk" to also include spread risk, migration risk and default (market risk concentration) risk relating to financial investments. To align with QRT s.25.02.22 throughout the SFCR, these other components of credit risk are discussed in this section.

**Credit Risk**

Internally Aegon considers credit risk, as included in market risk, to have three components, namely:

Spread risk; the risk that the value of the bond reduces due to a general widening of credit spreads;

Migration risk; the risk that the rating of the bond falls due to an increased risk of default and as a consequence its value falls; and

Default risk; the risk that the counterparty fails to meet the agreed obligations.

For general account products, Aegon typically bears the risk for investment performance and is exposed to credit risk in the fixed-income portfolio, over-the counter (OTC) derivatives and reinsurance contracts.

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

Aegon's investment portfolios contain, among other investments, US treasury, agency and state bonds, government bonds and other government issued securities. The portfolios also include a significant proportion of corporate bonds investments, together with real estate and mortgage lending to US commercial and Dutch retail borrowers.

During 2017, Transamerica sold its BOLI / COLI and payout annuities businesses to Wilton Re. This transaction reduced the exposure to general credit risk although as the transaction was executed as a reinsurance deal there is a

large counterparty exposure to Wilton Re. Furthermore, the legal transfer of the Scottish Equitable annuity portfolio was completed in 2017, thereby removing the related exposure to Rothesay and Legal and General. Aegon NL separate account derisking reduced the exposure to market risks. Lastly, market risk was impacted by the implementation of approved major model changes to Aegon's PIM related to adjusting the calculation of spread risk.

### **Equity market risk and other investments risk**

A decline in equity markets may adversely affect Aegon's profitability and shareholders' equity, sales of savings and investment products, and the amount of assets under management. There is a risk for both Aegon 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 bears all or most of the investment performance risk. The existence of direct equity risk is very limited, as defined by Aegon's Risk policies.

Equity market exposure is also present in policyholders' accounts for insurance and investment contracts (such as variable annuities, unit-linked products and mutual funds) 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. Lower investment returns also reduce the asset management fee that Aegon earns on the asset balance in these products, and prolonged investment under-performance may cause existing customers to withdraw funds and potential customers not to grant investment mandates.



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Some of Aegon's insurance and investment contract businesses have minimum return or accumulation guarantees that require Aegon to establish reserves to fund these future guaranteed benefits when equity market returns do not meet these guarantee levels. Volatile or poor market conditions may also significantly reduce the demand for some of Aegon's savings and investment products, which may lead to lower sales and net income. Deteriorating general economic conditions may again result in significant decreases in the value of Aegon's equity investments.

**Interest rate risk**

Interest rate volatility or sustained low interest rate levels may adversely affect Aegon's profitability and shareholders equity.

Aegon is exposed to interest rate risk, as both its assets and liabilities are sensitive to movements in long- and short-term interest rates. The majority of Aegon's products are long term in nature and as a consequence low interest rates or high interest rate volatility may adversely affect Aegon's profitability and shareholders' equity. It is also the case that a very rapid rise in interest rates could have negative consequences for Aegon. For example, in such a scenario policy loans, surrenders and withdrawals may increase. This may result in cash payments by Aegon requiring the sale of invested assets at a time when the prices of those assets have fallen due to the increase in market interest rates.

**Currency risk**

Fluctuations in currency exchange rates may affect Aegon's profitability and shareholder equity. As an international group, Aegon is subject to foreign currency translation risk. For more information, please refer to IFRS Annual Report 2017 of Aegon Group, Note 2.3. Foreign currency exposure also exists when policies are denominated in currencies other than Aegon's functional currency of the Euro. Currency risk in the investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are kept in local currencies to the extent shareholders' equity is required to satisfy regulatory and Aegon's self-imposed capital requirements. Currency exchange rate fluctuations may therefore affect the level of Aegon's consolidated shareholders equity as a result of translation of the equity of Aegon's subsidiaries into euro, Aegon's reporting currency. Aegon holds the remainder of its capital base (capital securities, subordinated and senior debt) in various currencies in amounts that are targeted to correspond to the book value of Aegon's business units. This balancing is intended to mitigate currency translation impacts on equity and leverage ratios. Aegon may also hedge the expected dividends from its principal business units that maintain their equity in currencies other than the Euro. During 2017, Aegon introduced Currency risk as an internal model component allowing it more accurately model the risk for Solvency II purposes.

**C.2.2 Market risk assessment**

Under Solvency II, Aegon uses its approved partial internal model for Solvency II required capital calculations. This internal model represents the most appropriate reflection of Aegon's risk profile and focuses on the measurement of market risks. The partial internal model used by Aegon is used to assess market risk exposure and to determine an appropriate level of capital buffer to target. This assessment includes a full attribution analysis that explains any variance to expectations for these risks. A quarterly assessment of the risk against stated risk tolerances is performed through the Risk & Capital Committee.

In line with the Solvency II volatility adjustment (VA) policy, a scenario was included in the assessment to explicitly cover Aegon the Netherlands' exposure to corporate bond spread tightening. This exposure results from the specifics of the Solvency II volatility adjustment and Aegon the Netherlands' investment portfolio. The impact of such a scenario at Group level is relatively small due to diversification between the units.

During 2017, Aegon introduced Currency risk as an internal model component allowing it more accurately model the risk for Solvency II purposes. Aegon now includes currency risk in its PIM for Aegon UK and Aegon N.V. Refer to section E.4 for a description of how currency risk is measured in the PIM.

The Capital Management Policy was updated following a detailed review, reference is made to chapter E. Capital management of this report for more information.

Investment strategies are established based on asset and liability studies. Business units set an objective function and clearly state the constraints that apply. The investment strategy seeks to achieve the objective function while satisfying the constraints.

For third-party business sourced externally, Aegon Asset Management distributes its investment strategies directly to its clients. The wholesale businesses typically sell collective investment vehicles (mutual funds) to customers through wholesale distributors and independent intermediaries. The main asset classes are fixed income and equities, and the funds are usually managed against a benchmark or peer group target.

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In addition to the assessment outlined above, Aegon carried out an annual review of the risk strategy and concluded not to increase the Aegon Group risk limits for market risks. Risk exposures remained within these limits throughout 2017 and 2016.

Exposure to Credit Risk is monitored in two main ways:

At portfolio level; and

At the level of individual names

At the portfolio level, credit risk is measured under Aegon's Economic Framework (EF) that is designed using market consistent principles. In accordance with the relevant risk policies, absolute and early warning limits are set by each Country Unit, and for the Group as a whole, for the following credit risks:

Credit spread risk; and

Migration risk

These limits are updated once a year and every quarter actual exposure is compared to the limits. Compliance with the limits is a key aspect of Aegon's ERM framework.

It is important to ensure that there is no concentration to a particular name. The Credit Name Limit Policy (CNLP) covers this important aspect. All forms of exposure are covered by this policy, which is therefore not limited to credit. For example exposure through reinsurance contracts, derivative positions as well as asset holdings are included.

During 2017, Aegon introduced an additional process to monitor and assess credit risk, this process is known as the Focus List. Even when individual counterparties are within the CNLP limit it may be deemed necessary to restrict further investment if news regarding the credit quality of a particular company come to light.

The exposure to individual names is measured and reported on a quarterly basis. Limits are defined for each Country Unit and at a Group level based upon the rating of the name, with higher ratings receiving more capacity. Compliance with these limits is expected and breaches must be reported to the relevant risk committee. Any breaches to the Group Limits are reported to the Group Risk and Compliance Committee (GRCC) and only the GRCC can grant an exemption.

**C.2.3 Risk concentration**

Aegon minimizes concentration risks by maintaining a well-diversified portfolio across and within investment categories such as assets class, geographical region and industry sector. Investing in a larger number of separate market risks can also introduce concentration risks; separate exposures could all generate losses at the same time,

perhaps due to a shared exposure to another risk factor. Aegon manages this exposure through the Credit Name Limit Policy (CNLP). The CNLP covers all asset classes such as equity, cash, credit, and derivatives. For information regarding quantitative details related to Aegon's market and credit risk concentrations, see IFRS Annual Report 2017 of Aegon Group, Note 4, Equity market risk and other investments risk on page 201 - 202, and Credit Risk Concentration on page 187 -190.

### **Credit risk**

The general account portfolios of Aegon business units are well-diversified with high credit quality exposures spread across a range of industry sectors.

In order to avoid concentrations of exposure to particular entities, Aegon operates a global Credit Name Limit Policy (CNLP), under which limits are placed on the aggregate exposure to any one counterparty. Limits are placed on the exposure at both group level and individual country units. The limits also vary by a rating system, which is informed by the ratings of the main rating agencies, S&P, Moody's and Fitch. Any exposure in excess of the stated limit will be identified and must be addressed as soon as possible.

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Aegon Group also maintains a central list of any significant exposures and credit names that are subject to close monitoring. This process is used to coordinate risk management and de-risking activity, and to reduce Aegon's exposure to a potential deterioration in credit quality.

At December 31, 2017 Aegon's largest non-government credit exposures were to Wilton Re Holdings Ltd, American United Mutual Insurance, Barclays and Citigroup. Aegon had large government exposures, the largest being in the USA, the Netherlands and Germany. Highly rated government bonds and government exposure domestically issued and owned in local currency are excluded from the Credit Name Limit Policy. There were no violations of the Group CNLP limits during 2017. In 2016 there was one Group-level violation of the Credit Name Limit Policy which has been resolved.

For Aegon Group, the long-term counterparty exposure limits as at December 31, 2017, are as follows:

<b>Group limits per credit rating</b>		
Amounts in EUR million	2017	2016
AAA	900	900
AA	900	900
A	675	675
BBB	450	450
BB	250	250
B	125	125
CCC or lower	50	50

**Equity market risk**

Equity risk is generally well-diversified, with exposure coming through indirect exposure to policyholder account values and exposure to major market indices through derivatives instruments used for hedging. Any aggregate exposure to specific corporations is managed through the Credit Name Limit Policy.

**Currency risk**

As an international group, Aegon is subject to foreign currency translation risk. Aegon's reporting currency is Euro. Aegon Group has a large exposure to the US Dollar to Euro exchange rate through its ownership of equity in Transamerica.

**Managing risk concentration**

A key part of Aegon's ERM framework is setting risk limits for each risk. Each quarter individual Country Units and the Group calculate actual exposures and compare these to the risk limits. Compliance with the limits is expected and any breaches must be dealt with as described in the ERM manual. The use of risk limits and the quarterly monitoring process are intended to ensure that Aegon limits its exposure to a single risk type.

The risk of concentration to an individual counterparty is covered by the Credit Name Limit Policy (CNLP). The CNLP Policy covers all asset classes such as equity, credit, cash and derivatives. The Prudent Person principle applies in this context as well. This principle is built into the Investment & Counterparty Risk Policy, and all Country Units are expected to comply with this principle or explain the reason for being non-compliant.

#### **C.2.4 Risk mitigation**

Aegon has generally positive impacts from equity market increases and negative impacts from equity market declines as it earns fees on policyholder account balances and in certain cases provides minimum guarantees for account values. Hedging of exposures may change those effects significantly and equity hedges are used extensively to manage the equity market risk related to products with guarantees that have underlying equity funds.

Aegon sets a limit on equity risk at Group and regional levels. Hedging programs are in place that are designed to manage the risks within these defined limits. Equity hedge programs use equity options and dynamic option-replicating strategies to provide protection against the impact of equity market declines.

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Aegon employs sophisticated interest rate measurement techniques. Fixed interest assets along with interest rate swap and swaption derivatives are used extensively to manage the interest rate risk exposure. Aegon sets a limit on interest rate risk at Group and regional levels. All derivative use is governed by Aegon's Derivative Use Policy.

Aegon sets a limit on currency risk at Group and regional levels. Subsidiaries do not engage in direct currency speculation or program trading. Any assets or liabilities not in the functional currency of the business are hedged back to that currency. In any case where this is not possible or practical, the remaining currency exposure is controlled by limits on total exposure at both group and local level.

Aegon has issued debt instruments in Euro, US Dollar and British Pound denominations. The Group also uses currency derivatives such as swaps, forwards and futures to manage currency exposures.

Hedging programs are operated by many of the Country Units within Aegon. The performance of these hedge programs is monitored closely by both the Country Units and Aegon Group and is reported quarterly.

Aegon manages credit risk exposure by individual counterparty, sector and asset class, including cash positions through its ERM framework as described in section B.3 Risk management system. Different exposures are mitigated in a variety of ways as described below.

**Derivatives**

Aegon generally mitigates credit risk in derivative contracts by entering into a credit support agreement, where practical, and in ISDA master netting agreements for most of Aegon's legal entities. The counterparties to these transactions are investment banks that are typically rated A or higher. The credit support agreement generally dictates the threshold over which collateral needs to be pledged by Aegon or its counterparty.

Transactions requiring Aegon or its counterparty to post collateral are typically the result of derivative trades, comprised mostly of interest rate swaps, equity swaps, currency swaps, credit swaps and other bilateral exposure derivatives. Collateral received is mainly cash (USD and EUR). The credit support agreements that outline the acceptable collateral require high quality instruments to be posted.

New interest rate swap transactions in the US are traded via Central Clearing Houses, as required by the Dodd-Frank act. Similar requirements were introduced in Europe by the EMIR regulations. Credit risk in these transactions is mitigated through posting of initial and variation margins.

**Reinsurance**

Aegon may mitigate credit risk in reinsurance contracts by including downgrade clauses that allow the recapture of business, retaining ownership of assets required to support liabilities ceded or by requiring the reinsurer to hold assets in trust. For the resulting net credit risk exposure, Aegon employs deterministic and stochastic credit risk modelling in order to assess the Group's credit risk profile, associated earnings and capital implications due to various credit loss scenarios. To maintain compliance with the CNLP limits, Aegon may use Credit Default Swaps to manage credit risk.

**C.2.5 Risk sensitivity**

Results of Aegon's sensitivity analyses are presented throughout this section to show the estimated sensitivity of various scenarios. For each sensitivity test, the impact on the Solvency II ratio of a reasonably possible change in a single factor is shown. Management action is taken into account to the extent that it is part of Aegon's regular policies and procedures, such as established hedging programs. However, incidental management actions that would require a change in policies and procedures are not considered.

Aegon calculates sensitivities of its Solvency II ratio as part of its risk management framework for both EEA and D&A entities. The tables on sensitivities describe the shocks to parameters used to assess the sensitivities, and their estimated impact on the Solvency II ratio on December 31, 2017.



**Table of Contents**72 Risk profile **Market risk****Equity market risk and other investments risk**

Aegon is mainly exposed to a down shock in equities, predominantly due to fee business with and without guarantees, such as the variable annuity products in the US and separate account business in the UK and the Netherlands.

<b>Sensitivities</b>	<b>Scenario</b>	<b>Estimated Group Solvency II ratio impact</b>
Equity markets	+20%	+10%
Equity markets	(20%)	(5%)

The Group is exposed to losses in the downward equity scenario. Aegon has a limited exposure to direct equity, the main exposure derives from fee business with and without guarantees. A fall in equity markets will reduce the value of future fee income and it will increase the cost of guarantees. A number of established hedge programs exist, most notably in Aegon Americas, Aegon the Netherlands and Aegon UK that mitigate the risk of falling equity markets.

**Interest rate risk**

The sensitivities to interest rates at December 31, 2017 show that the Group's Solvency ratio will fall when interest rates fall and will increase when interest rates rise.

<b>Sensitivities</b>	<b>Scenario</b>	<b>Estimated Group Solvency II ratio impact</b>
Interest rates	+100 bps	+12%
Interest rates	-100 bps	(16%)

In the US the interest hedge programs for the variable annuity products target the IFRS liability, this target is more economic than the US statutory liability. As a consequence when rates go up the hedge assets fall by more than the statutory liability. The US received agreement from their local regulator to allow the hedge losses to be deferred thereby reducing the impact of the statutory mismatch.

For Aegon the Netherlands and Aegon UK best estimate liabilities are well matched. The sensitivity to interest rates is mainly driven by changes in the Risk Margin and the SCR itself. When rates go down the risk margin and SCR will increase and vice versa when rates increase.

In general, increases in interest rates are beneficial to Aegon, while lower interest rates have a negative impact in terms of reduced economic value and increased solvency capital requirements. However, rising interest rates have a negative impact upon available liquidity due to collateral and margin calls for the interest rate hedges. This fact is not captured in the sensitivities above, it is captured in the liquidity testing that the Group performs.

**Credit risk**

Aegon's sensitivity to credit spread movements and credit default risk in the U.S. is shown in the table below. The table shows the shocks to parameters used to assess the sensitivities, and their estimated impact on the Solvency II ratio at December 31, 2017.

<b>Sensitivities</b>	<b>Scenario</b>	<b>Estimated Group Solvency II ratio impact</b>
Credit spreads <sup>1)</sup>	+100 bps	(2%)
US credit defaults <sup>2)</sup>	~+200 bps	(23%)

<sup>1</sup> Non-government bonds credit spreads in 2017.

<sup>2</sup> Additional defaults for 1 year including rating migration of structured products in 2017

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73 Risk profile **Market risk**

Aegon is marginally sensitive to a widening of credit spreads. Aegon the Netherlands and Aegon UK move in opposite directions with the widening of credit spreads. Aegon the Netherlands sees a reduction in liabilities (via the VA) due to the spread duration mismatch, increasing Own Funds. The ratio moves in the opposite direction however due to the large increase in SCR as the increase in spreads generally leads to a lower VA offset. The increase in SCR results in a reduction of the solvency ratio II for the group. This is partially offset by Aegon UK where liabilities reduce via higher discount rate related to its employee benefit plans.

Aegon's US and Asia businesses are particularly sensitive to credit default risk. In the US and Asia, credit defaults reduce the value of Own Funds, decreasing the solvency position. In the US, the credit default sensitivity increased over the year due to the US tax reform. The total admitted Deferred Tax Asset (DTA) is limited to the lesser of the calculated admitted DTA or the surplus threshold. Unrealized gains support a portion of the admitted DTA in the base scenario. The loss of unrealized gains in the credit shock cause the calculated admitted DTA to be smaller creating a tax sensitivity.

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74 Risk profile **Credit risk**

**C.3 Credit risk**

**C.3.1 Credit risk description**

To align with the SCR in QRT s.25.02.22 and section E, Counterparty Default Risk (as defined in the Delegated Regulation) is discussed in section C.3. Spread risk, migration risk and default (market risk concentration) risk relating to financial investments are discussed 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. This is not a material component of Aegon's credit risk. For a description of Aegon's material credit risk, refer to section C.2.1.

**C.3.2 Credit risk assessment**

Counterparty default risk is assessed similarly to other credit risk types. Reference is made to section C.2.2. under Market Risk section.

**C.3.3 Risk concentration**

Counterparty default risk concentrations are assessed similarly to other credit risk types. Reference is made to section C.2.3. under Market Risk section.

**C.3.4 Risk mitigation**

Counterparty default risk is mitigated similarly to other credit risk types. Reference is made to section C.2.4. under Market Risk section.

**C.3.5 Risk sensitivity**

Reference is made to section C.2.5 under Market Risk section where Aegon's most material sensitivity to credit risk is assessed, Aegon Group does not have significant sensitivity to Counterparty Default Risk as defined in the Delegated Regulation.

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75 Risk profile **Liquidity risk**

**C.4 Liquidity risk**

**C.4.1 Liquidity risk description**

Liquidity risk is inherent in much of Aegon's business. Each asset purchased and liability incurred has its own liquidity characteristics. For example, some policyholders have the option to cash in their policy in return for a surrender benefit, while some assets, such as privately placed loans, mortgage loans, real estate and limited partnership interests, have low liquidity. If Aegon were to require significant amounts of cash at short notice in excess of normal cash requirements and existing credit facilities, it would have difficulty in selling these investments at attractive prices or in a timely manner.

Aegon uses derivatives extensively within significant liability hedging programs in the US and Europe. These programs significantly reduce market risk, but collateral requirements can increase liquidity risk in the event of stock markets or interest rate rising significantly.

Aegon's liquidity risk does not give rise to a capital requirement.

**C.4.2 Liquidity risk assessment**

Illiquidity of certain investment assets may prevent Aegon from selling investments at fair prices in a timely manner. Aegon needs to maintain sufficient liquidity to meet short-term cash demand under normal circumstances, as well as in crisis situations. The availability of sufficient liquidity ensures that Aegon can fulfill its obligations towards policyholders and other stakeholders for an extended period of time without becoming a forced seller. This prevents compounding losses and a loss of confidence.

Liquidity management is a fundamental building block of Aegon's overall financial planning and capital allocation processes. The Company's liquidity risk policy sets guidelines for its operating companies and the holding in order to achieve a prudent liquidity profile and to meet cash demands even under extreme conditions.

Aegon's liquidity management is based on expected claims and benefit payments rather than on the contractual maturities. The projected cash benefit payments are based on management's best estimates of the expected gross benefits and expenses, partially offset by the expected gross premiums, fees and charges relating to the existing business in force. Estimated cash benefit payments are based on mortality, morbidity and lapse assumptions based on Aegon's historical experience, modified for recently observed trends. Actual payment obligations may differ if experience varies from these assumptions.

On a regular basis, Aegon reviews medium-term cash-flow projections for each business unit and legal entity in order to identify and manage liquidity requirements over the planning horizon. Stress testing is carried out in order to assess the ability of Aegon companies to continue to manage liquidity risk in the event of a financial market stress. The most onerous stress scenario for Aegon is a rapid increase in interest rates in key markets that leads to significant payment of collateral to Aegon's hedge counterparties.

Aegon's liquidity risk profile remained strong in 2017. A liquidity audit across the Group was performed and in addition a deep dive review of resilience to liquidity was performed by Group Risk. Actions were taken during the

year to increase available liquidity further in a number of large business units.

Many of Aegon's derivatives transactions require Aegon to pledge collateral against declines in the value of these contracts. Volatile financial markets may significantly increase requirements to pledge collateral and adversely affect Aegon's liquidity position. Furthermore, a downgrade of Aegon's credit ratings may also result in additional collateral requirements and affect Aegon's liquidity.

Any security Aegon issues in significant volume may be issued at higher financing costs if funding conditions are impaired, as they have been from time to time in recent years. The requirement to issue securities can be driven by a variety of factors, for instance Aegon may need liquidity for operating expenses, debt servicing and the maintenance of capital levels of insurance subsidiaries. Although Aegon manages its liquidity position for extreme events, including greatly reduced liquidity in capital markets, if these conditions were to persist for an extended period of time, it is possible that it would be necessary for Aegon to sell assets substantially below prices at which they are currently recorded to meet its insurance obligations.

Aegon makes use of (syndicated) credit facilities to support repayment of amounts outstanding under Aegon's commercial paper programs and to serve as additional sources of liquidity.

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**Table of Contents****76 Risk profile Liquidity risk**

There have been no material changes to the liquidity risk exposure and to how Aegon assesses its liquidity risk during 2017.

**C.4.3 Risk concentration**

Liquidity risk originating directly from insurance business is well-diversified with no material concentrations of risk.

Liquidity required to fund collateral calls depends on a number of factors and some of these could be considered material risk concentrations. The first factor is the extensive use of interest rate swaps to hedge against falling interest rates. If interest rates were to rise rapidly in US and European economies then Aegon's main business units would have to increase liquidity requirements. The second factor is the risk of Aegon being downgraded. In this event counterparties will require greater collateral and available liquidity will be reduced. These scenarios are considered within the liquidity stress tests described in section C.4.5 Liquidity risk risk sensitivity.

**C.4.4 Risk mitigation**

Aegon operates a Liquidity Risk policy under which country units are obliged to maintain sufficient levels of highly liquid assets to meet cash demands by policyholders and account holders over the next two years. The purpose of this Liquidity Risk Policy is to demonstrate effective liquidity management; liquidity is monitored and reported to Group at a minimum quarterly frequency. Potential cash demands are assessed under a stress scenario that includes spikes in disintermediation risk due to rising interest rates and concerns over Aegon's financial strength due to multiple downgrades of Aegon Group's credit rating. At the same time, the liquidity of assets other than cash and government issues is assumed to be severely impaired for an extended period of time. All legal entities and Aegon Group must maintain enough liquidity in order to meet all cash needs under this extreme scenario.

Aegon Group expects to meet its obligations, even in a stressed liquidity event, from operating cash flows and the proceeds of maturing assets as well as these highly liquid assets.

Aegon Group also has access to back-up credit facilities, which were unused at the end of the reporting period.

Internal and external contingent liquidity support facilities can be used to ensure liquidity needs are met. An internal agreement may be used to provide liquidity support from Group to a subsidiary.

