AEGON NV
Form 20-F
March 22, 2019
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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FORM 20-F

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(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR(g) OF THE

SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE

SECURITIES EXCHANGE ACT OF 1934

Commission file number 1-10882

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Aegon N.V.

(Exact name of Registrant as specified in its charter)

-

Not Applicable

(Translation of Registrant s name into English)

The Netherlands

(Jurisdiction of incorporation or organization)

Aegonplein 50, PO Box 85, 2501 CB The Hague, The Netherlands

(Address of principal executive offices)

J.H.P.M. van Rossum

Executive Vice President and Head of Corporate Financial Center

Aegon N.V.

Aegonplein 50, 2501 CB The Hague, The Netherlands

+31-70-3445458

Jurgen.vanRossum@aegon.com

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
Common shares, par value EUR 0.12 per share	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Not applicable

(Title of Class)

Not applicable

(Title of Class)

Indicate the number of outstanding shares of each of the issuer s classes of capital or common stock as of the close of the period covered by the annual report: 2,095,648,244 common shares and 585,022,160 common shares B

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities

Exchange Act of 1934. Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirement for the past 90 days. Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

The term new or revised financial accounting standard refers to any update issued by the Financial Accounting Standards

Board to its Accounting Standards Codification after April 5, 2012.

Indicate by checkmark which basis of accounting the registrant has used to prepare the financial statements included in this filing

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board Other

If other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

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Cross reference table Form 20-F

Welcome to Aegon s 2018 Annual Report on Form 20-F

To prosper, we believe companies must create long-term value for the societies in which they operate. Aegon creates value in several ways: as a provider of financial services, as well as a responsible employer and business partner. We also make significant social and economic contributions through returns to shareholders, tax and support for local communities, as well as through investments both for our own account and on behalf of our customers. Our aim is to be a responsible corporate citizen, fully aware of the impact we have on our stakeholders and on society as a whole.

This is Aegon s Annual Report on Form 20-F for the year ending December 31, 2018. It is the Company s first fully integrated report. Aegon s aim in producing this report is to provide a clear, balanced overview of the Company s operations, strategy and performance. In this report, we look at the trends and challenges our business is facing, at our strategy, at how we create and share value and at how we safeguard this value through a responsible approach to business. This report also contains the 2018 consolidated financial statements and Company financial statements for Aegon N.V. from page 98.

This document contains Aegon s Annual Report as filed on Form 20-F (also referred to in this document as Annual Report) with the United States Securities and Exchange Commission (SEC).

We have prepared this report in accordance with the International Financial Reporting Standards, as issued by the IASB, as well as the International Integrated Reporting Council (IIRC) framework and reporting standards issued by the Global Reporting Initiative (GRI). This report also conforms to relevant reporting requirements under the Dutch Corporate Governance Code and Dutch Civil Code (Part 9, Book 2).

Aegon prepares its consolidated financial statements in accordance with IFRS and with Part 9 of Book 2 of the Netherlands Civil Code for purposes of reporting with the U.S. SEC, including financial information contained in this Annual Report on Form 20-F. Aegon s accounting policies and its use of various options under IFRS are described in note 2 to the consolidated financial statements.

Other than for SEC reporting, Aegon prepared its Annual Accounts under International Financial Reporting Standards as adopted by the European Union, including the decisions Aegon made with regard to the options available under International Financial Reporting Standards as adopted by the EU (IFRS-EU). IFRS-EU differs from IFRS in respect of certain paragraphs in IAS 39 Financial Instruments: Recognition and Measurement regarding hedge accounting for portfolio hedges of interest rate risk. Under IFRS-EU, Aegon applies fair value hedge accounting for portfolio hedges of interest rate risk (fair value macro hedges) in accordance with the EU carve out version of IAS 39. Under IFRS, hedge accounting for fair value macro hedges cannot be applied to mortgage loans and ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket.

This information is prepared by revising the hedge accounting impacts that are applied under the EU carve out version of IAS 39. Financial information under IFRS accordingly does not take account of the possibility that had Aegon applied IFRS as its primary accounting framework it might have applied alternative hedge strategies where those alternative hedge strategies could have qualified for IFRS compliant hedge accounting. These decisions could have resulted in different shareholders equity and net income amounts compared to those indicated in this Annual Report on Form 20-F.

A reconciliation between IFRS-EU and IFRS is included in note 2.1 to the consolidated financial statements.

If you have comments or suggestions about this report, please contact our offices in The Hague. Contact details may be found on page 436.

References

Throughout this document, Aegon N.V. is referred to as either Aegon or the Company . Along with its member companies, Aegon N.V. may be referred to as Aegon Group or the Group . For the purposes of this report, member companies shall mean, with respect to Aegon N.V., those companies consolidated in accordance with Dutch legislation relating to consolidated accounts.

References to NYSE and SEC relate to the New York Stock Exchange and the US Securities and Exchange Commission respectively. Aegon uses EUR and euro when referring to the lawful currency of European Monetary Union member states; USD and US dollar when referring to the lawful currency of the United States and GBP , UK pound and pound sterling when referring to the lawful currency of the United Kingdom.

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Financial information

Consolidated financial statements of Aegon N.V.

Financial statements of Aegon N.V.

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Other financial information

Additional information

2018 was another year of positive change at Aegon. We have continued to improve our service to millions of customers, continued to simplify and modernize our organization and capitalized on new growth opportunities.

These initiatives stem from a clear purpose and culture fundamentals which define why we exist and will continue to exist, and grow, long into the future. Our purpose is clear, to help people achieve a lifetime of financial security. That requires smart planning, promoting healthy lifestyles and offering the right solutions at every stage of our customers lives. We are clear in the responsibility we have for our customers. We have put forward a robust approach to securing the financial security of our customers retirement and promoting healthy aging in our society.

Serving customers

Our services have never been more necessary than it is today. According to the World Health Organization, over 2 billion people will be over 60 years of age by 2050 almost a quarter of the world s population. This demographic change poses far-reaching challenges for society, governments, business and Aegon. One of the key shifts will be who provides that financial security during retirement. The responsibility is shifting fast from governments and employers to individuals. Though many people are neither equipped with the knowledge nor the resources to protect their financial futures. It is our responsibility to help customers make the right choices.

But it does not end there. There is a clear relationship between well-being and the environment we live in. Toward the end

of 2018, Aegon was entrusted to manage and administer more than EUR 800 billion of investments on behalf of our customers. We are doing so, fully integrating environmental, social and governance factors into our investment analysis. Further to that, we are actively engaging with companies in our investment portfolio to improve their sustainability performance.

Our annual retirement research shows that there is a clear connection between wealth and health. We have therefore taken our commitment one step further, supporting people to achieve prosperity and health through all stages of their lives. We are a vocal participant in debates about the retirement challenge and share our knowledge and expertise with the governments and international organizations we work with. Meeting the dynamic needs of our customers and society, responding to new competition, technological and regulatory change, shapes our DNA. We strive to be future fit: by acting as one in an agile manner, being accountable, and above all, being customer centric. This has led to considerable strategic, operational and financial changes across our company, enabling us to enhance our products and services to meet the evolving needs of our almost 29 million customers worldwide.

There is more work to be done. Our Net Promoter Score (NPS), a measure that captures all aspects of our relationship with our customers, showed a decrease in 2018 compared with

a strong increase the year before. The result only strengthens our commitment to continue to enrich the quality, solutions and support we provide to customers.

Financial results and new medium-term targets

Financially, 2018 was challenging. Markets significantly declined toward the end of the year and this directly influenced the value of our customers investments, which impacted results of our own administration and services businesses. Even so, we further strengthened our capital position. We raised our full year dividend per share based on our strong capital position and the confidence that we can continue the sustainable growth of capital generation. We have achieved two out of three financial targets for the period 2016-2018: realizing cost savings of EUR 355 million and returning EUR 2.1 billion of capital to shareholders. We made significant progress on our third target, a return on equity of 10%. We have focused on increasing capital generation across our units, providing sustainable and diversified remittances to the Group. This gives us the capacity to invest a significant portion back into existing businesses and to drive future growth. In addition, steps to significantly reduce our leverage ratio in recent years have lowered funding expenses and increased our financial flexibility.

We have announced new financial targets for the period 2019-2021. Building on the successes of the previous three-year period, our focus remains on strong capital generation and providing shareholders with attractive returns. Our targets are underpinned by an active portfolio management of our various businesses, which can be grouped into three distinct strategic categories. These strategic categories are differentiated from each other based on the maturity of our businesses. This will allow us to unlock the full potential of our large customer base and market positions while leveraging our capabilities and propositions where they are most beneficial. The first category Manage for Value includes mature, at-scale businesses, which are important sources of capital and earnings for many years to come. We carefully manage their financial and operational risks to ensure that the important cash flows we generate from these businesses are optimized. In the Drive for growth category, we have grouped businesses which are at scale and have strong market positions with attractive, profitable long-term growth potential. This is where the vast majority of our investments will be directed. Propositions in this category are mostly digital or platform-based, with an emphasis on fee income and protection coverage, while focusing on broader and longer relationships with our customers and advisors. Finally, we distinguish our Scale-up for the future businesses with meaningful market opportunity, which help drive innovation. These businesses bring new platforms, new technology and new business models, which can be leveraged across the company.

Simplification and growth

We continue to simplify our portfolio of businesses and lay the foundations for sustained growth in the years ahead.

Specific steps in 2018 included rationalizing our geographical footprint, entering partnership agreements, upgrading our technology and the consolidation of our administration systems. Actions like these have allowed us to remove expenses from our operations, while at the same time freeing up resources to focus on further improving customer experience and reduce time-to-market. We finalized the sale of the Irish operation and divested our businesses in the Czech Republic and Slovakia. Rationalization helps to create the space to focus on higher-growth markets and business lines. In July, for instance, we expanded our successful partnership with Banco Santander in Spain. The new agreement gives Aegon access to an additional potential client base of four million customers. In September, Aegon the Netherlands acquired Robidus, consistent with our strategic objective to expand our position in income protection and grow our fee-based businesses.

In the US, Transamerica entered into an agreement with Tata Consultancy Services to administer the company s US insurance and annuity business lines. Involving over 10 million policies, this transaction offers those customers a unique and enhanced digital platform. Transamerica will see a significant reduction in expenses, and an acceleration in growth through faster product development and state-of-the-art technology. The growth opportunities in the US are in three core areas: integrated solutions to customers in the workplace market, new innovative and fairly priced products for individuals and the level of advice and guidance we offer to our customers. Offering a full suite of products gives us a distinctive competitive advantage. Supporting future growth through modernization and the emphasis on serving the customer has also been a feature of changes elsewhere. In the UK, we strengthened our existing partnership with Atos by signing a 15-year contract to service and administer existing business. This will further improve customer service for around 1.4 million people. In the Netherlands, we are consolidating the administration of pension products into the systems of our subsidiary TKP.

On behalf of Aegon s Management Board, I would like to express my sincere thanks to everyone who has contributed to our success as a company over the last 12 months. In particular, I want to acknowledge and say thank you to our customers, for the trust they continue to place in us; our shareholders, for their support and confidence; and finally, our team of over 26,000 colleagues whose dedication to serving our customers is second to none.

Alex Wynaendts

Chief Executive Officer and Chairman of the Executive Board of Aegon N.V.

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Main events of 2018

2018 was an important year for Aegon. We expanded distribution, strengthened our capital position and signed new service partnerships on policy administration in the US and UK.

First quarter

Transamerica transfers the administration of its insurance and annuity businesses to Tata Consultancy Services (TCS).

Transamerica launches a new USD 100 million US affordable housing fund. The fund is the first of its kind and will finance home loans across 13 states.

Aegon introduces its new Goed met Geld or Mastering Money financial awarei program in the Netherlands.

Second quarter

Aegon Asset Management sets up a new EUR 120 million innovation fund in the Netherlands. The fund will invest in around 85 small and medium-sized Dutch companies.

Aegon completes the sale of Aegon Ireland for EUR 195 million to Athora Holding.

William Connelly becomes Chairman of Aegon s Supervisory Board. He takes over from Rob Routs, who announced his retirement as Chairman in 2017.

Shareholders approve the reappointment of Supervisory Board members Corien Wortmann and Robert Dineen for another four years. Both joined the Board in 2014.

Aegon decides to exclude investments in tobacco. The Company will sell or run off approximately EUR 500 million in current tobacco investments.

Aegon s Center for Longevity and Retirement releases its latest report, calling for a new social contract for pensions and retirement.

Aegon is among investors pledging USD 350 million to support the Dementia Discovery Fund, dedicated to finding new treatments for the disease.

Third quarter

Aegon announces plans to expand its partnership with Spain s Banco Santander. The plans give Aegon access to another four million potential customers in Spain.

Aegon buys Robidus, a leading income protection services provider. The acquisition will strengthen Aegon s existing income protection services for Dutch employers.

Aegon agrees to divest the last of its US life reinsurance business to SCOR Global Life.

Aegon agrees to sell its businesses in the Czech Republic and Slovakia to NN Group. The sale closed in January 2019.

Aegon US subsidiaries reach a settlement with the SEC over concerns relating to certain investment models.

Fourth quarter

Transamerica announces it has settled a US class action suit challenging rate adjustments on universal life insurance policies.

Aegon UK signs a new 15-year contract with Atos. The digital services provider will take over the administration of policies belonging to around 1.4 million customers.

CEO Alex Wynaendts tells a conference in Munich that the Netherlands waited too long before bringing in an individualized pension system.

Aegon decides to exclude investments in oil sands because of concerns over environmental damage. The decision was announced publicly in February 2019.

Aegon generates an additional USD 1 billion in capital following the merger of its Arizona-based variable annuities captive with Transamerica Life Insurance Co.

Performance highlights 2018

For full definitions of non-financial data used in these charts, see page 412.

[1] Figures are based on a new definition of adjusted shareholders equity based on IFRS as adopted by the EU, which will no longer be adjusted for defined benefit pension plans. This new definition was introduced in the second half of 2018 and brings Aegon more in line with peers and rating agencies. Prior figures have been recalculated according to the new definition (refer to page 107 for details).

[2] Normalized capital generation after Holding expenses, excluding market impacts and one-off items.

Aegon today

Global presence

Main brands

Aegon

Australia, China, Hong Kong, Hungary, Indonesia, Japan, Netherlands, Poland, Romania, Spain, Thailand, Turkey, UK

Transamerica

Bermuda, Hong Kong, Singapore, US

Aegon Asset Management

Germany, Hong Kong, Hungary, Japan, Netherlands, Spain, UK, US

Joint ventures and associates

Brazil, China, France, Hong Kong, India, Indonesia, Japan, Malaysia, Mexico, Netherlands, Philippines, Portugal, Singapore, Spain, Thailand, Vietnam

The Aegon brand operates as Aegon Insights in Australia, China, Indonesia, Japan, Thailand and Hong Kong.

The Transamerica brand operates as Transamerica Life Bermuda in Hong Kong, Singapore and Bermuda.

Aegon Asset Management operates under the Aegon brand in the US, the Netherlands, Hungary, Spain, Germany, Hong Kong and Japan, under the Kames Capital brand in the UK and under TKP Investments in the Netherlands.

We also operate under several other brands, including: Knab, TKP, Robidus and Nedasco (Netherlands); World Financial Group (US, Canada); Origen Financial Services (UK); Futuready (Indonesia); Transamerica Ventures and Blue Square Re (global).

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Aegon can trace its roots back to the first half of the 19th century. Nearly 175 years later, we have businesses in more than 20 countries, serving 28.5 million customers worldwide, and with EUR 316 billion in assets under management.

Where our customers are

(total number of customers by location, in millions, end-2018)

Where our employees work

(by reporting segment, end-2018)

Where our earnings come from

(underlying earnings before tax, in EUR million)

How we invest

(assets under management by asset class[2], end-2018)

[1] Total number includes Holding and others (not shown in chart).
[2] Figures relate to Aegon Asset Management only.

Our businesses

Aegon is an international financial services group. We provide life insurance, pensions and asset management. Our main operations are in the US, the Netherlands and the UK. We also have significant businesses in Southern and Eastern Europe, Asia and Latin America.

Our purpose

As a company, our purpose is to help people achieve a lifetime of financial security. This purpose is particularly relevant in today s world as people live longer, healthier lives, new technologies are transforming the way we work, and it is clear that, in many countries, state and company pensions are no longer enough to maintain living standards.

Our products and services

Aegon s businesses offer a range of financial products and services to help customers throughout their working lives and into retirement. These include life insurance, accident & health cover, pensions and retirement plans, annuities, savings products and investments. In some countries, we also offer mortgages, home and car insurance. We insure customers lives, protect their families and help them save for education and retirement. We help them buy new homes, and manage their long-term investments. When they retire, we provide a stable income. We also help our customers meet care costs a growing concern in many parts of the world and ensure, that when they are gone, their families future is secure. In retirement particularly, we see a connection between health and long-term financial security.

Our markets

We have four main reporting segments: Americas, Europe1, Asia and Asset Management. Of these, the Americas is by far the largest, accounting for nearly 60% of our annual earnings. Our holding company, Aegon N.V., is headquartered in The Hague, the Netherlands. Aegon Asset Management manages assets on behalf of third parties and Aegon s own businesses, covering all major asset classes, including fixed income, equity and real estate. We also have Transamerica Ventures our corporate venture capital firm, which invests in innovative, new technology companies. Our businesses operate locally through two main brands: Aegon (mainly in Europe and Asia) and Transamerica (mainly in the US).

In many countries, we have joint ventures; these give us access to local markets and expertise. In Spain and Portugal, for example, we offer products through Banco Santander s more than 3,000 bank branches. We also have significant joint ventures in China, India, Japan, France, the Netherlands, Brazil and Mexico.

For further details on our businesses, see our Business Overview on pages 336-368.

With businesses across the Americas, Europe and Asia, we have the advantages of a global group. We can share talent, knowledge, processes and technologies. We are also more efficient with our capital: alone, our businesses would not be able to diversify risk, and as a result would need to hold significantly more capital. Size can also be important in the investment industry our global presence is the basis for our growing asset management business.

Distribution

In many markets, to distribute our products, we work with intermediaries. These include brokers, agents, banks, employee benefit consultants and independent financial advisors. This multi-channel approach allows us to reach more customers. Increasingly, our products and services are sold direct to customers and companies, including via online platforms. We now have nearly 7.7 million digitally connected customers. Aegon also owns distribution businesses; these include Origen Financial Services in the UK and World Financial Group, which operates in the US and Canada.

Regulation

We operate in a highly regulated industry. Over the past decade, regulation has become increasingly complex. Much of this new regulation was influenced by the 2008-2009 financial crisis. Since the crisis, regulators have emphasized the need for more effective consumer protection. As a result, we have seen tighter controls on product design, distribution and reporting. The biggest change was the introduction of new capital rules in 2016 under Solvency II; an insurer s Solvency II ratio has now become an important measure of its financial strength.

At the same time, we have seen new rules on data privacy both in Europe with the EU s General Data Protection Regulation (GDPR) and with new cyber security legislation in New York and California. Meanwhile, PSD2 (the new EU Payment Services Directive) will bring in more open banking, allowing consumers to share their personal financial data electronically. We are also seeing further efforts to open up Europe s financial services market, via MiFID II, as well as changes in financial reporting rules with IFRS 17 on accounting for insurance contracts (due for

[1] Europe includes Aegon s operations in the Netherlands, UK, Central and Eastern Europe, Spain and Portugal.

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	Americas	Europe	Asia	Asset Management
Locations	US, Canada, Brazil, Mexico	Netherlands, UK, Hungary, Poland, Turkey, Romania, Spain, Portugal	Singapore, Hong Kong, Japan, China, India, Indonesia, Malaysia, Thailand, Vietnam, Philippines, Australia and Bermuda[1,2].	US, UK, Netherlands, Hungary, Spain, Germany, France, China, Hong Kong, Japan
Products and services	Life insurance Accident & health insurance Individual investment accounts Annuities Retirement plan services Stable value solutions Retail and institutional investment management solutions	Life insurance Accident & health insurance Savings Individual investment accounts Annuities Retirement plan services Group pensions Property & casualty insurance Mortgage loans Retail and institutional investment management solutions Bank accounts	Life insurance Accident & health insurance Annuities Marketing and distribution services	Retail and institutional investment management solutions
Distribution	Brokers (e.g. independent financial advisors, broker-dealers, bank arm) Independent agents (including owned or closely affiliated)	Brokers (e.g. independent financial advisors) Agents Employee benefit consultants	Brokers (e.g. independent financial advisors, bank arm) (Independent) agents Bancassurance	Aegon affiliated companies Direct B2B (non-affiliated) Banks, other financial institutions

	Employee benefit consultants Bancassurance Self service/online, call/advice centers	Bancassurance Self service/online, call/advice centers	Self service/online, call/advice centers	and (their) investment platforms (non-affiliated)
Joint ventures and associates	Aegon Mongeral, Brazil (50%) Akaan Aegon, Mexico (50%)[3]	Santander, Spain & Portugal (51%) Liberbank, Spain (50%) Amvest, the Netherlands (50%)	Aegon Sony Life, Japan (50%) Aegon THTF, China (50%) Aegon Life, India (49%) GoBear, various locations (50%)	La Banque Postale Asset Management, France (25%) Aegon Industrial Fund Management Company, China (49%)

1 Bermuda relates to Transamerica Life Bermuda.

2 Asia includes locations of our joint venture GoBear. Financial results of GoBear are reported under Holding and other activities.

3 Akaan Aegon operates under the brand name Akaan Transamerica.

introduction in 2022). Changes in regulation can have a profound effect not only on the way we manage our business, but also on our profitability and the products and services we offer.

Sources of revenues and earnings

Most of our revenues come from three sources: premiums from customers, investment income, and fees and commissions. Our earnings come from fees, spreads, and technical profits.

- Earnings from spreads come from the difference between investment income earned and interest credited to customers.
- Technical earnings derive mainly from the difference between risk premiums received from, and claims paid to, customers.
- Earnings from fees come from charges to customers relating to deposits and assets under management, or from services provided by Aegon (net of fees paid by the Company to third-party asset managers or service providers).

In recent years, we have concentrated more on fee-based business, and less on spread-based business. This is mainly in response to low interest rates and increased capital requirements. This shift makes the source of our earnings more balanced and diverse, and makes our capital base more predictable and less at risk from fluctuations in world financial markets. There is no material seasonality to our sales or income,

though we usually experience an increase in mortality claims in the first quarter (which is winter in our main markets).

Revenues 2018

(in EUR million)

Our business model

Aegon s basic business model has four steps: product development and pricing, distribution, investments and payment of claims and benefits. This model drives value creation for our customers, employees, business partners and investors, as well as for the wider community.

Product development and pricing

We begin with customers. We assess their needs, and develop products and services that meet those needs. Next we estimate and price the risk involved for us as a financial services provider.

Distribution

Our products and services are then branded, marketed and sold. We offer products and services via intermediaries, like brokers, banks or financial advisors. We also sell directly to our customers.

Investments

In exchange for products and services, customers pay fees or premiums. On certain pension products, savings and investments, customers make deposits. By investing this money, we make returns for our customers.