Aegon may also use repurchase agreements to avoid asset sales by exchanging ineligible assets such as corporate bonds for eligible assets such as cash to support liquidity.

**C.4.5 Risk sensitivity**

On a regular basis, Aegon reviews medium-term cash-flow projections for business units and legal entities in order to identify and manage liquidity requirements over the planning horizon. Stress testing is conducted in order to assess the ability of Aegon companies to manage liquidity needs in the event of financial market stress. The most adverse stress scenario for Aegon is a rapid increase in interest rates in key markets, which would require significant pledging of collateral.

The Aegon Group Liquidity Policy sets out a very prudent stress test that all business units must perform at least quarterly and as at 4Q 2017 Aegon was compliant with the requirements set out in this policy. In addition to the Group test business units are required to create a local test that is specific to their own liquidity risks. Results of the Group and local tests are reported to Aegon's Management Board, Supervisory Board and DNB.

#### **C.4.6 Expected profit included in future premiums**

The reported solvency position of Aegon includes the value attributable to profits that are expected to be made on future premiums i.e. that are expected, but have not yet been earned. The value of these future profits cannot easily be realized to generate cash as required to meet obligations that may arise today.

The value placed on these future profits on December 31, 2017 was EUR 1,322 million (2016: EUR 1,194 million).

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77 Risk profile **Operational risk**

**C.5 Operational risk**

**C.5.1 Operational risk description**

Aegon Group faces operational risk resulting from operational failures or external events. Aegon defines operational and conduct risk as a potential event that may result in (complete or partial) non-achievement of the Company's business objectives. Operational and conduct risks are further defined as follows:

Operational risk: Risk of losses resulting from inadequate or failed internal processes and controls, people and systems or from external events; and

Conduct risk: Risk of losses resulting from a company's products, services, people and actions failing to deliver the reasonable expectations of its customers and other stakeholders, and resulting in poor outcomes.

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.

Aegon's systems and processes are designed to support complex products and transactions and to avoid such issues as system failures, business disruption, financial crime and breaches of information security. Aegon conducts analyses on a continuous basis by studying such operational risks and regularly develops contingency plans accordingly.

**C.5.2 Operational risk assessment**

Aegon'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 three impact dimensions: financial loss, customer & reputation, and financial misstatement. The resulting ratings reflect the (residual) risk the business area is running. The senior management of each strategic business unit reports their forward looking risk profile on a quarterly basis, together with details of action plans that address key risks and, where appropriate, the CRO's opinion on the effectiveness of those plans. Please see section B.4.2 OCRM risk framework for a detailed description.

Aegon has identified eight risk event categories that serve as a common language for the group and support the preparation of operational risk reporting and analysis. The eight categories are detailed below:

**Business risk**

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.

**Legal, regulatory, conduct & compliance risk**

The risk that losses occur resulting from non-compliance with laws and regulation, inadequate legal documentation; or products, services, people and actions failing to deliver the reasonable expectations of its customers and other stakeholders; or failure to comply with laws, regulations and internal company rules and policies, as well as late identification of significant and potential legal and regulatory developments.

**Tax risk**

Tax risk is the risk associated with changes in tax laws, or the interpretation of tax laws, later jurisprudence or case law, or the introduction of new taxes or tax laws. This tax risk includes for example the risk of changes in tax rates, changes in loss carry-over rules and new rules restricting the tax deductibility of interest expenses.

Tax risk also includes the risk of consequences arising from failure to comply with procedures required by tax authorities. Failure to manage tax risks may lead to increased tax charges, including financial or operating penalties. This tax risk may have a direct materially adverse effect on Aegon's profits, capital and financial condition. Any changes in tax laws, interpretation of tax laws, later jurisprudence or case law, or the introduction of new taxes or tax laws in all countries in which Aegon operates or invests, which affects Aegon's products, may have a materially adverse effect on Aegon's businesses, results of operations, capital and financial condition.

**Financial crime risk**

A wrongful act (including money laundering), omission, breach of duty or trust, intentionally performed by an Aegon employee, intermediary or external party, which potentially could or results in disadvantage to Aegon or another.

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78 Risk profile **Operational risk**

**Processing risk**

The risk of losses due to inadequate or failing administrative processes and related internal controls, inadequate capturing of source data, reporting errors, modeling errors and failing outsourcing and supplier arrangements.

**Systems & business disruption risk**

The risk of losses due to inadequate or failed business continuity planning, back-up and recovery, fall back arrangements, information security, IT maintenance and change management, identification of relevant technological developments and other technical causes for systems related failures and errors.

**People risk**

The risk of losses due to acts inconsistent with employment, health or safety laws or agreements, from payment of personal injury claims or from diversity/discrimination incidents or losses resulting from an insufficient number of, or appropriately trained, personnel.

**Facility risk**

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 (e.g. vandalism, water damage, fire, explosions).

Processing risks are generally considered to be most material for Aegon, although this has reduced over the reporting period due to ongoing improvements across the general control environment resulting from various control enhancement initiatives. While systems and processes are designed to support complex transactions and avoid systems failure, fraud, information security failures, processing errors and breaches of regulation, any failure may lead to a materially adverse effect on Aegon's results of operations and corporate reputation. In addition, Aegon must commit significant resources to maintain and enhance its existing systems in order to keep pace with industry standards and customer preferences. If Aegon were to fail to keep up-to-date its information systems, it is possible that the Company would not be able to rely on information for product pricing, risk management and underwriting decisions. In addition, although back-up and recovery systems and contingency plans are in place, Aegon cannot assure investors that interruptions, failures or breaches in security of these processes and systems will not occur, or if they do occur, that they can be adequately addressed. The occurrence of any of these events may have a materially adverse effect on Aegon's businesses, results of operations and financial condition.

Aegon retains confidential information on its computer systems, including customer information and proprietary business information. Any compromise to the security of Aegon's computer systems that results in the disclosure of personally identifiable customer information may damage the Company's reputation, expose Aegon to litigation, increase regulatory scrutiny, and require Aegon to incur significant technical, legal and other expenses.

Inaccuracies in (financial) models could have a significant adverse effect on Aegon's business, results of operations and financial condition. Reliance on various (financial) models to measure risk, price products and establish key results, is critical to Aegon's operations. If these models or the underlying assumptions prove to be inaccurate, this

could have a significant adverse effect on Aegon's business or performance. This risk is controlled by having robust internal controls and governance over the models, including adhering to the Group Model Change Policy which is part of the Model Validation Framework.

Changes towards more sophisticated internet technologies, the introduction of new products and services, changing customer needs and evolving applicable standards increase the dependency on the internet, secure systems and related technology. Material strategic business units are currently implementing major transformation programs to reposition the organization for a more customer-centric and digitally-based business environment. The level of change in these programs will introduce new challenges, in addition to increasing existing operational risks and, as a result, the group has invested significantly in the control and oversight processes and resources supporting these programs to ensure that operational risk exposures are monitored and managed effectively.

There were no changes to Aegon's operational risk profile during the year. Aegon now include Operational risk in the PIM for Aegon UK, refer to section E.4 for more details.

### **C.5.3 Risk concentration**

Operational risk concentration can occur where specific risk exposures are in excess of operational risk appetite. Aegon's 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 managed on the basis of the economic framework model and is determined annually.

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79 Risk profile **Operational risk**

Operational risk for Aegon is dominated by the following material risk concentrations:

Legal, regulatory, conduct & compliance for Americas and the Netherlands; and

Processing risk for Americas, the Netherlands and the UK.

**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, substantial changed legislation due to regulatory regime change, or inability to enforce policy terms.

**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.

Consistent with Aegon's strategic aims, the Company will be increasing the nature and volume of outsourced activities in its business operations over the course of the next three to four years. To ensure that the risks inherent with this developing concentration exposure are managed effectively, a revised and well-structured Outsourcing & Supplier Risk Management policy was approved in 2016, and is being implemented across the Group. This sets out clear requirements for all outsourcing and supplier arrangements, determined by the scale and potential impact of the arrangement.

**C.5.4 Risk mitigation**

Operational risks at Aegon are mitigated by maintaining a strong risk control framework and culture. Please refer to section

B.4.2 OCRM risk framework for a detailed description of the compliance OCRM risk framework. All operational risks that are assessed as exceeding the set risk tolerance levels require management to determine a risk response. Risk response is the decision-making process to accept, control, transfer or avoid risks. Allowances for risk mitigation (e.g. insurance, third party indemnification) are made where appropriate. As an example, operational risk scenarios are developed annually and mapped to insurance programs to provide transparency where risk mitigation is effective or not under risk transfer solutions.

**C.5.5 Risk sensitivity**

Aegon's operational risk capital that is included in the Aegon PIM SCR is calculated using Standard Formula, except for Aegon UK. Internally Aegon manages operational risk based on its economic framework, which is evaluated quantitatively and qualitatively on an annual basis, or more frequently if necessary due to unusual circumstances or newly identified material operational risk exposures. The additional review can be triggered by a business unit or by

Group Risk, and is subject to the professional judgment of the relevant subject matter experts.

As the output of Operational Risk reporting is largely qualitative, sensitivity testing is not applied.

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Other material risks are the changes in the Ultimate Forward Rate (UFR) and in the loss-absorbing capacity of deferred taxes (LAC-DT). On April 5, 2017, the European Insurance and Occupational Pensions Authority (EIOPA) published an updated methodology to derive the UFR. EIOPA will annually calculate the UFR and, where they are sufficiently different, update it at the beginning of the next year. For 2017, this methodology will lead to a lowering of the UFR from 4.2% to 3.7% in steps of maximum 15 basis points per year from 2018 onwards. Aegon is exposed to a downward change in the UFR, mainly via Aegon the Netherlands. A lower UFR increases the technical provisions and thereby lowers the own funds. Furthermore, the higher technical provisions also cause an increase in the SCR.

A UFR shock is applied to EEA entities only. It is an immediate decrease of 50 basis points of the EIOPA UFR, from 4.2% to 3.7%. The shift is assumed to be immediate and instantaneous. The shock includes recalculating the SCR based on the shocked balance sheet.

As mentioned in the general part of section C. Risk profile, the LAC-DT level within Aegon the Netherlands is currently set at 75%. The sensitivity in the table below shows the impact of lowering that factor to 50%. It is an immediate change in the amount of LACDT relief included in the calculation of the SCR.

<b>Sensitivities</b>	<b>Scenario</b>	<b>Estimated Group Solvency II ratio impact</b>
Ultimate Forward rate	-50 bps	(4%)
Aegon the Netherlands loss absorbency of taxes	-25% pts	(6%)

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81 Risk profile **Any other information**

**C.7 Any other information**

Aegon does not have any other material information regarding its risk profile.



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82 Valuation for solvency purposes **Valuation for solvency purposes**

**D. Valuation for solvency purposes**

This chapter provides Solvency II valuation principles and the reconciliation between Aegon N.V.'s consolidated statement of financial position prepared under International Financial Reporting Standards as adopted by the European Union (IFRS-EU balance sheet) and Aegon N.V.'s consolidated economic balance sheet. The approach taken is described in the section "Approach balance sheet reconciliation", subsequently followed by the quantitative assessment of the reconciliation of both balance sheets. The bases, methods and assumptions used under Solvency II for each balance sheet item separately and any material differences between the bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS-EU financial statements is described in sections D.1 Assets, D.2 Technical provisions and D.3 Other liabilities.

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**Solvency II valuation principles**

This section of the SFCR provides the bases, methods and assumptions used under Solvency II for each balance sheet item separately, together with any material differences between the bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS financial statements for the year 2017.

During the reporting period, there were no significant changes made to the recognition and valuation bases used under Solvency II or to any estimation technique.

Furthermore, the bases, methods and main assumptions used at Group level for the valuation for solvency purposes of the Group's assets do not differ materially from those used by any of Aegon's subsidiaries for the valuation for solvency purposes.

**General recognition principle**

Assets and liabilities are recognized, unless otherwise stated, in conformity with IFRS.

**General valuation principle**

Aegon values its balance sheet items on a market consistent basis. Where the IFRS fair value is consistent with Solvency II requirements, Aegon follows IFRS for the valuation of assets and liabilities. The following is a description of Aegon's methods of determining fair value.

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). A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

In the principal market for the asset or liability; or

In the absence of a principal market, in the most advantageous market for the asset or liability.

Aegon uses the following hierarchy for measuring and disclosing of the fair value of assets and liabilities, other than technical provisions:

Level I: quoted prices (unadjusted) in active markets for identical assets or liabilities that Aegon can access at the measurement date;

Level II: inputs other than quoted prices included within Level I that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices of identical or similar assets and liabilities) using valuation techniques for which all significant inputs are based on observable market data; and

Level III: inputs for the asset or liability 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. 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 and liabilities generally inversely correlates with the level of observable valuation inputs. Aegon 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 is 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 assets and liabilities categorization within the fair value hierarchy is based on the lowest input that is significant to the fair value measurement.

### **Active Market**

An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. The judgment as to whether a market is active may include, although not necessarily determinative, 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 it is determined that adjustments to transaction prices are necessary to measure the fair value of the instrument.

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The majority of valuation techniques employ only observable market data, and so the reliability of the fair value measurement is high. However, certain assets and liabilities are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable and, for such assets and liabilities, the derivation of fair value is more judgmental. An instrument is classified in its entirety as valued using significant unobservable inputs (Level III) if, in the opinion of management, a significant proportion 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 an at arm's length transaction 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. While Aegon believes its valuation techniques are appropriate and consistent with other market participants, 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 Aegon's fair value hierarchy, 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 modeled). 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.

**Technical provisions**

Technical provisions are valued at the current amount Aegon would have to pay if the insurance and reinsurance obligations were to be transferred immediately to another insurance or reinsurance undertaking. The value of technical provisions is equal to the sum of a best estimate and a risk margin. The best estimate corresponds to the probability-weighted average of future cash-flows, taking into account the time value of money, using the relevant risk-free interest rate term structure, including volatility adjustment where applicable (please refer to section D.2.4 Long term guarantees and transitional measures). The risk margin is set at a level such that the value of the technical provisions is equivalent to the amount that insurance and reinsurance undertakings would be expected to require in order to take over and meet the insurance and reinsurance obligations.

**Valuation principles for other financial sector and entities consolidated under method 2**

For undertakings other than European Economic Area (EEA) insurance, Aegon follows the principles set by the Solvency II Directive and specifically:

Other financial sector entities are included based on the local sectoral rules; and

For method 2 (Deduction & Aggregation) entities Aegon applies primarily the local regulatory regime for countries where (provisionally) equivalence has been granted (US Life insurance entities, Bermuda, Japan, Mexico and Brazil).

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**Approach balance sheet reconciliation**

The approach taken to reconcile the balance sheet under IFRS and Solvency II is illustrated below:

As a starting point, the IFRS balance sheets of all business units are collected and aggregated. These are then aligned to the

Quantitative Reporting Template ( QRT ) format as prescribed by the Solvency II regulations (step 1). After performing the reconciliation steps (step 2 - 5), the IFRS balance sheet in QRT format is reconciled to the Solvency II balance sheet. The detailed steps in the reconciliation process are described below:

**Step 1:** To ensure accuracy of the reconciliation and correctness of the adjustments performed, the audited IFRS balance sheets of all business units are converted into their QRT equivalent and aggregated to a Group view.

**Step 2:** Entities aggregated based on method 2 (Deduction and Aggregation) and other financial sector entities (OFS) are excluded for their IFRS value. These entities are added back at their Solvency II value in step 5 below. This step is also used for entities (such as joint ventures) that are accounted for using the equity method under IFRS, as opposed to the line by line consolidation under Solvency II.

**Step 3:** Certain balance sheet items might differ in classification between the IFRS and Solvency II balance sheet. To align with the definitions and categorizations under Solvency II, some IFRS balance sheet items or classes within the balance sheet item are reclassified.

**Step 4:** Adjustments for balance sheet items that differ in method of valuation between IFRS and Solvency II are included through this step. This step is also used to de-recognize balance sheet items that are valued at nil on the Solvency II balance sheet such as Goodwill, Deferred Policy Acquisition Costs (DPAC) and other intangibles.

**Step 5:** The entities aggregated based on method 2 and excluded in step 2 above are included in the Group s Solvency II own funds for their proportional share of own funds according to local regulatory rules.

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Amounts in EUR millions	Section	Starting Point	Step 2	Step 3	Step 4	Step 5	Result
		and Step 1	Step 2	Step 3	Step 4	Step 5	Result
		IFRS	IFRS D&A	Reclassification	Revaluation	II D&A	Solvency
		Total	entities <sup>1)</sup>	adjustments	adjustments	entities <sup>1)</sup>	II Total
<b>Assets</b>							
Goodwill		293	242		(535)		
Deferred policy acquisition costs		10,135	(8,933)	22	(1,224)		
Intangible assets		1,340	(1,077)		(260)	(3)	
Deferred tax assets		79	(9)	384	14	(7)	461
Pension benefit surplus		55	(55)				
Property, plant & equipment held for own use		530	(203)	(4)		12	335
Investments (other than held for index- and unit-linked contracts)	<b>D.1.1</b>	108,052	(72,867)	3,164	58	9,359	47,766
Assets held for index- and unit-linked contracts	<b>D.1.2</b>	194,063	(106,192)	(6,686)	(604)	(6)	80,575
Loans & mortgages	<b>D.1.3</b>	39,597	(22,958)	937	3,211	541	21,328
Reinsurance recoverables	<b>D.1.4</b>	19,202	(18,624)	6,001	(327)	(5)	6,246
Deposits to cedants				28			28
Insurance & intermediaries receivables	<b>D.1.5</b>	999	(725)	342	(28)		589
Reinsurance receivables		2,708	(2,673)		4		39
Receivables (trade, not insurance)	<b>D.1.6</b>	4,222	(2,504)	240	(21)	167	2,105
Own shares					316	6	322
Cash and cash equivalents	<b>D.1.7</b>	8,223	(1,960)	2,109	(9)	63	8,425
Any other assets	<b>D.1.8</b>	6,792	(286)	(6,236)	(16)	36	289
<b>Total assets</b>		<b>396,291</b>		<b>302</b>	<b>579</b>	<b>10,162</b>	<b>168,507</b>
<b>Liabilities</b>							
Technical provisions: non-life	<b>D.2.1</b>	8,484	(7,283)	(729)	(169)		303
Technical provisions: life (excluding index- and unit-linked contracts)	<b>D.2.2</b>	119,277	(82,752)	3,839	2,839	17	43,219
Technical provisions: index- and unit-linked contracts	<b>D.2.3</b>	196,601	(106,197)	2,857	(2,432)	(1)	90,829
Provisions other than technical provisions		210	(74)	(3)	1	14	148

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Pension benefit obligations	<b>D.3.1</b>	4,005	(26)		(6)	14	3,988
Deposits from reinsurers			11		1		12
Deferred tax liabilities	<b>D.3.2</b>	1,112	(1,163)	423	(211)	(13)	147
Derivatives	<b>D.3.3</b>	7,130	(1,296)	(2,250)	(33)		3,552
Debts owed to credit institutions	<b>D.3.4</b>		2,177	725	333	(8)	3,227
Financial liabilities other than debts to credit institutions	<b>D.3.5</b>	13,709	(14,627)	637	(5)	810	524
Insurance & intermediaires payables	<b>D.3.6</b>	1,569	(1,016)	411	(3)	(6)	955
Reinsurance payables		3,010	(2,920)	(2)	16		103
Payables (trade, not insurance)	<b>D.3.7</b>	10,555	(7,227)	154	(28)	164	3,618
Subordinated liabilities	<b>D.3.8</b>	896	(889)	135	21	(1)	163
Any other liabilities	<b>D.3.9</b>	5,345	1,148	(5,894)	109	88	796
<b>Total liabilities</b>		<b>371,904</b>		<b>302</b>	<b>432</b>	<b>1,077</b>	<b>151,583</b>
<b>Excess of Assets over Liabilities</b>		<b>24,386</b>	<b>(16,694)</b>		<b>147</b>	<b>9,085</b>	<b>16,924</b>

<sup>1</sup> This column also includes Other Financial Sector entities (OFS) and any other legal entities that are presented differently for an IFRS view than for a Solvency II legal entity based view.

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**Table of Contents**87 Valuation for solvency purposes **Valuation for solvency purposes****Aegon Group balance sheet as of December 31, 2016**

Amounts in EUR millions	Section	Starting Point and Step	Step 2	Step 3	Step 4	Step 5 Solvency II D&A entities <sup>1)</sup>	Result Solvency II Total
		1					
		IFRS Total	IFRS D&A entities <sup>1)</sup>	Reclassification adjustments	Revaluation adjustments		
<b>Assets</b>							
Goodwill		294	197		(492)		
Deferred policy acquisition costs		11,423	(10,061)		(1,362)		
Intangible assets		1,526	(1,259)		(264)	(3)	
Deferred tax assets		87	(380)	995	67		768
Pension benefit surplus		51	(51)				
Property, plant & equipment held for own use		572	(218)				355
Investments (other than held for index- and unit-linked contracts)	<b>D.1.1</b>	127,333	(92,131)	6,102	59	12,261	53,623
Assets held for index- and unit-linked contracts	<b>D.1.2</b>	203,610	(110,133)	(12,883)	9		80,603
Loans & mortgages	<b>D.1.3</b>	39,683	(23,192)	32	3,509	921	20,953
Reinsurance recoverables	<b>D.1.4</b>	11,208	(10,645)	14,494	2,565		17,621
Deposits to cedants				4			4
Insurance & intermediaries receivables	<b>D.1.5</b>	4,168	(3,828)	326	(29)		637
Reinsurance receivables		211	(147)	(11)	4		56
Receivables (trade, not insurance)	<b>D.1.6</b>	4,039	(1,898)	(455)	25	442	2,154
Own shares			7		180		186
Cash and cash equivalents	<b>D.1.7</b>	11,347	(2,102)	(400)		5	8,850
Any other assets	<b>D.1.8</b>	10,382	(881)	(9,194)	46		353
<b>Total assets</b>		<b>425,935</b>	<b>(256,724)</b>	<b>(991)</b>	<b>4,316</b>	<b>13,627</b>	<b>186,162</b>
<b>Liabilities</b>							
Technical provisions: non-life	<b>D.2.1</b>	9,066	(7,849)	(685)	(227)		305
Technical provisions: life (excluding index- and unit-linked contracts)	<b>D.2.2</b>	130,075	(92,717)	17,261	5,875		60,494
Technical provisions: index- and unit-linked contracts	<b>D.2.3</b>	205,703	(110,477)	(7,570)	(1,583)		86,073
Provisions other than technical provisions		173	(94)	(2)	1		77
Pension benefit obligations	<b>D.3.1</b>	4,817	(14)	(13)	(36)		4,754
Deposits from reinsurers			12		1		12



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Deferred tax liabilities	<b>D.3.2</b>	2,318	(2,891)	990	(237)	(28)	152
Derivatives	<b>D.3.3</b>	8,878	(2,232)	(2,492)	(68)		4,085
Debts owed to credit institutions	<b>D.3.4</b>		497	2,627	386		3,510
Financial liabilities other than debts to credit institutions	<b>D.3.5</b>	13,281	(11,380)	(1,566)	(1)	1,210	1,544
Insurance & intermediaires payables	<b>D.3.6</b>	4,339	(3,670)	505	2		1,176
Reinsurance payables		875	(763)		27		139
Payables (trade, not insurance)	<b>D.3.7</b>	11,635	(6,770)	(1,197)	(27)	131	3,772
Subordinated liabilities	<b>D.3.8</b>	923	(787)		53		189
Any other liabilities	<b>D.3.9</b>	9,117	553	(8,848)	(44)		779
<b>Total liabilities</b>		<b>401,201</b>	<b>(238,582)</b>	<b>(991)</b>	<b>4,121</b>	<b>1,313</b>	<b>167,062</b>
<b>Excess of Assets over Liabilities</b>		<b>24,734</b>	<b>(18,142)</b>		<b>195</b>	<b>12,314</b>	<b>19,100</b>

<sup>1</sup> This column also includes Other Financial Sector entities (OFS) and any other legal entities that are presented differently for an IFRS view than for a Solvency II legal entity based view.

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Goodwill, DPAC and other intangibles are valued at nil on the Solvency II balance sheet. The IFRS treatment of these items is not in scope of this publication. Please refer to Aegon's Annual Report for the year 2017 for additional information on the treatment of these items.

**D.1.1 Investments (other than assets held for index- and unit-linked contracts)**

This paragraph describes the treatment of Aegon's investments (other than assets held for index- and unit-linked contracts). Although the majority of Aegon's portfolio is comprised of Bonds (50%; 2016: 51%), Related undertakings, including participations (22%; 2016: 25%), Derivatives (9%; 2016: 10%), Property other than for own use (6%; 2016: 5%), Collective Investment Undertakings (7%; 2016: 5%) and Equities (3%; 2016: 3%). A particular focus is given to Related undertakings, including participations as this element is the key material item for the comprehension of step 5 in the Approach to the balance sheet reconciliation described above.