Claims and benefits

From premiums, deposits and investment returns, we pay customer claims and benefits, cover our expenses, and make profits for our shareholders.

Customers also make regular withdrawals from pensions and savings products.

Ownership

Aegon N.V. shares are listed in both Amsterdam (Euronext) and New York (NYSE). More than three-quarters of our shareholders are located in our three main markets: the US, the Netherlands and UK. Shareholders meet at least once a year at our offices in The Hague. Aegon s largest shareholder is Vereniging Aegon, an association whose purpose is to protect the long-term interests of both Aegon and its stakeholders. Vereniging Aegon currently holds 32.64% of voting rights in the Company. However, in the absence of a Special Cause, Vereniging Aegon may only cast one vote for every 40 common shares B it holds. For more details, see page 43.

Value creation

Long-term value creation

Our business creates value for our stakeholders and society. Because of the nature of this business, value created is often financial, but it may also be social, economic or environmental:

Through our products and services, we offer customers protection. We pay claims and benefits, provide returns on savings and investments, and help build long-term financial security.

For our employees, we offer training in new skills and opportunities for career development. We pay salaries and other social benefits, and provide a safe, fulfilling environment in which to work.

For our business partners, we pay fees to brokers, financial advisors and other intermediaries1. We also invest in our joint ventures and partnerships. We pay reinsurers and suppliers for their goods and services.

Our investors receive returns on their investments through regular dividends, share buy-backs and interest payments; they may also gain financially if our share price increases.

For the wider community, we pay fair taxes and provide employment. We also support local communities through donations and volunteering. We take a responsible approach to investments, and contribute to society s current debate on retirement, pensions and healthy aging.

Social and economic role of financial services

Our businesses make a significant social and economic contribution. Insurance, in particular, strengthens social stability by protecting people, property and assets. Financial companies are also significant long-term investors in the economy, funding public and private sectors, creating new jobs and driving business growth. More broadly, financial services allow individuals and businesses to take risks, as well as plan and invest for the future.

Our value creation model

To operate our businesses, we need resources. We need customers; we need investments; we need a workforce and business partners. These resources may be financial , human or intellectual . The chart on page 14 shows our value chain: how our business uses these resources (or capitals) to create long-term value for our stakeholders and the wider community.

[1] In markets where we no longer pay commissions because of local regulations, we enable customer payments for financial advice to brokers and other intermediaries through the sale of our products and services.

Our value chain

[1] This figure relates to financial capital, but has been used as a proxy for social capital (creating a healthier environment).

Explanatory note:

This chart is based on the International Integrated Reporting Council s IR framework. Each capital represents a store of value, which companies use and transform through their business activities. In this process, value may be created or depleted. For the purposes of this value chain, we have chosen the capitals most relevant to our business (financial, human and intellectual, and social and relationship). In the chart, the process is shown from the perspective of Aegon s business. Both natural and manufactured capital are also part of the IR framework.

Neither, however, is directly relevant to Aegon s core businesses (as a services company, we do not use natural or manufactured products in our business, though of course we may affect the value of both through our investments). For more information on the IR framework, see www.integratedreporting.org.

Definitions:

Financial capital represents the funds to which Aegon has access. This includes debt and equity finance. **Human and intellectual capital** refers to individual knowledge, skills and capacities in Aegon s workforce, as well as the company s institutional knowledge, processes and expertise. **Social and relationship capital** covers relationships both within and outside the company. These include relationships with customers, employees, suppliers and other business partners.

See page 422 for details of Aegon s calculation for direct and indirect economic value generated, as well as economic value retained.

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Stakeholder engagement

Our stakeholders

As an international business, we have many stakeholders. Their relationship with Aegon depends not only on the nature of each stakeholder s organization and activities, but also the value created by that relationship (both for the stakeholder and for Aegon). Aegon defines its stakeholders as any individual or organization affected, or likely to be affected, by its business or that may, in turn, affect the environment in which the Company operates .

Aegon recognizes five main stakeholder groups:

Customers (individual customers, group and corporate clients)
Employees (full-time and part-time employees, tied agents, trade unions and other employee representative groups)

Business partners (distributors, joint venture partners, reinsurers and suppliers of goods and services)
Investors (shareholders and bondholders)
Wider community (governments, regulators, charities, tax authorities, community groups and other non-governmental organizations, academic and public institutions).

Aegon s relationships with its stakeholders are based on mutual benefit. Through these relationships, we earn our social license to operate implicit consent from employees, stakeholders and the general public to continue our business[1].

Stakeholder group	Stakeholders provide Aegon with:	Aegon provides stakeholders with:
Customers	Fees, premiums and deposits	Protection and long-term financial security
Employees	Time, resources, skills and knowledge	Salaries and benefits, training, career development, safe and productive working environment
Business partners	Distribution, reinsurance, goods and services	Financial support, payment of fees, expertise and a reliable, professional relationship
Investors	Cash through investment in bonds and shares	Attractive long-term returns for their investments

Wider community	Public services, infrastructure, access to labor and markets, regulatory framework	Payment of taxes, community investment, expertise on aging and retirement, responsible approach to investments

Dilemmas

We recognize that, in creating value for one stakeholder group, we may deplete value for another. In recent years, for example, we have seen significant investments in new technologies in the financial services industry. This investment has improved efficiency, reducing costs for financial companies and strengthening customer service. However, it has also led to job losses, particularly in areas of the industry with clearly-defined processes that can be easily automated. Recent research from PwC estimated just over 30% of insurance jobs, for example, will disappear by the 2030s because of automation[2]. Our asset management business faces similar dilemmas: Aegon s recent decision no longer to invest in tobacco, for example, may reduce investment opportunities, but may also bring wider health and social benefits.

Engagement

Aegon engages with stakeholders to understand these dilemmas. Engagement allows us to take different stakeholder views into account when making our decisions. We engage with stakeholders regularly through polls and surveys, conferences, perception studies, workshops and face-to-face meetings.

We also organize panels with our customers and employees. We use their feedback to improve our products and services, to make sure we are aware of risks and opportunities for our business and can continue to deliver long-term value. Engagement takes place at both local and Group level.

Where appropriate, we also embed this process in our policies and procedures. Our Pricing & Product Development Policy, for example, includes the principle of reasonable distribution of value; this ensures fair returns from our products to customers, intermediaries and shareholders.

We also engage regularly with the companies we invest in. These engagements focus on environmental, social and governance issues. In recent years, we have been particularly active, in this area, on climate change (see page 20). To support this approach, we are signatories to a number of international agreements, including the Global Coalition on Aging and the UN Principles for both Sustainable Insurance and Responsible Investment. For more information, see our Responsible Investment Report, available online.

[1] Companies may lose this license if they do not create sufficient value for the societies in which they operate (or destroy value through, for example, damage to the natural environment or financial wrongdoing)

[2] Source: *Will robots really steal our jobs?* PwC, February 2018

Our operating environment

We operate in a complex environment. We are affected by a host of social and economic factors from financial market performance and new regulation through to changing demographics and the increasing use of digital technology in our homes and offices.

At the same time, customers are demanding more from financial services. Aging means people are spending longer in retirement; older populations also bring more health issues. People need financial products that will not only help them save, but also manage their savings in retirement and ensure they can meet healthcare costs. Currently, only around 25% of people believe they are saving enough for retirement[1].

With products like life insurance and pensions, trust is important. People need to know that, when the time comes, their insurer or pensions provider will pay out their claims and benefits. Trust in financial companies has improved in recent years, but it is still lower than trust in, for example, healthcare providers or technology companies. Even so, people are more likely to trust their friends or peers than companies or institutions. The fact is, profits or a recognizable brand name are no longer enough. To win trust, businesses must act responsibly, build relationships through regular contact with customers, and play their part in tackling social issues like climate change, poverty or health and well-being.

Our business is also changing. We used to be essentially a manufacturer of financial products. Now, we are a provider of financial services. More of our business is fee-based. We are less reliant on income from financial market spreads. In some cases, our businesses also offer products from other providers. Thanks to technology, we know far more about our customers; with access to data, we are putting more emphasis on prevention. If we can use technology to help our customers lead healthier lives, this benefits them and may reduce claims and costs for us as their insurer.

Business and economic conditions

In the past two years, market conditions have generally been favorable, though there are now significant tensions in the global economy. We have seen economic growth in both the US and the Netherlands, as well as in emerging markets like China and India. The Dutch housing market has been booming. In the US, economic growth has been boosted by tax cuts. In the last quarter of 2018 however, stock markets saw substantial declines. Low interest rates continue to act as a drag on earnings and revenue. And growth in the UK has slowed, in part because of concerns over the country s planned withdrawal from the EU[2].

[1] Source: Aegon Retirement Readiness Survey 2018.

[2] See page 75 for more details on our preparations for the UK s withdrawal from the European Union.

Aegon also faces difficult market conditions in Turkey: political uncertainty, higher inflation and a substantial drop in the value of the Turkish lira. Growth could be slowed by disputes over trade. Meanwhile, a strong US dollar may weaken growth in emerging markets, as could worsening credit risk in China.

Our material topics

We conduct a regular assessment of our operating environment. This assessment allows us to identify our most material topics those most likely to affect Aegon (its operations, profits or reputation) or its stakeholders (their financial or personal well-being, their businesses, employment etc.). Results from this assessment are incorporated directly into Aegon s annual strategy, business planning and reporting processes; they help identify emerging risks and opportunities, ensuring that we are able, where necessary, to adjust our strategy or risk management approach to take account of economic, social and environmental developments (for more details, see page 93). Our latest assessment covered 16 different social, financial, environmental, technological and regulatory topics. Of these topics, we identified five as most material (topics which were rated by both management and external stakeholders as having most impact on the Company s ability to create value over the short, medium and long term): reputation & trust, cyber & information security, new technologies & digital transformation, low interest rates and changing consumer behavior.

Blockchain and the protection gap

Blockchain has the potential to revolutionize the financial services industry; we are part of a reinsurance initiative looking at blockchain, known as B3i.

If successful, this initiative will make processing reinsurance transactions much quicker and much more efficient. It should also increase trust. With blockchain, once data is verified and stored, it cannot be changed. B3i began initial testing in October 2017. Alongside Aegon, other leading insurers are also involved, including Allianz, Swiss Re, Zurich Financial, SCOR and Munich Re. Blockchain could have far-reaching benefits arguably, its main benefit is in bringing down the cost of insurance. Reducing that cost would benefit insurers, but it should also make insurance more affordable and help close the current protection gap widest in developing countries, where many people cannot afford private insurance and governments lack the resources to offer state cover.

Materiality matrix

Note on methodology:

To conduct our materiality exercise, we first identified the main economic, social, environmental and governance topics affecting Aegon s operating environment, based on internal discussions and a thorough media review. We then surveyed both senior management and a cross-section of stakeholders[1] to determine which of these topics were most material for the Company. Results were fed into Aegon s annual strategy cycle, beginning in January 2018. This exercise is a central part of Aegon s approach to stakeholder engagement (see pages 93 and 411 for further

information on our materiality exercise). For the December 2017 assessment, we introduced a number of new topics to reflect changes in our operating environment; these new topics included: reputation & trust, cyber security & information security, big data & analytics, attracting and retaining talented employees, changing consumer behavior, partnerships, non-traditional competitors and de-globalization. For results of our December 2016 assessment, see our 2017 Annual Review, available online. In the chart above, arrows indicate movement in topics from the previous assessment; no arrows are included for new topics.

[1] Stakeholders responding to the survey included: customers, employees and regulators in our three main markets (US, Netherlands and UK), representatives of Aegon s European Works Council, financial advisors /brokers, bancassurance and joint venture partners, reinsurers, suppliers, financial analysts, institutional investors, peers, rating agencies, NGOs, and academics. Members of Aegon s Management and Supervisory Boards also took part in the survey.

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For each material topic, we have mapped out below the main risks and opportunities (for both Aegon and its stakeholders)[1]:

Topic: Reputation and trust

Customers want to be with companies they know and trust. For companies, that means providing reliable products and services but it also means acting as a responsible corporate citizen.

Degree of influence or control: We can build trust through our business practices, culture and values. But we are also affected by levels of public trust in the wider financial sector.

Risks and opportunities	Short-term	Long-term
For our business: trust in our brand helps us attract new customers and retain existing ones. It also helps bring in new talent, and opens up business opportunities. In short, without trust, we cannot grow our business. Losing this trust would severely weaken our financial performance and undermine long-term growth of our business.	Short-term loss of trust would affect sales, reputation and profitability.	Longer-term loss of trust in brand leads to impaired business and financial performance.
For our stakeholders: trust secures our license to operate to provide financial security for our customers, employment, and returns for investors. Correspondingly, any significant loss of trust would directly affect our stakeholders through lower returns for investors, for example, or fewer opportunities for our business partners.		Increased trust opens up new market opportunities, with higher sales and customer retention.

Topic: Cyber and information security

With more transactions online, data protection is becoming increasingly important. Regulators are also tightening up data privacy requirements.

Degree of influence or control: Like other companies, we have a direct and immediate responsibility to protect customer data, and ensure our systems are safe and secure at all times.

Risks and opportunities	Short-term	Long-term
For our business: we are spending more on data security. We realize that any breach would mean a loss of trust and potentially a loss of business. Data breaches may also open us up to possible fines from regulators, particularly with the introduction in May 2018 of the EU s General Data Protection Regulation (GDPR). They may also compromise our ability to sell direct to customers, or pay out claims. **For our stakeholders:** for customers, breaches in security may cause personal loss (both financial and emotional). There may also be consequences for relations with suppliers and intermediaries. For investors, any loss of business or reputation could result in lower returns. PSD2 will increase consumers control	Potential loss of business following breach or fines from regulators.	Loss of business and revenues over time; lower profits; opportunity to build greater trust by demonstrating effective data security.

over financial data, but also their responsibility for this data.

Topic: New technologies and digital transformation

The financial sector has adopted new digital technologies in everything from customer service to risk and claims management.

Degree of influence or control: We have direct control over the technology we use and invest in, but we also need to respond to changes in customer behavior as a result of an increased use of technology, particularly in areas like healthcare, travel and financial services.

Risks and opportunities	Short-term	Long-term
For our business: with technology, we can be more efficient, speed up internal processes and save costs. Digital technologies also allow us to get closer to our customers. We have more access to data, which means we understand our customers needs better (see below). We are also investing in automation to improve customer service and protect our customers data. Introducing technology, however, requires investment, both in systems and in new skills. Technology also lowers barriers to competition, particularly from providers currently outside the financial sector.	More access to data on performance and customer preferences; increased efficiency and cost savings.	Increased investment in systems and new skills within workforce; need to retrain employees for new roles as a result of automation; improved and faster
For our stakeholders: there are clear benefits for our stakeholders quicker, more reliable service for both customers and intermediaries. Reducing costs could also mean better returns for our investors. However, increased use of technology has already brought significant job losses, particularly in areas like administration and claims management.		customer service, which could lead to increased retention.

[1] For more information on our approach to risk management, see page 90.

Topic: Low interest rates

In Europe, interest rates remain at historical lows, though in the US rates have been increasing since late 2016.

Degree of influence or control: We have no direct control over interest rates. Benchmark rates are the responsibility of central banks and governments. Longer-term rates, meanwhile, are determined by financial markets (though we do have control over the guarantees we provide to our customers).

Risks and opportunities	Short-term	Long-term
For our business: low interest rates mean lower returns on our investments. That has a negative effect on both earnings and revenues, though this may be offset by higher equity markets. In some cases, returns may not be enough for us to meet guarantees we have on long-term products or to price these products attractively. With low interest rates, however, we have an opportunity to refinance our corporate debt at a lower rate. Over time, low interest rates make it less profitable to offer certain products like annuities, which rely heavily on income from interest rate spreads. **For our stakeholders:** low interest rates also mean lower returns for our customers, especially those with savings products. Some will switch to products less reliant on interest rate returns. Reduced earnings may also mean lower returns for our shareholders.	Negative effect on earnings and revenues, lower returns on investments; opportunity to refinance corporate debt at a lower rate.	Over time, spread business likely to become less attractive.

Topic: Changing consumer behavior

Customers are increasingly digital. They want quick, reliable service, more frequent interaction and simple, easy-to-understand products and services.

Degree of influence or control: We cannot influence customer behavior directly. Our responsibility is to respond to changes in customer needs, in terms of products, distribution and levels of customer service.

Risks and opportunities	Short-term	Long-term
For our business: changes in customer behavior are opening up new markets for us. These markets will provide future growth for our business. At the same time, we need to adapt quickly and change our own culture and way of working, which brings risks: if we do not adapt quickly enough, we will lose business to competitors. **For our stakeholders:** in any organization, culture change is not easy. It makes new demands of employees and management. But change also brings opportunities for development. Adapting successfully should benefit customers (through better products and services). It will also benefit investors through improved earnings and higher returns.	Opens up new markets and forms of distribution and partnership, as well as new products and services.	Need for additional investment in new technologies and new skills.

Climate change

Climate does not rank highly in our materiality assessment[1]. However, we carry out a regular review of climate risk. This is partly in response to stakeholder expectations partly because we recognize the potential impact of climate change on both our business and on the communities in which we operate.

Our review showed only minor direct risks to Aegon s businesses; our principal risk is reputational. The assessment covers several areas: these include regulatory, strategic, underwriting and investment risk. All risks are assessed for both impact and likelihood. There are nine risks in all. Most were rated either unlikely or extremely unlikely , including those with the highest

potential impact on our business. One risk was categorized as likely negative media coverage of our investments (this, according to our assessment, would have a moderate impact on our business).

We have measures in place to counter climate risk. These include monitoring of new regulations, business continuity plans and regular analysis of investments.

Our review is overseen by our Climate Working Group (CWG); the CWG s work is based on recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD), published in 2017.

1 Social and environmental impacts of business activities and investments is also included in Aegon s materiality assessment. In the latest assessment, this topic ranked relatively low in importance both to management and our stakeholders. For more information about investment risk related to climate, see the Aegon Responsible Investment Report, available online. For details of our materiality assessment, see page 18.

Our strategy

Driven by our purpose, we believe everybody deserves a secure future. Our strategy is about building life-time relationships with customers, to create financial security and well-being throughout their lives. Our strategy helps us address material topics important to our customers, employees, investors and other stakeholders.

Our vision

For us, creating this secure future means smarter, long-term financial planning. It means the right financial products and services at every stage of life. It also means healthier lifestyles, redefining what we want from retirement, and it means building a cleaner, healthier environment. In each of these areas, we believe Aegon has a positive contribution to make: in helping people achieve financial security; in speaking out on retirement and healthy aging; in using our influence as an investor on environmental issues, and in supporting the UN s sustainable development agenda. To implement this responsible business strategy, we are also changing the way we do business. Over recent years, we have built a strong foundation restructuring our businesses, and investing more in new technologies and growth markets. As a result, we are more efficient and more focused on sustainable growth and the value we can create over the long term, for both our customers and the wider community. To support the implementation of our strategy, we have set ourselves financial targets for the period 2019-2021 and have selected six non-financial indicators; these will be used to assess progress against specific aspects of our strategy.

For individuals: financial security and well-being

This goes to our purpose as a company. In many countries, we know people can no longer rely on state or company pensions and benefits. They need to take more personal responsibility for their finances. To help them, we are investing in new digital technologies. For our customers, this means instant access to their finances, so they can track their savings and investments. And we are putting more into financial education; to take personal responsibility, people need information and knowledge. In the Netherlands, for example, we have the Goed met Geld or Mastering Money program. By the end of 2018, more than 100,000 people had completed the program s basic financial awareness test.

At the same time, we are investing in new business models models, which make use of these new technologies. In the UK, for example, we have created Aegon Retirement Choices (ARC). With ARC, customers and their financial advisors can manage individual pensions, assets and savings through a single, easy-

to-access platform. We are simplifying our products, expanding distribution and stepping up workplace marketing offering pensions and other products through employers. Aegon now has 11 million workplace customers in our three main markets: the US, UK and the Netherlands. We want to serve customers throughout their working lives and into retirement. We realize that customers need us most at crucial points in their lives: when they buy a home, have children, or prepare for retirement, for example. We also want to increase interaction with customers we are in an industry where, traditionally, there is very little direct contact. More frequent interaction helps us improve customer service. We believe it will also strengthen trust in our brand, and flow through eventually into higher sales.

See page 39 for more information on how our approach to financial security and well-being contributes to these UN Sustainable Development Goals.

For society: secure retirement and healthy aging

We know the world is getting older. People are spending much longer in retirement. In 1950, you might expect to have lived another 13 years after retirement. Now, that figure is more than 20 years[1]. For many people in the US, Europe and Asia, outliving your savings has become a real possibility. At the same time, the cost of long-term care is rising. Aging is driving real change in our business it is putting pressure on state and company pensions; in response, it is clear people will need to take more personal responsibility for saving for their retirement.

[1] Source: UN World Population Prospects, 2017 (life expectancy at age 65 was estimated at 13.47 years in 1950-1955 and at 20.91 years in 2020-2025).

For decades, retirement systems in many countries relied on an implicit social contract between government, employers and individuals. Recently, this social contract has started to fall apart.

In 2018, the Aegon Center for Longevity and Retirement called for a new deal - one that would give people the resources they need to save and invest for retirement, but also ensure the more vulnerable in society are not left behind. The Center s recommendations included sustainable social security benefits to provide a financial safety net for pensioners, automatic pension plans that make it easier to save, and affordable healthcare to promote healthy aging. The proposals would also mean a step-up in financial education to make sure people have the right knowledge to make investment decisions and an important role for companies in offering their employees proper workplace savings plans, skills training and healthcare. The Center s recommendations were published in May 2018. Since then, they have formed the basis of Aegon s position on pension reform and retirement.

Our aim is to become a thought leader on retirement and healthy aging. We invest in research through the Aegon Center for Longevity and Retirement (ACLR), and its sister organizations in the US and Brazil. We have also built a network of partnerships to push for change and reform in the way we manage retirement, healthcare and aging. As part of this network, we work with the Global Coalition on Aging, the American Association of Retired Persons (AARP), the VU University Alzheimer Centre and the MIT AgeLab.

We also have supplemental health and long-term care businesses in the US. In the UK and the Netherlands, we invest in care homes for the elderly. In 2018, we supported a new Dementia Discovery Fund and stopped investments in tobacco; smoking is a leading cause of many of the chronic illnesses pushing up healthcare costs.

Today, we are more likely to see retirement as a new, potentially exciting phase of our lives. However, we are still not saving enough for our pensions our own research shows that nearly half of people believe that, because of the economic and social consequences of aging, future generations will be worse off than their own. With this work, we want to change attitudes to retirement, health and aging and encourage more people to save and invest for the long term.

See page 39 for more information on how our approach to secure retirement and healthy aging contributes to these UN Sustainable Development Goals.

For the environment: clean energy and sustainable real estate

As an investor, we have an important role to play in supporting new low-carbon technologies, and improving the carbon footprint of our real estate investments, so we contribute to a cleaner, healthier environment.

Climate change has been a focus of our investment strategy since 2014. We have built consideration for climate change into our daily investment decisions. We have stopped investing in many coal-mining companies. In February 2019, we also stopped investment in companies involved in oil sands[1]; prior to the decision, we had approximately EUR 500 million in these investments. Aegon has also signed up to the Dutch national climate agreement, which looks to reduce the Netherlands overall carbon emissions. Where possible, we use our influence as an investor to persuade companies to reduce their impact on the environment. We engage with them on issues like scenario planning, disclosure and water management to increase our understanding of climate-related risk.

At the same time, we are investing in clean energy. At the end of 2018, our investments in this area were worth more than EUR 570 million, mainly in wind power and solar energy tax credits. Alongside renewables, we also invest in green bonds, smart energy storage and smart grids. We encourage greater energy efficiency through our real estate investments for example, we are renovating properties in our Amvest fund in the Netherlands. We want to achieve an average B label for energy efficiency; currently, more than half of these properties are rated E or F (A is the highest). To Dutch customers,

[1] Aegon excludes investment in:
- companies deriving 30% or more of their total production from oil sands.
- pipeline companies involved in the transportation of oil sands.

we offer green mortgages. We have also built consideration for climate into our Responsible Investment and Sustainable Procurement policies.

See page 39 for more information on how our approach to clean energy and sustainable real estate contributes to these UN Sustainable Development Goals.

Building a strong foundation for our business (2016-2018)

To pursue our strategy, we need to have a business that is fit for purpose. Over the past several years, we have been through significant restructuring and simplification. We have sold businesses, and invested more in areas we believe will bring us growth. We have also reduced costs, redesigned products, tightened internal controls and strengthened our capital position. We have had to adapt our products to new circumstances volatile stock markets and low interest rates, particularly in Europe. Most of this restructuring is now behind us; we are already seeing the results in lower costs and better returns for our shareholders.

Optimizing our portfolio of businesses

Since 2016, we have sold several businesses. These businesses included our US BOLI-COLI[1] and life reinsurance operations, as well as UMG, our distribution company in the Netherlands. We have also sold annuities books in both the US and UK and have exited Ireland, the Czech Republic and Slovakia[2]

These divestments have allowed us to invest elsewhere in businesses we believe will bring future growth. Generally, these businesses are digital or platform-based; they use less capital, provide earnings from fees, have shorter pay-back periods and offer us an opportunity to sell more products and services to existing customers. In the UK, for example, we now have the country s leading investment platform, with GBP 120 billion in assets under administration. In the Netherlands, we have been expanding our banking services, including Knab, our online bank. We have also invested in distribution for example, we have expanded our partnership with Banco Santander in Spain and Portugal.

As a result of these changes, approximately two-thirds of our earnings now come from newer, growth businesses. We expect this to increase in the coming years. The rest comes from other

businesses, like our Dutch life insurance operations, which tend to be lower growth, but which still generate cash and earnings for the Group.

Increasing efficiency

We have also worked hard to improve our efficiency. This increases profitability, and helps us deliver quicker, more reliable customer service. We have cut back costs and put in place extensive hedging programs to reduce risk. In the

US and the Netherlands, we have been simplifying our back-office systems, introducing new, more efficient IT platforms. We estimate that automating internal processes will bring significant savings. Using artificial intelligence also helps reduce fraud. At the same time, we have been investing in digitalization encouraging more customer self-service and adding mobile apps. In both the US and UK, we have transferred policy administration, improving customer service and speeding up product development. With more services transferred to external providers, we have strengthened our global procurement department; this will help bring down costs and ensure effective controls over these services.

Improving product pricing and control environment

We have controls embedded in our processes and systems; this is to ensure we have strong and adequate risk and management control important if we are to retain trust, particularly among customers and investors. In 2018, we settled two cases in the US; one linked to concerns over investment models, the other to rate adjustments on life insurance policies.

To ensure we have effective controls, we have a Control Excellence program. As part of this program, we have recently strengthened IT controls and checks on fraud. We have also tightened controls on financial reporting and revalidated many of our actuarial models. Our goal is to have management controls across the Group that are both predictable and consistently applied.

In some areas, we have also reviewed product pricing and design. We increased rates in our long-term care and universal life businesses, for example and repriced variable annuities in the US and Japan. We have also introduced a stricter approach to pricing; this includes targets for returns and pay-back requirements. Our approach should mean better margins and avoid unprofitable sales, which weighed on our performance in the past.

Maintaining a strong capital position

A strong capital position is an important part of Aegon s strategy. It protects our business against fluctuations in world financial markets and ensures that, in turn, the Company continues to pay customers claims and benefits as expected. As a Group, we have a strong capital position. At the end of 2018, our Solvency II ratio a measure of our capital strength stood at 211%[3], above our 150%-200% target range.

[1] Business and Company-Owned Life Insurance.
[2] Sale of Aegon s businesses in the Czech Republic and Slovakia closed in January 2019.
[3] Estimate only. Solvency II ratios are subject to review by regulators.

Our main businesses are all well within, or above, their own target ranges. Aegon s stronger capital position is the result of both improved capital generation from our businesses and continued investment in less capital-intensive products and businesses. Meeting our capital targets also increases flexibility to return capital to our investors.

Over the past three years, to support our strategy, we have made significant changes at our businesses:

Americas

In the US, we introduced a five-point plan: to sell off non-core businesses, overhaul our products and distribution, save on expenses, reduce our geographical footprint and improve management of existing policies. As part of this plan, we transferred some of our policy administration to Tata Consultancy Services (TCS). In time, this is expected to save us USD 100 million a year. With this partnership, 2,000 employees moved to TCS. We also sold our pay-out annuities and BOLI-COLI businesses, as well as the last of our US life reinsurance activities. We simplified our organization in the US, closing offices in three main locations: Los Angeles (CA), Folsom (CA) and West Chester (OH) and exited distribution channels like direct TV and direct mail that were no longer core. We simplified our product portfolio by eliminating 20 products. This will allow us to devote more resources to customer service.

Europe

In the Netherlands, Aegon is concentrating on pensions, income protection and mortgages. In recent years, we have seen a sharp decline in premium income from defined benefits pensions and individual life insurance. In difficult financial conditions, there is also increased pressure on capital. In response, Aegon has taken steps to reduce risk, and sold UMG, its distribution business in the Netherlands. We also injected more capital into our Dutch operations and, since the end of 2015, have cut costs by EUR 79 million. At the same time, we have invested more in fee-based products and products that require less capital. We have also been expanding our banking business. Aegon Bank already has over 600,000 customers. Knab, our online bank, has branched out from simple current accounts; it now offers a range of financial products, including mortgages, savings, insurance, business accounts and investments. Overall, banking now makes up around 20% of our underlying earnings from the Netherlands.

In the UK, we have repositioned our business. In 2016, we sold our annuities book, and made two important acquisitions: Cofunds and BlackRock s UK workplace pension business. Over the past year, we have been busy switching assets from these acquisitions onto our UK investment platform. Most of these migrations are now complete, though we expect a final tranche in early 2019 with the inclusion of business from UK building

society Nationwide. We also announced the transfer of some policy administration. Atos will take over administration of policies belonging to around 1.4 million UK customers not currently on our investment platform. Over time, the new contract will save us GBP 30 million a year, and bring down our costs per policy by around 40%. We expect partnership to be effective as of mid-2019. In making these changes, Aegon in the UK has moved from providing insurance to pensions and long-term savings. And, in doing so, we have digitized our business, focused on key products for our customers, and sharply reduced our credit and longevity risk. Currently, Aegon has more than 20% of the UK s retail-advised platform market[1]

In Southern and Eastern Europe, we sold our businesses in the Czech Republic and Slovakia. We also withdrew from the mortgage and home savings markets in Hungary. At the same time, we expanded our distribution agreement with Banco Santander. With this expansion, we will have access to 14 million customers across Spain and Portugal.

Asia

We regard Asia as a long-term growth market. There, we have been concentrating on high-net-worth customers through Transamerica Life Bermuda. We are also putting more emphasis on digital, and have taken steps to reduce costs and improve capital management. In India, Aegon Life is now direct only. In China, 95% of our policies are issued digitally. Our joint venture GoBear has 15 million users across Asia for its comparison website. In Japan, we have been less successful. We recently repriced our products. We are currently reviewing our business there with our joint venture partner Sony Life.

Asset Management

Over the past several years, Aegon s asset management operations have been growing steadily. Since 2010, our earnings from asset management have more than trebled[2]. We have used our traditional strength in fixed income to expand. We have seen positive net inflows from third-party clients in each of the past seven years; that has more than offset outflows from Aegon businesses (as units have shifted to more fee business, they have brought down risk, changed mandates and reduced their reliance on investment returns). Aegon Asset Management s recent growth is built partly on our partnerships in France, with La Banque Postale Asset Management (LBPAM) and in China with Industrial Fund Management Company (IFMC). These partnerships give us access to strong distribution. LBPAM has access to the French Post Office s more than 17,000 branches across France. Internally, we have restructured Aegon Asset Management. We have created a single organizational structure, and combined our European sales teams to improve efficiency and decision-making.

1 Source: Fundscape.

2 Underlying earnings before tax (2010: EUR 46 million; 2018: EUR 151 million).

Sustainable growth (beyond 2018)

Having built a solid foundation for our business, our focus now is on sustainable growth in all senses of the word. Almost half the capital we currently generate goes back into our business. In the next few years, we will:

- Expand our customer base; this will be done through new products and services, new forms of distribution or new business models. We also would like our customers to buy more products so, as they progress through their careers, they move from a workplace pension, for example, to insurance, protection and investment products. Our aim is to build lasting, life-long relationships with our customers.
- Increase efficiency; we will do this by simplifying our processes and corporate structures[1], transferring administration and investing in new digital technologies. We expect this will help us expand our customer base, and ensure customers we already have stay with us for longer. Investing in automation, meanwhile, will speed up customer service and further help us protect our customers data.
- Capitalize on the advantages of being a global group; this means: we are able to diversify risk and sources of income; we can also attract and retain talent, share innovations and technology and build a strong, global asset management business.
- Invest more in growth businesses; we have grouped our businesses into three categories: Manage for Value these are businesses that are already at scale Drive for Growth , where we have leading market positions, and Scale-up for the Future , where we believe there are significant opportunities (see charts below). Our Scale-up for the Future businesses include, for example, mutual funds in US, our joint ventures in Asia, and our growing banking and services business in the Netherlands.

Across our main businesses, we have strategies to put this approach into practice:

Americas

In the US, we will modernize our processes and systems. Our partnership with TCS means we can concentrate on faster product development, improving customer service and expanding our use of technology. We will build a single platform for workplace sales, covering pension administration, life and health, and managed financial advice. We already have six million workplace customers in the US at more than 40,000 companies. Digital technology and our mobile-first approach will help us get closer to customers and drive sales of additional products. We are the only US provider with a top-ten position in workplace-sold pension administration, voluntary employee benefits and long-term care[2]. We are focusing on wealth and health a particularly important issue in the US. Americans spend over USD 10,000 a year on healthcare, more than double the OECD average[3].

[1] To simplify our corporate structure, we will merge two of our US life insurance companies (Transamerica Advisors Life Insurance Co. and Transamerica Life Insurance Co.). At the same time, in the Netherlands, we will merge TKP

Investments with Aegon Asset Management.

[2] Source: Plansponsor and LIMRA, full year 2016. Note: rankings refer to workplace market only.

[3] Sources: Organization for Economic Cooperation and Development (OECD): Spending on health latest trends (June 2018).

Capital allocated by strategic category

(IFRS, 2018, in %)

Normalized capital generation

(cumulative over three years, in EUR billion)

Europe

In the Netherlands, we will focus on income and living . We want to consolidate our leading position in pensions, and move more workplace customers into individual pensions and investments. We also want to grow our mortgage and income protection services. In banking, we will continue to look for growth, particularly through Knab, our online-only bank, and by selling more investments through independent financial advisors. We will also aim for profitable growth in our property & casualty and accident & health activities and shift more to fee businesses. At the same time, our aim is to scale up distribution in part by working through external partners. We will also look to play an active role in the consolidation of the Dutch insurance market.

In the UK, we will tap into the growing investment platform market. We expect this market to expand by approximately 17% each year through to at least 2022[1]. With much of our administration now handled outside the Company, our goal is to attract new customers, and use our scale to bring down costs. We will also look to sell more protection products, and investments alongside platform administration services.

In the rest of Europe, we will bring our businesses closer together. By sharing knowledge and expertise, we can reduce costs and improve customer service. In Hungary, we will look to protect our market position by investing more in IT. In Poland, we will focus on pensions our insurance business has been shrinking. In Turkey, we are looking for growth despite difficult market conditions. In Spain and Portugal, we will pursue growth, particularly through our partnership with Banco Santander.

Asia

In Asia, we want to continue our recent growth. Over the next several years, we will focus on three important markets: China, India and Indonesia. Key to our strategy is reaching beyond high-net-worth customers, and to increase sales to the region s burgeoning middle classes.

Asset Management

In asset management, we will look to build on recent progress. We want to grow our third-party business, particularly through fixed income and alternative investments (like mortgages and real estate equity). We will also deepen our partnerships in France and China, extend our responsible investment approach and refocus our sales in Europe and Asia.

Allocation of resources

Our priority is organic growth in other words, growing existing businesses from our own resources. Any acquisitions are likely to be bolt-on to add scale to our current businesses or give us access to new customers. We have much less capital committed to run-off businesses than previously; this also frees resources for investment elsewhere and reduces the drag effect on our return on equity. We plan to increase returns to investors. Aegon has increased dividends for shareholders in each of the past seven years. Meanwhile, through retained earnings, we expect to reduce our gross financial leverage ratio to the lower end of our current 26%-30% target range. In 2018, we redeemed more than EUR 1 billion in debt and capital instruments; at the same time, we issued EUR 643 million in new debt at a lower rate. This results in lower debt service charges as well as increased financial flexibility for the Group as a whole.

[1] Source: Fundscape, five-year platform projections, January 2017. NMG Advisers, Platforum. Total assets under administration in the UK are expected to exceed GBP 1 trillion by 2022.

Total revenue-generating investments

(in EUR billion)

Expected growth in UK investment platform market

2008 2021 (AuA in GBP billions)

Source: see footnote 1 on this page

AuA: Assets under Administration

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Culture and values

To implement our strategy successfully, we need the right corporate culture. We want to build a flexible organization one that has the customer at the center of its decision-making.

In 2016, Aegon introduced Future Fit. This program sets out four themes. For each theme, we have defined specific behaviors:

Theme	Acting as one	Customer centricity	Agility	Accountability
Behaviors	Building on each other s skills and knowledge Realizing we are stronger together No more working in silos Collaborating across boundaries and businesses	Putting the customer at the heart of Company decision-making Strong focus on people and outcomes Combining digital with the human touch	Accepting the idea of constant change Willing to learn, experiment and, on occasions, fail Seeking feedback from others	Owning both the problem and the solution Valuing new initiatives Recognizing and rewarding success Being honest about mistakes

By adopting these behaviors, our aim is to create a company that is fit for the future one that meets customers expectations, is right for our digitally-connected, data-driven world, and can adapt quickly to changing market conditions; this is important if we are to compete with smaller companies that face less regulation and are able to deliver services more quickly. Future Fit behaviors have been incorporated into performance appraisals, training and remuneration. They also form part of Aegon s leadership development programs. In the Netherlands, Future Fit has been written into our collective labor agreement with trade unions.

Implementation of Future Fit is the responsibility of local businesses. We monitor performance through regular employee surveys. Our latest survey, carried out in November 2018, showed slightly lower scores for Acting as one (74% compared with 75% the year before), Agility (62% compared with 64%) and Customer centricity (72% compared with 74%). Accountability, however, rose to 70%, up from 68%.

As a next step, we will be including Future Fit behaviors in our recruitment. This is important: first, to ensure we recruit the right people for our business and strategy; second, to build a culture focused on long-term value creation.

Future Fit complements our core values. These values form part of Aegon s Code of Conduct, which applies to all employees worldwide. They are also built into our approach to recruitment and performance appraisal. We require our employees to behave in a way that is consistent with the highest ethical standards to ensure we remain a trusted partner for our customers. Aegon s Code of Conduct sets out rules and guidelines in different areas, including legal and regulatory compliance, insider dealing, discrimination in the workplace, money laundering, corruption and bribery, protection of personal data and fair treatment of customers and other stakeholders. In addition, Aegon has a 24-hour Global Ethics Line; this allows employees and other stakeholders to report suspected violations of the Code in confidence.

For more information on Aegon s Code of Conduct, see page 69.

Results, performance and targets

In 2018, we faced difficult market conditions; share prices declined sharply toward the end of the year. This affected the value of customer investments, and reduced income from our administration and services businesses. Our earnings were also affected by a series of one-off charges.

During the year, we paid more to investors combined, our dividends and interest payments increased by over 19%. Our employee engagement score at 65 was unchanged from

the previous year. In relation to customers, our Net Promoter Score (NPS) overall showed a decrease; Aegon businesses ranking in the top half of their markets was down at 41%.

Financial results

In EUR million	2018	2017	% change	Performance
Underlying earnings before tax	2,074	2,140	(3%)	During the year, we had expense savings across our businesses and higher earnings from Spain & Portugal, the Netherlands and UK. This was offset, however, by the effect of the sale of UMG, our Dutch distribution business, as well as worse-than-expected claims experience and lower earnings from retirement plans in the US.
Net income	711	2,469	(71%)	Net income decreased mainly as a result of one-off charges; these related to four items: Settlement of a class action lawsuit with US universal life policyholders Changes to our mortality and lapse assumptions in the Netherlands Book losses from the sale of Aegon Ireland and our US life reinsurance business

				By comparison, our 2017 net income was boosted by a one-off tax credit.
				Fair value items also showed losses in 2018 the result mainly of lower stock markets and underperformance in our alternative investments. For further details on 2018 results, refer to Results 2018 worldwide starting from page 106.
Gross deposits	121,700	125,776	(3%)	
				Gross deposits were affected by decreases in our UK platform and asset management businesses. During the year, these more than offset strong inflows into our Dutch mortgage funds.
New life sales	820	896	(9%)	
				In the US, we had lower sales of term and indexed universal life insurance; sales to high-net-worth customers in Asia were also down.
Return on equity [1]	10.2%	9.3%	+0.9 pp	
				Return on equity (RoE) improved, thanks in part to the effect of recent US tax reforms but fell short of our 2018 target. We also changed our definition of shareholders equity which affected calculation of our RoE (see page 107 for details). Based on the previous calculation, RoE for 2018 would have been 9.3% (compared with 8.4% in 2017).
Solvency II	211%	201%	+10 pp	
				Aegon s capital position remained strong well above our Solvency II target range of 150%-200%; our Solvency II ratio increased during the year, despite unfavorable market conditions; this was due mainly to further capital generation during the year and management action to increase capital efficiency. Solvency ratios in our three main units the US, Netherlands and UK all remained within or above their target zones.

[1] This is calculated using shareholder s equity based on IFRS as adopted by the EU.

pp percentage points

Non-financial performance

Aegon has six global non-financial indicators; these indicators are tied directly to specific aspects of our strategy; they also help us address material topics and measure progress toward our objectives as both an employer and a provider of financial services.

Metric	2018	2017	% change	Aspect of strategy supported by indicator
Benchmarked Net Promoter Score (% of Aegon businesses ranked in top half against peers)[1]	41%	45%	(4 pp)	Customer centricity
Number of customers	28.5 million	28.1 million	1.3%	Growth/customer centricity
Number of new customers	3.8 million	NM	NA	Growth/customer centricity
Number of customers with two or more products (% of total number of customers)	5.2 million (18%)	NM	NA	Lifecyle approach
Number of digitally connected customers (% of total number of customers)	7.7 million (27%)	7.0 million (25%)	9.9%	Digitization/customer centricity
Employee engagement score	65	65	Unchanged	Customer centricity (winning outside starts inside)

1 NPS figures cover Aegon businesses in the US, the Netherlands and UK. Results are weighted by number of customers. See also note to chart on page 30.

NA not available

NM not measured

pp percentage points

For more information on these indicators, please refer to pages 30 (Customers) and 32 (Employees).

Financial targets and performance

2016-2018

To support our strategy, we had a series of financial targets for 2016-2018 (see table below). These targets addressed return on equity, expense savings and returns to shareholders. For both expenses and returns to shareholders, we met our targets; for return on equity, we saw an improvement over the three-year period, but failed to meet our 2018 target.

Metric	Target	Performance	Realized
Return on equity [2]	10%	9.3%[1]	
Expense savings (run rate, annualized)	EUR 350 million	EUR 355 million	
Capital returns to shareholders (cumulative, 2016-2018)	EUR 2.1 billion	EUR 2.1 billion	

1 Using the changed definition, return on equity for 2018 is 10.2%. See page 28 for details.

2 This is calculated using shareholder s equity based on IFRS as adopted by the EU.

Please note that we decided to discontinue our annual sales growth target before the end of the target period. This was because we felt the metric did not properly reflect Aegon s underlying strategy.

2019-2021

Aegon has now introduced new three-year financial targets, covering the period 2019-2021. These targets focus on sustainable growth, capital generation and ensuring attractive returns for the Company s shareholders.

Metric	Target
Normalized capital generation after holding expenses (cumulative, 2019-2021)	EUR 4.1 billion
Dividend pay-out ratio (% of normalized capital generation)	45%-55%
Return on equity (annual target)	>10%

The current capital framework and related Group target range remain unchanged for the years 2019-2021.

Metric	Target	Current performance (end 2018)
Solvency II ratio	150-200%	211%
Holding excess cash	EUR 1.0 billion EUR 1.5 billion	EUR 1.3 billion
Gross financial leverage ratio	26%-30%	29.2%

Over the period, our aim is to maintain a capitalization required for a minimum AA- financial strength rating (for our current ratings, see page 80).

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Value created and shared with our stakeholders

In the following pages, we detail the value created in 2018 by Aegon and shared with its main stakeholder groups: customers, employees, business partners, investors and the wider community. Given the nature of our business, much of this value is financial, but we also create social, economic and environmental benefits.

Customers

Claims and benefits

To our customers, we provide significant financial benefits. These include pensions, payment of insurance claims and returns on their savings and investments. For our customers, this money may represent a source of income, or provide resources needed to meet healthcare costs or repair a damaged home. In 2018, total claims, benefits and plan withdrawals increased to EUR 53.6 billion, up from just over EUR 48 billion the year before[1]. Alongside these financial benefits, we also manage investments for our customers. At the end of 2018, we were managing and administering more than EUR 800 billion on behalf of Aegon customers.

Customer loyalty

Our goal is to create a positive customer experience; this means high-quality financial products and excellent customer service. We measure our performance in this area through the Net Promoter Score (NPS). In our measurement, we include only individual customers. NPS assesses customer loyalty rather than satisfaction in other words, the likelihood that customers will recommend Aegon to their friends, colleagues and family[2]. NPS is embedded in our sales and marketing processes; we also use the measure to help determine executive pay.