No separate specification of the different financial instruments is given as the valuation treatment is consistent among them and described below.

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (72,867) million.

**Method of valuation under Solvency II**

Irrespective of whether investments are classified as fair value through profit or loss (FVTPL), held-to-maturity (HTM) or available-for-sale (AFS), Solvency II requires Fair Value to be applied while under IFRS, held-to-maturity investments are measured at amortized cost while investments at fair value through profit or loss and available for sale assets are measured at fair value. To bridge between IFRS and Solvency II investment accounting principles- financial assets valued at amortized cost under IFRS, need to be accounted for at fair value under Solvency II. This will in particular be required for financial instruments classified as Held-to-maturity. All the financial instruments measured at Fair Value for IFRS are not revalued under Solvency II. However, there are presentational differences between IFRS and Solvency II, and reclassifications are required to conform to the Solvency II requirements.

**Material difference in valuation between Solvency II and IFRS**

The differences between the bases, methods and main assumptions used for valuation for solvency purposes do not generate material differences, though reclassification adjustments are required for presentational differences between the bases.

Reclassification adjustments

The total reclassification adjustments of EUR 3,164 million comprises mainly of the reclassification of policyholder accounts related assets from Investments (other than assets held for index- and unit-linked contracts) to Assets held for index-linked and unit linked contracts in respect of the with-profits sub fund in the UK (EUR 5,518 million). A further reclassification of EUR 400 million is required for Aegon Ireland for which all of its assets and liabilities are presented as held for sale and thus on one line for IFRS reporting purposes. For Solvency II purposes, these amounts need to be re-allocated to the different asset and liability classes. Finally, an amount of EUR 149 million is reclassified within Aegon Spain for presentational differences between IFRS and Solvency II. These amounts are partly offset by EUR (2,931) million for Aegon the Netherlands and relate mostly to the reclassification of short term money market deposits from Deposits other than cash equivalents to Cash and cash equivalents under Solvency II and to the netting of derivatives.

#### Revaluation adjustments

The amount of revaluation adjustments is not material, as the majority of Aegon's investments (other than assets held for index- and unit-linked contracts) are measured at Fair Value on the IFRS balance sheet.

#### **Related undertakings, including participations**

##### Method of valuation under Solvency II

Under Solvency II, holdings in related undertakings, including participations at group level will include:

Holdings in related insurance or reinsurance undertakings, insurance holding companies and mixed financial holding companies that do not meet the definition of subsidiaries;

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Holdings in related undertakings in other financial sectors (i.e. Aegon Bank);

Other related undertakings (not mentioned above and not part of consolidated data); and

Insurance or reinsurance undertakings, insurance holding companies or mixed financial holding companies included through the D&A method.

Aegon's holdings in related EEA insurance or reinsurance undertakings, insurance holding companies and mixed financial holding companies that are not subsidiaries, are included based on the Solvency II adjusted equity method. Holdings in related undertakings in other financial sectors (e.g. Aegon Asset Management) are included based on the local sectoral rules. In addition, other related undertakings include non-insurance undertakings which are included under the AC method (method 1) but are not consolidated. These are measured at quoted prices in active markets (where available) or using the Solvency II adjusted equity method where quoted prices in active markets are not available.

Related undertakings also include insurance undertakings in Non-EEA countries that have been granted (provisional) equivalence, which have been included under the D&A method (method 2). These undertakings (most notably US life insurance entities) are measured in accordance with the local supervisory requirements and reflected as Participations within the Aegon Group economic balance sheet. As of December 31, 2017, those amounted to EUR 9,359 million. This amount includes the 100% RBC CAL reduction (EUR 1,758 million) in the Excess of Assets over Liabilities of the US Life Insurance companies as described in paragraph E.1.2 Tiering of own funds.

**Aggregation differences between Solvency II and IFRS**

It is to be noted that there are material differences in aggregation stemming from insurance undertakings included under the D&A method, primarily driven by the US Life insurance entities. For the latter, the main differences between its statutory regime and IFRS relate to technical provisions (EUR 7,789 million), valuation of other assets (EUR 878 million), investments (EUR (6,212) million) and taxes (EUR 704 million). In addition, there is no Deferred Policy Acquisition Cost (DPAC) under US statutory accounting (EUR (8,233) million) and the 100% RBC CAL reduction (EUR (1,758) million) for the US Life Insurance companies as described in paragraph E.1.2 Tiering of own funds. The main differences are described in further detail below:

*Technical provisions:* There are a number of valuation differences between US statutory accounting and IFRS with respect to reserves (i.e. use of deposit accounting, expense allowances and/or surrender charges, differences in assumptions and methodology). Generally, the statutory reserves assumptions and methodology are intended to be more conservative to ensure the company's ability to meet unmatured obligations, such as expected future claims. However, the impact of other methodology differences in bridging from IFRS to statutory values can offset the intended conservatism in statutory;

*Other assets:* On a statutory basis, certain assets are designated as non-admitted, and are excluded from the balance sheet. Under IFRS, such assets are included in the balance sheet to the extent that they are not impaired. Other items causing differences from statutory basis to IFRS are hedge reserve offset, payables for derivative cash collateral, and letters of credit;

Under IFRS basis *investments* are generally reported at market value. On a statutory basis, investments are generally reported at amortized cost; and

Differences in *taxes* are driven by the carrying amount of statutory and IFRS assets and liabilities (as described above) as compared to the tax base of those assets and liabilities. The conservative nature of the US statutory regime typically results in net deferred tax assets, whereas the comparison of IFRS and tax base typically results in a net DTL position. Furthermore, while both accounting regimes are subject to DTA recognition realization criteria, the statutory regime applies further limitations which leads to a reduced amount of admitted deferred tax assets recognized on the statutory balance sheet.

*DPAC:* Acquisition costs are deferred under IFRS, while they are expensed as incurred under US statutory accounting. Under IFRS, value of business acquired (VOBA) is an intangible asset resulting from a business combination. VOBA is not recognized for US statutory accounting basis.

The main part of the gap in the excess of assets over liabilities between Step 2 and Step 5 above relates to the differences between the US statutory regime and IFRS.

### **Fair value hierarchy**

To operationalize Aegon's fair value hierarchy, 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 modeled). Periodically, the logic for assigning fair value levels is reviewed to determine if any modifications are necessary in the context of the current market environment.

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The table below provides an analysis of the individual instruments by level of the fair value hierarchy.

**Fair value hierarchy of financial assets**

Amounts in EUR millions	Level 1	Level 2	Level 3 <sup>2)</sup>	Total
<b>Investments (other than assets held for index-linked and unit-linked contracts)<sup>1)</sup></b>	<b>20,550</b>	<b>4,086</b>	<b>8,945</b>	<b>33,581</b>
Property (other than for own use)			2,936	2,936
<b>Equities</b>	<b>1,583</b>	<b>72</b>	<b>11</b>	<b>1,666</b>
Equities - listed	1,583	72		1,655
Equities - unlisted			11	11
<b>Bonds</b>	<b>18,313</b>	<b>2,293</b>	<b>3,130</b>	<b>23,736</b>
Government bonds	17,784	580	163	18,526
Corporate bonds	527	1,313	1,320	3,160
Structured notes	3			3
Collateralised securities		399	1,647	2,047
<b>Collective Investments Undertakings</b>	<b>396</b>	<b>440</b>	<b>2,456</b>	<b>3,292</b>
<b>Derivatives<sup>1)</sup></b>	<b>45</b>	<b>377</b>	<b>412</b>	<b>833</b>
<b>Deposits other than cash equivalents</b>	<b>213</b>	<b>905</b>		<b>1,117</b>
<b>Other investments</b>				
<b>Assets held for index-linked and unit-linked contracts (section D.1.2)</b>	<b>15,814</b>	<b>39,918</b>	<b>24,843</b>	<b>80,575</b>
<b>Loans and mortgages (section D.1.3)</b>			<b>21,328</b>	<b>21,328</b>
Loans on policies			4	4
Loans and mortgages to individuals			21,324	21,324

<sup>1</sup> Note that Investments as shown in the table (EUR 33,581 million) do not include the net asset value of participations as reported in the Solvency II balance sheet (EUR 10,633 million). In addition, there is an amount of EUR 3,552 million relating to the netting of derivatives

**D.1.2 Assets held for index- and unit-linked contracts****De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS)

generates an aggregation difference of EUR (106,192) million.

### **Method of valuation under Solvency II**

Assets held for index- and unit linked contracts, for which the actual return on investments is passed on to the policyholder, are measured at fair value of the assets of the contracts.

### **Material difference in valuation between Solvency II and IFRS**

The differences between the bases, methods and main assumptions used for valuation for solvency purposes do not generate material differences, though reclassification and gross-up adjustments are required for presentational differences between the bases.

#### Reclassification adjustments

The majority of the EUR (6,686) million reclassification is driven by With-Profit Sub-Funds (WPSF) in Aegon UK. The key drivers of this adjustment are the reclassification of policyholder accounts related assets from Investments (other than assets held for index- and unit-linked contracts) to Assets held for index-linked and unit linked contracts for an amount of EUR(5,596) million and the reclassification of reinsured External Fund Linked (EFL) for an amount of EUR (5,315) million. A further reclassification of EUR 4,775 million is required for Aegon Ireland for which all of its assets and liabilities are presented as held for sale and thus on one line for IFRS reporting purposes. For Solvency II purposes, these amounts need to be re-allocated to the different asset and liability classes.

#### Revaluation adjustments

The revaluation adjustment of EUR (604) million mostly stems from Aegon UK of EUR (613) million from the reversal of the gross up following the IFRS 10 standard requiring entities to consolidate entities it controls. Control requires exposure or rights to variable returns and the ability to affect those returns through power over an investee. This does not apply for Solvency II reporting.

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**D.1.3 Loans and mortgages**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (22,958) million.

**Method of valuation under Solvency II**

Loans and mortgages are valued at Fair Value. For private loans, fixed interest mortgage loans and other loans originated by the Group, the fair value is calculated by discounting expected future cash flows using a current market rate applicable to financial instruments with similar yield and maturity characteristics. For fixed interest mortgage loans, the market rate is adjusted for expenses, prepayment rates, lapse assumptions, liquidity and credit risk (market observable inputs). The fair value of floating interest rate mortgage loans, policy loans and private placements used for disclosure purposes is approximated by their carrying amount, adjusted for credit risk. Credit risk adjustments are based on market observable credit spreads, if available, or best estimate, if not market observable. Please refer to section D.4.7 for alternative valuation methods of Loans and mortgages.

**Material difference in valuation between Solvency II and IFRS**

Under IFRS these assets are valued at amortized cost on the balance sheet, while under Solvency II, fair value is applied. The different valuation approach between IFRS and Solvency II therefore requires revaluation of loans and mortgages. By their nature, none of the loans and mortgages included in this category are listed on active markets. Solvency II requires that the fair value should be based on the discounted cash flow valuation method which is based on the contractual future cash flows discounted with a discount rate representing the time value of money and risk charges.

**Reclassification adjustments**

The total reclassifications of EUR 937 million is almost exclusively related to the netting of intercompany loans presented as Liabilities other than owed to credit institutions under the QRT IFRS equivalent but are to be presented as Loans and mortgages for Solvency II.

**Revaluation adjustments**

The revaluation adjustments reflect the impact of conversion from amortized cost valuation under IFRS to fair value under Solvency II. Under the amortized cost method, loans and mortgages are valued using the effective interest rate at the inception of the loan, while fair value determination should incorporate current market factors including a risk free rate.

**D.1.4 Reinsurance recoverables**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**



The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (18,624) million.

### **Method of valuation under Solvency II**

Reinsurance contracts are contracts entered into by the Group in order to receive compensation for claims/benefits incurred on contracts written by the Group (outgoing reinsurance). Reinsurance assets are also held as part of exiting the business. For contracts transferring sufficient insurance risk, a reinsurance asset is recognized for the expected future benefits, less expected future reinsurance premiums. Reinsurance contracts with insufficient insurance risk transfer are accounted for as investment or service contracts, depending on the nature of the agreement.

For Solvency II, a fair value approach is used for the reinsurance recoverables that is similar to the valuation of insurance liabilities. It does not, however, include a risk margin and the measurement includes an adjustment for counterparty default risk.

### **Material difference in valuation between Solvency II and IFRS**

Under IFRS, reinsurance assets are measured consistently with the assumptions associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. They are subject to impairment testing and are derecognized when the contractual rights are extinguished or expire or when the contract is transferred to another party. Under Solvency II, the best estimate valuation principles described above are applied. This generates valuation differences between the two paradigms.

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#### Reclassification adjustments

The main drivers of the adjustment are a EUR 6,001 million reclassification for External Fund Linked (EFL) assets within Aegon UK deemed to be reinsurance assets for Solvency II purposes.

#### Revaluation adjustments

The majority of the total revaluation for an amount of EUR (327) million relates to Aegon UK. The difference in valuation relates to the underlying reinsured liabilities. There are considerable differences in the valuation of insurance liabilities under IFRS compared to Solvency II and the value of the reinsurance assets covering these liabilities changed as a result. These adjustments included, among others, different valuation of risk margin and different discount rates (IFRS historical rates versus Solvency II current market rates).

### **D.1.5 Insurance and intermediaries receivables**

#### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (725) million.

#### **Method of valuation under Solvency II**

The insurance and intermediaries receivables reflect amounts past due for payment by policyholders, (re)insurers, and other linked to insurance business, that are not included in technical provisions. It also includes receivables from reinsurance accepted. Insurance and intermediaries receivables on Aegon's balance sheet are predominantly short-term. The difference between the amortized cost under IFRS and fair value under Solvency II is therefore not material.

#### **Material difference in valuation between Solvency II and IFRS**

Given the short-term nature of these receivables, there is no material measurement difference between amortized cost under IFRS and fair value under Solvency II.

#### Reclassification adjustments

The reclassification for an amount of EUR 342 million mainly resulted from receivables (trade, non-insurance, refer to section D.1.6) and insurance & intermediaries receivables.

#### Revaluation adjustments

Insurance and intermediaries receivables on Aegon's balance sheet are predominantly short-term. The revaluation difference between the amortized cost under IFRS and fair value under Solvency II is therefore not material.

### **D.1.6 Receivables (trade, not insurance)**

### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (2,504) million.

### **Method of valuation under Solvency II**

Receivables on Aegon's balance sheet are predominantly short-term. Solvency II value measurement requires a fair value approach to be applied.

### **Material difference in valuation between Solvency II and IFRS**

Given the short-term nature of these receivables, there is no material measurement difference between amortized cost under IFRS and fair value under Solvency II.

### **Reclassification adjustments**

The total reclassification adjustment amounted to EUR 240 million. This was mainly driven by EUR 303 million related to netting of accrued interest in Aegon the Netherlands and by the breakup of Receivables (trade, not insurance) from Any other assets in the US non-regulated companies for an amount of EUR 131 million. This was partly offset by the EUR (202) million reclassification related to policyholders accounts which are reclassified into assets held for index- and unit-linked contracts, and accrued interest in the UK.

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Revaluation adjustments

No material revaluation adjustments were required.

**D.1.7 Cash and cash equivalents**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (1,960) million.

**Method of valuation under Solvency II**

Under Solvency II, cash and cash equivalents on the balance sheet refers to notes and coins in circulation that are commonly used to make payments, and deposits exchangeable for currency on demand at par or which are directly usable for making payments without penalty or restriction. Cash equivalents on Aegon's balance sheet are predominantly short-term of nature and, as a result, the valuation difference between the amortized cost under IFRS and fair value under Solvency II is not material.

**Material difference in valuation between Solvency II and IFRS**

The differences between the bases, methods and main assumptions used for valuation for solvency purposes do not generate material differences, however reclassification adjustments are required for presentational differences between the bases.

Reclassification adjustments

The reclassification for the amount of EUR 2,109 million resulted from the reclassification of Deposits other than cash equivalents under Investments (other than held for index and unit-linked) into Cash and cash equivalents

Revaluation adjustments

No material revaluation adjustments were required.

**D.1.8 Any other assets**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (286) million.

**Method of valuation under Solvency II**

The fair value approach is prescribed for the majority of the asset groups. All assets without specific valuation rules are valued in accordance with IFRS, provided that this is consistent with an economic valuation. When applying an economic valuation of assets, insurers should refer to a three level valuation hierarchy. The use of quoted prices is the default method of valuation. Where this is not possible, insurers should use quoted prices of similar assets. Where no quoted prices can be used, the insurer can develop an alternative valuation method that makes maximum use of market inputs.

**Material difference in valuation between Solvency II and IFRS**

Most of these assets are of a short-term character and, as a result, there are no material difference between Solvency II and IFRS values.

**Reclassification adjustments**

The adjustment, for an amount of EUR (6,236) million, is mainly driven by the need to reclassify the net value of Aegon Ireland's assets reported under IFRS as assets held for sale (included in Any other assets ) into the other asset classes as Solvency II for an amount of EUR (5,249) million. The remainder mostly relates to presentational differences between IFRS and Solvency II for the US non-regulated entities (EUR (473) million), Aegon the Netherlands (EUR (362) million) and Aegon UK (EUR (115) million).

**Revaluation adjustments**

No material revaluation adjustments were required

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Aegon distinguishes between entities for which the valuation of (insurance related) liabilities is based on Solvency II (insurance and reinsurance entities within the European Economic Area (EEA)) or valuation is based on local regimes when (provisional) equivalence is granted (US Life insurance entities, Japan, Mexico, Brazil, and Brazil).

This section describes the technical provisions for the EEA (re)insurance legal entities, including the amount of the Best Estimate Liability (BEL) and the Risk Margin (RM), including a description of the bases, methods and main assumptions used. The value of the Solvency II technical provisions are shown in the tables of sections: D.2.1 Technical provisions non-life; D.2.2 Technical provisions life; and D.2.3 Technical provisions index linked and unit linked contracts.

Given the materiality of technical provisions, this section also provides relevant information about the technical provisions for the Non-EEA (re)insurance legal entities, in particular with respect to the US life insurance entities.

**Bases (different reporting regimes)**

For the EEA (re)insurance legal entities, the Solvency II technical provisions are calculated taking into account the requirements of the Solvency II directive and the Solvency II implementing measures and guidance.

EEA (re)insurance legal entities are primarily included in the Group Solvency II position through Accounting Consolidation. Non-EEA (re) insurance legal entities are primarily included in the Group Solvency II position through Deduction & Aggregation in which only these entities own funds and solvency requirements are consolidated. The related technical provisions for these entities are not explicitly consolidated for the Group Solvency II balance sheet reporting.

**EEA (re)insurance legal entities**

The technical provisions consist of the Best Estimate Liability (BEL) and the Risk Margin (RM).

The BEL is calculated using projection models and is the probability-weighted average of projected future cash-flows, taking account of the time value of money, using the relevant risk-free interest rate term structure, with Matching Adjustment (MA) or Volatility Adjustment (VA) where appropriate, prescribed by EIOPA. This liability valuation includes the projection of mortality, lapses, expenses, fund values, charges and other factors that impact future cash flows, based on best-estimate assumptions. In cases where the liabilities do not include material embedded options or guarantees, they are calculated deterministically. The liability for material embedded options or guarantees is calculated using stochastically generated economic scenarios.

The Matching Adjustment (MA) is one of the long-term guarantees (LTG) measures in the Solvency II regulation to ensure an appropriate treatment of insurance products that include long-term guarantees. The Matching Adjustment can only be applied for separate portfolios of matched assets and liabilities and is designed to reflect the fact that for these portfolios there is no exposure to credit spread fluctuations that are not related to increased probability of default. The MA is applied by Aegon UK and Aegon Spain for separate portfolios of matched assets and liabilities that are covering annuity business. The calculation methodology which was adopted to implement the MA was

approved by local regulators.

The Volatility Adjustment (VA) is one of the long-term guarantees (LTG) measures in the Solvency II regulation to ensure an appropriate treatment of insurance products that include long-term guarantees. It aims at stabilizing the Solvency II balance sheet during short periods of high market volatility by adding an extra spread component to the discount rate used for the calculation of technical provisions. The VA is applied by Aegon the Netherlands and Aegon Spain for all types of their business while Aegon UK applies the VA to all traditional and unitized with-profits business.

The RM is included in the technical provisions to allow for the uncertainty around the best estimate non-economic assumptions. Solvency Capital Requirements (SCR) for non-hedgeable risks (like underwriting and operational risks) form the basis of the calculation of the RM. The RM calculation is based on a cost-of-capital method applied to a projection of SCRs based on a 99.5% confidence level and aggregation is performed by applying diversification benefits factors to each risk type that is applicable to the Solvency II Partial Internal Model (Aegon the Netherlands, Aegon UK) or Standard Formula (other EEA legal entities). Diversification is only applied within the legal entities and only for the non-hedgeable risks.

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Ongoing validation and review processes are in place to ensure that models being used remain appropriate and can be relied upon, including model validations, process reviews carried out by the Internal Audit function and review of results performed by external auditors.

**Assumptions Best estimate non-economic assumptions (for EEA (re)insurance legal entities)**

Best estimate non-economic assumptions are used by the EEA (re)insurance legal entities for the Solvency II reporting framework (for the valuation of the BEL), as well as the IFRS reporting framework (including the liability adequacy test, also known as DAC recoverability test or loss recognition test).

Non-economic assumptions are proposed by the 1st line actuarial function and reviewed by the 2nd line risk function. They are approved by the local board or local management team. This governance also requires the independent opinion and recommendation of the Actuarial Function Holder (AFH).

<b>Unit</b>	<b>Line of Business</b>	<b>Significant Non-Economic Assumptions</b>
NL	Individual Life	Mortality, maintenance expenses, lapses
	Group Pension	Mortality, maintenance expenses
	Mortgages	Prepayment rates
	Non-Life	Disability
UK	All business	Lapses, maintenance expenses
Ireland	Variable Annuity	Mortality, lapses and maintenance expenses
CEE	Life (Hungary/Poland)	Lapses, maintenance expenses
	Non-Life (Household, Casco, Motor third party liability insurance)	Lapses, maintenance expenses, loss ratio, index
Spain	Santander JV	Lapses
	All business	Maintenance expenses
BSRe	All business	Maintenance expenses

Best estimate actuarial assumptions (i.e. mortality, longevity and lapse) and maintenance expenses assumptions are developed through periodic experience studies. The frequency of these studies is determined by the relative significance of the assumption in relation to actuarial calculations, its volatility, and the amount of new experience available.

Mortality assumptions are generally developed based on a blend of company experience and industry wide studies, taking into consideration product characteristics, own risk selection criteria, target market and past experience.

Longevity assumptions are set for annuity business where benefit payments are a function of survivorship status. An important feature of the annuitant longevity as well as the mortality basis is the inclusion of a long-term rate of improvement of mortality.



Policyholder behavior (e.g. lapse, surrender, withdrawal, annuitization, and premium persistency) assumptions are set where policyholders have options to withdraw funds, cancel their contracts, cease or adjust premium amounts, or elect embedded options. Policyholder behavior assumptions depend on product features, policy duration and external circumstances such as the interest rate environment and competitors. Reliable own experience, as well as available industry wide data, are used in establishing assumptions.

Maintenance expense assumptions reflect the cost of administering policyholder contracts and are derived from the cost analysis that forms a key part of each entity's cost management activity. Broadly speaking, cost loadings are derived by identifying the costs that are expected to be incurred in respect of administering policyholder business, and dividing this by the number of relevant contracts at a contract type level, or set as a percentage of premium. Expert judgment is mainly required in order to classify costs as acquisition or renewal, to select the drivers in order to allocate costs to products, and to classify of expenses as exceptional or recurring expenses.

For Non-Life, demographic assumptions (e.g. sick leave, and disability) and claims payment assumptions (e.g. fire, marine and third-party liability) are based on observed and annually updated statistics.

**Assumptions Economic assumptions (for EEA (re)insurance legal entities)**

For the EEA (re)insurance legal entities, the key economic assumptions are the EIOPA swap curve for discounting and the UFR. Furthermore, for Aegon UK and Aegon Spain, the MA and VA are considered to be key economic assumptions. In addition, economic scenarios are generated that are applied for the stochastic valuation of the options and guarantees included in some of the liabilities (i.e. where options and guarantees are material).