Where possible, we benchmark NPS scores against peers. In our main markets, our ambition is to be the most recommended financial services provider. Our businesses saw a significant increase in NPS in 2017 the result primarily of efforts to speed up our processes and improve customer service,

as well as our strong brand in the US. In 2018, however, our NPS scores decreased. According to our latest surveys, 41% of our businesses in the US, the Netherlands and UK rank in the top half of their respective markets, down from 45% in 2017. Businesses ranking in the bottom quartile increased sharply to 54% (see all NPS results by quartile on page 408). Scores for our US retirement business were lower this more than offset a higher ranking for our Dutch mortgages business. In several markets, our NPS scores improved, but we failed to match improvements by competitors. In response to these results, we will look to increase contact with customers, establish a more emotional connection and provide an effective, personalized customer service.

In addition to NPS, we use a number of other measurements to assess value created for customers and progress with our strategy. These include our total number of customers and new customers as well as the percentage of customers who are digitally connected and those with two or more Aegon products.

By the end of 2018, we had 28.5 million[3] customers, an increase of 1.3% from the previous year. During the year, we added just under 3.8 million new customers. Customers with two or more Aegon products totaled 5.2 million, approximately 18% of our customer base.

Some 7.7 million of our customers were digitally connected just over 27% of our customer base. These customers have online access to accounts, products and services. For customers, the benefit is generally convenience and ease of use; we can also provide tailored information directly to connected customers.

1 Please note that customer claims, benefits and plan withdrawals is separate from policyholder claims and benefits (included in our income statement). For more information, see pages 171 (Note 2.29 to the financial statements) and 219 (Note 12).

2 For definition of NPS, see page 413.

3 Our 2017 figure for total customers has been restated. For more details, please see page 408.

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We also measure customer complaints. In 2018, complaints increased by almost 20%. Complaints were lower in both the US and the Netherlands, but this was offset by increases in the UK and in Hungary; the increase in the UK was due mainly to the inclusion for the first time of complaints from Cofunds. Complaints relating to digital privacy also rose significantly, following the introduction of the EU s General Data Protection Regulation (GDPR); these complaints, however, accounted for less than 0.8% of total customer complaints.

Responsible products and investments

Among our products and services, we offer specific financial products for vulnerable groups and socially-responsible investment funds (SRI). In several countries, we sell products for customers on low incomes for example: our My Family micro-insurance product in Brazil and low-cost life insurance in Romania. We also provide support to those facing chronic

illness. In China, our critical illness coverage offers protection against both diabetes and cancer; we also have products that help customers suffering from cervical and breast cancer. In addition to our products, we also support a number of financial education programs in many countries, people are taking more personal responsibility for their finances. In the Netherlands, for example, we pay for budget coaches to help customers in financial difficulty. In the US, we work closely with the National Foundation for Credit Counseling. We also offer lessons, online seminars and clinics for members of the public.

For our customers in the UK, the Netherlands and Hungary, we have SRI funds. At the end of 2018, these funds had EUR 3.4 billion under management, almost 80% more than they had five years before thanks primarily to growing demand among retail investors for a more ethical approach to investment.

Benchmarked NPS performance vs. peers[1]

(% of Aegon businesses in top half vs. peers)

Increase in SRI funds under management[2]

(2013-2018, in EUR billion)

1 Chart shows NPS performance benchmarked against peers for all Aegon businesses in the Netherlands and UK, plus our retirement, life insurance and mutual funds businesses in the US. Results from Knab, our online bank in the Netherlands, have also been incorporated. Figures show percentage of businesses in top two quartiles, weighted by customer numbers. Figures for 2017 and 2016 have been restated; this is to reflect changes in weighting and to exclude results from Hungary (which had been included in previous years).

2

In addition to our funds in the UK, Netherlands and Hungary, we also have separate sustainability funds in China. At the end of 2018, these funds had another EUR 0.7 billion under management.

Employees

Salaries and benefits

In our approach to salaries and benefits, we strike a balance. It is important that we control expenses. At the same time, we need to pay fair, competitive salaries if we are to attract and retain talented staff. Aegon s approach in this area is set out in our Global Remuneration Framework. This contains several important principles, including pay for performance . Pay is tied directly to regular performance appraisals. To assess performance, we use both financial and non-financial metrics (the precise combination depends on an individual s position and seniority). We have provisions ensuring that incentives and variable pay do not compromise integrity (in the case, for example, of internal audit employees) and do not encourage excessive risk-taking. In 2018, we paid out EUR 2.1 billion in salaries and benefits for our employees. Of this total, salaries accounted for almost 60%. The remainder comprises mainly benefits and other personnel costs.

Employee engagement

To implement our strategy effectively, we need a committed and engaged workforce. We measure employee engagement annually. Our latest survey was carried out in November 2018. It showed an overall engagement score of 65, unchanged from the previous year. 89% of Aegon employees completed the survey. We benchmark our score against both the finance and professional services sectors; this benchmark compares scores for individual questions, however; there is no benchmark for our overall engagement score.

As well as engagement, our survey also helps us monitor progress in more specific areas; these include work-life balance, opportunities for career development, management performance, workplace diversity, pay, training and development. In 2018, we saw improvements in constructive feedback , learning from mistakes and work-life balance ; these were offset, however, by a lower score in vision communications ; recommending Aegon as a financial services provider also scored lower in the survey. As part of our response to these results, we are putting a specific focus on leadership and development.

We also use the survey to track progress with our Future Fit program (for details, see page 27). Survey results are communicated to all levels of the business, and broken down by unit and individual team, so that effective action plans can be put in place to address areas of weakness. In addition to our employee survey, we also measure turnover. Our goal is to keep turnover to a sustainable level. In 2018, turnover increased to 33%, up from 25% the previous year; this was due mainly to an increase in involuntary departures following recent reorganizations.

Employee engagement scores

(2016 - 2018)

Employee welfare and development

Our aim is to create a safe and inclusive working environment. We offer benefits, including flexible working, regular health checks, parental leave and company retirement plans. We also provide paid time-off for employees who wish to volunteer on local community projects. We work to keep absenteeism to a minimum. Most of our businesses have health programs; these include fitness programs and screening for serious illnesses like cancer and heart disease, as well as programs to reduce workplace stress. In 2018, our absentee rate was unchanged at 2.4%. The number of work-related accidents and illnesses fell slightly to 163, down from 167 in 2017.

We also offer extensive training and career development. Our programs include online courses, seminars and lectures. We provide specialist training in areas including products and sales, new regulations, risk management and cyber security. We also offer leadership training and awareness programs in diversity and health and safety. All employees have access to our global Learning Catalog. We also have a Digital Academy, which offers a three-year course to data and business analysts across the Company. In 2018, we spent a total of EUR 12.5 million on training and development (equivalent to nearly EUR 470 for each employee).

Diversity and inclusion

We believe diversity leads to better decision-making; it also brings us closer to the communities we serve. Diversity and non-discrimination are built into our Code of Conduct. In the Netherlands, our latest collective labor agreement stipulates equal pay for men and women performing the same functions. In 2018, we conducted a study into equal pay; this found, in general, no difference in pay between men and women doing the same work[1]. In the UK, we also report our gender pay gap each year. Like other financial companies, we have fewer women in leadership positions; this results in a significant gender pay gap. In 2017, this gap stood at just over 27% compared with a sector average of 30%[2].

1 Study carried out by Dutch data company AnalitiQs. The study took into account employees age, work experience, length of service and background.

2 Median for the UK financial and insurance sector (source: UK Parliament, *The Gender Pay Gap,* November 2018). Aegon s report into its UK gender pay gap is available online at aegon.co.uk. The current report covers the year to April 5th, 2018. Figures for the year to April 2019 will be included in the next report.

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We have initiatives to support gender diversity. In the Netherlands, for example, we are signatories to the Talent to the Top program, which works to increase the number of women in senior management. In the US, we have a dedicated diversity team. At the end of 2018, women made up 33% of Aegon s senior management, an improvement of 5 percentage points from 28% in 2017. In addition, two of our seven Supervisory Board members are women, as are three of our ten Management Board members. We want to increase the proportion of women on both Boards, over time, to at least 30% in line with Dutch government objectives[1]

Diversity, of course, goes beyond gender. Our aim is to create a productive and open working environment, in which all employees are valued for their contribution and able to realize their full potential. We have mentoring programs; we support Company-wide groups like Aegon Proud and Young Aegon. We are also members of outside organizations, like Women in Financial Services and Workplace Pride. In the latest US Corporate Equality Index, we were ranked as one of the best places to work for LGBT employees.

1 For further information, see page 57 (Report of the Supervisory Board Diversity) and the diversity section of our Corporate Governance Statement, available online.

Business partners

Our partners

We work with a number of different business partners. These partners help us develop, market and distribute our products and services. In many countries, we operate through joint ventures, particularly where this gives us immediate access to a large customer base. To distribute our products and services, we work through brokers and other financial intermediaries (including banks, agents, independent financial advisors etc.). In the US and UK, we have also signed partnerships to transfer much of our policy administration.

When working with outside providers, our goal is to create long-term relations that benefit Aegon and allow our partners to develop and grow their businesses. We regularly assess the companies we work with against minimum social and environmental standards. These standards are set out in our Sustainable Procurement and Outsourcing Risk policies.

Payments to business partners

Distribution

We pay commissions to brokers and other financial intermediaries in return for selling Aegon products and services. In 2018, these commissions totaled EUR 2.4 billion. Over the past five years, commissions have declined by almost 26%. This is partly a result of lower sales, but also the introduction of new, digital technologies (which have made it easier to sell directly to customers) and recent regulations in the Netherlands and the UK (which restrict payment of commissions to intermediaries[1]). Though the nature of our relationship has changed, intermediaries remain a valuable sales channel. We provide training to our distributors, so they understand our policies and are able to provide the right advice to our customers.

Payments to business partners

(2016-2018, in EUR billion)

Suppliers

As a financial services company, we buy goods and services including IT support, office equipment and management consultancy. We also buy utilities (electricity, water etc.). That said, we do not have a particularly complex supply chain we do not need to source raw materials or deliver physical goods to customers. In 2018, we spent EUR 1.5 billion on our suppliers, up from EUR 1.4 billion in 2017. We have a Sustainable Procurement Policy, which sets out environmental, social and governance standards for our suppliers. As part of our approach, we require some of our suppliers to sign a Supplier Sustainability Declaration; at the end of 2018, these declarations covered 25% of our total procurement spend. In 2018, we also signed partnerships in both the US and UK to transfer a large part of our policy administration to outside providers (see pages 6 and 24). In both cases, we will pay regular fees for this service; we expect these contracts, over time, to deliver more than EUR 120 million a year in cost savings.

Reinsurance

We work with a number of reinsurers; they help us offset risk and ensure we are able to meet our financial commitments, even in extreme scenarios. In 2018, we paid EUR 2.7 billion in premiums to our reinsurers, and received EUR 3.7 billion in claims (this compares with EUR 3.4 billion and EUR 4.3 billion in 2017, respectively).

[1] Instead of commissions, brokers and intermediaries now generally receive fees, paid by customers.

Investors

Payments to investors

Shareholders receive regular dividends. An interim dividend is paid following half-year results. Final dividends must then be approved by Aegon s General Meeting of Shareholders in May before payment. Shareholders can opt for payment in cash or stock. Just under half our shareholders are based in the US, another 20% in the Netherlands and 10% in the UK. In 2018, we paid a total of EUR 861 million to Aegon investors. Of this, EUR 570 million was in dividends to shareholders; the remaining EUR 291 million was paid to Aegon bondholders. Unlike shareholders, bondholders receive regular coupons or interest payments on their investments. These payments are determined at the moment the bond is issued.

Dividend policy

Payment of dividends depends ultimately on the Company s capital position and cash flow. Before deciding on dividends, management will also assess future prospects for financial performance. Our goal, over time, is to deliver sustainable dividend growth for our shareholders. In recent years, we have been able to do this thanks to an improvement in our earnings and a stronger capital position. Since 2012, we have increased dividends every year by either one or two cents equivalent to a 38% increase over six years. Currently, our dividend yield an important indicator for insurance stocks is around 6%, slightly above the European sector average.

Stock performance

Shareholders may also derive (or lose) value from the performance of our shares. In 2018, Aegon s stock price fell by 23.3%, which we believe was largely a reflection of wider concerns over economic growth, trade tensions and the effect of persistently low interest rates, as well as concerns about Aegon s US long-term care portfolio. Most of the losses were concentrated in the last two months of the year. Other European insurance sector stocks also lost ground during 2018, though not as much as Aegon. The Stoxx Europe 600 Insurance index ended the year down 10%. Our total shareholder return for the year came to -19% (this measure takes into account payment of dividends as well as share price performance).

Regular communications

We keep financial markets fully informed of our strategy and performance. We have a dedicated Investor Relations team. In 2018, we organized 642 face-to-face meetings with investors in the Americas, Europe and Asia. We hold a regular Analyst and Investor Conference; the most recent was held in New York in December 2018. Our executives also speak regularly at insurance industry events. In 2018, we started publishing our financial results every six months, rather than quarterly. This was to encourage investors to take a longer-term perspective on our financial performance.

Dividends to Aegon shareholders

(2012-2018, in EUR per share)

Aegon stock price performance

(Jan-Dec 2018) Aegon stock price vs. Stoxx Europe 600 Insurance

[1] Note that the final dividend for 2018 is subject to approval by Aegon s General Meeting of Shareholders, scheduled for May 17, 2019.

Wider community

Job creation

In 2018, Aegon reduced its total workforce by a net 1,775 employees. A total of 5,666 employees left the Company most in the US, Netherlands and the UK; 3,891 joined Aegon during the year. Departures were mainly the result of business restructuring. Around 2,000 employees were also transferred to Tata Consultancy Services as part of our recent contract in the US. Where possible, we limit compulsory redundancies. In Europe and Asia, we work closely with trade unions and other employee representative groups. We provide training, advice and support to those leaving the Company.

Responsible investment

We take a responsible approach to investments. As part of this approach, we integrate ESG (environmental, social and governance) factors into our daily investment decisions. We do this for our own investments; we also advise customers to take a similar approach, though in most cases the final decision as to how and where to invest remains with our clients. Integrating ESG helps minimize investment risk both for Aegon and its customers. Our ESG investment standards are based, for the most part, on international agreements (these include the UN Declaration of Human Rights, the core standards of the International Labor Organization, and the UN Arms Trade Treaty).

To oversee our approach, we have a Responsible Investment Strategy Committee. We also have a formal Responsible Investment Policy; we provide mandatory ESG training for portfolio managers, and have built responsible investment into both our risk management framework and into our investment mandates.

We engage with the companies we invest in when they fall short of our ESG standards or show poor overall ESG performance. In 2018, we engaged with 360 companies. We have been especially active on climate change in support of our corporate strategy. Over the past year, we engaged on a number of issues, including climate risk and reporting, and corporate governance. When engaging, our aim is to improve companies business practice, and reduce investment risk for ourselves and our customers.

We prefer to engage, though we do exclude some investments, where there are international agreements in place, or a clear social or environmental case to do so. Currently, we exclude a total of 136 companies involved in tobacco, coal mining, oil and tar sands, or controversial weapons, such as cluster bombs and anti-personnel mines[1]. In the Netherlands, we exclude investments in palm oil. We also refuse to invest in countries that are subject to sanctions, or where there is evidence of systematic human rights abuses. We publish a full list of exclusions on our website. For more details on our approach, see our Responsible Investment Report, also available online.

Impact investment

Alongside ESG integration, we also make impact investments ; these are investments that deliver both a minimum financial return and a specific social or environmental benefit. Examples include affordable housing, care homes, and renewable energy. We also invest in green bonds and in international development banks that work to reduce poverty in developing countries. At the end of 2018, our impact investments totaled EUR 8.4 billion. Nearly 60% of this amount is invested in affordable housing in the US. Impact investments are an important part of our strategy particularly in supporting the switch to cleaner, low-carbon technologies and promoting health and well-being.

[1] Our exclusion list was last updated in October 2018. The list comprises 14 companies involved in controversial weapons, 48 in thermal coal mining, 11 in oil sands and a further 63 in tobacco. We also exclude investment in 15 countries.

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Primarily social impact	Amount invested	Impact
Affordable housing	EUR 4.9 billion	Financing for affordable housing for families on low incomes in the US[1], UK and the Netherlands
Care homes for the elderly	EUR 324 million	Financing for care homes and assisted living facilities for the elderly in the Netherlands and UK
International development banks	EUR 1.8 billion	Investments in multi-lateral development banks, working to reduce poverty and create jobs in emerging economies
Student loans and sports facilities	EUR 208 million	Support for the US Federal Family Education Loan Program; this program helps children from low and middle-income families into university
Micro-finance	EUR 74 million	Provides loans and savings accounts for more than three million people without access to traditional financial services
Primarily environmental impact	**Amount invested**	**Impact**
Renewable energy	EUR 573 million	Investment in clean energy in the US, UK and the Netherlands (including solar energy tax credits and wind power), reducing impact of energy use on the environment
Green bonds	EUR 253 million	Investment in green bonds; proceeds are invested in climate- related projects, encouraging sustainable energy use
Green residential mortgage-backed securities (RMBS)	EUR 152 million	Investment in mortgages to finance more energy-efficient homes

1 In the US, these investments are made through the government s Low-Income Housing Tax Credit program, which encourages private sector investment in affordable housing for low-income families.

In addition to the above, Aegon has also investments in sustainable timber. At the end of 2018, these totaled EUR 7.9 million. These investments are currently in run-off.

Please note that amounts above include some investments made on behalf of Aegon clients and other third parties.

Retirement research and expertise

We provide extensive research into aging and retirement. Most of this is done through our Aegon Center for Longevity and Retirement (ACLR) and its partners: the Transamerica Institute in the US and the Instituto de Longevidade Mongeral Aegon in Brazil. The ACLR publishes an annual Retirement Readiness Survey, covering 15 countries around the world. The ACLR s 2018 report called for a new social contract on pensions and retirement (see page 22). Through our research, we want to raise awareness of aging issues among both public and policymakers. We also use our research to drive improvements in customer service and product development.

In addition to our own centers, we work closely with other partners. These include the Stanford Center on Longevity, the American Association of Retired Persons (AARP), the Leyden Academy for Vitality and Aging, and the Global Coalition on Aging an alliance of businesses working on aging and retirement. We are also working on health issues these are, of course, closely related to aging. We have our own Transamerica Center for Health Studies. In the US, through our business activities, we emphasize the importance of wealth and health . In 2018, we organized our global Hackathon focusing on the connection between financial security and well-being with events in Mumbai, Budapest and Dallas. We also support research into chronic illnesses like cancer, heart disease and Alzheimer s.

Responsible tax

We are firmly committed to making a valuable economic and social contribution to the communities in which we operate, both through our own tax payments and through collection and

payments of third party taxes. We seek to pay fair taxes , which for us means paying the right amount of tax in the right places.

It is our policy to allocate profits where value is created through our commercial business activities. For us, tax follows business, which means that our decisions are taken for business reasons and not for tax advantages. We will not, for example, set up artificial tax structures or base business in countries simply to reduce the amount of tax we pay.

Following discussion with stakeholders, we published our Global Tax Policy online. This Policy outlines Aegon s approach to responsible tax, which seeks to align the long-term interests of all our stakeholders, including customers, employees, business partners, investors, and wider society. We also hold regular meetings with NGOs to discuss Aegon s tax strategy and policy.

In our relationship with tax authorities we strive to work together in a constructive and transparent manner. Our Horizontal Monitoring agreement with the Dutch tax authorities shows our commitment to this principle. This includes public discussion and disclosure of policies and principles, as well as the overall governance and oversight of our tax position.

Disclosures are provided in our financial statements and cover tax payments in our main markets. We provide country-by-country tax reporting in a transparent and accurate manner to the tax authorities. We are currently assessing the value that public disclosure of this information might have for our business and our stakeholders.

We also provide details of our total tax contribution company-wide and by region in the charts below. Taxes borne are a cost of business and affect our financial results. Taxes collected are not a direct cost of business but are collected on behalf of government from others. The reported numbers are on cash payment or accrual basis.

Aegon s tax function maintains an adequate staff of qualified and trained tax professionals to provide timely and high-quality tax support to our commercial decision-makers. In this regard, proper governance and procedures are in place to ensure that:

1. the tax team understands and is engaged in the tax effects of day-to-day business operations and involved in all significant business developments, investments and transactions.
2. the tax consequences are considered as part of every major business decision.
3. Aegon s tax control framework is constantly evolving to a higher maturity level.

Aegon s tax function reports regularly to the Executive and Management Boards on day-to-day operations and the status and effectiveness of the function. At least once a year, the tax function reports to the Supervisory Board s Audit Committee.

Community investment

We support local communities through donations and volunteer work. This brings us closer to our customers and gives our employees an opportunity to share their knowledge and expertise. In 2018, we donated a total of EUR 9.3 million. Most went to our three focus areas: health, welfare and literacy. Where possible, we align our community investment with our purpose as a company. In the Netherlands, we re part of a From Debt to Opportunity project; this project is working with 7,000 in-debt families across the country.

Through our businesses, we support more than 500 local charities and good causes. Among the largest recipients in 2018 were United Way and Habitat for Humanity in the US, the VUMC Alzheimer Center in the Netherlands, and Sick Kids Friends Foundation and the Teenage Cancer Trust in the UK. We have a Charitable Donations Policy, setting out our approach to community investment. In the US, our donations are channeled through the Transamerica Foundation. This Foundation donates at least 5% of its assets each year. In the UK, donation decisions are taken by our employee Charity Committee. We also encourage our employees to volunteer; 97% of our staff worldwide can now claim paid time-off to work on local community projects. Volunteering is built into our Charitable Donations Policy. In 2018, Aegon employees volunteered just over 14,000 hours equivalent of EUR 0.7 million, based on average salaries.

Taxes borne by Aegon, 2018

(in EUR million)

Taxes collected on behalf of others, 2018

(in EUR million)

[1] Includes state and withholding tax

[2] Related to company s own personnel (including social security tax)

[3] Includes dividends, interest, royalties and others

[4] Policyholders (including social security tax)

For a breakdown of corporate income tax by country/region please see page 410. Some numbers may not add due to rounding.

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Aegon s contribution to UN Sustainable Development Goals (SDGs)

We have a responsibility to support the UN SDGs where we can, both as an investor and a provider of financial services. We recognize that sustainable development is in the long-term interests of business and the global economy, and that genuine

sustainable development will not be possible without cooperation between private and public sectors. We focus on SDGs most relevant to our business. Within these SDGs, we have selected specific goals and targets[1] linked to our strategy. This is where we believe we can make a significant contribution to the international development agenda.

Strategic pillar	Relevant SDG	Relevant SDG targets	Aegon s contribution to the relevant target
For individuals: financial security and well-being.		**1.2:** By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions, according to national definitions.	Products for low-income customers, including micro-insurance in Brazil Investments in international development banks that work for poverty reduction and job creation in developing countries Investment in micro-finance institutions to provide loans and savings to people without access to traditional financial services Working with customers in financial difficulty budget coaches in the Netherlands /cooperation with National Foundation for Credit Counseling in the US Strengthening financial literacy through local initiatives and programs
For society: secure retirement		**3.4:** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and	Supplemental health insurance for customers on low incomes

and healthy aging.	promote mental health and well-being.	Cover for customers facing chronic illnesses, including diabetes and cancer Investment in care homes for the elderly in UK and Netherlands Support for research into chronic illnesses, including cancer, heart disease and Alzheimer s Investment in Dementia Discovery Fund, dedicated to finding treatments for the condition Exclusion of tobacco from investment to help address health concerns over smoking
	8.10: Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.	Support for economic growth and job creation through our businesses and investments Providing a long-term source of employment for communities in which we operate Inclusion of minimum labor standards in Aegon responsible investment and procurement policies
For the environment: clean energy and sustainable real estate.	**7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix. **7.3:** By 2030, double the global rate of improvement in energy efficiency. **7.a:** By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology.	Significant investments in renewable energy primarily wind and solar power Investments in green bonds and green residential mortgage-backed securities Working for greater energy efficiency in Amvest s real estate fund in the Netherlands Launch of new mortgage feature in the Netherlands, allowing customers to finance energy efficiency improvements to their homes

13.2: Integrate climate change measures into national policies, strategies and planning.	Support for Dutch national climate agreement, working to reduce carbon emissions Exclusion of oil sands extraction and transportation from investment Exclusion of thermal coal production from investment

In addition to the goals and targets above, we also work directly with other organizations to support the SDGs. As well as the UN Principles for both Sustainable Insurance and Responsible Investment (UNPSI, UNPRI), we are members of the CDP (formerly the Carbon Disclosure Project) and the Extractives Industry Transparency Initiative (EITI), which works for greater transparency in reporting financial flows

within the global energy and minerals sector. Aegon also signed the Paris Pledge for Action, launched at the Paris climate change conference in 2015.

Further details of our support for the UN SDGs may be found on page 425.

[1] The UN Sustainable Development Goals were formally adopted in September 2015. There are 17 SDGs in total, covering hunger, poverty, health, the environment, housing etc. For each SDG, there is a series of specific goals, targets and indicators. For more information, see https://www.un.org/sustainabledevelopment/sustainable-development-goals/

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 Letter from our Supervisory Board Chairman

During 2018, Aegon s Supervisory Board focused on how senior management continued to execute its strategy and transform the company. Aegon is now well positioned for growth from a capital, control, management, people and technology perspective. This gives us confidence for the future.

I was honored to be appointed Chair of Aegon s Supervisory Board in May 2018. Our Board consists of people from a diverse range of backgrounds, nationalities and specialisms, with an equally diverse range of perspectives. What we share, is a common desire to support management in meeting its objectives.

A key objective has been the significant transformation Aegon has undergone in recent years, both in terms of what it does and where it does it. In particular, we are impressed by Aegon s embrace of new digital technology, and its new capital allocation model. Now that Aegon s transformation is largely complete, the Supervisory Board looks forward to shifting its focus to supporting the company s growth agenda.

Beyond the horizon

From regulatory requirements to customer demands, the financial services landscape has never changed so fast and

as fundamentally as over the last decade. This process of change is only likely to accelerate in the years to come. For this reason, when it comes to strategy, our role as a Supervisory Board is to look beyond the here and now and to focus on what lies beyond the horizon. What will, for instance, the industry look like a decade from now? What are the opportunities and risks? Above all, how can Aegon ensure that it first and foremost continues to grow as a responsible business dedicated to its purpose of helping people achieve a lifetime of financial security? By posing these questions we are able to assess how future-focused and prepared the company is, which in turn supports long-term thinking and long-term value creation, as set out in this report.

How we engage with Aegon s long-term strategy is crucial to this task. Indeed, while regular meetings with senior management are critical to what we do, Supervisory Board visits to Aegon s various business units can prove every bit as illuminating, offering a shop floor rather than purely a board room perspective. For instance, such visits are an opportunity to witness how Aegon is embracing the latest digital technologies and data analytics, as well as talking to the people leading these initiatives from the ground up.

Public trust

No business operates in a vacuum and the Supervisory Board is both very aware of and attuned to discussions and debates regarding the role of financial services in society. The relationship between financial institutions and the public should, of course, be a positive one. Yet while the industry plays an important and laudable role providing people with financial security and helping businesses and economies to grow, it has yet to fully regain trust following the financial crisis, nor redress the apathy many still feel towards it.

The Supervisory Board is working with the Management Board to examine how Aegon can be part of the solution. Moreover, it is impressed with how Aegon s purpose continues to not only provide the basis for putting customers first in all that it does, but also the inspiration to raise awareness about financial matters such as the need to start saving early, and the consequences of moving away from traditional pension systems. Simple changes that can have hugely positive effects on millions of people s lives.

Aegon also takes its responsibility to assist policy makers to deliver the right legislation that keeps pace with changes in society and continues to meet customers needs. The company can only do so because of the dedication and expertise of its people. I would, therefore, like to say a big thank you to Aegon staff across all businesses and regions.

I would like also to express my gratitude to my Supervisory Board colleagues for their contribution and support in 2018. I invite you all to look at the Report of the Supervisory Board, starting from page 51, for a comprehensive overview of our activities during 2018. We look forward to working with the Management Board in the year ahead to help them meet their targets and achieve Aegon s purpose.

William Connelly

Supervisory Board Chairman

Corporate governance

Aegon is incorporated and based in the Netherlands. As a company established and listed in the Netherlands, Aegon must comply with Dutch law and is subject to the Dutch Corporate Governance Code.

Aegon is governed by three corporate bodies:

- General Meeting of Shareholders
- Supervisory Board
- Executive Board

Aegon also has a Management Board. This works in unison with the Executive Board, and helps to oversee operational issues and the implementation of Aegon s strategy. Aegon s corporate governance structure is the responsibility of both the Supervisory Board and the Executive Board. Any substantive change to this structure is submitted to the General Meeting of Shareholders for discussion.

The shareholders

Listing and shareholder base

Aegon s common shares are listed on Euronext Amsterdam and the New York Stock Exchange. Aegon has institutional and retail shareholders around the world. More than three-quarters of shareholders are located in Aegon s three main markets, the Netherlands, United States and the United Kingdom. Aegon s largest shareholder is Vereniging Aegon, a Dutch association with a special purpose to protect the broader interests of the Company and its stakeholders.

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.

Convocation

General Meetings of Shareholders are convened by public notice at least 42 days before the meeting. The convocation states the time and location of the meeting, the record date, the agenda items, and the procedures for admittance to the meeting and representation at the meeting by means of a written proxy. Those shareholders who alone or jointly represent at least 1% of Aegon s issued capital or a block of shares worth at least EUR 100 million may request items be added to the agenda of a General Meeting of Shareholders. In accordance with Aegon s Articles of Association, such a request will be granted if it is received in writing at least 60 days before the meeting, and if there are no important interests of the Company that dictate otherwise.

Record date

The record date is used to determine shareholders entitlements with regard to their participation and voting rights. In accordance with Dutch law, the record date is 28 days before the day of the General Meeting of Shareholders.

Attendance

Every shareholder is entitled to attend the General Meeting to speak and vote, either in person or by proxy granted in writing. This includes proxies submitted electronically. All shareholders wishing to take part must provide proof of their identity and shareholding, and must notify the Company ahead of time of their intention to attend the meeting. Aegon also solicits proxies from New York registry shareholders in line with common practice in the United States.

Voting at the General Meeting

At the General Meeting, each common share carries one vote. In the absence of a Special Cause, Vereniging Aegon casts one vote for every 40 common shares B it holds.

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 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, 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 2018, 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 seven 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.

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.

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.

In 2018, no transactions were concluded between the Company and either member of the Executive Board. Furthermore, the Company did not provide any loans to or issue guarantees in favor of either of the members of the Executive Board.

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. 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.

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.

Capital, significant shareholders and exercise of control

As a publicly-listed company, Aegon is required to provide the following detailed information regarding any structures or measures that may hinder or prevent a third party from acquiring the Company or exercising effective control over it.

The capital of the Company

Aegon has an authorized capital of EUR 1,080 million, divided into 6 billion common shares and 3 billion common shares B, each with a nominal value of EUR 0.12. As of December, 31 2018, a total of 2,095,648,244 common shares and 585,022,160 common shares B had been issued.

Depository receipts for Aegon shares are not issued with the Company s cooperation.

Each common share carries one vote. There are no restrictions on the exercise of voting rights by holders of common shares.

All common shares B are held by Vereniging Aegon, the Company s largest shareholder. The nominal value of the common shares B is equal to the nominal value of a common share. This means that common shares B also carry one vote per share. However, the voting rights attached to common shares B are subject to restrictions as laid down in the Voting Rights Agreement, under which Vereniging Aegon may cast one vote for every 40 common shares B it holds in the absence of a Special Cause.

The financial rights attached to a common share B are one-fortieth (1/40th) of the financial rights attached to a common share. The rights attached to the shares of both classes are otherwise identical. For the purpose of the issuance of shares, reduction of issued capital, the sale and transfer of common shares B or otherwise, the value or the price of a common share B is determined as one-fortieth (1/40th) of the value of a common share. For such purposes, no account is taken of the difference between common shares and common shares B in terms of the proportion between financial rights and voting rights.

Significant shareholdings

On December 31, 2018, Vereniging Aegon, Aegon s largest shareholder, held a total of 279,236,609 common shares and 571,165,680 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%.

During 2018, one transaction was concluded between Aegon N.V. and Vereniging Aegon under or in connection with the 1983 Merger Agreement. All requirements determined by Best Practice 2.7.5 of the Dutch Corporate Governance Code were complied with in the execution of these transactions.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value (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 May 18, 2018 in connection with the Long Term Incentive Plans for senior management.

To Aegon s knowledge based on the filings made with the Dutch Autoriteit Financiële Markten, Dodge & Cox International Stock Fund, BlackRock, Inc. and Franklin Resources, Inc. hold a capital or voting interest in Aegon of 3% or more.

Based on its last filing with the Dutch Autoriteit Financiële Markten as at June 20, 2018, Dodge & Cox International Stock Fund stated to hold 131,792,024 common shares, which represent 4.9% of the issued capital and votes as at December 31, 2018. On February 14, 2019, Dodge & Cox s filing with the US Securities and Exchange Commission (SEC) shows that Dodge & Cox holds 237,992,105 common shares, representing 8.9% of the issued and outstanding capital as at December 31, 2018, and has voting rights for 232,925,689 shares, representing 8.7% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at March 27, 2018, BlackRock, Inc. stated to hold 112,661,670 shares, representing 4.2% of the issued capital as at December 31, 2018 and 131,979,873 voting rights, representing 4.9% of the votes as at December 31, 2018. On February 4, 2019, BlackRock, Inc. s filing with the US Securities and Exchange Commission (SEC) shows that BlackRock holds 122,040,092 common shares, representing

4.6% of the issued capital as at December 31, 2018, and has voting rights for 106,522,921 shares, representing 4.0% of the votes as at December 31, 2018.

Based on its filing with the Dutch Autoriteit Financiële Markten as at June 10, 2015, Franklin Resources, Inc. (FRI) stated to hold 81,510,408 shares, representing 3.0% of the issued capital and of the votes as of December 31, 2018. On January 25, 2019, the filing of Franklin Resources, Inc. (FRI), a US based investment management firm, with the SEC shows that FRI holds 61,141,668 common shares and voting rights, representing 2.3% of the issued and outstanding capital, as at December 31, 2018.

Special control rights

As a matter of Dutch corporate law, the common shares and the common shares B offer equal full voting rights, as they have equal nominal value (EUR 0.12). The Voting Rights Agreement entered into between Vereniging Aegon and Aegon provides that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon is not allowed to exercise more votes than is proportionate to the financial rights represented by its shares. This means that 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. In the event of a Special Cause, Vereniging Aegon may cast one vote for every common share and one vote for every common share B.

A Special Cause may include:

- The acquisition by a third party of an interest in Aegon N.V. amounting to 15% or more;
- A tender offer for Aegon N.V. shares; or
- A proposed business combination by any person or group of persons, whether acting individually or as a group, other than in a transaction approved by the Company s Executive and Supervisory Boards.

If Vereniging Aegon, acting at its sole discretion, determines that a Special Cause has arisen, it must notify the General Meeting of Shareholders. In this event, Vereniging Aegon retains full voting rights on its common shares B for a period limited to six months. Vereniging Aegon would, for that limited period, command 32.6% of the votes at a General Meeting of Shareholders.

Issue and repurchase of shares

New shares may be issued up to the maximum of the Company s authorized capital, following a resolution adopted by the General Meeting of Shareholders. Shares may also be issued following a resolution of the Executive Board, subject to approval by the Supervisory Board, providing, and to the extent that, the Board has been authorized to do so by the General Meeting of Shareholders. A resolution authorizing the Executive Board to issue new shares is usually presented at Aegon s Annual General Meeting of Shareholders.

Aegon is entitled to acquire its own fully paid-up shares, providing it acts within existing statutory restrictions. Shareholders usually authorize the Executive Board to purchase the Company s shares under terms and conditions determined by the General Meeting.

Transfer of shares

There are no restrictions on the transfer of common shares. Common shares B can only be transferred with the prior approval of Aegon s Supervisory Board.

Aegon has no knowledge of any agreement between shareholders that might restrict the transfer of shares or the voting rights pertaining to them.

Significant agreements and potential change of control

Aegon is not party to any significant agreements that would take effect, alter or terminate as a result of a change of control following a public offer for the outstanding shares of the Company, other than those customary in financial markets (for example, financial arrangements, loans and joint venture agreements).

Share plan

Senior executives at Aegon companies and some other employees are entitled to variable compensation of which part is granted in the form of shares. For further details, please see the remuneration report on page 59 and note 53 of the notes to Aegon s consolidated financial statements of this Annual Report. Under the terms of existing share plans the vesting of granted rights is predefined. The shares shall vest as soon as possible in accordance with payroll requirements of the relevant subsidiary after the adoption of the Company s Annual Report at the Annual General Meetings of Shareholders in the year of vesting of these shares.

Appointing, suspending or dismissing Board members

The General Meeting of Shareholders appoints members of both the Supervisory and Executive Boards, following nominations by the Supervisory Board. These nominations are binding providing at least two candidates are nominated. The General Meeting of Shareholders may cancel the binding nature of these nominations with a majority of two-thirds of votes cast, representing at least one half of Aegon s issued capital. The General Meeting may, in addition, bring forward a resolution to appoint someone not nominated by the Supervisory Board. Such a resolution also requires a two-thirds majority of votes cast, representing at least one half of Aegon s issued capital.

Members of Aegon s Supervisory and Executive Boards may be suspended or dismissed by the General Meeting of Shareholders with a two-thirds majority of votes cast, representing at least one half of Aegon s issued capital, unless the suspension or dismissal has first been proposed by the Company s Supervisory Board. A member of the Executive Board may also be suspended by the Supervisory Board, although the General Meeting of Shareholders has the power to annul this suspension.

Amending the Articles of Association

The General Meeting of Shareholders may, with an absolute majority of votes cast, pass a resolution to amend Aegon s Articles of Association or to dissolve the Company, in accordance with a proposal made by the Executive Board and approved by the Supervisory Board.

Dutch Corporate Governance Code

As a company based in the Netherlands, Aegon adheres to the Dutch Corporate Governance Code. The version of the code applicable to the financial year 2018 is the version that came into force on January 1, 2017. Aegon endorses the Code and strongly supports its principles for sound and responsible corporate governance and long-term value creation. Aegon regards the Code as an effective means to help ensure that the interests of all stakeholders are duly represented and taken into account. It is the responsibility of both the Supervisory Board and the Executive Board to oversee Aegon s overall corporate governance structure.

In general, Aegon applies the best practice provisions set out in the Code. There is one best practice provision with which Aegon does not fully apply. In this case, Aegon adheres, as much as is possible, to the spirit of the Code.

Best Practice 4.3.3

The Dutch Corporate Governance Code recommends that the General Meeting of Shareholders may cancel the binding nature of nominations for appointments of members of the Executive Board and Supervisory Board with an absolute majority of votes and a limited quorum.

Aegon s position on Best Practice 4.3.3

Aegon s Articles of Association provide for a larger majority and a higher quorum than those advocated by the Code. Given that the Company has no specific anti-takeover measures, the current system is deemed appropriate within the context of the 1983 Merger Agreement under which Aegon was formed. However, to mitigate any possible negative effects stemming from this, the Supervisory Board has decided that, in the absence of any hostile action, it will only make nominations for the appointment of members to the Executive and Supervisory Boards that are non-binding in nature.

Corporate Governance Statement

For an extensive review of Aegon s compliance with the Dutch Corporate Governance Code, please refer to the Corporate Governance Statement on Aegon s corporate website.

Differences between Dutch and US company laws

Dutch company law is different from US law in the following respects: Aegon, like most large Dutch public companies, has a two-tier governance system comprising an Executive Board and a Supervisory Board. The Executive Board is the executive body. Its members are not Aegon employees and have an engagement agreement with the Company. Members of the Executive Board are appointed and dismissed by the General Meeting of Shareholders, as inside directors are in the United States. The Remuneration Policy as regards the members of the Executive Board is adopted by the General Meeting of Shareholders. The number of the Executive Board members and the terms of their engagement are determined by the Supervisory Board within the scope of the adopted Remuneration Policy.

The Supervisory Board performs supervisory and advisory functions only, and its members are outsiders that are not employed by the Company. The Supervisory Board has the duty to supervise the performance of the Executive Board, the Company s general course of affairs and the business connected with it. The Supervisory Board also assists the Executive Board by giving advice. Other powers of the Supervisory Board include the prior approval of certain important resolutions of the Executive Board. Members of the Supervisory Board are appointed for a four-year term and may be dismissed by the General Meeting of Shareholders. The remuneration of Supervisory Board members is fixed by the General Meeting of Shareholders. Resolutions entailing a significant change in the identity or character of the Company or its business require the approval of the General Meeting of Shareholders.

Composition of our Boards

Members of the

Executive Board

Alexander R. Wynaendts (1960, Dutch)

CEO and Chairman of the Executive and Management Boards of Aegon N.V.

Alex Wynaendts began his career in 1984 with ABN AMRO Bank, working in Amsterdam and London in the Dutch bank s capital markets, asset management, corporate finance and private banking operations. In 1997, Mr. Wynaendts joined Aegon as Senior Vice President for Group Business Development.

He was appointed as a member of Aegon s Executive Board in 2003, overseeing the Company s international growth strategy. In April 2007, Mr. Wynaendts was named Aegon s Chief Operating Officer. A year later, he became CEO and Chairman of Aegon s Executive Board and Management Board. His current term of office ends in 2019.

Mr. Wynaendts has been an Independent Director of the Board of Air France-KLM S.A. since May 2016 and the Chairman of the Supervisory Board of Puissance B.V. (not listed) since May 2017.

Matthew J. Rider (1963, American)

CFO and member of the Executive and Management Boards of Aegon N.V.

Matt Rider began his career at Banner Life Insurance Company and held various management positions at Transamerica, Merrill Lynch Insurance Group and ING before joining Aegon. From 2010 to 2013, he was Chief Administration Officer and a member of the Management Board at ING Insurance,

based in the Netherlands. In this role he was responsible for all of ING s insurance and asset management operations, and specifically for Finance and Risk Management. Mr. Rider joined Aegon on January 1, 2017 and was appointed as CFO and member of the Executive Board of Aegon at the Annual General Meeting of Shareholders of Aegon N.V. of

May 19, 2017.

Members of the Management Board

Alexander R. Wynaendts: see above

Matthew J. Rider: see above

Mark Bloom (1964, American)

Global Chief Technology Officer and member of the Management Board of Aegon N.V.

Mark Bloom has over 30 years experience in information technology. He joined Aegon from Citi in February 2016, where he served as Global Head of Consumer Digital and Operations Technology, responsible for digital, data and operations technology solutions and innovations. Prior

to that, he held a number of technology leadership positions in financial services and the aerospace industry. As Global Chief Technology Officer at Aegon, Mr. Bloom is responsible for leading the Company s technology and innovation activities, including leveraging technology to drive efficiency and enhancing the customer experience. Mr. Bloom was appointed as a member of Aegon s Management Board in August 2016.

Adrian Grace (1963, British)

CEO of Aegon UK and member of the Management Board of Aegon N.V.

Adrian Grace held various roles at GE capital, Sage Group Inc., before joining Barclays Bank as Chief Executive of the Insurance Business in 2004, and HBOS as Managing Director of Commercial Businesses in 2007. He joined Aegon

UK in 2009, and was appointed CEO of Aegon UK in 2011 and as a member of the Management Board of Aegon in 2012. Mr. Grace is a non-executive Director at Clydesdale Bank and a member of the Financial Conduct Authority practitioners panel. He was member of the Board of Scottish Financial Enterprise until June 2013.

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Allegra van Hövell-Patrizi (1974, Italian and Belgian)

Chief Risk Officer of Aegon N.V. and member of the Management Board of Aegon N.V.

Allegra van Hövell-Patrizi began her career in 1996 at McKinsey & Company, specializing in financial institutions. After several years as a partner there, she joined F&C Asset Management in 2007 as a member of the Management Committee. In 2009, she joined Prudential plc where she was part of the CEO Office

and then later became Group Risk Director, and a member of the Group Executive Risk Committee, as well as the PUSL Board (within the Prudential plc Group). Ms. van Hövell-Patrizi joined Aegon at the end of 2015. She was appointed Chief Risk Officer of Aegon N.V. and a member of Aegon s Management Board in January 2016. Ms. van Hövell-Patrizi is a member of the Supervisory Board of LeasePlan (not listed) since 2018.

Marco Keim (1962, Dutch)

Head of Aegon Continental Europe and member of the Management Board of Aegon N.V.

Marco Keim began his career with accountancy firm Coopers & Lybrand/Van Dien, before moving to the aircraft manufacturer Fokker Aircraft and NS Reizigers, part of the Dutch railway company, NS Group. In 1999, he joined Swiss Life

in the Netherlands as a Member of the Board, and was appointed CEO three years later. Mr. Keim was appointed CEO of Aegon the Netherlands and member of Aegon s Management Board in June 2008, and Head of Aegon Continental Europe in January 2017. Mr. Keim is a member of the Supervisory Board of Eneco Holding N.V..

Onno van Klinken (1969, Dutch)

General Counsel and member of the Management Board of Aegon N.V.

Onno van Klinken has over 25 years experience providing legal advice to a range of companies and leading Executive Board offices. Mr. Van Klinken started his career at Allen & Overy, and previously worked for Aegon between 2002 and 2006. He then served as Corporate Secretary for Royal Numico, before it was acquired by Groupe Danone. His next position was as General Counsel for the Dutch global mail and express

group TNT, where he served from 2008 until the legal demerger of the group in 2011. This was followed by General Counsel positions at D.E. Master Blenders 1753 and Corio N.V.. Mr. Van Klinken rejoined Aegon in 2014 as General Counsel responsible for Group Legal, Regulatory Compliance, the Executive Board Office, and Government and Policy Affairs. Mr. Van Klinken has been a member of Aegon s Management Board since August 2016. Mr. Van Klinken was appointed member of the Board of Stichting Continuïteit SBM Offshore in December 2016.