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The UFR is the risk free interest rate over a one year period that is expected to prevail after a long period. The current EUR-UFR of 4.2% has been set by EIOPA (2016: 4.2%). On April 5, 2017, EIOPA published an updated methodology to derive the UFR .EIOPA will annually calculate the UFR and, where they are sufficiently different, update them at the beginning of the next year. For 2017, this methodology will lead to a lowering of the UFR from 4.2% to 3.7% in steps of maximum 15 basis points per year from 2018 onwards.

**Level of uncertainty associated with the value of the technical provisions (for EEA (re)insurance legal entities)**

The main source of uncertainty associated with the technical provisions is in the setting of assumptions where a significant level of judgment may be required about how future experience may differ from past experience. The assessment of the potential impact of this uncertainty is performed by sensitivity testing of key assumptions.

The risk margin is included in the technical provisions to allow for the uncertainty around the best estimate non-economic assumptions

**Significant simplified methods used to calculate the technical provisions (for EEA (re)insurance legal entities)**

For the with-profits fund risk margin derivation of Scottish Equitable plc (UK) a simplified approach (by assuming that capital run off is in line with the run-off of the cost of guarantees) is taken, appropriate to the nature of the fund while aligning to the regulatory requirements.

For Aegon Levensverzekering N.V. (NL), the expected SCR in future years is projected by using the projected best estimate liability as risk driver and the SCR at reporting date as starting point. Aegon Levensverzekering N.V. 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 relative 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.

**The value of the Solvency II technical provisions (for EEA (re)insurance legal entities)**

The value of the Solvency II technical provisions are specified below while the material difference in valuation between Solvency II and IFRS is described in sections: D.2.1 Technical provisions non-life; D.2.2 Technical provisions life; and D.2.3 Technical provisions index linked and unit linked. The most material Lines of Business for Aegon Group are illustrated in the table below.

<b>Value of Solvency II technical provisions</b>	Life		Non-life	Total
	Index-linked and unit-linked	TP - life (excluding health and index-linked and non-life	(excluding health)	Total
Amounts in EUR millions				
Best estimate	89,414	40,813	272	130,499
Risk margin	1,414	1,659	32	3,105

Technical provision	90,829	42,472	303	133,604
Percentage of total	67.9%	31.8%	0.2%	100.0%

### Non-EEA (re)insurance legal entities on (provisional) equivalence

Non-EEA (re)insurance legal entities which are domiciled in third-countries that are deemed (provisional) equivalent are located in the US, Bermuda, Mexico, Brazil and Japan and are included via the D&A method where capital requirements are based on local regulatory requirements. The section below focus on most material for Aegon Group, being the US insurance companies.

In the US, technical provisions are generally calculated based on locally prescribed formulas and also locally prescribed assumptions. However, there are several areas where the company has the ability to set assumptions for statutory valuation based on its own experience, subject in all cases to certain limitations and/or approvals (including, for example, required margin for prudence over best estimate assumptions). The most material of these areas are Variable Annuities (reserving under Actuarial Guideline 43), Universal Life (reserving under Actuarial Guideline 38) and Long Term Care.

Most insurance liabilities are also subject to an annual Asset Adequacy Analysis (usually performed via cash flow testing). This analysis assesses the adequacy (appropriateness) of the statutory reserves, using own best estimate actuarial assumptions, plus appropriate margins for prudence, and under specified interest rate scenarios. The outcome of the Asset Adequacy Analysis may lead to the requirement to hold additional reserves.

Ongoing validation and review processes are in place to ensure that models being used remain appropriate and can be relied upon, including model validations, process reviews carried out by the Internal Audit function.

Each of the US legal insurance entities has its own independent Appointed Actuary which is responsible for setting the assumptions, including margins for adverse deviation, and calculating the technical provisions and performing the cash flow testing.

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The Actuarial Function Holder (AFH), appointed by the US board, provides at least once a year an independent opinion on adequacy and reliability of the technical provisions, including a summary of concerns and recommendations, if any. This is documented by the AFH in an annual Actuarial Function Report.

#### **D.2.1 Technical provisions non-life**

##### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (7,283) million.

##### **Method of valuation under Solvency II**

Refer to section D.2 Technical provisions for the base, models, methodology and assumptions applied for the valuation of the Solvency II technical provisions.

##### **Material difference in valuation between Solvency II and IFRS**

Solvency II requires discounting of all the expected future cash flows by EIOPA described discount rates and adding a risk margin based on the cost of capital ( CoC ) for non-hedgeable risks.

The Solvency II discount rate is based on the prescribed EIOPA curve at the reporting date including the volatility adjustment where applied. The IFRS discount rate is usually a fixed rate and is set following local GAAP (Generally Accepted Accounting Principles).

Finally, presentational differences exist between IFRS and Solvency II, and reclassifications are required to comply with Solvency II requirements (e.g. annuities stemming from non-life contracts).

##### **Reclassification adjustments**

The reclassification adjustments amounted to EUR (729) million, and represented annuities stemming from non-life for Solvency II. These liabilities are presented under technical provisions life rather than under technical provisions non-life and relate to the WIA and AOV portfolio of Aegon the Netherlands.

##### **Revaluation adjustments**

The total revaluation adjustment amounted to EUR (169) million, and was mainly due to the application of different discount rates, and the application of shorter contract boundaries under Solvency II.

#### **D.2.2 Technical provisions life (excluding index-linked and unit-linked contracts)**

##### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (82,752) million.

**Method of valuation under Solvency II**

Refer to section D.2 Technical provisions above for the base, models, methodology and assumptions applied for the valuation of the Solvency II technical provisions.

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**Material difference in valuation between Solvency II and IFRS**

Solvency II requires the inclusion of indirect overhead expenses in the expected future cash flows for calculating insurance liabilities (e.g. salaries to general managers, auditing costs, office rent, buying new IT systems, etc.).

Another difference relates to contract boundaries. Under Solvency II, the renewability assumption is required to be supported by legally binding obligations, rather than estimates of policyholder's attrition pattern.

The Solvency II discount rate is based on the EIOPA curve at the reporting date including the VA and UFR where applied. IFRS, in general, applies a fixed discount rate which is set in accordance with Local GAAP.

Finally, presentational differences exist between IFRS and Solvency II, and reclassifications are required to comply with Solvency II requirements (e.g. annuities stemming from non-life contracts).

Reclassification adjustments

Reclassification adjustments amounted to EUR 3,839 million for technical provisions – life (excluding index-linked and unit-linked contracts) mainly consist of:

EUR 5,885 million related to the reclassification of WPSF technical provisions, classified under IFRS as for account of policyholder, from technical provisions – index-linked and unit-linked contracts to technical provisions – Life (excluding index-linked and unit-linked contracts);

An amount of EUR (2,012) million for annuities stemming from non-life contracts. It consists mainly of a reclassification from technical provisions non-life for an amount of EUR 732 million and a reclassification from (bifurcated) derivatives for an amount of EUR (2,525) million for the guarantee provision of unit-linked contracts. An amount of EUR (219) million has been reclassified to financial liabilities other than debts owed to credit institutions (refer to section D.3.4) as these are not policyholder related.

Revaluation adjustments

The total revaluation amount of EUR 2,839 million mainly consists of:

An amount of EUR 1,369 million as a result of following the Solvency II Technical Provision valuation adjustments, including the present value of future premiums, the present value of future expenses related to the servicing of insurance contracts, the allocated general overhead expenses, the revision of the discount rate to the current market rate and the use of different contract boundaries; and

An amount of EUR 1,468 million from the incorporation of the Solvency II risk margin.

### **D.2.3 Technical provisions index-linked and unit-linked contracts**

#### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (106,197) million.

#### **Method of valuation under Solvency II**

Refer to section D.2 Technical provisions for the base, models, methodology and assumptions applied for the valuation of the Solvency II technical provisions.

#### **Material difference in valuation between Solvency II and IFRS**

For investment-linked business, the policyholder contributions are invested in units in selected funds and the Solvency II BEL is the market value of the unit funds less the discounted value of the future profit cash flows (assuming best-estimate mortality, lapse and expenses).

In addition, Solvency II requires the inclusion of the entity's general overhead expenses in the total expenses for the determination of the contract cash flows.

Finally, if embedded derivatives are bifurcated (i.e. valued separately) under IFRS, this constitutes a difference between IFRS and Solvency II.

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## Reclassification adjustments

Reclassification adjustments amounted to EUR 2,857 million and mainly included:

An amount of EUR (1,808) million reclassification from technical provisions index-linked and unit linked contracts to technical provision life (excluding index-linked and unit linked contracts) (please refer to section D.2.2); and

An amount of EUR (234) million related to the reversal for IFRS 10;

An amount of EUR 4,864 million related to the allocation of Aegon Ireland. While for IFRS the liabilities held for sale are reported under Any other Liabilities, for Solvency II reporting purposes, these need to be reclassified to technical provisions index-linked and unit linked contracts.

## Revaluation adjustments

The revaluation adjustment for a total amount of EUR (2,432) million is mainly related to Aegon UK and Aegon NL and is mostly driven by the inclusion of the Present Value of Future Profits (PVFP) under Solvency II, which is partly offset by the inclusion of the Solvency II risk margin.

**D.2.4 Long term guarantees and transitional measures**

The impact of the transitional measure on technical provisions, the volatility adjustment and the matching adjustment on the technical provision, own funds, SCR and minimum consolidated group SCR are shown in the table below. Aegon does not apply the Transitional risk-free interest rate-term structure as described in Article 308c of Directive 2009/138/EC.

<b>Impact of long term guarantees measures and transitionals</b>	<b>Amount with Long Term Guarantee measures and transitionals</b>	<b>Impact of transitional on technical provisions</b>	<b>Impact of volatility adjustment set to zero</b>	<b>Impact of matching adjustment set to zero</b>
<b>Amounts in EUR millions</b>				
Technical provisions	134,350	113	288	66
Basic own funds <sup>1)</sup>	7,406	(56)	(205)	(55)
Eligible own funds to meet Solvency Capital Requirement	15,628	(56)	(205)	(55)
Solvency Capital Requirement	7,774	1	1,273	65
Group Solvency II ratio	201%	1%	31%	2%



<sup>1</sup> Note that Basic own funds shown in the table reflects the Basic own funds after deductions , which excludes own funds of OFS and D&A entities, and non-available own funds.

The amounts with long term guarantee measures and transitionals in the first column reflect the Aegon technical provisions, basic and eligible own funds and SCR as at December 31, 2017. The impacts in the other columns show the impact of removing the transitional and long term guarantee measures in that specific order. An increase in technical provisions or SCR and a decrease in own funds have a negative impact on Aegon's solvency position.

The transitional measure on technical provisions as described in Article 308d of Directive 2009/138/EC is applied by Aegon Spain. For Aegon Spain, the application of transitional measures for some products with high interest rate guarantees was approved in May 2016. The benefit of this transitional measure on the technical provision amounted to EUR 113 million. The own funds benefit amounted to EUR 56 million and reflects the impact of taxes. The impact on the SCR was immaterial.

The volatility adjustment is based on a risk-corrected spread using the standard EIOPA VA methodology. The volatility adjustment is applied on the liabilities by Aegon the Netherlands, Aegon UK, and Aegon Spain. Next to this, Aegon the Netherlands applies a dynamic volatility adjustment in the SCR calculation. The dynamic VA model takes into account the expected increase in the VA in an environment of asset spread increases and therefore lowers the capital requirement for spread risk. In line with regulatory requirements, Aegon Levensverzekering determines the VA-impact on the SCR if the regulatory concept of the VA would not exist at all and without adjusting for the spread risk on the asset side. Aegon the Netherlands considers the dynamic VA an integral part of the modelling of spread risk.

The benefit of the volatility adjustment on the technical provision amounted to EUR 288 million. The own funds benefit amounted to EUR 205 million and reflects impact of taxes. The SCR benefit amounted to EUR 1,273 million and is mainly attributable to the impact of the dynamic volatility adjustment in the SCR calculation. The impacts of the volatility adjustment mainly stem from Aegon the Netherlands.

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The matching adjustment is applied by Aegon UK and Aegon Spain for separate portfolios of matched assets and liabilities that are covering annuity business. For the UK, following the reinsurance and sale of the annuity books, the matching adjustment per the end of 2017 will now only impact the Guardian annuities. The benefit of the matching adjustment on the technical provision amounts to EUR 66 million. The own funds benefit amounted to EUR 55 million and reflects the impact after tax. The SCR benefit amounted to EUR 65 million and is mainly attributable to the impact of removing the matching adjustment on spread risk in the SCR calculation.

**D.2.5 Recoverables from reinsurance contracts and special purpose vehicles**

As technical provisions are reported gross of reinsurance contracts, a reinsurance asset is separately identified. Aegon's recoverables from reinsurance contracts are net of material intra-group reinsurance transactions.

For EEA entities, Solvency II valuation of the reinsurance contracts is applied, and this is reported separately on the Solvency II balance sheet. The value of a reinsurance contract is also known as the recoverable from a reinsurance contract. Reinsurance contracts are valued using a similar methodology to the technical provisions. The reinsurance cash flows are based on the nature of the reinsurance arrangements. The value of the reinsurance is measured consistently with the assumptions associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract.

The value of the reinsurance contracts should also allow for a best estimate default provision.

For the Non-EEA entities, reinsurance is reflected in their technical provisions according to local statutory requirements.

**D.2.6 Material changes in assumptions made in calculations of technical provisions (for EEA entities)**

Multiple changes were made to the underwriting assumptions and actuarial models in the third quarter of 2017. The most relevant were:

Aegon the Netherlands updated the methodology for population mortality and also updated the mortality experience factors for group pensions;

Aegon the Netherlands implemented a refinement for the projection of variable and fixed costs as well as revised the expense assumptions;

Aegon UK updated the assumptions for persistency and maintenance expenses.

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**D.3 Other liabilities**

**D.3.1 Pension benefit obligations**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (26) million.

**Method of valuation**

Under Solvency II Aegon follows IFRS (IAS 19) for valuing the employee benefits and obligations.

The pension benefit obligation is related to the defined benefit pension plans. Under IFRS, the defined benefit obligation is based on the terms and conditions of the plan applicable on the reporting date. In measuring the defined benefit obligation, the Group uses the projected unit credit method and actuarial assumptions that represent the best estimate of future experience. The benefits are discounted using an interest rate based on the market yield for high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity that approximate the terms of the related pension liability. Actuarial assumptions used in the measurement of the liability include the discount rate, estimated future salary increases, mortality rates and price inflation.

Plan assets are comprised of qualifying insurance policies and assets held by long-term employee benefit funds that can only be used to pay employee benefits under the plan and are not available to the Group's creditors. They are measured at fair value and are deducted from the defined benefit obligation in determining the amount recognized on the statement of financial position.

The measurement of a net defined benefit liability or asset under IFRS requires the application of an actuarial valuation method, the attribution of benefits to periods of service, and the use of actuarial assumptions. The fair value of any plan assets is deducted from the present value of the defined benefit obligation in determining the net deficit or surplus.

Refer to the IFRS Annual Report 2017 of Aegon Group, note 41 Defined benefit plans to the consolidated financial statements, for more information on pension benefit obligations, especially the parts about Aegon the Netherlands and Aegon UK that are in scope of the pension benefit obligations under Solvency II.

**Material difference in valuation between Solvency II and IFRS**

There are no material differences between the bases, methods and main assumptions used for valuation for solvency purposes and its valuation in the financial statements.

**D.3.2 Deferred tax liabilities**

**Deferred tax position**

The total Deferred tax assets and Deferred tax liabilities amounted to EUR 461 million and EUR 147 million respectively, as reported in the Solvency II balance sheet in section D. Valuation for Solvency Purposes.

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<b>Balance sheet items</b>	<b>Deferred Tax Asset at December 31, 2017</b>	<b>Expiration period <sup>4)</sup></b>	<b>Deferred Tax Liability at December 31, 2017</b>	<b>Expiration period</b>
Amounts in EUR millions				
Investments	(1,808)		29	> 30 years
Technical provisions <sup>1)</sup>	1,806	> 30 years	372	15 -30 years
Defined benefit plans	272	> 30 years	(27)	> 30 years
Debts <sup>2)</sup>	317	5 -15 years		
Losses and tax credits	285	5 -15 years	(214)	15 -30 years
Non-recognized DTA <sup>3)</sup>	(48)	> 30 years	44	> 30 years
Other	(363)	15 -30 years	(57)	5 - 15 years
<b>Total</b>	<b>461</b>		<b>147</b>	

<sup>1</sup> Including reinsurance recoverables and deferred acquisition costs.

<sup>2</sup> Debts owed to credit institutions.

<sup>3</sup> Not recognized deferred tax assets (valuation allowance) for tax losses, tax credits and deductible temporary differences (current year and previous years).

<sup>4</sup> Applies on the material part of the deferred tax position.

The total non-recognized DTA amount to EUR 92 million of which EUR 84 million relates to tax losses and tax credits for which no deferred tax assets is recognized. The non-recognized DTA on timing differences amounts to EUR 8 million.

The table below provides an overview, arranged by loss carry forward period, of tax losses and tax credits for which no deferred tax assets is recognized. The decrease is mainly related to the US tax reform, as a result of which the corporate income tax rate decreased from 35% to 21% as of January 1, 2018.

<b>Loss carry forward periods of not recognized DTA</b>	<b>Not recognized deferred tax assets</b>			
	<b>Gross amounts 2017<sup>1)</sup></b>	<b>2017</b>	<b>Gross amounts 2016<sup>1)</sup></b>	<b>Not recognized deferred tax assets 2016</b>
Amounts in EUR millions				
< 5 years	21	8	23	11
<sup>3</sup> 5 - 10 years	6	1	114	13
<sup>3</sup> 10 - 15 years		23	2	33
<sup>3</sup> 15 - 20 years				
Indefinitely	176	52	196	55
<b>At December 31,</b>	<b>203</b>	<b>84</b>	<b>335</b>	<b>112</b>

- <sup>1</sup> The gross value of state tax loss carry forward is not summarized in the disclosure, due to the fact that the United States files in different state jurisdictions with various applicable tax rates and apportionment rules.

Not recognized DTAs for deductible timing differences	Not recognized deferred tax assets		Not recognized deferred tax assets	
	Gross amounts 2017	2017	Gross amounts 2016	2016
Amounts in EUR millions				
<b>Balance sheet items/deferred tax category</b>				
Investments	11	2		
Others	32	6	23	4
<b>At December 31</b>	<b>43</b>	<b>8</b>	<b>23</b>	<b>4</b>

#### De-recognition of the IFRS value of D&A entities and change in approach for joint ventures

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (1,163) million.

#### Method of valuation under Solvency II

The Solvency II methodology for the calculation of deferred tax follows the provisions of International Accounting Standard (IAS)

12 Income Taxes. DTA and DTL are recognized for Solvency II purposes on the basis of the temporary differences between the carrying amounts of the assets and liabilities in the Solvency II balance sheet and the tax balance sheet value according to local tax regulations. A deferred tax asset or liability is calculated based on these temporary differences at the current corporate tax rate. Tax losses carried forward are recognized as deferred tax assets if their future benefit is probable. Solvency II does not require discounting of deferred tax assets and liabilities.

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#### **Material difference in valuation between Solvency II and IFRS**

There is no material difference in the methods and main assumptions used for valuation of deferred taxes.

#### Reclassification adjustments

After performing recoverability testing, Aegon reclassified the net negative DTL balances from liabilities to assets under Solvency II. This presentation is required to allow for appropriate tiering of the DTA in available own funds. A total of EUR 423 million was reclassified and is mainly driven by the inclusion of the US non-regulated entities for an amount of EUR 372 million.

#### Revaluation adjustments

The difference between the revaluation of the deferred tax liabilities according to IFRS and Solvency II is mainly driven by the valuation of relevant balance sheet elements. Where tax bases do not change, taxable and deductible revaluation adjustments are equal to the revaluation adjustments for the relevant balance sheet elements multiplied by applicable tax rates.

The total revaluation adjustments processed amounted to EUR (211) million.

### **D.3.3 Derivatives**

#### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (1,296) million.

#### **Method of valuation under Solvency II**

Derivatives are presented at fair value based on market prices when available. Fair values for exchange-traded derivatives, principally futures and certain options, are based on quoted market prices in active markets.

When market prices are not available, other valuation techniques, such as option pricing or stochastic modelling, are applied. The valuation techniques incorporate all factors that market participants would consider, and are based on observable market data to the extent possible. Models are validated before they are used and calibrated to ensure that outputs reflect actual experience and comparable market prices. Refer to section D.4.5. for additional detail on derivatives valued using alternative methods.

Aegon normally mitigates counterparty credit risk in derivative contracts by entering into collateral agreements where practical, and into ISDA master netting agreements for each of the Group's legal entities to facilitate Aegon's right to offset credit exposure. Changes in the fair value of derivatives attributable to changes in counterparty credit risk were not significant.

### **Material difference in valuation between Solvency II and IFRS**

Derivatives are financial instruments of which the value changes in response to an underlying variable, that require little or no net initial investment and are settled at a future date. All derivatives recognized on the statement of financial position are carried at fair value. Therefore, there are no material differences between the bases, methods, and main assumptions used for valuation for solvency purposes and its valuation in financial statements.

#### Reclassification adjustments

The total reclassification adjustment of EUR (2,250) million is mainly driven by:

Reclassification of EUR (1,547) million from derivatives to technical provisions – life for the guarantee provision of unit-linked contracts; and

Derivatives netting (movement from derivative liability to derivative asset) for an amount of EUR (740) million.  
Revaluation adjustments

Revaluation adjustments of derivatives for an amount of EUR (33) million relates to the IFRS reserve for guaranteed benefits on unit-linked guaranteed products, which is presented as an embedded derivative under IFRS, but included within the best estimate liability under Solvency II.



**Table of Contents**104 Valuation for solvency purposes **Other liabilities****D.3.4 Debts owed to credit institutions****De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR 2,177 million. This is driven by the US non-regulated entities, accounted for using the equity method under IFRS.

**Method of valuation under Solvency II**

With regards to the senior debt issued by Aegon N.V., the Solvency II fair value is calculated using a discounted cash flow model. The curves used to discount the cash flows are zero curves in the respective currencies. These curves are adjusted to take into account the applicable own credit standing at issuance of the senior debt (Article 14 in the Delegated Regulation prescribes that there shall be no adjustment to take account of the change in own credit standing of the insurance or reinsurance undertaking after initial recognition).

**Material difference in valuation between Solvency II and IFRS**

Under IFRS, financial liabilities like debt owed to credit institutions are valued at amortized cost or fair value. If valued at fair value, then the discount rates should also include Aegon's credit spread.

Liabilities measured at amortized costs under IFRS need to be revaluated as part of the reconciliation. For liabilities measured at fair value under IFRS, the impact of movements in Aegon's credit spread between the issuance date and reporting date (own credit gain or loss) are reversed.

**Reclassification adjustments**

The total reclassification adjustments amounted to EUR 725 million as Payables (trade, not insurance) are reclassified to debts owed to credit institutions. These adjustments stem from a different classification of capital funding between Solvency II and IFRS.

**Revaluation adjustments**

The total revaluation of EUR 333 million was the result of applying the fair value approach under Solvency II as compared with the amortized cost approach under IFRS.

**D.3.5 Financial liabilities other than debts owed to credit institutions****De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (14,627) million.

### **Method of valuation under Solvency II**

A fair value approach is prescribed under Solvency II, excluding the effect of changes in Aegon's credit spread after initial recognition.

### **Material difference in valuation between Solvency II and IFRS**

For the differences in bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS financial statements of the financial liabilities other than debts owed to credit institutions, please refer to section D.3.4 Debts owed to credit institutions.

#### Reclassification adjustments

Reclassification adjustments amounted to EUR 637 million. This includes an amount of EUR 428 million reclassified from

Participations and related to presentational differences in intercompany loans and a reclassification from Technical provisions life (excluding index-linked and unit-linked contracts) EUR 219 million.

#### Revaluation adjustments

The revaluation adjustments are not material.

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**D.3.6 Insurance & intermediaries payables**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (1,016) million.

**Method of valuation under Solvency II**

A fair value approach is prescribed under Solvency II, excluding the effect of changes in Aegon's own credit spread after initial recognition.

**Material difference in valuation between Solvency II and IFRS**

For the differences in bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS financial statements of the insurance & intermediaries payables, please refer to section D.3.4 Debts owed to credit institutions.

**Reclassification adjustments**

The total reclassification adjustment of EUR 411 million is related to the movement from the balance sheet item Payables (trade, not insurance) of the US non-regulated entities due to presentational differences between IFRS and Solvency II.

**Revaluation adjustments**

The revaluation adjustments are not material.

**D.3.7 Payables (trade, not insurance)**

**De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associates under IFRS) generates an aggregation difference of EUR (7,227) million.