Carla Mahieu (1959, Dutch)

Global Head Human Resources and member of the Management Board of Aegon N.V.

Carla Mahieu started her career in 1984 at Royal Dutch Shell, where she held various management positions within Human Resources, Communications and Corporate Strategy. Following several years as a consultant during which time she worked for Spencer Stuart, among other companies Ms. Mahieu was

appointed Senior Vice President Corporate Human Resource Management at Royal Philips Electronics in 2003. Ms. Mahieu joined Aegon in 2010 as Global Head Human Resources, and has been a member of Aegon s Management Board since August 2016. Ms. Mahieu has been a member of the Supervisory Board of the Royal BAM Group since 2011, and the Supervisory Board of VodafoneZiggo Group B.V. since 2017.

Mark Mullin (1963, American)

CEO of Aegon Americas and member of the Management Board of Aegon N.V.

Mark Mullin has spent more than 20 years with Aegon in various management positions in both the United States and Europe. Mr. Mullin served as President and CEO of one of Aegon s US subsidiaries, Diversified Investment Advisors, and as head of the Company s US annuity and mutual fund businesses.

He was named President of Aegon Americas in 2009, and became President and CEO of Aegon Americas and a member of Aegon s Management Board in 2010. Mr. Mullin was appointed Chairman of the Board of Directors of the American Council of Life Insurers for the period October 2017-October 2018 and remains a member of the Board of Directors and Executive Committee through October 2019.

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Sarah Russell (1962, Australian)

CEO of Aegon Asset Management and member of the Management Board of Aegon N.V.

Sarah Russell has over 25 years experience in international finance and asset management.Ms. Russell began her career at Toronto Dominion in Melbourne before joining ABN AMRO in 1994. She moved to the Netherlands in 2000, where she held a number of various roles, leading to her appointment as CEO of ABN AMRO s asset management operations. Ms. Russell joined Aegon Asset Management as CEO in 2010, and has been

a member of Aegon s Management Board since August 2016. Ms. Russell has been a non-executive director of Nordea Bank Abp and its predecessors since 2010, holds a Supervisory Board member position at the Nederlandse Investeringsinstelling, and is Vice Chairman of the Supervisory Board of La Banque Postale Asset Management. Ms. Russell is also a Board member of the American Chamber of Commerce, the Netherlands since May 2017.

Members of the Supervisory Board

Robert J. Routs (1946, Dutch)

Chairman of the Supervisory Board until May 18, 2018

Chairman of the Nomination and Governance Committee until May 18, 2018

Member of the Remuneration Committee until May 18, 2018

Robert J. Routs is a former Executive Director for Downstream at the energy company Royal Dutch Shell. He was appointed to Aegon s Supervisory Board in April 2008 and became Chairman in April 2010. Mr. Routs was re-appointed as a member of the Supervisory Board during the 2016 Annual General Meeting of Shareholders. Following a ten year tenure, Mr. Routs retired as per May 18, 2018.

William L. Connelly (1958, French)

Chairman of the Supervisory Board

Chairman of the Nomination and Governance Committee

Member of the Remuneration Committee

William L. Connelly is a former member of the Management Board of ING Bank, where he was responsible for ING s corporate, financial institutions and financial markets activities. He started his career at Chase Manhattan Bank, fulfilling senior roles in commercial and investment banking in France, the Netherlands, Spain, the United Kingdom and the United States. He was appointed to Aegon s Supervisory Board in 2017 and became Chairman in May 2018 and his current term ends in 2021. He is also chairman of the Supervisory Board Nomination and Governance Committee and member of the Supervisory Board Remuneration Committee. Mr. Connelly is also an independent director at the Board of Directors of Société Générale.

Robert W. Dineen (1949, American)

Member of the Remuneration Committee

Member of the Risk Committee

Robert W. Dineen was Vice Chairman of Lincoln Financial Network (LFN) and a member of the Senior Management Committee of Lincoln Financial Group (LFG), before retiring in 2013. Before joining Lincoln Financial Group, Mr. Dineen was Senior Vice President and head of Merrill Lynch s Managed Asset Group. He was appointed to Aegon s Supervisory Board in May 2014, and

his current term ends in 2022. He is a member of the Supervisory Board Remuneration Committee and the Supervisory Board Risk Committee.

Mr. Dineen was the non-executive Chairman of the Board of Aretec Inc (not listed, US-based) and was a member of Lincoln New York Life Company Board.

Mark A. Ellman (1957, American)

Member of the Audit Committee

Member of the Risk Committee

Mark A. Ellman is a former Vice Chairman Global Origination of Bank of America/Merrill Lynch. Before joining Bank of Amercia/ Merrill Lynch, he held various roles in the US insurance industry. These mostly entailed working in corporate finance at large US financial institutions, where he was engaged in M&A advice and transactions, together with equity and debt raisings for insurance companies. He was a founding partner of Barrett Ellman Stoddard Capital Partners. Mr. Ellman was appointed to Aegon s Supervisory Board in 2017, and his current term ends in 2021. He is a member of the Supervisory Board Audit Committee and the Supervisory Board Risk Committee.

Mr. Ellman was a non-executive director of Aegon USA from 2012 to 2017.

Ben J. Noteboom (1958, Dutch)

Chairman of the Remuneration Committee

Member of the Risk Committee

Ben J. Noteboom worked for Randstad Holding N.V. from 1993 until 2014, where he was appointed member of the Executive Committee in 2001 and became CEO in 2003. Before joining Randstad, Mr. Noteboom worked for Dow Chemical in several international management functions between 1984 and 1993. He started his career in 1982 at Zurel as management assistant. He was appointed to Aegon s Supervisory Board in May 2015, and his current term ends in 2019. He is Chairman of the Supervisory Board Remuneration Committee and a member of the Supervisory Board Risk Committee.

Mr. Noteboom is also a member of the Supervisory Board of Royal Ahold Delhaize N.V., Wolters Kluwer N.V. and Chairman of the Supervisory Board of Royal Vopak N.V. In addition, Mr. Noteboom is a member of the Board of Directors of VUmc Cancer Center Amsterdam and the Chairman of Stichting Prioriteit Ordina Groep.

Ben van der Veer (1951, Dutch)

Chairman of the Audit Committee

Member of the Nomination and Governance Committee

Ben van der Veer is former Chairman of the Board of Management of KPMG N.V. Mr. Van der Veer retired from KPMG on September 30, 2008, and was appointed to Aegon s Supervisory Board in October 2008. Mr. Van der Veer was re-appointed as a member of the Supervisory Board during the 2016 Annual General Meeting of Shareholders, and his third and final term ends in 2020. He is Chairman of the Supervisory Board Audit Committee and a member of the Supervisory Board Nomination and Governance Committee.

Mr. Van der Veer is a non-executive member of the Board of Directors of RELX PLC. He is also a member of the Supervisory Board of Royal FrieslandCampina N.V. (not listed), and member of the Supervisory Board of Royal Vopak N.V. since April 2018. Mr Van der Veer was a former member of the Supervisory Board of Royal Imtech N.V., TomTom N.V., and Siemens Nederland N.V. (not listed).

Dirk P.M. Verbeek (1950, Dutch)

Member of the Risk Committee until May 18, 2018

Member of the Nomination and Governance Committee until May 18, 2018

Dirk P.M. Verbeek is a former Executive Board member and former vice president Emeritus of Aon Group. Mr Verbeek is a member of the Advisory Council of OVG Real Estate (not listed). Mr. Verbeek was appointed to Aegon s Supervisory Board in 2008. He was a member of the Supervisory Board Risk Committee and the Supervisory Board Nomination and Governance Committee. Mr. Verbeek retired from the Supervisory Board as per May 18, 2018.

Corien M. Wortmann-Kool (1959, Dutch)

Vice Chairman of the Supervisory Board

Member of the Audit Committee

Member of the Nomination and Governance Committee

Corien M. Wortmann-Kool is Chairman of the Board of Stichting Pensioenfonds ABP, the Dutch public sector collective pension fund. Ms. Wortmann-Kool is a former Member of the European Parliament and Vice President on Financial, Economic and Environmental affairs for the EPP Group (European People s Party). She was appointed to

Aegon s Supervisory Board in May 2014, and her current term ends in 2022. She is Vice Chairman of the Supervisory Board, and a member of the Supervisory Board Audit Committee and the Supervisory Board Nomination and Governance Committee.

Ms. Wortmann-Kool is also a member of the Supervisory Board of Het Kadaster (not listed), member of the Advisory Council of the Centraal Bureau voor de Statistiek, Chairman of the Board of Trustees of Save the Children Netherlands and member of De Autoriteit Financiële Markten Capital Markets Advisory Committee. She was a member of the Supervisory Board of Mercedes-Benz Netherlands (not listed) until 2014, vice president of the European People s Party until March 2018 and member of the Advisory Council of the Centraal Bureau voor de Statistiek until June 2018.

Dona D. Young (1954, American)

Member of the Audit Committee

Chairman of the Risk Committee

Member of the Nomination and Governance Committee

Dona D. Young is an executive/board consultant and retired Chairman, President and Chief Executive Officer of The Phoenix Companies, which was an insurance and asset management company at the time of her tenure. She was appointed to Aegon s Supervisory Board in 2013, and her current term will end in 2021.

She is Chairman of the Supervisory Board Risk Committee, member of the Supervisory Board Audit Committee and member of the Supervisory Board Nomination and Governance Committee.

Ms. Young is member and Lead Director of the Board of Directors of Foot Locker, Inc. Furthermore, Ms. Young is Chair of the Audit Committee of the Board of Trustees of Save the Children US (not listed), and member of the Board of Save the Children International and Save the Children Association.

Report of the Supervisory Board

The Supervisory Board is entrusted with supervising and advising the Executive Board on management of the Company, and overseeing Aegon s strategy and the general course of its businesses.

Oversight and advice

The Supervisory Board is a separate independent corporate body, consisting of seven members on December 31, 2018. The Supervisory Board is charged with the supervision of the Executive Board, of the general course of affairs and strategy of the Company, and of its businesses. In performing their duties, members of the Supervisory Board are guided by the interests of Aegon and the Company s stakeholders.

The duties of the Supervisory Board with regard to the activities of members of the Executive Board are published in the Supervisory Board Charter, which is published on Aegon s corporate website, aegon.com. The Supervisory Board makes recommendations to the General Meeting of Shareholders concerning all appointments and reappointments to, and dismissals from, both the Executive Board and the Supervisory Board.

In addition, the Supervisory Board determines the remuneration of individual members of the Executive Board in line with the Remuneration Policy adopted at the Company s General Meeting of Shareholders. Overall accountability for Aegon s remuneration governance also resides with the Supervisory Board, which is advised by its Remuneration Committee. This includes the responsibility for designing, approving and maintaining the Aegon Group Global Remuneration Framework, including the remuneration policies for the Executive Board and Heads of Group Control functions.

Corporate governance

Details of Aegon s corporate governance structure and a summary of how the Company complies with the Dutch Corporate Governance Code can be found on pages 42-46 of this Annual Report and in the Corporate Governance Statement published on aegon.com.

Composition of the Supervisory Board and Executive Board

Supervisory Board

The composition of the Board is discussed regularly in Board meetings and in particular by the Nomination and Governance Committee. An overview of the composition of the Supervisory Board in 2018 can be found on pages 49-50. All members of the Supervisory Board are considered independent under the terms of best practice provisions 2.1.7, 2.1.8 and 2.1.9 of the Dutch Corporate Governance Code.

There were a number of changes to the Supervisory Board in 2018. Following a ten-year term, Rob Routs stepped down as Chairman and member of the Board at the Annual General Meeting of Shareholders on May 18, 2018. In addition, Dirk Verbeek stepped down after 10 years service at the Annual General Meeting of Shareholders on May 18, 2018. The Board benefitted from Mr. Routs and Mr. Verbeek s knowledge and contributions. The Supervisory Board elected William Connelly as its new Chairman following the Annual General Meeting of May 18, 2018.

On May 18, 2018, shareholders approved the reappointment of Corien Wortmann-Kool and Robert Dineen for an additional four-year term. The Supervisory Board is in the process of selecting new candidates for appointment, and will propose any such candidate(s) in due course for approval to the Company s shareholders.

In compliance with the Dutch Corporate Governance Code, members of the Supervisory Board are appointed by shareholders for a term of four years. The option exists to reappoint members for one additional four-year term. A Supervisory Board member can then subsequently be reappointed again for a period of two years, which reappointment may be extended by at most two years. For a reappointment after an eight-year period, reasons will be provided in the report of the Supervisory Board. The retirement schedule and other information about members of the Supervisory Board are available on aegon.com.

Executive Board

The Executive Board consists of Alexander R. Wynaendts, Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, Chief Financial Officer (CFO).

Members of the Executive Board are appointed by shareholders for a term of four years, with the option of reappointment for additional four-year terms. The appointment schedule and other information about members of the Executive Board are available on aegon.com.

Board meetings

Attendance

In 2018, the Supervisory Board had seven regular (face-to-face) meetings: four related to the quarterly results; one to the annual report; and two to strategy (including the budget and Medium Term Plan). Supervisory Board Committee meetings were usually held the day before the meetings of the full Supervisory Board. All regular board meetings were attended by all Board members. All committee meetings were attended by all committee members. An overview of Supervisory Board members attendance by meeting is provided in the table below.

Name	Regular SB meeting	Audit Committee	Risk Committee	Remuneration Committee	Nomination & Governance Committee	Combined Audit & Risk Committee
Rob Routs [1]	3/3	-	-	3/3	3/3	-
Bill Connelly [1]	7/7	4/4	-	6/6	5/5	-
Bob Dineen [1]	7/7	4/4	4/4	3/3	-	1/1
Mark Ellman	7/7	6/6	4/4	-	-	1/1
Ben Noteboom	7/7	-	4/4	6/6	-	1/1
Ben van der Veer	7/7	6/6	-	-	8/8	1/1
Dirk Verbeek [1]	3/3	-	2/2	-	3/3	-
Corien Wortmann	7/7	6/6	-	-	8/8	1/1
Dona Young [1]	7/7	6/6	4/4	-	5/5	1/1

1 Where a Supervisory Board member retired from the SB, stepped down from a Committee or was appointed throughout the year, only meetings during his/her tenure are taken into account.

Members of the Executive Board and Management Board attended the Supervisory Board meetings held in 2018 when relevant with regard to the meeting agenda. At the request of the Supervisory Board, other Company executives also attended the meetings to provide reports and updates on specific topics. Representatives from Aegon s external auditor PwC attended the March 2018 Supervisory Board meeting on Aegon s 2017 Annual Report. PwC also attended all 2018 Audit Committee meetings except for the October deep dive meeting in Edinburgh, the UK, focused on Aegon UK and the combined Supervisory Board Audit and Risk Committee in December. Regular Board meetings were preceded or followed by meetings attended only by the members of the Supervisory Board and the CEO. Furthermore, the Supervisory Board held meetings without the presence of Executive Board or Management Board members.

Highlights and activities

Key topics discussed during the 2018 Supervisory Board meetings were Aegon s quarterly results and semi-annual and annual reporting, Aegon s strategy, the main business risks, IT, regulatory developments, acquisitions and divestments and human resources items.

Quarterly results were discussed on the basis of feedback from the Audit Committee. The full-year results reported in this Annual Report were discussed in the March 2019 meeting in the presence of the external auditor PwC. At the Supervisory Board meeting in December 2018, the budget for 2019 was approved and the Medium Term Plan was discussed.

The Supervisory Board regularly discussed the long-term value creation strategy with the Executive Board and the Management

Board, and closely monitored its execution, the risks involved in its execution, and any opportunities to further enhance the strategy where necessary. Every year during the Supervisory Board strategy meeting, the strategy is discussed as part of the annual strategy process. Plans and projects were discussed during executive sessions and in regular meetings, together with the strategic focus for all operating segments. Furthermore, digitization and the cultural transformation of the business were additional important strategic priorities that were discussed during the Supervisory Board meetings.

Acquisitions and divestments were regularly discussed in the context of the execution of the strategy. The Supervisory Board supports the active management of the business portfolio with add-on acquisitions, the sale of underperforming businesses and the disposals of entities no longer consistent with Aegon s strategy. During the year, the Board discussed various M&A transactions, including but not limited to the acquisition of Robidus in the Netherlands, the divestment of the businesses in Czech Republic, Slovakia and Ireland and the divestment of the last block of US life reinsurance business to SCOR

Global Life.

In recognition of the importance of succession planning and talent management, the Board received updates from Aegon s Global Head Human Resources on progress made towards achieving the objectives of Aegon s talent agenda: continuing to attract new staff with a wide range of different skills and experience; identifying sufficiently qualified succession candidates; and strengthening the talent pipeline for future succession. The Board also received and discussed the results of the annual global employee survey.

In 2018, Supervisory Board discussions included the following topics:

- Strategy, including Aegon s long-term value creation, its responsible business strategy and business reviews;
- Acquisitions, divestments and the strategic direction of Aegon s businesses, including the organizational transformation throughout the business, such as the strategic partnership to outsource administration of the majority of Transamerica s insurance and annuity business, and the decision made by Aegon UK to extend the partnership with Atos for administration services.
- Executive Board and senior management succession planning;
- Executive remuneration, including the risks of the remuneration framework;
- Corporate Governance;
- Composition of the Supervisory Board, including the Board s effectiveness;
- Human resources, including talent development, results of the global employee survey, cultural change and the risks of cultural behavior within the Company;
- Annual and quarterly results, dividends and the Company s Medium Term Plan, including the 2019 budget, capital and funding plan;
- Capital generation and Solvency II capital position, including regulatory capital reports and actions following the changes in the US Capital Framework for Variable Annuities resulting in the merger of two US legal entities;
- Enterprise risk management, cybersecurity and information security risks, and the risks related to the execution of the strategy within the Company;
- Investor relations, including shareholder listing, market analysis and roadshow feedback;
- Legal, regulatory and compliance issues, including Aegon s engagement with regulators, and the settlement with the SEC and the settlement in relation to the universal life litigation in the US;
- Highlighted topics by Supervisory Board Committees;
- Regulatory changes at both a regional and global level;
- Tax policy and tax developments; and
- Technology, including the technology strategy, technological developments and innovations, and how they can be used to enhance customer centricity.

Results and budget

In February 2018, the Supervisory Board convened to discuss the fourth quarter 2017 results. In March 2018, the Supervisory Board reviewed and adopted Aegon s 2017 Annual Report, the Consolidated Financial Statements of Aegon N.V., the Financial Statements of Aegon N.V., and the Annual Review of 2017. In May, August and November, the Supervisory Board reviewed Aegon s first, second and third quarter 2018 results respectively.

In December 2018, the Supervisory Board and Management Board reviewed the Company s Medium Term Plan, including the budget and capital plan for 2019. The Boards took note

of the uncertainties and challenges in the coming years as described in the Plan. These included, among others: increased regulatory requirements, low interest rates, market volatility, digital developments, and the changing distribution landscape. The Board discussed Aegon s free cash flow and capital projections, together with the continued focus on cost efficiency. The Plan provides for a continuation of investments in digital capabilities to increase customer connectivity. The Supervisory Board supported the Plan and approved the budget for 2019. The Board also approved the 2019 funding plan and authorized the Executive Board to execute on the funding plan in

2019.

Legal, compliance and regulatory affairs

In 2018, the Supervisory Board and the Audit Committee discussed a number of compliance, regulatory and legal topics relating to the Americas, Europe, Asia, and Asset Management with management, the Global Head of Group Legal & Regulatory Compliance and the Global Head of Operational and Conduct Risk Management. In particular, the Board discussed the consequences and actions resulting from being designated as a Global Systematically Important Insurer (G-SII) and the settlement with the US Securities and Exchange Commission (SEC) with regards to the operation and implementation of asset management quantitative models by Aegon s US asset management operations, and related disclosures. The Board furthermore discussed the settlement that resolved litigation challenging certain monthly deduction rate adjustments on universal life insurance policies in the United States. An overview of the topics discussed in the field of Risk Management can be found in the Audit Committee and Risk Committee sections below.

The Chairs of the Supervisory Board, Audit Committee and Risk Committee visited the group supervisor (Dutch Central Bank, DNB) in the first half of 2018 for their annual meeting.

Educational sessions

The Board and its Committees received updates and presentations on topics including developments in acquisitions and divestments, corporate governance and regulatory compliance, roles and responsibilities of the Board and the management and remuneration regulations for the insurance sector, responsible business and information technology. In addition to these updates and presentations from the Company, the members of the Supervisory Board gathered general information on industry developments by participating in networks, reading independent reports and sharing knowledge with other Board members within and outside Aegon. The Board visited local offices and employees in Asia, the UK and the US and was furthermore in particular informed on the strategic direction of Aegon s activities in Europe, Asia and Asset Management and on the transformation processes within the Company. In addition, the Board was updated on the developments around the General Data Protection Regulation and on the Asset and Liability Management within the Company. The Audit Committee furthermore held a meeting dedicated to Aegon UK developments.

Board review

The Supervisory Board undertakes a Board review on an annual basis, and an external assessment takes place at least once every three years. At the end of 2017, a self-assessment was undertaken by the Board and the results of this self-assessment were discussed at the beginning of 2018. Over 2018, an external assessment of the Supervisory Board will be conducted. The results of this assessment and the priorities and follow-up will be discussed in the beginning of 2019. In the assessment each member of the Board will be interviewed on the basis of a completed questionnaire. The Board review assesses the collective performance and effectiveness of the Board and its Committees, and the performance of the Chairman and the individual members of the Board. In doing so, it addresses the composition, competencies, expertise and profile of the Board, the meeting processes and procedures, the mutual interaction, dynamics and communication in the Board, and the Board s key areas of supervision. The questionnaire further addresses events from which lessons can be learned, and reviews the mutual interaction between the Supervisory Board and the Executive Board and Management Board. With regard to this mutual interaction, the 2018 Supervisory Board review also includes input from the Management Board. In 2018, the Supervisory Board acted on the priorities and follow-ups that were listed following the self-assessment over 2017.

The performance of the members of the Executive and Management Board was discussed regularly during 2018. The Supervisory Board reviewed the performance of individual members of the Executive and Management Board over the preceding calendar year in February 2018. In addition, the Supervisory Board discussed the cooperation and communication between the Supervisory Board and Management Board in 2018.

Supervisory Board Committees

The Supervisory Board has four Committees that discuss specific issues in depth and prepare items about which the full Board makes decisions. The Committees report verbally about their discussions, and they are discussed in full at Supervisory Board meetings. Supervisory Board members receive all minutes of the Committee meetings. These meetings are open to all members of the Board, regardless of membership of the Committees. All Committee reports were prepared by the respective Committees and approved by the Supervisory Board. These reports provide an overview of the responsibilities and activities of the Committees.

The four Committees are the:

- Audit Committee;
- Risk Committee;
- Nomination and Governance Committee; and
- Remuneration Committee.

The Risk Committee is responsible for supervising the activities of, and advising the Supervisory Board s Audit Committee with respect to, the Company s enterprise risk management framework and internal control systems. The Audit Committee primarily relies on the Risk Committee for these topics, as stated in the Dutch Corporate Governance Code.

The Audit Committee

Composition

On December 31, 2018, the composition of the Audit Committee was as follows:

- Ben van der Veer (chair);
- Mark A. Ellman;
- Corien M. Wortmann-Kool; and
- Dona D. Young.

The members of the Audit Committee meet all relevant independence and experience requirements of financial administration and accounting for listed companies.

The Committee confirmed that all of its members qualified as independent according to Rule 10A-3 of the SEC, and it also confirmed that the Chairman of the Audit Committee, Ben van der Veer, qualified as a financial expert according to the Sarbanes Oxley Act in the United States and his competence in accounting and auditing according to the Audit Committee Decree 2016 (*Besluit instelling auditcommissie*), section 2(3).

Role and responsibilities

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.

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.

Committee meetings

In 2018, the Audit Committee held seven meetings, one of which was a combined meeting with the Risk Committee of the Supervisory Board in December 2018. As part of regular deep-dive sessions, a separate meeting took place in October in the UK dedicated to Aegon s business in the UK. Topics for discussion included the developments within Aegon UK in general, the capital generation, operational management including outsourcing and the digital solutions and integration initiatives within Aegon UK. Audit Committee meetings were attended by the members of the Audit Committee, Aegon s Chief Financial Officer, the Head of Corporate Financial Center, the Chief Risk Officer, the Chief Internal Auditor, and partners of PwC, Aegon s external auditor.

Members of Aegon s Group Risk, Group Legal & Regulatory Compliance, Investor Relations, Tax, Actuarial and Business departments regularly attended Audit Committee meetings. Aside from the Audit Committee meetings, additional sessions were held with internal and external auditors without members of the Executive Board or senior management present.

Financial Reporting

In discharging their responsibilities with regards to the 2018 interim and full year financial statements, the Audit Committee:

- Reviewed and discussed the management letter and follow up actions with PwC, Internal Audit, the Executive and the Management Board;
- Discussed PwC s quarterly reports leading to a review opinion on the interim financial statements;
- Received presentations on various topics by local business unit managers and chief financial officers; and
- Reviewed and discussed areas of significant judgments in the preparation of the financial statements, including, in particular: Solvency II, investment valuation and impairments, economic and actuarial assumption setting, and model validations.

The Audit Committee was satisfied with the explanations provided by PwC, Internal Audit and Executive and Management Board, and conclusions reached. Recurring items on the Audit Committee agenda in 2018 were Solvency II developments, controls, capital and liquidity, legal and compliance updates, and preparations for IFRS 9 and IFRS 17. Other items included the capital and funding plans and the performance review of the internal audit function.

Risk management and internal controls

With respect to their oversight of internal controls (provided they did not pertain to the work and responsibilities of the Risk Committee) the Audit Committee:

- Reviewed and approved the internal and external audit plans for 2018 and monitored execution, including progress in respect of recommendations made;
- Discussed quarterly updates on the activities of the internal audit function, together with details of progress on internal audits with the internal auditor. Areas of focus in 2018 included the Internal Audit strategy, audit planning process, Internal Audit charter, quality assurance reviews, issue tracking and resolution, control environment, Information Security, Solvency II, third party management and outsourcing, performance management and integrity;
- Contributed to the appointment process of the new Global Head of Internal Audit;
- Reviewed the internal control framework, among others with respect to the Sarbanes Oxley Act; and
- Discussed the internal control statement with the Executive Board.

In addition, the Committee reviewed quarterly legal and compliance updates.

External audit effectiveness

The Audit Committee discussed and approved the external auditor s engagement letter for 2018 and contributed to the appointment process of the new lead partner(s). Aegon has well-established policies on audit effectiveness and independence of auditors that set out, among other things:

- The review and evaluation of the external auditor and the lead partner of the external audit team on at least an annual basis;
- Non-audit services performed by the external auditor;
- Rotations of the external auditor and lead partner; and
- Discussions about planning and staffing of the external audit activities.

For more information about the policies relating to the effectiveness and independence of the external auditor, please see Annex A, B and C of the Audit Committee Charter on aegon.com.

The Risk Committee

Composition

On December 31, 2018, the composition of the Risk Committee was as follows:

- Dona D. Young (chair);
- Robert W. Dineen;
- Mark A. Ellman; and
- Ben J. Noteboom.

Role and responsibilities

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 responses and internal control effectiveness;
- Risk monitoring; and
- Risk reporting.

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.

Committee meetings

The Risk Committee works closely together with the Audit Committee and has an annual combined meeting, which in 2018 was held in December. This combined meeting focused on the Group integrated risk reporting, the preparations for IFRS 9 and IFRS 17, the evaluation of internal controls, cyber security and information security.

The Risk Committee convened five times in 2018, including the combined meeting with the Audit Committee. The Company s Chief Executive Officer and Chief Risk Officer attend all the Committee meetings. The Chief Financial Officer had a standing invitation to attend the Committee meetings, and also attended one of the meetings in 2018. Other Management Board members and senior managers attended the meetings when relevant for the discussion.

Risk management and Internal controls

Recurring items on the Risk Committee agenda in 2018 were risk exposure information, risk policy compliance monitoring, and risks associated with large modernization and change programs in the company. The Risk Committee assessed the effectiveness of the design and operation of the ERM framework and internal control systems in 2018 by:

- Discussing the quarterly risk dashboard, including all material group level risks, with the Executive Board members and relevant senior managers. The material group level risks consisted of financial, actuarial and operational risks, including cybersecurity and information security risks and controls;
- Assessing a quarterly modernization dashboard that outlined risks with regards to the execution of the strategic change programs in each region, and how those risks were monitored and mitigated;

- Discussing in-depth regional programs, referred to as Control Excellence , focused on internal controls and operational risk management with the relevant CROs;
- Reviewing the Group Risk appetite, which consists of the risk strategy and risk limits and tolerances; and
- Reviewing the risk governance structure and risk competencies, including the skills necessary for the risk function.

The Risk Committee also discussed several regulatory topics on a regular basis, including the DNB Focus report and the consequences and actions following the designation of Aegon as a G-SII in November 2015. The Risk Committee furthermore spent time on the Group ORSA report, the strategic human resources program Future Fit and on risks and approaches in dealing with third party relations of the Company. In addition, the Risk Committee dedicated time to wider developments in the geopolitical environment, including risks associated with Brexit and financial markets in 2018, and to an educational session on Asset and Liability Management within the Company.

The Nomination and Governance Committee

Composition

On December 31, 2018, the composition of the Nomination and Governance Committee was as follows:

- William L. Connelly (chair);
- Ben van der Veer;
- Corien M. Wortmann-Kool; and
- Dona D. Young.

Role and responsibilities

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 includes:

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

Committee meetings

Aegon s Nomination and Governance Committee held eight meetings in 2018. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

Further to the activities mentioned below, the Nomination and Governance Committee discussed the Company s responsible business strategy. The Nomination and Governance Committee also reviewed the important outside board positions of the members of the Management and Supervisory Board, and discussed specific appointments to important outside board positions where applicable.

Supervisory Board related activities

The Nomination and Governance Committee discussed the composition of the Supervisory Board and its Committees and governance topics. The profile of Supervisory Board members, as well as their capabilities in terms of working collectively with other members of the Supervisory Board, were debated by the Committee. Furthermore, the existing and impending vacancies in the Supervisory Board were discussed and a search process for fulfilling those vacancies was ongoing. A Supervisory Board competency overview is published on aegon.com.

Executive Board related activities

During 2018, the Nomination and Governance Committee reviewed the composition of the Executive Board. Considering the appointment schedule of the Executive Board, the Nomination and Governance Committee evaluated Mr. Wynaendts career at Aegon and his functioning as CEO of the Company, and advised the Supervisory Board to nominate Mr. Wynaendts for reappointment to the shareholder. The Nomination and Governance Committee furthermore reviewed the composition of the Management Board, together with the functioning and effectiveness of the Board members, both individually and as a team. Acknowledging the importance of good succession planning, the Committee discussed with the CEO and Aegon s Global Head Human Resources the extent to which sufficient internal candidates are available to fill positions at Executive Board, Management Board and senior management level both in the event of emergency and when positions open up in the future. The CEO also discussed changes in the global senior management team with the Nomination and Governance Committee during the year. The Committee was kept appraised of developments in employee engagement, talent management and international mobility. As in previous years, the Supervisory Board noted that Aegon continued to make progress in order to ensure proper succession planning is in place. The Supervisory Board was also informed about the annual Global Employee Survey, which was conducted at the end of 2018. The Supervisory Board discussed the outcome of this survey in detail in the first quarter of 2019.

Diversity

Enhancing diversity in the Executive, Management and Supervisory Board is an important issue for Aegon. Selection and appointment is based on expertise, skills and relevant experience, and the Supervisory Board takes diversity into account with a view to achieving its aim of having a balanced Supervisory, Executive and Management Board composition. In 2017, the Supervisory Board adopted a diversity policy for the Executive, Management and

Supervisory Board.

The Supervisory Board is aware that the current composition of the Executive and Supervisory Board does not meet the balanced composition requirement under Dutch law with regard to gender diversity (at least 30% of the positions should be filled by women and at least 30% by men). Following the appointment of Corien Wortmann-Kool to the Supervisory Board in 2014, the gap in terms of the balanced composition was reduced, and the Supervisory Board currently has two female Board members. When identifying candidates for open positions in the Executive, Management and Supervisory Board, the Board actively searches for female candidates. It also instructs external search firms to present female candidates. While this has had a positive effect, the requirement has not yet been fully met. More information on diversity within the Board is available in the Supervisory Board Composition and Competency Overview as published on aegon.com.

The Remuneration Committee

Composition

On December 31, 2018, the composition of the Remuneration Committee was as follows:

- Ben J. Noteboom (chair);
- William L. Connelly; and
- Robert W. Dineen.

Role and responsibilities

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 remuneration policies;
- Preparing recommendations regarding variable compensation both at the beginning and at the end of the performance year;

Overseeing the remuneration of the Executive Board and Heads of Group Control functions; and
Preparing the information provided to shareholders on remuneration policies and practices, including the Remuneration Report.

Committee meetings

The Remuneration Committee had six meetings in 2018. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

In 2018, the Remuneration Committee oversaw the further application, implementation and approval of Aegon s Group Global Remuneration Framework and the various policies and procedures related to it, including the Remuneration Policy for Identified Staff. This included:

Setting the 2018 performance indicators and targets for remuneration purposes;
Preparing the 2019 performance indicators for remuneration purposes;
Allocating variable compensation related to 2017;
Overseeing the scenario analysis of payout levels under the Executive Board Remuneration Policy; and
Reviewing and/or approving the ex-ante assessments and ex-post assessments, any exemption requests under the remuneration policies, and changes to the list of Identified Staff.

In addition, the Remuneration Committee discussed possible developments with regards to regulations pertaining to remuneration.

Annual Accounts

This Annual Report includes the Annual Accounts for 2018, which were prepared by the Executive Board and discussed by both the Audit Committee and the Supervisory Board. The Annual Accounts are signed by the members of the Executive Board and the Supervisory Board, and will be placed on the agenda of the 2019 Annual General Meeting of Shareholders for adoption. The Supervisory Board recommends that shareholders adopt the annual accounts.

Acknowledgement

The members of the Supervisory Board are very grateful for the work undertaken by Executive and Management Boards in pursuit of Aegon s purpose of helping people achieve a lifetime of financial security.

We would like to thank Aegon s employees for all they do to serve Aegon s millions of customers, and furthermore we would like to express our thanks to Aegon s business partners and loyal customers for their continued confidence in the Company.

Finally, the Board wishes to thank all those who invest in Aegon for their continued trust and confidence.

The Hague, the Netherlands, March 21, 2019.

William L. Connelly

Chairman of the Supervisory Board of Aegon N.V.

Remuneration report

The Aegon Group Global Remuneration Principles provide the foundation for remuneration policies and practices throughout Aegon. They are applied regionally and/or locally.

Global Remuneration Principles

The key pillars of the Aegon Group Global Remuneration Principles are as follows:

- Aegon remuneration is employee-oriented by: fostering a sense of value and appreciation in each individual employee; promoting the short- and long-term interests and well-being of all Aegon staff via fair compensation, pension and/or other benefits; supporting employees career development; and supporting the (international) mobility of its staff;
- Aegon remuneration is performance-related by: establishing a clear link between pay and performance by aligning objectives and target setting with performance evaluation and remuneration; reflecting individual as well as collective performance in line with Aegon s long-term interests; enhancing the transparency and simplicity of Aegon Group remuneration, consistent with the principle of pay for performance; and avoiding any pay for non-performance;
- Aegon remuneration is fairness-driven by: promoting fairness and consistency in Aegon s remuneration policies and practices, with remuneration packages that are well-balanced across the different echelons within Aegon and its business units; avoiding any discrimination in Aegon s remuneration structures, including, among others, discrimination based on nationality, race, gender, religion, sexual orientation, and/or cultural beliefs; creating global alignment in the total compensation of all Identified Staff; and aiming at controlled market competitive remuneration, by providing total compensation packages in line with an appropriately established peer group at a regional unit, country and/or functional level;
- Aegon remuneration is risk-prudent by: aligning business objectives with risk management requirements in the target setting practices throughout the Aegon Group; giving an incentive to appropriate risk-taking behavior while discouraging the taking of excessive risks; and protecting the risk alignment effects embedded in the remuneration arrangements of individual staff against any personal strategies or insurance to counter them.

These key pillars are set out in the Aegon Group Global Remuneration Framework (GRF). The GRF applies to all Aegon employees. It contains the guiding principles for remuneration and therefore supports the consistent setting of sound and effective remuneration policies throughout the Company. The GRF has been designed in accordance with relevant rules, guidelines and interpretations, for instance the Decree on Sound Remuneration Policy (Regeling beheerst beloningsbeleid (Rbb) Wft 2014) from the DNB, and the 2015 Act on the Remuneration

Policy of Financial Undertakings (Wet beloningsbeleid financiële ondernemingen, Wbfo 2015 stb 2015, 45).

Aegon s remuneration policies are derived from the GRF, among which is the Executive Board Remuneration Policy. These policies define specific terms and conditions for the employment of various employee groups. All steps in the remuneration process are governed by the GRF and its underlying policies. Staff from Human Resources, Risk Management, Compliance and Audit are involved in all steps of the process.

In 2018, there was one remuneration regulation change that affected Aegon. As per December 8, 2017, the Rbb has been withdrawn for insurers. However, as this announcement was made shortly before the start of the performance year, Aegon decided not change any of its remuneration policies or processes related to this performance year and continued to apply Rbb on a voluntary basis in 2018. For this reason, Aegon s 2018 remuneration practices and processes did not change materially compared to 2017.

The Wbfo 2015 has a provision that makes it possible to offer employees up to a maximum variable compensation opportunity that is equal to the European CRD IV compensation ratio (i.e. 100% of fixed compensation). This provision was specifically created for corporate office employees of companies based in the Netherlands, which employed at least 75% of their employees abroad. In 2018, Aegon met this criterion and offered selected senior corporate office employees a variable compensation opportunity up to this maximum.

In line with another Wbfo 2015 provision, Aegon has obtained shareholder approval at the Annual General Meeting of Shareholders of May 20, 2016 to offer a maximum variable compensation opportunity up to 200% of fixed compensation to selected senior employees outside Europe in positions that, based on local market practice, could receive variable compensation that exceeds 100% of fixed compensation. Within this mandate, Aegon offered selected senior employees outside Europe such an opportunity in 2018. The Company s capital was not adversely impacted by the maximum variable compensation that could be paid out.

In 2018 Aegon paid out EUR 207 million in variable compensation and 21 employees received EUR 1 million or more in total annual compensation (i.e. the sum of fixed and variable compensation paid/vested in 2018). These employees worked for

Aegon s Corporate Center, Aegon Americas, Aegon UK and Aegon Asset Management.

Role of Risk Management and Compliance

Variable compensation may have an impact on risk-taking behaviors and, as such, may undermine effective risk management. The opportunity to receive high variable compensation can lead to excessive risk taking, which can have a material impact on the company s financial soundness. To avoid such undesired effects, both the Risk Management and Compliance functions are involved in the design and execution of remuneration policies and practices.

The GRF includes separate remuneration policies for three specific groups of employees. This is in recognition of the fact that these employees roles and responsibilities require specific risk mitigating measures and governance processes. These remuneration policies are for: (i) the Executive Board; (ii) material risk takers (Identified Staff); and (iii) Control Staff. Given the rationale for having a separate policy for material risk takers and the risk mitigating measures that are applied to the remuneration of these individuals, Risk Management is involved in deciding which positions are deemed Identified Staff . Furthermore, where exceptions to the policies are requested to reflect local practices or regulations, Risk Management and Compliance are involved in order to ensure such exceptions do not undermine effective risk management and that sufficient mitigating measures are undertaken.

In addition, 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 GRF and associated practices are aligned with the defined risk tolerances and behaviors. The risk mitigating measures are aimed at various moments in the variable compensation process: when the targets are set, before a variable compensation award is allocated, before deferred parts of the award are paid and after pay-out of the award (when relevant).

Aegon endeavors to seek an appropriate balance of ex-ante and ex-post assessments to ensure effectiveness in both the short- and long-term risk taking behavior of employees.

General compensation practices

Aegon has a pay philosophy based on total compensation. This means that the aim is for total remuneration for experienced and competent employees to be consistent with those in the markets in which Aegon operates and competes for employees. Total compensation typically consists of fixed compensation and where in line with local market practices variable compensation. Market survey information from reputable sources is used to provide information on competitive compensation levels and practices.

Variable compensation, if any, is capped at an appropriate level as a percentage of fixed compensation. Variable compensation for senior management is usually paid out in cash and shares over multiple years, and is subject to further conditions being fulfilled. Additional holding periods may apply to shares after they have vested, restricting their sale for a further one to three years. Variable compensation already paid out may also be retrieved under certain circumstances (Claw-back).

In the following sections more detailed information is provided on the compensation practice for the Supervisory Board and the Executive Board.

Supervisory Board Remuneration Policy 2018

Aegon s Supervisory Board Remuneration Policy is aimed at ensuring fair compensation, and protecting the independence of the 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 Supervisory Board.

Members of the Supervisory Board are entitled to the following:

- A base fee for membership of the Supervisory Board. No separate attendance fees are paid to members for attendance at the regular Supervisory Board meetings;
- An attendance fee for each extra Board meeting attended, be it in person or by video and/or telephone conference;
- A committee fee for members on each of the Supervisory Board s Committees;
- An attendance fee for each Committee meeting attended, be it in person or through video and/or telephone conference; and
- An additional fee for attending meetings that require intercontinental travel between the Supervisory Board member s home location and the meeting location.

Each of these fees is a fixed amount. Members of Aegon s Supervisory Board 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.

Under the current policy, as approved by shareholders at the Annual General Meeting on May 15, 2013, members of the Supervisory Board are entitled to the following payments:

Base fee for membership of the Supervisory Board	**EUR/year**
Chairman	80,000
Vice-Chairman	50,000
Member	40,000

Fee for membership of a Supervisory Board committee	**EUR/year**
Chairman of the Audit Committee	13,000
Member of the Audit Committee	8,000
Chairman of other committees	10,000
Member of other committees	5,000

Attendance fees	**EUR**
Extra Supervisory Board meeting	3,000
Audit Committee	3,000
Other committees	2,000

Information on members of the Supervisory Board and the composition of Aegon s four committees Audit, Nomination and Governance, Remuneration and Risk can be found on pages 54-58.

Details on the remuneration of the Supervisory Board over the course of 2018 can be found in the Supervisory Board Remuneration Report 2018 on page 306.

Future changes

Absent unforeseen circumstances, the General Meeting will be asked to approve an amendment to Remuneration Policy for members of Supervisory Board in May 2019. This amendment contains a proposal to change some of the fees to which the members can be entitled.

Executive Board Remuneration Policy 2018

The following section describes how the Company applies the principles of good governance relating to the remuneration of its Directors. It was prepared by the Remuneration Committee of Aegon N.V. in accordance with the Dutch Corporate Governance Code, and was approved by Aegon N.V. s Supervisory Board.

The Executive Board Remuneration Policy that has been applied in 2018 was adopted at the General Meeting of Shareholders on May 12, 2011. This policy has been subject to annual reviews by the Supervisory Board.

Annual Remuneration Policy review

The Supervisory Board has the overall responsibility for the company s Remuneration Policies, including the Executive Board Remuneration Policy. The Supervisory Board established the Remuneration Committee from among its members. This committee has to ensure that the remuneration policies are consistent with the longer-term strategy of the company and the longer-term interest of its shareholders, investors and other stakeholders, as well as the public at large. For this purpose,

the Remuneration Committee reviews the Executive Board Remuneration Policy each year and may recommend policy changes to the Supervisory Board. When these recommendations are supported by the Supervisory Board, the policy changes are proposed to the General Meeting of Shareholders for adoption.

Future changes

Compensation for individuals in the financial sector, in particular for those who could materially influence the risk profile of the organization such as the Executive Board members, continue to be a focus of political and regulatory attention. Aegon will ensure compliance if and when new remuneration regulations come into force.

Aegon took note of the implementation of the Shareholder Rights Directive in the Netherlands per 2019. This will likely require Aegon to amend the current Executive Board Remuneration Policy in the near future.

Total compensation

Total compensation for Executive Board members is defined in the Executive Board Remuneration Policy as a combination of fixed compensation, variable compensation, pension and other benefits.

In line with this policy, the Supervisory Board has determined a maximum total compensation level for each Executive Board member, reflecting the specific roles, responsibilities, qualifications, experience and expertise of the individual. In addition to that, the Remuneration Committee conducts regular scenario analyses to determine the long-term effect of the level and structure of compensation granted to each Executive Board member and reports their findings to the Supervisory Board.

Each year, the Remuneration Committee reviews these total compensation levels of the Executive Board members to ensure they remain competitive and provide proper and risk-based incentives.

In order for the Remuneration Committee to assess the competitiveness, they gather benchmark data on compensation levels at comparable companies, in accordance with the applicable rules and regulations. These comparable companies form a peer group and have been selected by the following criteria:

- Industry (preferably life insurance);
- Size (companies with similar number of employees, assets, revenue and market capitalization);
- Geographic scope (preferably the majority of revenues generated outside of the country of origin); and
- Location (companies based in Europe).

Based on these criteria the current peer group consists of the following 14 companies: Allianz, Aviva, Axa, CNP Assurances, Generali, Legal & General, Mapfre, Münchener Rückversicherung, NN Group, Old Mutual, Prudential plc., Standard Life, Swiss Re and Zurich Financial Services.

In addition, a reference group is used in order to monitor alignment with the general industry in the Netherlands. This is comprised of the 12 leading companies listed on Euronext Amsterdam, excluding financial services providers.