**Method of valuation under Solvency II**

A fair value approach is prescribed, excluding the effect of changes in Aegon's own credit spread after initial recognition.

**Material difference in valuation between Solvency II and IFRS**

For the differences in bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS financial statements of the payables (trade, not insurance), please refer to section D.3.4 Debts owed to credit institutions.

#### Reclassification adjustments

The total amount of EUR 154 million, was reclassified from Debt owed to credit institutions (refer to section D.3.4), Financial liabilities other than debts owed to credit institutions (refer to section D.3.5), and Insurance and intermediaries payables (refer to section D.3.6).

#### Revaluation adjustments

The revaluation adjustments are not material.

### **D.3.8 Subordinated liabilities**

#### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR (889) million.

#### **Method of valuation under Solvency II**

A fair value approach is prescribed, excluding the effect of changes in Aegon's own credit spread after initial recognition.

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### **Material difference in valuation between Solvency II and IFRS**

Subordinated liabilities presented in the IFRS Annual Report under subordinated borrowings and trust pass-through securities are considered financial liabilities and valued at amortized cost or fair value. If valued at fair value, the discount rates should also include Aegon's own credit spread.

For the differences in bases, methods and main assumptions used for valuation for solvency purposes and its valuation in Aegon's IFRS financial statements of the subordinated liabilities, please refer to section D.3.4 Debts owed to credit institutions.

#### Reclassification adjustments

The reclassification adjustment of EUR 135 million fully relates to Accrued interest reclassified from other liabilities and Trust Pass Through Securities broken out from the line debts owed to credit institutions .

#### Revaluation adjustments

The total revaluation adjustments of EUR 21 million were the result of applying the current interest rate under Solvency II as opposed to the amortized cost approach under IFRS.

### **D.3.9 Any other liabilities**

#### **De-recognition of the IFRS value of D&A entities and change in approach for joint ventures**

The de-recognition of the IFRS value of legal entities outside of the European Economic Area, Non-regulated entities, Other Financial Sector entities and consolidation of joint ventures under Solvency II (instead of associate under IFRS) generates an aggregation difference of EUR 1,148 million. This is driven by the fact that under IFRS, joint ventures are recognized using the equity method while for Solvency II they are proportionally consolidated.

#### **Method of valuation under Solvency II**

A fair value approach is prescribed, excluding the effect of changes in Aegon's credit spread since initial recognition.

### **Material difference in valuation between Solvency II and IFRS**

Financial liabilities under IFRS are valued at either amortized cost or fair value. If valued at fair value, then the discount rates also include Aegon's credit spread.

Liabilities recorded under IFRS at amortized cost, need to be revaluated as part of the reconciliation. For items measured under IFRS at fair value, the impact of the movement in Aegon's credit spread between the issuance date and reporting date (own credit gain or loss) needs to be reversed.

In addition, for lease contracts, lessees in financial leases must include the assets leased on their balance sheet based on their fair values. This treatment is consistent with that of Property, Plant & Equipment that were acquired through

legal ownership transfers. The presentation and measurement of operational leases does not differ between Solvency II and IFRS. For more information on leasing arrangements, please refer to section A.4.2 Material leasing arrangements.

#### Reclassification adjustments

The total reclassification adjustment for an amount of EUR (5,894) million was mainly driven by the reclassification of liabilities held for sale for an amount of EUR (4,999) million. The remainder relates to reclassification performed for the US non-regulated entities to insurance and intermediaries payables, payables (trade, not insurance) and accrued interest for both the US and the Netherlands. This reclassification is required as Solvency II prescribes presentation of investment values including accrued interest

#### Revaluation adjustments

The total revaluation adjustment is performed to allow the recognition of the contingent liability for the earn-out agreement with Banco Santander for the joint ventures in Spain and Portugal.

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This section includes information regarding assets for which alternative valuation methods are used. An overview is provided below. Sections D.4.1 until D.4.7 provide more details about the valuation method applied for specific investments.

<b>Assets - Alternative valuation methods</b>			
Amounts in EUR millions	Section	Level 3	Total
<b>Investments (other than assets held for index-linked and unit-linked contracts)<sup>1)</sup></b>		<b>8,945</b>	<b>33,581</b>
Property (other than for own use)	<b>D.4.1</b>	2,936	2,936
<b>Equities</b>		<b>11</b>	<b>1,666</b>
Equities - listed			1,655
Equities - unlisted		11	11
<b>Bonds</b>		<b>3,130</b>	<b>23,736</b>
Government bonds		163	18,526
Corporate bonds	<b>D.4.2</b>	1,320	3,160
Structured notes			3
Collateralised securities	<b>D.4.3</b>	1,647	2,047
<b>Collective Investments Undertakings</b>	<b>D.4.4</b>	<b>2,456</b>	<b>3,292</b>
<b>Derivatives<sup>1)</sup></b>	<b>D.4.5</b>	<b>412</b>	<b>833</b>
<b>Deposits other than cash equivalents</b>			<b>1,117</b>
<b>Other investments</b>			
<b>Assets held for index-linked and unit-linked contracts (section D.1.2)</b>	<b>D.4.6</b>	<b>24,843</b>	<b>80,575</b>
<b>Loans and mortgages (section D.1.3)</b>	<b>D.4.7</b>	<b>21,328</b>	<b>21,328</b>
loans on policies		4	4
Loans and mortgages to individuals		21,324	21,324

<sup>1)</sup> Note that Investments as shown in the table (EUR 33,581 million) does not include the net asset value of participations as reported in the Solvency II balance sheet (EUR 10,633 million). In addition, there is an amount of EUR 3,552 million of derivatives liability netted in the derivatives amount of EUR 833 million.

**D.4.1 Property (other than for own use)**

Valuations of both investments in real estate and real estate held for own use are conducted in full by independent external appraisers at least every three to five years and reviewed at least once a year by qualified internal appraisers to ensure the value correctly reflects the fair value at the reporting date. Appraisals are different for each specific local market, but are based on market guidelines such as International Valuation Standards, Uniform Standards of Professional Appraisal Practice or guidelines issued by the Investment Property Databank. Valuations are mostly based on active market prices, adjusted for any difference in the nature, location or condition of the specific property. If such information is not available, other valuation methods are applied, considering the value that the property's net earning power will support, the value indicated by recent sales of comparable properties and the current cost of reproducing or replacing the property. Discount rates used in the valuation of real estate reflect the risk embedded in the projected cash flows for the asset being valued. Capitalization rates represent the income rate for a real estate property that reflects the relationship between a single year's net operating income expectancy and the total property price or value. For property held for own use, appraisers consider the present value of the future rental income cash flows that could be achieved had the real estate been rented to a third party.

#### **D.4.2 Corporate bonds**

Valuations of corporate bonds are monitored and reviewed on a monthly basis. The pricing hierarchy is dependent on the possibility of corroboration of market prices when available. If no market prices are available, valuations are determined by a discounted cash flow methodology using an internally calculated yield. The yield is comprised of a credit spread over a given benchmark. In all cases the benchmark is an observable input. The credit spread contains both observable and unobservable inputs. Aegon starts by taking an observable credit spread from a similar bond of the given issuer, and then adjust this spread based on unobservable inputs. These unobservable inputs may include subordination, liquidity and maturity differences. The weighted average credit spread used in valuation of corporate bonds has increased to 2.6% (December 31, 2016: 3.1%).



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**Table of Contents**108 Valuation for solvency purposes **Alternative methods for valuation****D.4.3 Collateralized securities**

Valuations of RMBS, CMBS and ABS are monitored and reviewed on a monthly basis. Valuations per asset type are based on a pricing hierarchy which uses a waterfall approach that starts with market prices from indices and follows with third-party pricing services or brokers. The pricing hierarchy is dependent on the possibilities of corroboration of the market prices. If no market prices are available, Aegon uses internal models to determine fair value. Significant inputs included in the internal models are generally determined based on relative value analyses, which incorporate comparisons to instruments with similar collateral and risk profiles. Market standard models may be used to model the specific collateral composition and cash flow structure of each transaction. The most significant unobservable input is liquidity premium which is embedded in the discount rate.

**D.4.4 Collective investment undertakings**

The fair values of investments held in non-quoted investment funds are determined by management after taking into consideration information provided by the fund managers. Aegon reviews the valuations each month and performs analytical procedures and trending analyses to ensure the fair values are appropriate. The net asset value is considered the best valuation method that approximates the fair value of the funds.

**D.4.5 Derivatives**

Fair values for over-the-counter (OTC) derivative financial instruments represent amounts estimated to be received from or paid to a third party in settlement of these instruments. These derivatives are valued using pricing models based on the net present value of estimated future cash flows, directly observed prices from exchange-traded derivatives, other OTC trades, or external pricing services. Most valuations are derived from swap and volatility matrices, which are constructed for applicable indices and currencies using current market data from many industry standard sources. Option pricing is based on industry standard valuation models and current market levels, where applicable. The pricing of complex or illiquid instruments is based on internal models or an independent third party. For long-dated illiquid contracts, extrapolation methods are applied to observed market data in order to estimate inputs and assumptions that are not directly observable. To value OTC derivatives, management uses observed market information, other trades in the market and dealer prices.

Some OTC derivatives are so-called longevity derivatives. The payout of longevity derivatives is linked to publicly available mortality tables. The derivatives are measured using the present value of the best estimate of expected payouts of the derivative plus a risk margin. The best estimate of expected payouts is determined using best estimate of mortality developments. Aegon determined the risk margin by stressing the best estimate mortality developments to quantify the risk and applying a cost-of-capital methodology. Depending on the duration of the longevity swaps either the projected mortality development or discount rate are the most significant unobservable inputs.

**D.4.6 Assets held for indexed-linked and unit-linked contracts**

Given the nature of the underlying assets, the valuation of assets held for indexed-linked and unit-linked contracts are similar to the valuation of Collective investment undertakings as described in section D.4.4. Collective investment undertakings.

#### **D.4.7 Loans and mortgages**

##### **Mortgages**

The valuation methodology for mortgages 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 4 mortgage cash flow profile types: Interest only, Annuity, Linear and Savings. Cash flows are corrected for expected early repayments (also known as prepayments). The rate of early repayments is based on historical analyses and an assessment of market conditions.

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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 that serves to cover the expense 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 taken as the single average of the mortgage rates offered by the top-3 providers in the market (excluding Aegon), 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 with 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 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 in the system. Based on private loan characteristics and classifications, the system selects the appropriate curve and yield per security. In applying the net present value (NPV) component combining yields and security cash flows, the system calculates prices via interpolation where bid, mid and ask are populated with the same price.

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**D.5 Any other information**

Aegon does not have any other material information regarding its valuation for solvency purposes.

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111 Capital management **Capital management**

**E. Capital management**

**Management of capital**

Aegon's overall capital management strategy is based on adequate solvency capital, capital quality and the use of leverage. Aegon uses a three-year time horizon in its budgeting and medium term planning process used for business planning. For the management of own funds, Aegon uses projections of up to a 10-year horizon.

**Guiding principles**

The management of capital and liquidity is of vital importance for the Aegon Group, for its customers, investors in Aegon securities and for Aegon's other stakeholders. In line with its risk tolerance, the goal of Aegon's capital and liquidity management is to promote strong and stable capital adequacy levels for its businesses, in addition to maintaining adequate liquidity to ensure that the Company is able to meet its obligations.

Aegon follows a number of guiding principles in terms of capital and liquidity management:

Promoting strong capital adequacy in Aegon's businesses and operating units;

Managing and allocating capital efficiently in support of the strategy and in line with its risk tolerance;

Maintaining an efficient capital structure, with an emphasis on optimizing Aegon's cost of capital;

Maintaining adequate liquidity in the operating units and at the holding to ensure that the Company is able to meet its obligations by enforcing stringent liquidity risk policies; and

Maintaining continued access to international capital markets on competitive terms.

Aegon believes that the combination of these guiding principles strengthens the Company's ability to withstand adverse market conditions, enhances its financial flexibility, and serves both the short-term and the long-term interests of the Company, its customers and other stakeholders.

The management and monitoring of capital and liquidity is firmly embedded in Aegon's ERM framework, and is in line with Aegon's risk tolerance. Aegon's risk tolerance focuses on financial strength, continuity, steering the risk balance and the desired risk culture. Its core aim is to assist management in carrying out Aegon's strategy within the Group's capital and liquidity resources.

**Material development throughout 2017**

After receiving a confirmation from the Dutch Central Bank (DNB) Aegon started to apply a revised method in calculating the Solvency II contribution of the Aegon US Insurance entities under Deduction & Aggregation (D&A), affecting Aegon's tiering of capital in 2017. It includes lowering the conversion factor from 250% to 150% Risk-Based Capital Company Action Level and reducing own funds by a 100% RBC Company Action Level requirement to reflect transferability restrictions. The methodology is subject to annual review. This methodology is consistent with EIOPA's guidance on Group Solvency calculation in the context of equivalence, and in line with methods applied by other European peer companies. As a consequence, this adjustment improves the comparability to capital positions of European insurance groups with substantial insurance activities in the US. The impact on Available Own Funds in 2016 is included in the table in the Capital quality section below. Aegon manages its available capital on the new basis.

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The aim of Aegon's Capital Management policy is to enhance transparency and accountability around capital management throughout Aegon Group. The policy therefore applies to the business units and to Aegon Group. In 2017 Aegon's Capital Management Policy was reviewed and updated embedding the revised method for calculating the Solvency II contribution of the Aegon US Insurance entities under Deduction & Aggregation. The target range of Aegon Group Solvency II ratio changed from 140% - 170% in 2016 to 150% - 200% in 2017. The capitalization of Aegon Group and its business units is based on the most stringent of local regulatory requirements, rating agency requirements (if applicable) and self-imposed criteria.

The Capital Management policy sets five capitalization zones for local regulatory capital positions of business units and for Aegon Group as shown below.

<b>Capitalization management zones<sup>1)</sup></b>	<b>Aegon Group</b>	<b>US Life entities</b>	<b>The Netherlands</b>	<b>United Kingdom</b>	<b>Capitalization management actions</b>
Opportunity	>200% SCR	>450% RBC	>190% SCR	> 185% SCR	Accelerate capital redeployment and/ or additional dividends.
Target	150% - 200% SCR	350% - 450% RBC	150% -190% SCR	145% -185% SCR	Execute capital deployment and remittances according to capital plan.
Retention	120% - 150% SCR	300% - 350% RBC	130% -150% SCR	130% -145% SCR	Re-assess capital plan and risk positions.
Recovery	100% - 120% SCR	100% - 300% RBC	100% -130% SCR	100% -130% SCR	Re-assess capital plan and risk positions. Reduce or suspend remittances.
Regulatory plan	<100% SCR	<100% RBC	<100% SCR	< 100% SCR	Suspension of dividends. Regulatory plan required.

<sup>1</sup> Capital management zones follow the revised capital management policy as of the second quarter of 2017. The Capital Management policy provides guidance for financial strength and continuity that, together with culture and risk balance, are the risk tolerance statements set in Aegon's ERM framework. Aegon aims to maintain the capital ratio within the target zone. On December 31, 2017, Aegon Group, US life entities and Aegon the Netherlands were in the opportunity zone, while Aegon United Kingdom was in the target zone.

The Capital Management policy also provides actions that need to be performed as soon as the capital ratio falls, or is projected to fall within a particular capitalization zone. This is primarily monitored based on Aegon's regular internal reporting cycle and the Budget/ MTP. In addition, the policy provides escalation procedures as well. The Group Risk and Capital Committee (GRCC) and the Management Board are notified as soon as the actual or projected

capitalization ratio drops below the target range.

With the application of the Solvency II regime on January 1, 2016, the regulatory capital requirements in EU-domiciled legal entities changed accordingly. The US life insurance companies are monitored based on the Risk-Based Capital (RBC) framework as defined by the National Association of Insurance Commissioners (NAIC).

As a holding company, Aegon N.V. plays a central role in capitalizing the business units. Aegon has attracted funding through equity and various types of debt issuances. These debt issuances are referred to as financial leverage. The proceeds have subsequently been invested in business units although some of the funds are retained by holding companies as excess cash in the holding in order to maintain financial flexibility.

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The Dividend policy is also embedded in Aegon's Capital Management policy. Aegon aims to pay out a sustainable dividend to enable equity investors to share in its performance. After investment in new business to generate organic growth, capital generation in the business units is generally available for distribution to Aegon N.V., while maintaining a capital and liquidity position in the business units in line with Aegon's Capital Management and Liquidity Risk Policies.

Cash flows from business units are used to pay Aegon Group's expenses, including funding costs. The remaining cash flow is available to execute Aegon's strategy and to fund dividends. When determining whether to declare or propose a dividend, the Executive Board balances prudence with offering an attractive return to shareholders. This is particularly important during adverse economic or financial market conditions (see section C. Risk profile for sensitivities on Aegon's solvency position). In addition, the business units are subject to local insurance regulations which could restrict dividends to be paid to Aegon Group. There is no formal requirement for Aegon to declare or pay any dividends.

The excess cash in the holding is also key in measuring Aegon's dividend capacity and capacity to execute strategic priorities. The Capital Management policy therefore defines capitalization zones based on excess cash in the holding. Aegon targets excess cash in the holding of EUR 1 billion – EUR 1.5 billion as the level that Aegon believes provides sufficient financial flexibility.

The Capital Management policy is reviewed on a regular basis, taking into account the latest insights into the development of the solvency position of Aegon Group and the business units. Such reviews also take into consideration the comments and guidance received from regulators.

**Table of Contents**114 Capital management **Capital management****Capital quality**

Total own funds are comprised of Unrestricted Tier 1, Restricted Tier 1, Tier 2 and Tier 3 capital. Under the Solvency II regime, a distinction between available and eligible own funds is made, which are both split into the tiers as shown in the table below:

<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
<b>Unrestricted Tier 1</b>		
Equity (Share capital and share premium).	Dated or perpetual subordinated capital instruments.	Dated or perpetual subordinated capital instruments.
Reconciliation Reserve.	With an original maturity of at least 10 years.	With an original maturity of at least 5 years.
	Limited loss absorption.	Limited loss absorption.
<b>Restricted Tier 1</b>	With suspension of payments and deferral of interest.	With suspension of payments and deferral of interest.
Perpetual subordinated capital instruments with loss absorption.		Net deferred tax assets.

In addition to the general features shown in the table, Solvency II has set detailed requirements on the admissibility of restricted Tier 1 and Tier 2 capital instruments. Aegon's capital instruments do not meet all of these requirements but have been grandfathered as eligible capital for 10 years, as of January 1, 2016. The components of Aegon's capital are described below:

**Unrestricted Tier 1 own funds**

Unrestricted Tier 1 capital consists of Aegon's share capital, share premium and the reconciliation reserve. The reconciliation reserve includes deductions to account for foreseeable dividends that have been approved by the Board but that have not yet been distributed to Aegon's shareholders, and restrictions related to Aegon's with-profits fund in the UK for which the excess of own funds over its capital requirement is ring-fenced for the policyholder, and therefore unavailable to Aegon's shareholders.

**Grandfathered Restricted Tier 1 own funds**

Restricted Tier 1 capital consists of Aegon's junior perpetual capital securities and perpetual cumulative subordinated bonds, which are grandfathered securities as described in the section E.1.5 Transitional arrangements.

The junior perpetual capital securities have subordination provisions, rank junior to all other liabilities and senior to shareholders only. The conditions of the securities contain certain provisions for optional and required coupon payment deferral and mandatory coupon payment events. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time on the coupon date in the years as specified in the table below, or on any coupon payment date thereafter.

## Junior perpetual capital securities

	Issue date	Year of next call
USD 500 million	November 23, 2005	March 15, 2018 and quarterly thereafter
USD 250 million	November 23, 2005	March 15, 2018 and quarterly thereafter
USD 500 million	July 15, 2004-October 15, 2004	January 15, 2018 and quarterly thereafter
USD 1 billion	June 1, 2005	March 15, 2018 and quarterly thereafter
EUR 950 million	July 15, 2004-October 15, 2004	January 15, 2018 and quarterly thereafter
EUR 200 million	July 21, 2006	July 21, 2018 and annually thereafter

The perpetual cumulative subordinated bonds have the same ranking as dated subordinated debt. In addition, the conditions of the bonds contain provisions for interest deferral. The call date of the perpetual cumulative subordinated bonds are as shown in the table below:

Perpetual cumulative subordinated bonds	Issue date	Year of next call
EUR 136 million	October 14, 1996	October 14, 2018 and every 10 year thereafter
EUR 203 million	March 4, 1996	March 4, 2021 and every 10 year thereafter
EUR 114 million	June 8, 1995	June 8, 2025 and every 10 year thereafter

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Aegon's Tier 2 capital consists of its grandfathered dated subordinated notes. On February 7, 2012, Aegon issued USD 525 million in aggregate principal amount of 8.00% non-cumulative subordinated notes, due 2042, in an underwritten public offering in the United States registered with the US Securities and Exchange Commission. Any cancelled interest payments will not be cumulative.

The securities are subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and fixed-floating subordinated notes, and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required cancellation of interest payments. The securities have a stated maturity of 30 years, although, Aegon has the right to call the securities for redemption at par on any coupon payment date.

On April 25, 2014, Aegon issued EUR 700 million of fixed-floating subordinated notes, first callable on April 25, 2024, and each quarter thereafter and maturing on April 25, 2044. The coupon is fixed at 4% until the first call date and floating thereafter. These securities are subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and non-cumulative subordinated notes, and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required deferral of interest payments.

On April 4, 2018, Aegon has successfully priced USD 800 million Tier 2 subordinated debt securities, first callable on April 11, 2028, and maturing on April 11, 2048. The coupon is fixed at 5.5% until the first call date and floating thereafter with a margin including a 100 basis points step-up. Net proceeds from this issuance will be used for general corporate purposes, including redemption of grandfathered subordinated debt. The new securities are expected to be rated BBB, Baa1 and BBB- by S&P Global, Moody's and Fitch, respectively and are designed to be Tier 2 compliant under Solvency II. The securities that Aegon may call are currently included in available Own Funds as grandfathered Tier 2 or grandfathered Restricted Tier 1. More than EUR 1 billion of grandfathered Restricted Tier 1 is currently reclassified as Tier 2 as a result of tiering limits.

On April 12, 2018, Aegon announced that it exercises its right to redeem the USD 525 million 8% non-cumulative subordinated notes. The redemption of these grandfathered Tier 2 securities will be effective May 15, 2018, when the aggregate principal amount of USD 525 million will be repaid together with any accrued and unpaid interest.

The year-end 2017 Solvency II position of Aegon Group did not include any Solvency II compliant hybrid instruments as all Restricted Tier 1 and Tier 2 own funds are currently grandfathered. Aegon has until 2025 to replace the grandfathered instruments with Solvency II compliant hybrid instruments.

For more information on Aegon's capital securities, reference is made to the [debt programs](#) or review the [Base Prospectus 2017](#) and the [US Shelf Registration 2017](#).

**Tier 3 own funds**

Aegon's Tier 3 capital under the Solvency II framework consists of Aegon's deferred tax asset position under Solvency II.

**Overview of Aegon Group Capital Quality**

The capitalization of Aegon Group per December 31, 2017, is shown below:

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The capitalization of Aegon Group per December 31, 2016, under the revised method, which was confirmed by DNB in 2017, is shown below:

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**Aegon's use of leverage**

Aegon's use of leverage: Aegon uses leverage in order to lower the cost of capital that supports businesses in the Aegon Group, thereby contributing to a more effective use of capital and realizing capital efficiencies. In managing the use of financial and non-financial leverage throughout the group, Aegon has implemented a Leverage Use Framework that is part of Aegon's broader Enterprise Risk Management framework.

**Leverage metrics**

In line with the guiding principles of its capital and liquidity management, Aegon N.V. monitors and manages several leverage metrics:

Gross financial leverage ratio;

Fixed charge coverage; and

Various rating agency leverage metrics.

Aegon's gross financial leverage ratio is calculated by dividing total financial leverage by total capitalization. Aegon defines total financial leverage as debt or debt-like funding issued for general corporate purposes and for capitalizing Aegon's business units. Total financial leverage includes hybrid instruments, subordinated and senior debt. Aegon's total capitalization consists of the following components:

Shareholders' equity, excluding revaluation reserves, cash flow hedge reserves, and the remeasurement of defined benefit plans, based on IFRS as adopted by the EU;

Non-controlling interests and share options not yet exercised; and

Total financial leverage.

Aegon's fixed charge coverage is a measure of the Company's ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

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**Table of Contents**118 Capital management **Capital management****G-SII designation**

On November 3, 2015, Aegon was first 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). The FSB reviews the G-SII designation annually. However, the FSB, in consultation with the IAIS and national authorities, has decided not to publish a new list of G-SIIs for 2017 and that the measures will continue to apply to the G-SIIs that were on the 2016 list. Consequently, Aegon continues to be designated at the time of publication of this Solvency and Financial Condition Report.

As a result of the G-SII designation, Aegon is subject to an additional layer of direct supervision at group level. Aegon has put a specific G-SII governance structure in place to ensure the G-SII requirements are met. Within 12 months of a G-SII designation, G-SIIs were required to develop a liquidity risk management plan, a systemic risk management plan, and an ex ante recovery plan. In accordance with these requirements, Aegon submitted plans to DNB, and to the G-SII crisis management group (CMG) that was established for Aegon and is updating these plans on an annual basis. The CMG is required to: enter into a cross-border cooperation agreement; develop a resolution plan based on a resolution strategy (within 18 months); and undertake a resolvability assessment (within 24 months).

In 2017, for financial year 2016, G-SIIs have calculated and reported a Basic Capital Requirement (BCR) and Higher Loss Absorbing Capacity (HLA) on a confidential basis pursuant to IAIS guidelines. On November 2, 2017, the IAIS has announced its members have reached an agreement on a unified path to convergence on the development of International Capital Standards for Internationally Active Insurance Groups (IAIGs). Aegon will qualify as such. After an extend field testing period of ICS version 1.0, that ended in 2017, the IAIS will proceed with the development of ICS version 2.0 informed by field tests in 2018 and 2019. The implementation of ICS version 2.0 will be conducted in two phases – a five-year monitoring phase, where all IAIGs will submit mandatory reference ICS, followed by an implementation phase where the ICS is envisaged to become a required capital standard. Following the announcement by IAIS members from the United States of development of an aggregation-based group capital calculation, the IAIS has further agreed to collect data during the monitoring period to assess whether the aggregation approach can be considered as outcome-equivalent for implementation of ICS in the US.

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**Table of Contents**119 Capital management **Capital management****E.1 Own funds****E.1.1 Aggregation methods**

For the purpose of determining Aegon's Group Solvency position, the solvency position of each related entity belonging to Aegon Group is calculated on a legal entity level. For each legal entity, the aggregation method is based on its nature and characteristics.

The illustration below provides an overview of the aggregation methods applied by Aegon to calculate Aegon's Group Solvency II ratio.

**Aggregation methods**

Aegon calculates its Group Solvency II ratio using the combination of two methods:

**1. Accounting** Consolidation (AC) or Method 1; and

**2. Deduction** and Aggregation (D&A) or Method 2.

Both methods are permitted under the Solvency II regime, either exclusively or in combination with each other. Method 1 is the default method for calculating Aegon Group's Solvency II ratio and method 2 is used in specific cases.

The entities aggregated by using the AC method are referred to as AC entities. Aegon includes Solvency II entities, Other Financial Sector (OFS) entities and Other entities in Aegon's Group Solvency II ratio calculation by applying the AC method. Solvency II entities consist of European Economic Area (EEA) (re)insurance entities as well as ancillary service undertakings, mixed financial holding entities and insurance holding entities. The EEA insurance entities of Aegon are domiciled in the Netherlands, United Kingdom, Ireland, Spain, Portugal, Hungary, Poland, Czech Republic and Slovakia.

Aegon aggregates Non-EEA (re)insurance entities, also referred to as D&A entities on a D&A basis. The aggregation of D&A entities is performed at the level of the top regulated entity. The value and the required capital of these entities is based on local solvency requirements where those insurance entities are domiciled in third countries deemed to be equivalent or provisionally equivalent. The US life insurance entities, as listed in section A.1.5 List of material undertakings, are the most material entities for which D&A is applied. Aegon also includes certain (re)insurance entities domiciled in non-equivalent third countries through the D&A method on a Solvency II basis. Please refer to column C0260 in QRT S.32.01 - Undertakings in scope of the group, for a full list of the aggregation methods applied for each related undertaking (reported as an appendix to the 2017 SFCR of Aegon Group).

Aegon has applied a revised method, consistent with the EIOPA opinion (EIOPA-BoS-16-008) published on January 27 2016, to allocate centrally issued subordinated debt between the AC and D&A parts of the group.

In 2017, approval was obtained from the Dutch Central Bank (DNB) in order to amend the conversion methodology for its US business under Solvency II. This methodology is consistent with the European Insurance and Occupational Pensions Authority's (EIOPA) guidance on how to calculate Group Solvency in the context of equivalence. For further background and detail on this methodology, refer to section E.1.2.

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Aegon Group's own funds are calculated net of material intra-group transactions.

**Accounting Consolidation Method**

The following applies in regard to the consolidation of own funds and solvency capital requirement based on the AC method:

Aggregation of Solvency II entities:

The assets and liabilities of all entities for which full consolidation applies are consolidated on a line-by-line basis into Aegon's Group balance sheet. The majority of Aegon's European legal entities are reported in this category. The most significant legal entities are domiciled in the Netherlands and the United Kingdom. Joint ventures are proportionally included based on Aegon's share of ownership. The calculation of the related capital requirement can be either on a Solvency II Partial Internal Model (PIM) basis or on a standard formula basis (please see section E.4 for more details on the difference between standard formula and Aegon's partial internal model used);

The benefit of diversification of capital requirements between these entities is included in this aggregation.

Aggregation of non-controlling entities, Other Financial Sector entities, and Other entities:

For non-controlling entities (a holding of 20%-50% of the voting rights or capital) the proportional value of the participation is included in the consolidated data. This value is calculated in accordance with the adjusted equity method;

For Other Financial Sector entities (for example Asset Management), the proportional share of own funds and capital requirements according to relevant sectorial rules is included into the Group Solvency calculation; and

For Other entities, the value of participations is included in the consolidated data. Preferably the market value is used, but alternatively the adjusted equity method can be used;

The benefit of diversification of capital requirements between these entities is not included in this aggregation.

**Deduction and Aggregation (D&A) method**

For consolidation of own funds and solvency capital requirement using the D&A method (method 2), the proportional share of own funds according to local regulatory rules is included in the Group own funds (the US life insurance entities, Bermuda, Japan, Mexico and Brazil). Diversification of capital requirements is not allowed between Accounting Consolidation and Deduction & Aggregation methods.

### E.1.2 Tiering of own funds

Under the Solvency II regime, restrictions apply to the eligibility of Restricted Tier 1, Tier 2 and Tier 3 capital. Restricted Tier 1 may not exceed 20% of total Tier 1 own funds and Tier 2 cannot exceed 50% of the SCR. In addition, the total of Tier 2 and Tier 3 own funds may not exceed 50% of the SCR, while the eligibility of Tier 3 own funds is limited to 15% of the SCR.

The tiering of Aegon Group's 2017 own funds, compared with 2016 is shown below:

Solvency II Group own funds	December 31, 2017 <sup>1)</sup>			December 31, 2016 revised <sup>2)</sup>		December 31, 2016 <sup>3)</sup>		
	Available own funds	Eligible own funds	Eligible consolidated Group SCR	Available own funds	Eligible own funds	Available own funds	Eligible own funds	Eligible consolidated Group SCR
Amounts in EUR millions								
Unrestricted Tier 1	10,428	10,428	4,613	10,081	10,081	10,656	10,656	3236
Restricted Tier 1	3,540	2,451	1,153	3,817	2,373	3,817	2,517	809
Tier 2 own funds	1,213	2,302	386	1,291	2,735	2,008	3,309	371
Tier 3 own funds	448	448		768	768	1,638	1,638	
<b>Total Tiers</b>	<b>15,628</b>	<b>15,628</b>	<b>6,152</b>	<b>15,957</b>	<b>15,957</b>	<b>18,119</b>	<b>18,119</b>	<b>4417</b>

<sup>1</sup> The tiering information is based on the revised method which was confirmed by DNB in 2017

<sup>2</sup> Pro forma tiering based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.

<sup>3</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report.

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Aegon has historically applied a centralized funding structure and no own funds items have been issued by solo entities. Grandfathered Restricted Tier 1 and Restricted Tier 2 capital instruments were issued by Aegon N.V. and the proceeds were invested as Unrestricted Tier 1 capital in the insurance operations or held as excess cash in the holding. The European Insurance and Occupational Pensions Authority (EIOPA) has recognized that the use of a combination of the AC method and the D&A method for the calculation of tiering restrictions in the Group Solvency may lead to unintended consequences if used by groups, such as Aegon, that organize their funding through a central holding company.

As a result, EIOPA issued an opinion on January 27, 2016 (EIOPA-BoS-16-008) that addresses this issue. In that opinion, EIOPA acknowledges that in such circumstances, the group supervisor may need to allow specific solutions to avoid unjustified disadvantages in such a way that, in relation to intra-group funding transactions, the own funds are assessed as if the group had chosen a different funding solution.

To reflect the different funding solution, as suggested by the EIOPA opinion, Aegon has applied a revised method to allocate centrally issued subordinated debt between the AC and D&A parts of the group. This change was approved by Aegon's supervisor in 2017. The allocation of Aegon Group's subordinate debt was based on the Solvency II PIM SCR but has been changed to an available Own Funds basis in 2017. In addition, the Solvency II contribution of the Aegon US insurance and reinsurance entities (US regulated entities) under Deduction & Aggregation (D&A) has been updated and is now similar to the method currently applied by UK headquartered insurance groups for their US insurance entities. This methodology is consistent with EIOPA's guidance on Group Solvency calculation in the context of equivalence. As a consequence, this adjustment improves the comparability of capital positions of European insurance groups with substantial insurance activities in the US.

The new tiering methodology is as follows:

**Step 1:** Calculate the total available Own Funds of the Aegon US regulated entities, aggregated and using US NAIC regulations (RBC) and taking into account articles 331 through 334 of the Solvency II Delegated Regulation.

**Step 2:** The resulting available Own Funds are reduced by an amount equal to 100% RBC CAL to reflect transferability limitations. This reduction (haircut) is first applied to the DTAs of the US regulated entities. If the remaining amount of DTAs after application of this haircut exceeds 100% RBC CAL, the remainder stays part of eligible group Own Funds as Tier 3 own funds. If the amount of DTAs of the US regulated entities is lower than 100% RBC CAL, the difference between the DTAs and the 100% RBC CAL is deducted from the unrestricted Tier 1 capital of the US regulated entities.

**Step 3:** The equivalent capital requirement for the US regulated entities in the Solvency II Group SCR calculation is set at 150% RBC CAL.

**Step 4:** Restricted Tier 1 and Tier 2 debt is allocated on the share of available Own Funds of the AC and D&A entities (excluding the OFS category). These available Own Funds are calculated after steps 1 and 2 above, applying the 100% RBC CAL haircut at the Aegon US regulated entities

Tiering restrictions are then calculated separately for the part of Aegon Group covered by AC and D&A methods. The total restriction for Aegon Group is the sum of both AC and D&A restrictions. For the part of Aegon Group covered

by the AC method, tiering limits are based on the allocated Restricted Tier 1 and Tier 2 and the SCR of the consolidated AC entities. For the part of Aegon Group covered by the D&A method, the tiering limits are based on the allocated own funds from step 4 and the SCR of the consolidated D&A entities.

Under the revised methodology Aegon's own funds reduced by EUR 2.2 billion at December 31, 2016. This is reflected through eliminating deferred tax balances recorded in Tier 3 for an amount of EUR 0.9 billion and Tier 2 for an amount of EUR 0.7 billion and eliminating unrestricted Tier 1 of EUR 0.6 billion.

As at December 31, 2017, Tier 1 capital accounted for 89% of own funds (2016: 87%; number based on revised method), including EUR 3,047 million of junior perpetual capital securities (2016: EUR 3,309 million) and EUR 493 million of perpetual cumulative subordinated bonds (2016: EUR 508 million) which are both classified as grandfathered restricted Tier 1 capital.

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As at December 31, 2017, Tier 2 capital accounted for 8% of own funds (2016: 8%; number based on revised method), including EUR 441 million of non-cumulative subordinated notes (2016: EUR 503 million) and EUR 772 million of fixed floating subordinated notes (2016: EUR 788 million) which are both classified as grandfathered Tier 2 capital. Changes in Tier 2 capital compared to previous year is mainly related to foreign currency movements.

Tier 3 capital as of December 31, 2017 is comprised of deferred tax assets balances related to Solvency II entities.

**E.1.3 Composition of eligible own funds**

Solvency II defines several measurements of own funds. The broadest measure is called **basic own funds**. Certain own fund items are not considered available capital under Solvency II and deducting such items from basic own funds gives what is referred to as **available own funds**.

The tiering restrictions described in section E.1.2 Tiering of own funds can further limit the use of own funds in the Group Solvency II ratio, resulting in what is referred to as **eligible own funds**.

The split of eligible own funds into the own funds of AC entities, D&A entities and Other Financial Sector entities is visualized in the below table.

Composition of eligible own funds by aggregation method	Eligible	% of	Eligible	% of	Eligible	% of
	own funds	total Group	own funds	total Group	own funds	total Group
December 31, 2017	December 31, 2017	December 31, 2017	December 31, 2016 revised <sup>1)</sup>	December 31, 2016 revised <sup>1)</sup>	December 31, 2016 <sup>2)</sup>	December 31, 2016 <sup>2)</sup>
Amounts in EUR millions						
Accounting Consolidation (AC) entities, excluding OFS	7,406	47.4%	6,552	41.1%	6,552	36.2%
Deduction & Aggregation (D&A) entities	7,596	48.6%	8,818	55.3%	10,981	60.6%
Other Financial Sector (OFS) entities	626	4.0%	587	3.7%	587	3.2%
<b>Total</b>	<b>15,628</b>	<b>100.0%</b>	<b>15,957</b>	<b>100.0%</b>	<b>18,119</b>	<b>100.0%</b>

<sup>1)</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.

<sup>2)</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report.

Most of Aegon's eligible own funds are held by D&A entities, which primarily consist of the US Life insurance business. The majority of the AC entities' own funds is related to the own funds of Aegon the Netherlands and Aegon UK.

The Other Financial Sector (OFS) entities consist mainly of Aegon Hypotheken and Aegon Asset Management. It also consists of non-regulated entities carrying out financial activities – mainly pension fund management activities in Poland, Romania and Hungary. Aegon Bank is excluded from the Group Solvency II ratio, as prescribed by the Group Solvency II supervisor in accordance with Article 228 of Directive 2009/138/EC.

The table below shows the Solvency II own funds per Tier for Aegon Group as of December 31, 2017:

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**Table of Contents**123 Capital management **Own funds****Solvency II Group own funds as at 31 December 2017**

Amounts in EUR million	Tiers Total	Tier 1 unrestricted	Tier 1 restricted	Tier 2	Tier 3
<b>Basic own funds</b>					
Ordinary share capital	322	322			
Share premium account	7,731	7,731			
Reconciliation reserve	3,069	3,069			
Amount equal to the value of net deferred tax assets	448				448
Other basic own funds approved by supervisory authority	4,753		3,540	1,213	
<b>Total basic own funds before adjustments</b>	<b>16,321</b>	<b>11,121</b>	<b>3,540</b>	<b>1,213</b>	<b>448</b>
-/- Non-available own funds	148	148			
-/- Deductions deducted according to art 228 of the Directive 2009/138/EC	546	546			
<b>Available own funds</b>	<b>15,628</b>	<b>10,428</b>	<b>3,540</b>	<b>1,213</b>	<b>448</b>
<i>of which:</i>					
AC entities excluding OFS	7,406	4,613	1,748	599	448
D&A entities	7,596	5,190	1,792	614	
Other Financial Sector entities	626	626			
<b>Eligible own funds to Group SCR</b>	<b>15,628</b>	<b>10,428</b>	<b>2,451</b>	<b>2,302</b>	<b>448</b>
Eligible own funds to meet minimum consolidated Group SCR	6,152	4,613	1,153	386	
<b>Consolidated Group SCR</b>	<b>7,774</b>				
Minimum consolidated Group SCR	1,930				
<b>Solvency II ratio</b>	<b>201%</b>				
Group MCR ratio	319%				

**Solvency II Group own funds as at 31 December 2016 <sup>1)</sup>**

Amounts in EUR million	Tiers Total	Tier 1 unrestricted	Tier 1 restricted	Tier 2	Tier 3
<b>Basic own funds</b>					
Ordinary share capital	319	319			
Share premium account	7,873	7,873			
Reconciliation reserve	3,082	3,082			
Amount equal to the value of net deferred tax assets	1,638				1,638
Other basic own funds approved by supervisory authority	5,826		3,817	2,008	

<b>Total basic own funds before adjustments</b>	<b>18,739</b>	<b>11,275</b>	<b>3,817</b>	<b>2,008</b>	<b>1,638</b>
-/- Non-available own funds	147	147			
-/- Deductions deducted according to art 228 of the Directive 2009/138/EC	472	472			
<b>Available own funds</b>	<b>18,119</b>	<b>10,656</b>	<b>3,817</b>	<b>2,008</b>	<b>1,638</b>
<i>of which:</i>					
AC entities excluding OFS	6,552	3,236	1,904	644	768
D&A entities	10,981	6,832	1,914	1,365	870
Other Financial Sector entities	587	587			
<b>Eligible own funds to Group SCR</b>	<b>18,119</b>	<b>10,656</b>	<b>2,517</b>	<b>3,309</b>	<b>1,638</b>
Eligible own funds to meet minimum consolidated Group SCR	4,417	3,236	809	371	
<b>Consolidated Group SCR</b>	<b>11,563</b>	<b>11,563</b>			
Minimum consolidated Group SCR	1,856	1,856			
<b>Solvency II ratio</b>	<b>157%</b>				
Group MCR ratio	238%				

<sup>1</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report.

In the remainder of this section, the own funds items as of year-end 2017 are discussed in more detail.

**Table of Contents**124 Capital management **Own funds****Basic own funds****Ordinary share capital**

Ordinary share capital (gross of own shares) consists of 2,096 million common shares and 585 million common shares B. Both share classes have a par value of 12 cents per share.

**Share premium account**

Share premium account related to ordinary share capital is comprised of common shares for an amount of EUR 6,078 million, and common shares B for an amount of EUR 1,653 million.

**Reconciliation reserve**

The reconciliation reserve reflects Aegon's free reserve net of adjustments. The reconciliation reserve is calculated as follows:

<b>Amounts in EUR million</b>	<b>December 31, 2017<sup>1)</sup></b>	December 31, 2016 revised <sup>1)</sup>	December 31, 2016
<b>Excess of Assets over Liabilities</b>	<b>16,924</b>	<b>16,938</b>	<b>19,100</b>
Own shares (held directly and indirectly)	(322)	(186)	(186)
Foreseeable dividends, distributions and charges			
Other basic own fund items	(13,253)	(13,494)	(15,656)
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fence funds	(279)	(173)	(173)
Other non-available own funds	(1)	(2)	(2)
<b>Reconciliation reserve</b>	<b>3,069</b>	<b>3,083</b>	<b>3,083</b>

<sup>1</sup> The reconciliation information is based on the revised method which was confirmed by DNB in 2017. The ring fenced restriction for an amount of EUR 279 million (2016: EUR 173 million) is related to the UK With-Profit Sub-Fund (WPSF) of Scottish Equitable plc. The surplus is restricted as these funds are not available to the Company but are a benefit for the policyholders.

The total excess of assets over liabilities within ring-fenced funds and matching adjustment portfolios are EUR 523 million (2016: EUR 562 million). The split is as follows:

Aegon UK's With-profit sub-funds: EUR 333 million (2016: EUR 350 million);

Aegon UK's matching adjustment portfolio: EUR 159 million (2016: EUR 184 million);

Aegon Spain's matching adjustment portfolio: EUR 30 million (2016: EUR 28 million).

To manage its risk return profile, Aegon has risk policies in place. The Group level policies limit the Group's exposure to major risks such as equity, interest rates, credit, and currency. The limits in these policies in aggregate remain within the Group's overall tolerance for risk and the Group's financial resources. Operating within this policy framework, Aegon employs risk management programs including asset liability management (ALM) processes and models and hedging programs (which are largely conducted via the use of derivatives). These risk management programs are in place in each country unit and are not only used to manage risk in each unit, but are also part of the Group's overall risk strategy. It is to be noted that ALM and hedging programs have a direct relationship with the development of own funds (mostly through the reconciliation reserve) and SCR and follow a direct risk-reward relationship. Aegon also measures the sensitivity of own funds and SCR under both deterministic and stochastic scenarios. Management uses the insight gained through these 'what if?' scenarios to manage the Group's risk exposure and capital position. The models, scenarios and assumptions used are reviewed regularly and updated as necessary.

#### **Amount equal to the value of net deferred tax assets**

The amount of EUR 448 million (2016: EUR 1,638 million) is mainly related to Aegon's Accounting Consolidation entities in the United States. The decrease compared to 2016 is attributable to the revised conversion method for the Aegon US insurance entities under Deduction & Aggregation (D&A) method and to the impact of the US Tax reform on the US non-regulated companies included in AC entities excluding OFS.

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**Other basic own funds approved by the supervisory authority before application of tiering restrictions**

The total amount mainly consists of junior perpetual capital securities included in Tier 1, perpetual capital subordinated bonds included in Tier 1, fixed-floating subordinated notes and non-cumulative subordinated notes both included in Tier 2.

The following basic own funds items do not meet the criteria to be classified as available own funds:

**Ancillary Own Funds**

The year-end 2017 Solvency II position of Aegon Group did not include any ancillary own funds as defined in Article 89(1) of Directive 2009/138/EC).

**Available own funds**

**Non-available own funds - due to fungibility and transferability restrictions**

Aegon annually performs an assessment of the fungibility and transferability restrictions that may apply to both (re)insurance entities and holding companies. As such, the assessment is conducted on a legal entity level, and subsequently on the level of the holding company as well. During the year, Aegon monitors certain information and/or events that could materially impact the restrictions on a group level. Following these developments, the Company has the option of updating the restrictions for relevant entities on a quarterly basis, in addition to the regular annual review.

The amount of EUR 101 million (2016: EUR 147 million) of non-available own funds is related to certain receivables and restricted charitable trust assets in the US non-regulated entities.

Aegon has agreed to sell Aegon Ireland plc. At year-end 2017, a temporary Fungibility and Transferability restriction of EUR 46 million at group level has been recognized as the difference between the proceeds of the sale (sale price reflects 81% of Solvency II Own Funds) and the own funds of Aegon Ireland per December 31, 2017 is considered no longer to be available to Aegon N.V. The restriction will be removed upon completion of the transaction.

**Deductions based on Article 228 of Directive 2009/138/EC**

The amount of EUR 546 million (2016: EUR 472 million) relates to Aegon Bank and was deducted from Aegon Group's basic own funds in accordance with Article 228 of the Directive 2009/138/EC.

**Eligible own funds**

The following restrictions are applied to available own funds to determine the eligible own funds:

The eligibility of the Restricted Tier 1 capital is limited by the regulatory requirement to the extent that Tier 1 restricted capital cannot exceed 20% of total Tier 1. This resulted in a EUR 1,089 million reclassification from Restricted Tier 1 to Tier 2 and represents the difference between available (EUR 3,540 million) and eligible Tier 1

own funds of EUR 2,451 million.

The amount of eligible own funds to the Aegon Group SCR was EUR 15,628 million leading to Group Solvency II ratio of 201% at year-end 2017 (2016: EUR 18,119 million; 157%)

**Eligible own funds to meet minimum consolidated Group SCR**

The minimum consolidated Aegon Group SCR consists of the simple sum of MCR of the participating insurance or reinsurance undertaking and the proportional shares of MCR of related insurance and reinsurance undertakings. This amounted to EUR 1,930 million at year-end 2017 (2016: EUR 1,856 million).

The total eligible own funds to meet the minimum consolidated Aegon SCR amounted to EUR 6,152 million at year-end 2017. This amount relates exclusively to the undertakings accounted for using method 1 but excluding the Tier 3 capital (EUR 448 million) thereto related.

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As of December 31, 2017, the total eligible own funds amounted to EUR 15,628 million. During the year, Unrestricted Tier 1 developments included capital generation from the operating units which was partially offset by capital returned to shareholders by means of:

External cash dividend payments for an amount of EUR 294 million. During 2017, Aegon paid a 2016 final dividend of EUR 0.13 per share and a 2017 interim dividend of EUR 0.13 per share; and

Share buybacks for a total amount of EUR 266 million to offset the dilutive effect of the dividend paid in shares during the year.

During 2017, no restricted Tier 1 and Tier 2 capital instruments were issued or redeemed. The increase in Unrestricted Tier 1 generated by the positive performance of Aegon's operating units (partly offset by remittances to Shareholders) also decreased the overflow to Restricted Tier 1 own funds. The year on year fluctuation of Tier 2 own funds exclusively relates to the fluctuation of value of Aegon's Tier 2 capital instruments. Finally, the Tier 3 decrease is attributable to the revised conversion method for the Aegon US insurance entities under D&A method and to the impact of the US Tax reform on the US non-regulated companies included in AC entities excluding OFS.

**E.1.4 Difference between Solvency II own funds and IFRS shareholders' equity****Reconciliation shareholders' equity - own funds**

Amounts in EUR million	December 31, 2017 <sup>1)</sup>	December 31, 2016 revised <sup>1)</sup>	December 31, 2016
<b>Shareholders' equity</b>	<b>20,573</b>	<b>20,913</b>	<b>20,913</b>
IFRS adjustments for other equity instruments and non-controlling interest	3,813	3,821	3,821
<b>Group equity</b>	<b>24,386</b>	<b>24,734</b>	<b>24,734</b>
<i>Differences in aggregation related to D&amp;A entities</i>	(6,019)	(5,828)	(5,828)
<i>Differences in recognition basis for i.e. DPAC and Goodwill</i>	(2,019)	(2,118)	(2,118)
<i>Valuation difference between IFRS and Solvency II</i>	2,339	2,312	2,312
<b>Solvency II revaluations</b>	<b>(5,701)</b>	<b>(5,634)</b>	<b>(5,634)</b>
<b>Excess of Assets over Liabilities</b>	<b>18,686</b>	<b>19,100</b>	<b>19,100</b>
<i>Adjustments for restricted own funds (Ring-fenced funds)</i>	(281)	(175)	(175)
<i>Foreseeable dividends</i>			
<i>Treasury shares</i>	(325)	(186)	(186)

<b>Availability adjustments</b>	<b>(606)</b>	<b>(361)</b>	<b>(361)</b>
<i>Non-available own funds related to charitable trusts</i>	(148)	(147)	(147)
<i>Deductions according to art. 228 of the Directive 2009/138/EC related to Aegon Bank</i>	(546)	(472)	(472)
<b>Fungibility adjustments<sup>2)</sup></b>	<b>(693)</b>	<b>(619)</b>	<b>(619)</b>
<b>Transferability restrictions<sup>3)</sup></b>	<b>(1,758)</b>	<b>(2,162)</b>	
<b>Available own funds</b>	<b>15,628</b>	<b>15,957</b>	<b>18,119</b>

<sup>1</sup> The own funds information is based on the revised method which was confirmed by DNB in 2017.

<sup>2</sup> Amongst others, this contains the exclusion of Aegon Bank in 2016 and 2017.

<sup>3</sup> This includes the transferability restriction related to the new RBC CAL conversion method in 2017.

The Solvency II revaluations of EUR 5,701 million (2016: EUR 5,634 million) stem from the difference in valuation between IFRS-EU and Solvency II frameworks, which can be grouped into three categories:

Items that are not recognized under Solvency II. The most relevant examples of this category for Aegon include Goodwill, DPAC and other intangible assets (EUR (2,019) million, 2016: EUR (2,118) million);

Items that have a different valuation treatment between IFRS-EU and Solvency II. Solvency II is a market consistent framework hence all assets and liabilities are to be presented at fair value while IFRS-EU also includes other valuation treatments in addition to fair value. The most relevant examples of this category for Aegon Group include Loans and Mortgages, Reinsurance Recoverables, Deferred tax assets balances and Technical provisions. The revaluation difference stemming from this category amounted to EUR 2,339 million (2016: EUR 2,312 million) compared to the IFRS-EU Statement of Financial Position;

The Net Asset Value of subsidiaries that are included under the Deduction & Aggregation method (on provisional equivalence or Standard Formula basis) in the Group Solvency II results. The revaluation difference stemming from this category amounted to EUR (6,019) million (2016: EUR (5,828) million) compared to the IFRS-EU Statement of Financial Position.

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The availability adjustments are changes to the availability of own funds of Aegon Group in accordance with Solvency II requirements. Examples include the adjustments for subordinated liabilities, ring-fenced fund, treasury shares and foreseeable dividend (if applicable).

Fungibility restrictions limit the availability of own funds on Aegon Group level as prescribed by Supervisory Authorities. These limitations refer to charitable trusts in the Americas for which the local Supervisory Authority could limit the upstream of capital to the Group, to a temporary restriction in relation to the sale of Aegon Ireland (the difference between the sale price and Aegon Ireland's own funds are considered not available at Group level until completion of the sale, expected in the first half of 2018) and Aegon Bank which is under a different regulatory regime but under the same Supervisory Authority and therefore excluded for Solvency II purposes.

Finally, Transferability restrictions reflect the restrictions on US Life Companies DTA and capping of Tier 1 unrestricted own funds as a consequence of the new RBC CAL conversion methodology as described above.

**E.1.5 Transitional arrangements**

Restricted Tier 1 capital consists of Aegon's junior perpetual capital securities and perpetual cumulative subordinated bonds, which are both grandfathered for up to 10 years as of January 1, 2016.

Aegon will use the grandfathering period until January 1, 2026, to gradually replace grandfathered capital securities by Solvency II compliant own funds. The timing of this replacement will be subject to market circumstances, including but not limited to pricing, investor demand and investor preferences. Furthermore, Aegon will take into account the projections of its Solvency II position, unrestricted Tier 1 and SCR positions, and the expected impact on eligible own funds and tiering capacity, both under normal and stressed market conditions.

In Spain, a transitional arrangement related to technical provisions is used, that compares the technical provisions on a Solvency I and a Solvency II basis, with this difference being amortized over a period of 16 years (please refer to section D.2.4 Long term guarantees and transitional measures).

Excluding the impact of the grandfathered capital instruments described in section E.1.3 Composition of eligible own funds, the transitional arrangements had an estimated positive impact of 1% on the Aegon Group 2017 Solvency II ratio.

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**E.2 Solvency Capital Requirement and Minimum Capital Requirement****E.2.1 Solvency Capital Requirement**

Aegon applies a combination of the group consolidation methods available under Solvency II, being the Accounting Consolidation and Deduction & Aggregation based methods. Solvency II capital requirements are mainly used for the EEA-based insurance and reinsurance entities, applying the Accounting Consolidation method. Local requirements are used for insurance and reinsurance entities in (provisionally) equivalent third-country jurisdictions (mainly US life insurance companies, Bermuda, Japan, Mexico, and Brazil). Aegon Bank is excluded from the Group Solvency ratio, as required by the Group Solvency II supervisor, DNB.

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

Aegon uses a Solvency II Partial Internal Model (PIM) to calculate the solvency position of the majority of its EEA insurance activities under Solvency II. Aegon's internal model (IM) was approved by the College of Supervisors as part of the Internal Model Application Process. For Aegon, a PIM is a better representation of the actual risk since this contains Aegon specific modelling and sensitivities as opposed to industry-wide approximations included in the standard formula (SF) methodology. The purpose of the internal model is to better reflect the actual risk profile of Aegon in the SCR. The most material risk types for Aegon 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 as part of the Solvency II PIM. Below a table representing the structure of the internal model.

Risk Class	QRT S.25.02.22	Risk Type	Application <sup>1, 2</sup>		Aegon N.V.
			Aegon NL	Aegon UK	
Mismatch risk	Market risk	Interest rate	IM	IM	IM
		Interest rate volatility	IM	IM	IM
		Currency	SF	IM	IM
		Fixed income	IM & SF	IM & SF	IM & SF
		Equity level	IM & SF	IM & SF	n/a
Investment & Counterparty risk	Counterparty default risk	Equity volatility	IM	IM	n/a
		Alternative investment	IM & SF	SF	n/a
		Counterparty	SF	SF	SF
		Mortality Contagion	SF	SF	n/a
		Mortality Parameter	IM	SF	n/a
		Longevity Parameter	IM	IM	n/a
		Life underwriting risk	Disability/morbidity	SF	SF
	Persistence	IM & SF	IM	n/a	
Underwriting risk		Expense risk	SF	IM	n/a

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		Health	n/a	SF	n/a
	Health underwriting risk	Persistence	n/a	n/a	n/a
		Expense risk	n/a	n/a	n/a
		P&C	SF	n/a	n/a
	Non-life				
	underwriting risk	Persistence	SF	n/a	n/a
		Expense risk	SF	n/a	n/a
Operational risk	Operational risk	Operational	SF	IM	n/a
	Aggregation		IM	IM	IM
Diversification			Integration	Integration	Integration
	PIM - integration		technique 3	technique 3	technique 3

<sup>1</sup> The table only reflects the application of Solvency II PIM methodology for the legal entities with approved internal models within each country unit.

<sup>2</sup> In the table above, IM & SF refers to SF shocks used in combination with IM shocks to determine to total component risk.

**Scope of the internal model parts of Solvency II PIM SCR**

The internal model of Aegon covers the following legal entities:

Aegon the Netherlands:

Aegon Levensverzekering N.V.;

Optas Pensioenen N.V.;

Spaarkas N.V.;

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Aegon UK:

Scottish Equitable plc; and

Aegon N.V.

All other legal entities within Aegon that are subject to a Solvency II SCR calculation use the standard formula.

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 for Aegon the Netherlands, UK and N.V.; and

Currency risk for Aegon UK and Aegon N.V. (this was added to the IM during 2017).

Within the Investment and counterparty risk category:

Fixed income risk (both spread risk and default/migration risk), excluding illiquid investments held by Aegon the Netherlands which is on SF;

Equity level risk, excluding private equity which is on SF;

Equity volatility risk; and

Within alternative investment risk, we use IM for property risk for Aegon the Netherlands. All other alternative investment risks are based on SF.

Within the underwriting risk category - life underwriting risk:

Mortality parameter risk for Aegon the Netherlands;

Longevity parameter risk for Aegon the Netherlands and Aegon UK;

Within persistency risk, mortgage prepayment risk for Aegon the Netherlands;

Within persistency risk, policyholder behavior for Aegon UK only; and

Expense risk for Aegon UK.

Operational Risk for Aegon UK was added to the IM in 2017.

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 standard formula SCR and internal model SCR 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, Aegon calculates the diversification benefit across country units and risk types. Within the standard formula components, diversification is determined following the prescribed SF correlation matrices.

Within the internal model, a marginal probability distribution function is fitted for every risk factor 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 in 200 year loss by taking the 99.5% point.

The 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.

The total net SCR (after diversification) is determined by the average 1 in 200 year loss in own funds. 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 subsequently used to calculate the total Solvency II PIM SCR using a square root formula.

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Additional purposes for which Aegon 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.

**Data quality**

Aegon has implemented a group wide Data Quality policy for the Solvency II reporting processes, including a required data directory and a description of the criteria regarding data completeness, accurateness and appropriateness respectively. Data used in the internal model originates from internal as well as external sources, for example:

Policy data level detailing characteristics and coverage of individual insurance policies;

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.

**Other**

Aegon does not apply simplified calculations for calculating the SCR of the business units using the standard formula.

Subject to approval by the supervisory authorities, Aegon may, within the design of the standard formula, replace a subset of its parameters by parameters specific to Aegon Group when calculating the life, non-life and health

underwriting risk modules (Article 104(7) of the Directive 2009/138/EC). Aegon does not apply such specific parameters as defined for calculating the standard formula SCR.

### **Aegon Americas**

In the United States, regulation of the insurance business is principally at the state level. State insurance regulators and the National Association of Insurance Commissioners have adopted risk-based capital (RBC) requirements for insurance companies. RBC calculations measure the ratio of a company's statutory capital, which is measured on a prudent regulatory accounting basis, to a minimum capital amount determined by the risk-based capital formula. The RBC formula measures exposures to investment risk, insurance risk, market risk, and general business risk. The formula, as used for calculating the solvency ratio, applies a covariance diversification offset to determine the appropriate risk-based capital. Life reinsurance is treated as life insurance. The most pertinent RBC measure is the Company Action Level (CAL) risk-based capital requirement. This is the regulatory intervention level at which a company has to submit a plan to its state regulators. The domiciliary state regulator has the authority to require additional capital depending on the type, volume and nature of the business being conducted. The domiciliary state regulator also has the ability to require corrective actions if a company is deemed by the commissioner to pose a Hazardous Financial Condition. The CAL is 200% of the Authorized Control Level (ACL), the level at which regulators are permitted to seize control of the Company.

Until April 1, 2017, Aegon used 250% of the local RBC Company Action Level as the SCR equivalent for including the US life insurance and reinsurance entities into the Group Solvency II calculation. Following an agreement made with the Group Supervisor, DNB, the conversion methodology changed as of April 1, 2017. The conversion factor was changed from 250% to 150% of the local RBC Company Action Level. Part of this new SCR conversion is that 100% of the local RBC is subtracted from the available own funds. The non-regulated US entities and the US holding companies are included in the Aegon Group Solvency II results through application of the Accounting Consolidation method under Solvency II, using Solvency II valuation and capital requirement calculations for these entities.

### **Solvency II PIM SCR at December 31, 2017**

Aegon Group Partial Internal Model (PIM) SCR amounted to EUR 7,774 million on December 31, 2017 (2016: EUR 11,563 million). The SCR decreased by EUR 2,162 million as a result of a change in the treatment of US insurance entities within Solvency II. Aside from this, the SCR was reduced by EUR 1,627 million driven by a weakening of the US dollar against the euro, the implementation

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of approved major model changes to Aegon's PIM, positive market movements and management actions including the divestment of the majority of the US run-off business, the divestment of the vast majority of UK annuity book and the divestment of UMG and separate account derisking in Aegon the Netherlands.

The table below shows the breakdown of the Solvency II PIM SCR for Aegon Group at year-end 2017, as reported in QRT S.25.02.22: The layout of this table has been changed since 2016 to align with how the SCR is reported in the public QRT.

**Composition of Group SCR**

Amounts in EUR millions

<b>SFCR section</b>	<b>QRT S.25.02.22</b>	<b>2017</b>	<b>2016 revised<sup>1)</sup></b>	<b>2016<sup>2)</sup></b>
C.3.2 Market risk	Market Risk (SF)	1,056	1,342	1,342
	Market Risk (IM)	2,258	3,316	3,316
C.3.3 Credit risk <sup>3)</sup>	Counterparty default risk (SF)	371	314	314
	Counterparty default risk (IM)	18	19	19
C.3.1 Underwriting risk	Life underwriting risk (SF)	1,137	1,145	1,145
	Life underwriting risk (IM)	2,156	2,248	2,248
	Health underwriting risk (SF)	306	321	321
	Health underwriting risk (IM)			
	Non-life underwriting risk (SF)	130	137	137
	Non-life underwriting risk (IM)			
C.3.5 Operational risk	Operational risk (SF)	304	678	678
	Operational risk (IM)	301		
E.2.1 Solvency Capital Requirement	LAC-DT	(714)	(839)	(839)
	<b>Total undiversified components</b>	<b>7,321</b>	<b>8,679</b>	<b>8,679</b>
	Diversification <sup>4)</sup>	(2,851)	(3,152)	(3,152)
	<b>PIM SCR after diversification (AC only) <sup>5)</sup></b>	<b>4,470</b>	<b>5,527</b>	<b>5,527</b>
	Capital requirements for D&A and OFS <sup>6)</sup>	3,304	3,874	6,036
	<b>Group PIM SCR</b>	<b>7,774</b>	<b>9,401</b>	<b>11,563</b>

<sup>1)</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.



- <sup>2</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report based on the revised component representation (in 2016 totals per risk component were presented, in 2017 the split into IM (Internal Model) and SF (Standard Formula) is presented).
- <sup>3</sup> To align with the SCR in QRT s.25.02.22 and section E, Aegon will only discuss Counterparty Default Risk (as defined in the Delegated Regulation) in section C3.3. More generally, Aegon considers 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.25.02.22 consistent throughout the SFCR, these other components of credit risk are discussed instead in section C3.2 Market risk.
- <sup>4</sup> In the 2016 Aegon Group SFCR, diversification of EUR 6,2 bln was shown in the S.25.02.22, which included the diversification between risk components of EUR 3,2 bln (shown in this SFCR) as well as diversification within components of EUR 3,0 bln which is not shown in the 2017 disclosure. The 2017 disclosure in QRT S.25.02.22 now shows components for IM and SF separately after diversification within components. Diversification between components and between Standard Formula and Internal Model components are included in this line.
- <sup>5</sup> AC stands for Accounting Consolidation method for the calculation of the Solvency II group solvency.
- <sup>6</sup> Includes capital requirements for Deduction & Aggregation (D&A) and Other Financial Sector entities (excluding Aegon Bank in line with Group supervisor requirement). The decrease in 2017 is mainly related to the revised method in calculating the Solvency II contribution of the Aegon US Insurance entities under D&A. The sum of SCR categories shown in QRT S.25.02.22 amounted to EUR 7,321 million (2016: EUR 8,679 million). The SCR after diversification of the Solvency II risk types of the AC entities is EUR 4,470 million (2016: EUR 5,527 million).

Diversification of EUR 2,851 million (2016: EUR 3,152 million) shown in QRT S.25.02.22 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.

Within the QRT S.25.02.22 risk categories there is diversification within each of the 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 is exposed to a decrease 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 SCR and therefore drive the aggregated own funds losses in a 1 in 200 year event. Note that all these figures are after applying the dynamic volatility adjustment;

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Underwriting risks (UR) diversification, driven by longevity risk which has a relatively low correlation with other underwriting risk types, such as lapse risk. Life underwriting risk as reported in the QRT S.25.02.22, and consistently shown in the table above. The amount shown in the table above is only diversification between Underwriting risk components. Underwriting risks typically also have a low correlation with Market risk types, like spread risk, that drive the aggregated own funds losses in a 1 in 200 year event;

The LAC-DT is calculated after diversification and lowered the net PIM SCR by EUR 714 million (2016: EUR 839 million). The LAC-DT benefit mainly stemmed from Aegon the Netherlands. After discussions with the DNB, Aegon resolved a number of outstanding methodological matters with respect to its partial internal model in 2017. Following agreement on the interpretation of the 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, 2017 (2016: 75%). The LAC-DT factor will be recalibrated on a quarterly basis using the agreed methodology; and

Other capital requirements include capital requirements for entities under D&A (mainly Aegon Americas, being US Life insurance entities) in addition to OFS entities (excluding Aegon Bank). There is no diversification benefit between AC, OFS and D&A entities.

The Solvency II capital ratios of the Group and Aegon the Netherlands do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

The PIM SCR includes the SCR for AC entities, the D&A entities and the Other Financial Sector entities (excluding Aegon Bank). The geographical composition of Aegon Group's consolidated SCR based on Solvency II PIM as per year-end 2017 is illustrated in the figure below. The illustration shows that the D&A entities, which mainly consist of the US Life insurance entities on a D&A basis, make up 38% (2016: 50%, decrease is due to change in conversion method for US life insurance entities as discussed above).

Split of Aegon Group Solvency II PIM SCR into SCR of AC entities and D&A entities	% of total Group Solvency II PIM SCR		% of total Group Solvency II SCR		% of total Group Solvency II SCR	
	Solvency II PIM SCR	December 31, 2017	Solvency II SCR	December 31, 2016 revised <sup>1)</sup>	Solvency II PIM SCR	December 31, 2016 <sup>2)</sup>
Amounts in EUR millions						
Accounting Consolidation (AC) entities, excluding OFS	4,470	57.5%	5,527	58.8%	5,527	47.8%
Deduction & Aggregation (D&A) entities	2,987	38.4%	3,635	38.7%	5,797	50.1%
Other Financial Sector (OFS) entities	317	4.1%	239	2.5%	239	2.1%

<b>Total</b>	<b>7,774</b>	<b>9,401</b>	<b>11,563</b>
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<sup>1</sup> The numbers are based on the revised method which was confirmed by the DNB in 2017, presented for comparative purposes.

<sup>2</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report based on the revised component representation.

### **E.2.2 Solvency II ratio**

The solvency position is calculated as a ratio between own funds and the capital requirement. There are two capital requirements: a Solvency Capital Requirement (SCR) and a Minimum Capital Requirement (MCR). The MCR is an absolute minimum metric, while the SCR is the level of own funds at which regulators will formally require management to provide regulatory recovery plans. The Group Solvency II ratio uses the SCR as the denominator.

The SCR amount (or 100% Solvency II ratio) reflects a level of eligible own funds that enables insurance and reinsurance entities to absorb significant losses (1-in-200 year events) and gives reasonable assurance to policyholders and beneficiaries that payments will be made as they fall due.

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<b>Solvency II key figures</b>	<b>December 31, 2017<sup>1) 3) 4) 5)</sup></b>	December 31, 2016 revised <sup>2) 4)</sup>	December 31, 2016 <sup>4) 5) 7)</sup>
Amounts in EUR millions	<sup>6)</sup>	<sup>5)</sup>	
Eligible own funds	15,628	15,957	18,119
Consolidated Group SCR	7,774	9,401	11,563
<b>Solvency II ratio</b>	<b>201%</b>	<b>170%</b>	<b>157%</b>

<sup>1</sup> The Group Own Funds information is based on the revised method which was confirmed by the DNB on August 8, 2017. Based on the old method, the December 31, 2017 Group Solvency ratio is equal to 182%.

<sup>2</sup> The numbers are based on the revised method which was confirmed by the DNB on August 8, 2017. Presented for comparative purposes.

<sup>3</sup> The Solvency II ratios are estimates and subject to supervisory review.

<sup>4</sup> The Solvency II ratios are based on Aegon's partial internal model.

<sup>5</sup> Aegon Bank is not included in the Group Solvency II ratio

<sup>6</sup> Group Solvency II ratio at December 31, 2017 does not reflect impact on NAIC tax factor changes following US tax reform. At this point it is unclear when the NAIC will update the tax factors used in the RBC calculation.

<sup>7</sup> The 2016 comparative numbers are the final numbers as disclosed in Aegon N.V.'s 2016 Solvency and Financial Condition Report.

**E.2.3 Minimum consolidated Aegon Group SCR**

The minimum consolidated Aegon Group SCR is calculated as the simple sum of MCR of the participating insurance or reinsurance undertaking and the proportional shares of MCR of related insurance and insurance undertakings. The calculation for each of the undertakings follows a factor-based approach that consists of multiple volume measures (e.g. written premiums, technical provisions). The MCR result of this linear formula is subject to a cap and a floor such that it may not exceed 45% nor fall below 25% of that undertaking's calculated SCR. Lastly, an absolute floor is applied that is dependent on the type of undertaking (i.e. life, non-life or reinsurance). At year-end 2017 the Group MCR amounted to EUR 1,930 million (2016: EUR 1,856 million) and was mainly driven by Aegon the Netherlands and Aegon UK. During 2017, the MCR increased mainly due to a reallocation by Aegon the Netherlands, where the Best Estimate Liability for other life insurance obligations moved to obligations with profit participation guaranteed benefits, for which EIOPA prescribes a higher multiplication factor.

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**E.3 Use of the duration-based equity risk sum-module**

Aegon 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.

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**E.4 Differences between standard formula and partial internal model used**

The main differences between the methodologies and assumptions of the Solvency II PIM and the standard formula are described by risk type below.

**Market risk**

The fixed income risk for bonds differs from standard formula because the Solvency II PIM shocks are calibrated on Aegon's fixed income portfolio. In contrast to the standard formula, government bonds are shocked in the internal model calculations.

Furthermore, the Solvency II PIM applies a dynamic volatility adjustment approach within Aegon the Netherlands, while the standard formula does not.

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's own portfolio. In addition, the equity exposures are also shocked for equity volatility risks.

Within Aegon the Netherlands, property risk shocks on the real estate portfolio are specifically calibrated on the portfolio as opposed to a 25% shock in the standard formula.

For currency risk, the shocks are calibrated based on Aegon's own portfolio. In addition, the Solvency II PIM allows for diversification between exposures to different currencies, as opposed to no diversification between currency exposures in the standard formula.

The Solvency II PIM results for interest rate risks differ from the standard formula results for the following reasons:

The standard formula interest rate shock only considers a parallel shift in the interest rate curve, whereas the Solvency II PIM considers not only a parallel shift, but also a flattening and twisting of the interest rate curve;

The Solvency II PIM interest rate curve shocks are calibrated based on historical market data relevant for Aegon's portfolio;

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; and

For Aegon UK, the interest rate risk under the Solvency II PIM also includes an inflation shock on benefit payments and expenses, while the inflation shock on expenses is included in life expense risk under standard formula.

**Underwriting risk**

The Solvency II PIM for longevity and mortality risk differs from the standard formula as follows:

The Solvency II PIM distinguishes 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 the Netherlands, the Solvency II PIM includes pre-payment (lapse) risk on the mortgage portfolio.

Policyholder behavior (lapse) risk for Aegon UK under the Solvency II PIM is the aggregate of a parameter and a contagion shock, while under standard formula it is the greater of a parameter and a contagion stress. Furthermore, the shocks are calibrated on the Aegon UK portfolio, resulting in a larger shock size than under the standard formula, which leads to a higher SCR before diversification.

The aggregate Solvency II PIM expense risk shock for Aegon UK is higher than the standard formula stress as the Solvency II PIM stress covers expense level, trend and volatility stress. This leads to a higher SCR before diversification. Under Solvency II PIM, the inflation on expenses is shocked in the interest rate risk module, while under standard formula it is shocked in the expense risk module.

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**Operational Risk**

For Aegon UK, the Solvency II PIM for operational risk differs from the standard formula as follows:

The Solvency II PIM is based on the input of subject matter experts where workshops are used to generate possible scenarios supplemented by experience data. The data is then fitted into a stochastic model, while the standard formula is based on technical provisions, premiums and expenses; and

The Solvency II PIM allows for diversification of operational risk with other risk types as opposed to the standard formula which does not allow for diversification of operational risk at all.

**Diversification**

Diversification between the internal model and the standard formula components of the Solvency II PIM are calculated using Integration Technique 3 (IT3). This EIOPA prescribed integration technique describes how an implied linear correlation coefficient between the internal model and standard formula components is calculated. This correlation coefficient is subsequently 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 a total level.

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**E.5 Non-compliance with capital requirements**

During 2017 and 2016, there were no instances in which the estimated Aegon Group Solvency II ratio was below the MCR or the SCR level. To ensure that Aegon maintains adequate solvency levels, actual and expected capital positions are monitored against capitalization zones that are defined in Aegon's Capital Management policy. Several activities are performed to monitor and assess the future development of Aegon's solvency position, such as the annual Budget/MTP 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 continuously monitors such risks. These are quantified to determine the impact on the current and the projected solvency position. The Capital Management policy includes actions that need to be performed as soon as the projected solvency ratio is expected to fall within a predefined capitalization zone.

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**E.6 Any other information**

Aegon does not have any other material information regarding its capital management.

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**Accounting Consolidation** is the default method for calculating the Group Solvency position. With this consolidation method, diversification benefits in the calculation of capital requirements is allowed for Solvency II entities. In addition, Accounting Consolidation method is applied to non-controlling participations, Other Financial Sector entities and Other entities. For these three types of entities diversification benefits in the calculations of capital requirements is not allowed.

**Actuarial funding** enables a life insurance company to reduce the size of the unit reserves it holds for unit-linked business to reflect some or all of the unit-linked charges it expects to receive in the future from the units nominally allocated. Actuarial funding is used on those contracts that have surrender penalties and the Company will hold a minimum of the surrender value at all times.

**Actuarial gains and losses** relate to the accounting for post-employment benefit plans. They comprise the effects of experience adjustments and changes in assumptions used to determine the cost of a plan.

**Acquisition date** is the date on which the acquirer effectively obtains control of the acquiree. In most cases this includes at least the transfer of risks and rewards related to the acquired business or assets/liabilities.

**Alt-A mortgages** relates to a type of US residential mortgage which are securitized home equity loans. Typical Alt-A borrower has a credit score high enough to obtain an: A standing. Alt-A mortgages are primarily backed by loans with fixed interest rates for the entire term of the loan.

**Aggregation** is the methodology by which capital requirements are calculated across different risk groupings, allowing for diversification benefit between the groupings.

**Amortized cost** is the amount at which the financial asset or liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest rate method of any difference between that initial amount and the maturity amount and minus any reduction

(directly or through the use of an allowance account) for impairment or uncollectability.

**Asset-Backed Securities (ABS)** are securities whose value and income payments are derived from and collateralized (or backed ) by a specified pool of underlying assets.

**Assets held by long-term employee benefit funds** are part of plan assets. These are assets (other than non-transferable financial instruments issued by the reporting entity) that:

Are held by an entity that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and

Are available to be used only to pay or fund employee benefits and are not available to the reporting entity's own creditors.

**Authorised Control Level (ACL)** is the level regulators are permitted to seize control of a company.

**Bifurcation** is the measurement and presentation of embedded derivatives separate from the host contracts, as if they were stand-alone derivative financial instruments.

**Binomial option pricing model** uses a binomial lattice that represents possible paths that might be followed by the underlying asset's price over the life of the option, for a given number of time steps between valuation date and option expiration. Each node in the lattice represents a possible price of the underlying asset, at a particular point in time. The valuation process is iterative; it starts at each final node and then works backwards through the lattice to the first node, which is the valuation date, where the calculated result is the value of the option.

**Business combination** is the bringing together of separate entities or operations of entities into one reporting entity. This can be realized through a purchase transaction or by means of a merger. A business combination involving entities (or operations of entities) under common control is a business combination in which all of the combining entities (or operations of entities) ultimately are controlled by the same party or parties both before and after the combination, and that control is not transitory.

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**Company Action Level (CAL)** is the regulatory intervention level at which a company has to submit a plan to its state regulators for the Aegon Americas segment. It is 200% of the Authorised Control Level (ACL) - the level regulators are permitted to seize control of a company. It is a requirement and the most pertinent for measuring risk-based capital (RBC).

**Capital funding** includes debt securities that are issued for general corporate purposes and for capitalizing our business units. Capital funding is part of the Company's total capitalization that is used for financing our subsidiaries and the cash held at the holding company.

**Free Capital Generation** represents the movement of own funds (after tax) and SCR (after LACDT and diversification). Impacts from dividends and capital injections that do not generate capital but that do affect OF are excluded from Free Capital Generation. Furthermore, movements in Group holdings SCR and Group diversification are excluded from Free Capital Generation as well. Group Holdings' own funds movements, excluding movements stemming from dividends and capital injections, are included in Free Capital Generation. As Free Capital Generation tracks the movement of the surplus, it combines both the movements of the available and the required capital, where the latter is measured against the midpoint of the target range (as defined in Aegon's Capital Management policy).

**Capitalization** is the recognition of a cost as part of the cost of an asset on the statement of financial position.

**Cash-generating unit** is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

**Cedant** is the policyholder under a reinsurance contract.

**Claims settlement expenses** are costs incurred in settling a claim. These costs include internal administration and payout costs, but also such items as attorney's fees and investigation expenses.

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

**Collateralized Debt Obligation (CDO)** is a type of asset-backed security which provides investors exposure to the credit risk of a pool of fixed income assets.

**Commercial Mortgage-Backed Securities (CMBS)** is a type of mortgage-backed security that is secured by the loan on a commercial property.

**Compound financial instruments** are financial instruments that, from the issuer's perspective, contain both a liability and an equity element.

**Constructive obligation** is an obligation that derives from an entity's actions whereby an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties that it will accept certain responsibilities, and as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

**Contingent liability** is a possible obligation dependent on the occurrence of an uncertain future event or a present obligation for which payment is not probable or the amount cannot be measured reliably.

**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.

**Currency exchange rate risk** is a market risk, namely the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

**Debt securities** are interest-paying bonds, debentures, notes, or money market instruments that are issued by governments or corporations. Debt securities are issued with a promise of repayment on a certain date at a specified rate of interest.

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**Deduction & Aggregation** is the alternate method for calculating Group Solvency that aggregates an entity without allowing for diversification between the entity that is aggregated using D&A and those that are aggregated using Accounting Consolidation.

**Deferred tax assets** are amounts of income taxes recoverable in future periods in respect of deductible temporary differences; the carryforward of unused tax losses; and the carryforward of unused tax credits.

**Deferred tax liabilities** are amounts of income taxes payable in future periods in respect of taxable temporary differences.

**Defined benefit obligation** is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

**Defined benefit plans** are post-employment benefit plans other than defined contribution plans.

**Defined contribution plans** are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

**Deferred Policy Acquisition Cost (DPAC)** - are the variable costs related to the acquisition or renewal of insurance contracts and investment contracts with discretionary participation features.

**Deposit accounting method** includes amounts charged and paid to customers directly into the financial liability and not through the income statement as premium income and claims.

**Derecognition** is the removal of a previously recognized asset or financial liability from an entity's statement of financial position.

**Derivatives** are financial instruments whose value changes in response to an underlying variable, that require little or no net initial investment and are settled at a future date.

**Discretionary participation feature** is a contractual right to receive, as a supplement to guaranteed benefits, additional benefits:

That are likely to be a significant portion of the total contractual benefits;

Whose amount or timing is contractually at the discretion of the issuer; and  
That are contractually based on:

The performance of a specified pool of contracts or a specified type of contract;

Realized and/or unrealized investment returns on a specified pool of assets held by the issuer; or

The profit or loss of the Company, fund or other entity that issues the contract.

**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.

**Effective interest rate method** is a method of calculating the amortized cost of a financial asset or liability 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 financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or liability.

**Embedded derivative** is a component of a hybrid instrument that also includes a non-derivative host contract, with the effect that some of the cash flows of the combined instrument vary in a way similar to a derivative.

**Equity instruments** are financial instruments issued by the Group that are classified as equity if they evidence a residual interest in the assets of the Group after deducting all of its liabilities.



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**Equity method** is a method of accounting whereby the investment is initially recognized at cost and adjusted thereafter for the post-acquisition change in the investor's share of net assets of the investee. The profit or loss of the investor includes the investor's share of the profit or loss of the investee.

**Equity volatility** is the relative rate at which the price of equity changes.

**Excess cash in the holding**, which is rather a measure of Holdings liquidity, can be defined as the sum of the Holding company assets, less capital investments, less matched short term assets, less other adjustments. Aegon's internal policy for the management of excess cash in the holding is based on a similar approach as the management of the Group and Local Unit capitalization, using a range approach and a ladder of intervention to trigger timely conversations and escalating management actions.

**Exchange differences** are differences resulting from translating a given number of units of one currency into another currency at different exchange rates.

**Fee-based earnings** refers to the excess of fees earned over expenses. This is typically associated with pensions business, asset management business, distribution business, variable annuities and unit linked products.

**Financial asset** is any asset that is:

Cash;

An equity instrument of another entity;

A contractual right to receive cash or another financial asset from another entity or to exchange financial instruments with another party under conditions that are potentially favorable; or

A contract that will or may be settled in the entity's own equity instruments; and is

A non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or

A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

**Financial instrument** is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

**Financial liability** is any liability that is:

A contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the entity; or

A contract that will or may be settled in the entity's own equity instruments; and is

A non-derivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or

A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

**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.

**Firm commitment** is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.

**Fixed charge coverage** is a measure of the Aegon's ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

**Foreign currency** is a currency other than the functional currency of an entity within the Group.

**Foreign currency translation reserve (FCTR)** is part of shareholders' equity, and is the reserve for the exchange differences recognized from the financial statements of the group entities. On the consolidation, the financial statements of group entities with

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a foreign functional currency are translated to euro, the currency in which the consolidated financial statements are presented. Assets and liabilities are translated at the closing rates on the reporting date. Income, expenses and capital transactions (such as dividends) are translated at average exchange rates or at the prevailing rates on the transaction date, if more appropriate. The resulting exchange differences are recognized in the FCTR.

**Foreign operation** is an entity that is a subsidiary, associate, joint venture or branch of a reporting entity within the Group, the activities of which are based or conducted in a country or currency other than those of the reporting entity.

**Functional currency** is the currency of the primary economic environment in which an entity within the Group operates.

**Fungibility & Transferrability** is the ability to up-stream and transfer capital between jurisdictions. This ability differs between jurisdictions as it depends on the legal framework of each jurisdiction.

**General account investments** are investments of which the financial risks are not borne by the policyholder.

**Goodwill** is the amount of future economic benefits arising from assets that are not capable of being individually identified and separately recognized as an asset in a business combination.

**Government exposures** relates to government issued securities including Dutch Government bonds and US Treasury, agency and state bonds.

**Guaranteed benefits** are payments or other benefits to which a particular policyholder or investor has an unconditional right that is not subject to the contractual discretion of the issuer.

**Guaranteed minimum death benefits** are benefits that guarantee that the beneficiary, as named in the contract, will receive a death benefit if the annuitant dies. The benefit received differs among contracts and may be greater than the current account value.

**Guaranteed minimum income benefits** are a type of option that annuitants can purchase for their retirement annuities. When the annuity is annuitized, this specific option guarantees that the annuitant will receive a minimum value s worth of payments, regardless of the current level of the account value.

**Guaranteed minimum withdrawal benefits** are a type of option that annuitants can purchase for their retirement annuities. This specific option gives annuitants the ability to protect their retirement investments against downside market risk by allowing the annuitant the right to withdraw a percentage of their withdrawal base each year, regardless of how markets have performed.

**Hedge effectiveness** is the degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument.

**Incremental cost** is one that would not have been incurred if the entity had not acquired, issued or disposed of a financial instrument.

**Insurance asset** is an insurer's contractual right under an insurance 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 liability** is an insurer's contractual obligation under an insurance contract.

**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, namely the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.

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**Joint control** is the contractually agreed sharing of control over an economic activity, which exists when the strategic and operating decisions relating to the activity require the unanimous consent of the parties sharing control.

**Liability adequacy testing** is an assessment of whether the carrying amount of an insurance liability needs to be increased (or the carrying amount of related deferred policy acquisition costs or related intangible assets decreased) based on a review of future cash flows.

**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.

**Master netting agreement** is an agreement providing for an entity that undertakes a number of financial instrument transactions with a single counterparty to make a single net settlement of all financial instruments covered by the agreement in the event of default on, or termination of, any contract.

**Matching adjustment** will adjust the discount rate applied in the valuation of predictable liabilities which are cashflow matched using fixed income assets. The predictability of the portfolio means that matching assets can be held to maturity and that the insurer is consequently not exposed to price movements, only to the risk of default.

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

**Monetary items** are units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

**Monoline insurer** is an insurance company which issues types of insurance for securities and bonds to cover the interest and principal when an issuer defaults.

**Negative amortization mortgages** are loans whereby the payment made by the borrower may be less than the accrued interest due and the difference is added to the loan balance. When the accrued balance of the loan reaches the negative amortization limit (typically 110% to 125% of the original loan amount), the loan recalibrates to a fully amortizing level and a new minimum payment amount is determined.

**Non-controlling interests** are that portion of the profit or loss and net assets of a subsidiary attributable to equity interests that are not owned, directly or indirectly through subsidiaries, by the parent.

**Onerous contracts** are contracts in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

**Operational funding** includes debt securities that are issued for the financing of dedicated pools of assets. These assets are either legally segregated or tracked as separate portfolios.

**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.

**Past service cost** is the increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits.

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**Plan assets** are assets held by a long-term employee benefit fund and qualifying insurance policies.

**Policy acquisition costs** are the expenses incurred in soliciting and placing new business as well as renewal of existing business. It includes agent's commissions, underwriting expenses, medical and credit report fees, marketing expenses and all other direct and indirect expenses of the departments involved in such activities.

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

**Presentation currency** is the currency in which the financial statements are presented.

**Price risk** is a market risk, namely the risk that the value of a financial instrument will fluctuate as a result of changes in market prices.

**Private loan** is a non-derivative financial asset with a fixed interest rate and a maturity date, which is not bought in an active market but negotiated between the two parties involved. Private loans are not embodied in securities. When a private loan takes the form of a private placement of bonds or other investments directly to an institutional investor like an insurance company, it has more the character of a bond loan and such financial instruments are classified as available-for-sale investments rather than as loans and receivables.

**Projected unit credit method** is an actuarial valuation method that sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation.

**Qualifying insurance policies** are a component of plan assets. These are insurance policies issued by an insurer that is not a related party of the reporting entity, if the proceeds of the policies:

Can be used only to pay or fund employee benefits under a defined benefit plan; and

Are not available to the reporting entity's own creditors.

**Quantitative Reporting Templates (QRT)** are the reporting templates as prescribed by EIOPA for Solvency II reporting which are submitted to local regulator. The QRT's are split in the public and non-public QRT's. In this SFCR we only refer to the public QRT S.25.02.22 (Solvency Capital Requirement - for undertakings using the standard formula and partial internal model) and S.32.01.22 (Undertakings in the scope of the group).

**Real estate investments foreclosed** are real estate investments purchased through foreclosure on the mortgage. Such purchases are not accounted for as mortgages, but as real estate investments until they can be sold at a better price than at the foreclosure. Meanwhile they yield a rental income.

**Realizable value** is the amount of cash or cash equivalents that could currently be obtained by selling an asset in an orderly disposal.

**Recognition** is the process of incorporating in the statement of financial position or income statement an item that meets the definition of an element and satisfies the following criteria for recognition:

It is probable that any future economic benefit associated with the item will flow to or from the entity; and

The item has a cost or value that can be measured with reliability.

**Reinsurance assets** are a cedant's net contractual rights under a reinsurance contract.

**Reinsurance contract** is an insurance contract issued by one insurer to compensate another insurer for losses on one or more contracts issued by the cedant.

**Renewal of a contract** is when a policyholder takes whatever action is required, typically payment of a premium, in order to maintain benefits under the contract.

**Repurchase agreement** is a sale of securities with an agreement to buy back the securities at a specified time and price.

**Residential Mortgage Backed Security (RMBS)** is an asset-backed security that is secured by a mortgage or collection of mortgages.

**Return on plan assets** is the investment income derived from plan assets, together with realized and unrealized gains and losses on the plan assets less any costs of administering the plan and less any tax payable by the plan itself.

**Reverse repurchase agreement** is a purchase of securities with the agreement to resell them at a later specified date and price.



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**Risk Based Capital Company Action Level** is designed primarily for US regulators to identify poorly capitalized companies whose continued operations may be hazardous to policyholders. The insurer's RBC solvency ratio is determined as its total adjusted capital divided by authorized control level risk based capital. (ACL) However, it is industry and rating agency convention to complete and communicate the RBC solvency ratio relative to the Company Action Level Risk Based Capital, which is twice the authorized control level.

**Security lending** involves a loan of a security from one party to another.

**Settlement date** is the date that a financial asset is delivered to the entity that purchased it.

**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.

**Spot exchange rate** is the exchange rate for immediate delivery.

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

**Spread earnings** is the difference between the interest earned on investments and the interest credited to policyholders. This is typically associated with traditional type business.

**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.

**Temporary differences** are differences between the carrying amount of an asset or liability in the statement of financial position and its tax base that will reverse over time.

**Trade date** is the date that an entity commits itself to purchase or sell an asset.

**Transaction costs** are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability.

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

**Trust Pass-Through securities (TRUPS)** are securities through which the holders participate in a trust. The assets of these trusts consist of debentures issued by an Aegon Group company.

**Unlocking** of DPAC and VOBA refers to the process of updating the DPAC or the VOBA amortization schedule to reflect changes between the past and current expectations of key assumptions used in the projection of future gross

profits.

**Value of Business Acquired (VOBA)** the difference between the fair value and the carrying amount of the insurance liabilities recognized when a portfolio of insurance contracts is acquired (directly from another insurance company or as part of a business combination).

**Volatility adjustment** is a volatility adjustment to the discount rates for calculating technical provisions aims 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.

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**Cautionary notes**

**Intended use of the Group SFCR**

This Group 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).

**Currency exchange rates**

This document contains certain information about Aegon's results, financial condition and revenue generating investments presented in USD for the Americas and Asia, and in GBP for the United Kingdom, because those businesses operate and are managed primarily in those currencies. None of this information is a substitute for or superior to financial information about Aegon presented in EUR, which is the currency of Aegon's primary financial statements.

**Forward-looking statements**

The statements contained in this document that are not historical facts are forward-looking statements as defined in the US Private Securities Litigation Reform Act of 1995. The following are words that identify such forward-looking statements: aim, believe, estimate, target, intend, may, expect, anticipate, predict, project, counting on, plan, continue, want, forecast, goal, should, would, is confident, will, and similar expressions as they relate to Aegon. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Aegon undertakes no obligation to publicly update or revise any forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which merely reflect company expectations at the time of writing. Actual results may differ materially from expectations conveyed in forward-looking statements due to changes caused by various risks and uncertainties. Such risks and uncertainties include but are not limited to the following:

Changes in general economic conditions, particularly in the United States, the Netherlands and the United Kingdom;

Changes in general economic conditions, particularly in the United States, the Netherlands and the United Kingdom;

Changes in the performance of financial markets, including emerging markets, such as with regard to:

The frequency and severity of defaults by issuers in Aegon's fixed income investment portfolios;

The effects of corporate bankruptcies and/or accounting restatements on the financial markets and the resulting decline in the value of equity and debt securities Aegon holds; and

The effects of declining creditworthiness of certain private sector securities and the resulting decline in the value of government exposure that Aegon holds;

Changes in the performance of Aegon's investment portfolio and decline in ratings of Aegon's counterparties;

Consequences of a potential (partial) break-up of the euro;

Consequences of the anticipated exit of the United Kingdom from the European Union;

The frequency and severity of insured loss events;

Changes affecting longevity, mortality, morbidity, persistence and other factors that may impact the profitability of Aegon's insurance products;

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Reinsurers to whom Aegon has ceded significant underwriting risks may fail to meet their obligations;

Changes affecting interest rate levels and continuing low or rapidly changing interest rate levels;

Changes affecting currency exchange rates, in particular the EUR/USD and EUR/GBP exchange rates;

Changes in the availability of, and costs associated with, liquidity sources such as bank and capital markets funding, as well as conditions in the credit markets in general such as changes in borrower and counterparty creditworthiness;

Increasing levels of competition in the United States, the Netherlands, the United Kingdom and emerging markets;

Changes in laws and regulations, particularly those affecting Aegon's operations ability to hire and retain key personnel, taxation of Aegon companies, the products Aegon sells, and the attractiveness of certain products to its consumers;

Regulatory changes relating to the pensions, investment, and insurance industries in the jurisdictions in which Aegon operates;

Standard setting initiatives of supranational standard setting bodies such as the Financial Stability Board and the International Association of Insurance Supervisors or changes to such standards that may have an impact on regional (such as EU), national or US federal or state level financial regulation or the application thereof to Aegon, including the designation of Aegon by the Financial Stability Board as a Global Systemically Important Insurer (G-SII);

Changes in customer behavior and public opinion in general related to, among other things, the type of products Aegon sells, including legal, regulatory or commercial necessity to meet changing customer expectations;

Acts of God, acts of terrorism, acts of war and pandemics;

Changes in the policies of central banks and/or governments;

Lowering of one or more of Aegon's debt ratings issued by recognized rating organizations and the adverse impact such action may have on Aegon's ability to raise capital and on its liquidity and financial condition;

Lowering of one or more of insurer financial strength ratings of Aegon's insurance subsidiaries and the adverse impact such action may have on the premium writings, policy retention, profitability and liquidity of its insurance subsidiaries;

The effect of the European Union's Solvency II requirements and other regulations in other jurisdictions affecting the capital Aegon is required to maintain;

Litigation or regulatory action that could require Aegon to pay significant damages or change the way Aegon does business;

As Aegon's operations support complex transactions and are highly dependent on the proper functioning of information technology, a computer system failure or security breach may disrupt Aegon's business, damage its reputation and adversely affect its results of operations, financial condition and cash flows;

Customer responsiveness to both new products and distribution channels;

Competitive, legal, regulatory, or tax changes that affect profitability, the distribution cost of or demand for Aegon's products;

Changes in accounting regulations and policies or a change by Aegon in applying such regulations and policies, voluntarily or otherwise, which may affect Aegon's reported results and shareholders' equity;

Aegon's projected results are highly sensitive to complex mathematical models of financial markets, mortality, longevity, and other dynamic systems subject to shocks and unpredictable volatility. Should assumptions to these models later prove incorrect, or should errors in those models escape the controls in place to detect them, future performance will vary from projected results;

The impact of acquisitions and divestitures, restructurings, product withdrawals and other unusual items, including Aegon's ability to integrate acquisitions and to obtain the anticipated results and synergies from acquisitions;

Catastrophic events, either manmade or by nature, could result in material losses and significantly interrupt Aegon's business; Aegon's failure to achieve anticipated levels of earnings or operational efficiencies as well as other cost saving and excess cash and leverage ratio management initiatives; and

This press release contains information that qualifies, or may qualify, as inside information within the meaning of Article 7(1), 7(1)a and 7(4) of the EU Market Abuse Regulation (596/2014).

Further details of potential risks and uncertainties affecting Aegon are described in its filings with the Netherlands Authority for the Financial Markets and the US Securities and Exchange Commission, including this SFCR. These forward-looking statements speak only as of the date of this document. Except as required by any applicable law or regulation, Aegon expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Aegon's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

**Non-audited information**

PricewaterhouseCoopers Accounting N.V. is the external auditor of Aegon N.V.. The external auditor's mandate does not cover an audit on the information disclosed in this SFCR.

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