The Remuneration Committee and the Supervisory Board regularly review the composition of the two groups in order to ensure that they continue to provide a reliable and suitable basis for comparison. The last change to these two groups as a result of this review was in 2015.

Based on the results of the annual competitiveness review and discussions with the Executive Board members regarding their remuneration level and structure, the Remuneration Committee may recommend changes to the compensation levels of the Executive Board members. These recommendations are subsequently discussed by the Supervisory Board, which can approve, revise or reject them.

The Supervisory Board, based on the Remuneration Committee review, discussed and approved the 2018 total compensation for the Executive Board.

Fixed compensation

The fixed compensation for the Executive Board members is paid in monthly installments.

Variable compensation

Aegon believes that variable compensation strengthens the commitment of Executive Board members to the Company s objectives, business strategy, risk tolerance and long-term performance. The variable compensation award

is based on annual performance against a number of individual and Group performance indicators

- These performance indicators are a mix of financial and non-financial indicators with a one-year performance horizon.

- The result of an individual performance indicator must exceed a predefined threshold level, before this indicator contributes to the overall performance result. When an indicator result is below this threshold, the contribution of this indicator to the overall performance result is zero (i.e. a circuit breaker).
- In case the performance of an indicator exceeds the target, the contribution of this indicators is capped once it reaches a predefined maximum level. This means that strongly exceeding performance on one specific indicator can only contribute up to a certain level to the overall performance result (i.e. a contribution cap).
- These indicators are regularly evaluated by experts in the company s Finance, Risk Management, Business Control, Audit, Human Resources and Compliance departments to ensure alignment with the company s objectives, business strategy, risk tolerance and long-term performance remains strong.

At the start of the performance year, the Remuneration Committee drafts a recommendation on which performance indicators apply to each Executive Board member, as well as what the threshold, target and maximum levels are per indicator. This recommendation is subsequently reviewed by the Company s Risk Management team (i.e. the ex-ante risk assessment) before it is send to the Supervisory Board. The Supervisory Board can approve, revise or reject the recommendation, taking the results of the risk assessment into account.

Once the Supervisory Board has approved the performance indicators for each Executive Board member, the Executive Board members are granted their conditional variable compensation award for that performance year. This conditional award is equal to their at target variable compensation level, which consists of 50% cash and 50% Aegon shares.

After the completion of the performance year, the Remuneration Committee prepares a recommendation for the allocation of a variable compensation award to each Executive Board member. This recommendation is based on the results on each of the applicable performance indicators, related threshold, target and maximum levels and another ex-ante risk assessment by the Company s Risk Management team. This risk assessment looks into whether there are reasons for a downward adjustment of the intended variable compensation award. For this purpose, quantitative and qualitative measures at group, regional unit and individual level are taken into account, such as:

- Breaches of laws and regulations;
- Breaches of internal risk policies (including compliance);
- Significant deficiencies or material weaknesses relating to the Sarbanes-Oxley Act; and
- Reputation damage due to risk events.

Based on this risk-assessment, the Remuneration Committee can include a proposal to adjust an intended variable compensation in their recommendation. This adjustment can only be downwards. The Remuneration Committee sends its recommendation and the ex-ante risk assessment to the Supervisory Board, which based on its informed judgement can approve, revise or reject the recommendation. This Supervisory Board decision includes validating that, when taken together, the results of the performance indicators represent a fair reflection of the overall performance of the Executive Board member over the performance year.

In line with the applicable rules and regulations, the allocated variable compensation award is split into equal parts of cash and Aegon shares, of which 40% is paid out (or vests) in the year following the performance year, and 60% is deferred to later years. This deferred portion remains conditional until it vests.

The deferred parts vest in equal tranches over a three-year period. After an ex-post risk assessment, which may lower the vesting parts, these individual parts are paid 50% in cash and 50% in shares. The shares are restricted for a further period of three years (with the exception of shares withheld to cover for the payment of any applicable taxes, social security premiums

and possible other deductions by the government due for which the company holds a withholding obligation in connection with the vesting of the shares).

The variable compensation payout can be illustrated by the following example and the table below. For every 1,000 in variable compensation that is allocated following the performance year, 400 is paid out/vested in the year following that performance year (N in the following table). This part will be paid 50% in cash (=200) and 50% in shares vesting immediately (=200/Aegon share price at grant = number of allocated shares). The remaining 600 is deferred and vests according to a pre-defined schedule.

For the calculation of the conditionally granted and allocated shares, the company applies the share price at grant. This grant price is equal to the volume weighted average price on the Euronext Amsterdam stock exchange for the period December 15 to January 15.

Information on the expenses recognized for variable compensation and the status of awards are provided in note 53 of this report.

Ex-post risk assessment

After the completion of the performance year, the Remuneration Committee also prepares a recommendation on whether there are reasons for a downward adjustment of deferred variable compensation, before it is paid or vests. This recommendation is based on the ex-post risk assessment by the Company s Risk Management team, which takes into account significant and exceptional circumstances which were not (sufficiently) reflected in the initial performance assessment and/or the ex-ante risk assessment related the deferred variable compensation award in scope.

Implementation of this authority is on the basis of criteria such as:

- The outcome of a re-assessment of the performance against the original financial performance indicators;
- A significant downturn in the Company s financial performance;
- Evidence of misbehavior or serious error by the participant;
- A significant failure in risk management; and
- Significant changes in the Company s economic or regulatory capital base.

The Remuneration Committee sends its recommendation and the ex-post risk assessment to the Supervisory Board. The Supervisory Board can approve, revise or reject the recommendation. When this recommendation includes a proposal to adjust unvested deferred variable compensation, this adjustment can only be downwards.

Claw-back provision

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

The Executive Board members are offered pension arrangements and retirement benefits. These benefits are in line with the Executive Board Remuneration Policy. Details on the pension contributions to the Executive Board over the course of 2018 can be found in note 53 on page 305.

The arrangements with Mr. Wynaendts include retirement provisions that allow benefits to be taken at the end of the term. These retirement arrangements stem 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 105,075 (2018 threshold) base salary and a defined contribution plan for the amount above EUR 105,075. Details are not disclosed due to the individual nature of such arrangement.

Other benefits

Other benefits include non-monetary benefits (e.g. company car), social security contributions by the employer, and tax expenses borne by the Group.

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.

Both Executive Board members have an Engagement Agreement with Aegon N.V., rather than an employment contract.

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 by giving three months notice if it wishes to terminate the agreement of Mr. Rider.

The arrangements with the current Executive Board members contain provisions for severance payments in the event that their agreement is terminated as a result of a merger or takeover. These arrangements do not exceed one year s fixed remuneration. The Supervisory Board has taken appropriate steps to ensure the arrangements of Executive Board members are in line with the Executive Board Remuneration Policy.

Executive Board Remuneration Report 2018

At the end of December 2018, Aegon s Executive Board had two members:

Alexander R. Wynaendts, Chief Executive Officer and Chairman of the Executive Board. Mr. Wynaendts was appointed as a member of the Executive Board in 2003 for four years. He was re-appointed in 2007, 2011 and most recently in 2015. In 2019 the General Meeting of Shareholders will be asked to re-appoint Mr. Wynaendts for four years.

Matthew J. Rider, Chief Financial Officer and member of the Executive Board, was appointed as a member of the Executive Board for four years at the Annual General Meeting of Shareholders on May 19, 2017. Mr. Rider s current term ends at the General Meeting of Shareholders 2021.

Fixed compensation

Mr. Wynaendts fixed compensation increased with 2% in 2018 to EUR 1,294,867. The annual fixed compensation of Mr. Rider increased with 2% to EUR 918,000.

Conditional variable compensation 2018

In 2018, Mr. Wynaendts and Mr. Rider both had an (at target) conditional variable compensation level of 80% of their annual fixed compensation, which was split into equal parts of cash and shares. However, their actual variable compensation award depended on their results on the performance indicators and related target levels, which had been approved by the Supervisory Board at the start of 2018. As a result they would receive:

50% of their annual fixed compensation if the results of the performance indicators reached the threshold level. This would result in the allocation of EUR 323,717 and 59,892 shares for Mr. Wynaendts and EUR 229,500 and 42,460 shares for Mr. Rider;

80% of their annual fixed compensation if the results of the performance indicator met their target levels. This would result in the allocation of EUR 517,947 and 95,827 shares for Mr. Wynaendts and EUR 367,200 and 67,937 shares for Mr. Rider;

Up to 100% of their annual fixed compensation if the results of the performance indicators exceeded their target levels. This would result in an allocation up to EUR 647,434 and 119,784 shares for Mr. Wynaendts and up to EUR 459,000 and 84,921 shares for Mr. Rider;

If at an aggregated level the threshold target was not reached, no variable compensation related to 2018 would be made available.

In 2018, the actual variable compensation awards of Mr. Wynaendts and Mr. Rider were based on the 2018 performance of the following individual and Group performance indicators:

Objectives	Performance indicator	Maximum % of variable compensation	
		Mr. Wynaendts	Mr. Rider
Group financial IFRS based	Group underlying earnings after tax and return on equity	15.0%	15.0%
Group financial risk adjusted based	Group market consistent value of new business, normalized capital generation and pre-tax return on economic required capital	17.5%	17.5%
Group non financial business indicators	Group new business strain, customer engagement, employee engagement, control environment and digitally connected customers	32.5%	32.5%
Personal objectives	Individual basket of strategic and personal objectives related to Aegon s strategy	35.0%	35.0%

Provisional allocation variable compensation 2018

Subject to the adoption of the annual accounts at the General Meeting of Shareholders on May 17, 2019, the variable compensation award for Executive Board members will be allocated in cash and shares, based on results of the performance indicators listed above.

The results of the financial and non-financial Group performance indicators led to a performance score of 54.8% (out of a maximum of 65%) for Mr. Wynaendts and 54.8% (out of 65%) for Mr. Rider. The results of their individual (strategic) performance indicators was 27.3% (out of 35%) and 28.0% (out of 35%) for Mr. Wynaendts and Mr. Rider respectively.

As a result, Mr. Wynaendts has been awarded EUR 1,062,438 in conditional variable compensation for the 2018 performance year and Mr. Rider EUR 759,645.

Of this award 20% will be paid in upfront cash and 20% in upfront shares. For Mr. Wynaendts this will be EUR 212,490 in cash and 39,314 shares, where for Mr. Rider this will be EUR 151,931 in cash and 28,110 shares.

The remaining 60% of the 2018 variable compensation will be deferred, vesting in equal tranches over a three-year period. Each of these tranches will be split equally in cash and shares (for Mr. Wynaendts EUR 318,729 and 58,968 shares in total, and for Mr. Rider EUR 227,892 and 42,162 shares in total).

Once the upfront and deferred shares have vested, they will remain subject to a three-year retention period.

Impact of ex-ante and ex-post assessment on attribution of variable compensation

In line with the Aegon Group Global Remuneration Framework, it was agreed to adjust Mr Wynaendts 2014 variable compensation award downwards by 3,388 shares and EUR 22,832 to reflect the outcome of a regulatory matter relating to the company. No other circumstances have been identified to lower payout of the deferred payment from prior performance years that vest in 2018 (the so called ex-post assessment) or to lower the payout of the upfront payment of the 2017 performance year variable compensation that vests in 2018 (the so called ex-ante assessment).

Pay ratio

The Remuneration Committee has considered the ratio of the average employee pay expense (excluding CEO expense) versus the expense of the CEO pay elements based on costs recognized under IFRS. For 2018 this ratio was 42.2 (2017: 41.7; 2016: 41.9). The Remuneration Committee took note that certain factors may have influenced this ratio, such as the significant difference in the geographical footprint of the Company s employee population, and the way the Company was affected by restructuring and other organizational changes in 2018 (e.g. major acquisitions or divestments).

Non-financial policies, procedures and outcomes

As a company, Aegon is committed to doing business responsibly. We have internal policies, procedures and frameworks setting out how decisions should be made in areas such as procurement, investment, tax, product development, remuneration and information security. We also have a Code of Conduct, which applies to all Aegon employees worldwide; this Code of Conduct contains basic principles governing our workplace, social responsibility and business conduct. The aim of these policies and procedures is to protect stakeholders by ensuring we are aware in our decision-making of all relevant financial and non-

financial factors. We monitor implementation and take remedial action where necessary to ensure full compliance. We have a dedicated Non-Financial Risk Committee, meeting monthly. The Committee s members are drawn from Aegon s Legal, Compliance and Risk departments, among others.

The table below shows how various ESG risks are incorporated into Aegon s decision-making processes, as well as the measurement of outcomes, policies and metrics:

Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2018
Business conduct and ethics	**Code of Conduct** Applies to all employees worldwide Covers topics such as data protection, environmental responsibility, human rights and money laundering Also contains provisions for reporting suspected illegal and unethical behavior Training on the Code is obligatory for all employees	Total number of incidents of fraud involving employees, intermediaries and third parties	Incidents of possible fraud involving employees, intermediaries and third parties rose sharply to 3,652 in 2018; this was due mainly to a sharp increase in attempted identity theft in the US; in response, we have organized extensive training and deployed new fraud detection software; as a result, very few attempts at fraud have been successful.
	In addition to the Code of Conduct, Aegon has separate global policies	Significant fines to address cases of	Significant fines amounted to EUR 84.8 million; most of this

	addressing prevention of financial crime (fraud, money laundering, economic sanctions, bribery and corruption). Aegon also has a Global Ethics Line, allowing employees and those outside the Company to report suspected infringements of the Code of Conduct in complete confidence.	mis-selling	amount was related to our settlement with the SEC over the use of investment models in the US; during the year, there were two other significant fines, both in the US a civil penalty relating to market conduct and a fine connected with the sale of an out-of-state hospital indemnity product.
		Percentage of employees completing training on Code of Conduct.	97% of employees completed mandatory Code of Conduct training (down from 99% the previous year).
		Completion of internal risk assessment (SIRA, or Systematic Integrity Risk Assessment), and action items to address any gaps in performance. Policy attestation for bribery and corruption risk (Conflict of Interest and Gift & Entertainment policies).	Group action items identified under SIRA in 2017 were completed in 2018. 88% compliance with Aegon bribery and corruption policies; this figure reflects business units compliance with specific requirements within our Conflict of Interest and Gift & Entertainment policies; where there is not full compliance, this does not indicate a breach of the policy, but areas where units have requested time to further strengthen internal governance.
Community investment	**Policy for Charitable Donations** Covers Aegon s objectives with regard to community investment, including priority areas, selection criteria, governance and approval Also details Aegon s contribution to humanitarian aid	Total donations to charities and other good causes Donations as % of net income Value of employee volunteering hours granted	In 2018, we donated a total of EUR 10.1 million, up from EUR 8.9 million the previous year. Cash donations rose to EUR 9.3 million; value of volunteering was lower, however, at EUR 0.7 million. Community investment represented 1.4% of net income, up from 0.4% in 2017; the increase was due mainly to the substantial decline in net income in 2018.
Data protection	**Global Information Security Policy** Sets out Company s approach to cyber threats and data protection Applies to all Aegon businesses	Percentage compliance with terms of Aegon s Global Information Security Policy	80% compliance with Company s Global Information Security Policy (up from 73% the previous year); most examples of non-compliance were not significant and took place in smaller operating units.
	Supported by mandatory training in data and cyber security	Total customer complaints related to data privacy breaches	Customer complaints relating to data privacy totaled 636 (up from 198); this increase is the result of

heightened awareness of privacy rights following the introduction of the EU s General Data Privacy Regulation (GDPR)

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Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2018
Diversity and inclusion	**Statement on Diversity and Non-Discrimination** Applies to all Aegon businesses worldwide Diversity also included in the Code of Conduct Diversity targets in place for Aegon s Supervisory, Executive and Management Boards	Total number of women in workforce Percentage of women in senior management and at Supervisory, Executive or Management Board level	In 2018, women made up 49% of Aegon s workforce; women, meanwhile, accounted for 33% of the Company s senior management, up from 28%. For details of our Supervisory, Executive and Management Board members, see pages 47-50.
Environment	**Environmental Policy** Emphasizes importance of minimizing damage to the environment through the Company s use of energy and other resources[2] Commits Aegon, where possible, to using renewable or sustainable sources of energy	Total CO_2 emissions from business operations	Gross CO_2 emissions totaled 56,458 metric tons, down 5.1% compared with 2017. The decrease was due to lower energy consumption. Per employee, however, emissions were 15% higher at 3.1 metric tons because of a reduction during the year in Aegon s workforce.
		Business travel by air, consumption of gas and electricity	Business travel amounted to 92 million km (up 14.1%). Electricity consumption was 7.5% lower at 79.7 GWH; gas consumption, however, rose 16.3% to 2.1 million m^3.
		Consumption of renewable energy (as % of overall energy use)	Use of renewable energy decreased to 24% (down from 26%).
Human rights	**Human Rights Policy** Based on the UN Declaration of Human Rights, core standards of the International Labor Organization and the principles of the UN Global Compact	Results of Aegon s global human rights risk assessment (this assessment is conducted internally, based on external sources[3]; Aegon s countries of operation are	Our 2018 assessment identified four Aegon countries where the operating environment presents a meaningful human rights risk: China, Indonesia, India and Turkey. These risks relate essentially to local political factors. In the US, the

	Commits Aegon to upholding international human rights standards at all businesses where the Company has sufficient management control and, where possible, to ensure partners live up to the same standards Consideration for human rights is built into Aegon s Sustainable Procurement and Responsible Investment policies. Other policies cover aspects of human rights; these include the Company s Conflict of Interest, employee screening, anti-money laundering, anti-fraud and Gift & Entertainment policies. Aegon UK also issues a modern slavery statement (in line with the UK government s 2015 Modern Slavery Act).	assessed for civil and political rights, corruption, human development, health coverage, business environment, illicit economy, gender equality, working conditions, Rule of Law and internet inclusion.	Netherlands and UK, Aegon faces little or no significant human rights risk. In Southern and Eastern Europe, the environment is potentially more difficult, particularly with regard to corruption. In the Americas, risk is concentrated in Brazil and Mexico; again, this relates mainly to corruption. For those countries with highest risk, Aegon has recommended preventative or remedial measures for local management[4]. These focus on issues where there is greatest risk and where Aegon has most influence (corruption, corporate governance, discrimination in the workplace, working conditions, freedom of association and collective bargaining). The aim, with these measures, is to ensure Aegon s overall human rights risk remains low.
Investment	**Responsible Investment Policy** Covers all major asset classes Sets out minimum social and environmental standards for Aegon s investments	Total investments delivering social and environmental benefits (impact investments)	Our impact investments totaled EUR 8.4 billion; most of this was invested in affordable housing, renewable energy, and international development banks.
	Under the policy, Aegon also excludes investment in some areas, including controversial weapons, tobacco, oil sands and certain coal mining companies. Aegon s approach in this area is overseen by a Responsible Investment Strategy Committee, supported by a technical committee, which manages all operational aspects. Aegon also has an extensive program of shareholder engagement, focused on ESG issues.	Number and type of companies excluded from investment	Aegon excludes 136 companies from investment; these exclusions relate primarily to controversial weapons, coal, oil and tar sands and tobacco.
		Number of companies engaged as part of Aegon s approach to responsible investment	In 2018, we engaged with 360 companies as part of our responsible investment approach; these engagements covered a range of environmental, social and governance issues.
Occupational health and safety	**Global Health & Safety Statement** Commits Aegon to upholding high health and safety standards in its	Number of work-related injuries and illnesses	Our number of work-related injuries and illnesses totaled 163, down from 167 the previous year.

	offices		
	Aim is to limit work-related injuries and illnesses (including stress) to an absolute minimum	Absentee rate	Our absentee rate was unchanged at 2.4%.
Procurement	**Sustainable Procurement Policy** Sets out business conduct, social and environmental standards for suppliers of goods and other services Aegon assesses suppliers against these standards, and requires leading suppliers to sign a Supplier Sustainability Declaration.	Percentage spend on goods and services covered by a Supplier Sustainability Declaration.	In 2018, 25% of our spend on goods and services was covered by a Supplier Sustainability Declaration.

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Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2018
Product development	**Pricing and Product Development Policy** Sets out market conduct principles, aimed at ensuring fair treatment of customers and reasonable distribution of returns between customers, intermediaries and shareholders	Percentage compliance with terms of Pricing and Product Development Policy	90% compliance with requirements of Pricing & Product Development Policy (down from 95% the previous year), due to increased policy granularity
Remuneration	**Global Remuneration Framework** Details Company s approach to pay, based on principle of pay for performance Variable pay for Aegon executives and other senior management is based on both financial and non-financial performance metrics (including employee engagement and customer loyalty scores)	Percentage of compliance with requirements of the Global Remuneration Framework	92% compliance with requirements of the Global Remuneration Framework
Tax	**Global Tax Policy** Based on principles of fair taxes and tax follows business (tax is paid at the right amount in the right places, and that decisions are taken for business reasons, not for potential tax advantages).	Total taxes borne by Aegon (US, Netherlands, UK, Asia and Others) Taxes collected on behalf of others	EUR 620 million paid by Aegon in tax (up from EUR 444 million in 2017); another EUR 2.16 billion in taxes collected on behalf of others, down from EUR 2.22 billion (decrease was due to lower wage and insurance premium taxes).

[1] Includes any fines in excess of EUR 100,000.

[2] Aegon no longer collects data on water consumption. As an office-based company, our water use is not material.

[3] Aegon s assessment is derived essentially from the UN Declaration of Human Rights. The assessment uses external data from (among others) Freedom House, Transparency International, UN Development Program and World Health Organization.

[4] These measures include effective access to Aegon s Global Ethics Line, raising employees awareness of human rights risk, ensuring basic healthcare and financial services for employees, suggesting alternative employee representation where there is no independent trade union, ensuring neutrality at times of regime change and

enforcing a zero tolerance approach to corruption and discrimination in the workplace.

Code of Conduct

Aegon s Code of Conduct embodies the company s values and helps ensure that all employees act ethically and responsibly.

It prescribes a mandatory set of conditions for how Aegon employees should conduct business, comply with all applicable laws and regulations, and exercise sound judgment in reaching ethical business decisions in the long-term interests of our stakeholders.

Aegon s Code of Conduct applies to all directors, officers (regardless of the contractual basis of their employment) and employees of all Aegon companies around the world, including associate companies, joint ventures and other co-operative ventures.

Every Aegon employee has to certify that they have read and understood the Code of Conduct, and agree to abide by it. Employees are also required to follow a mandatory e-learning to help embed the principles of the Code in the way they work.

Reporting misconduct

Employees are often the first people to witness any wrongdoing within the company. It is important that such incidents are quickly identified and resolved to prevent or reduce any adverse

effects, such as financial loss and reputational harm. Aegon is committed to create and maintain an open and supportive culture in which employees feel safe to raise concerns or report suspected or actual violations. Employees are encouraged to use the available reporting channels to report concerns of poor practice, inappropriate, unethical or illegal behaviour.

It is also possible for employees to report violations outside the normal reporting channels if they wish to remain anonymous, or to elevate the matter to higher levels within the organization. Aegon has contracted an independent third party to provide an anonymous and confidential method to report potential misconduct. Reports can be submitted online or via toll-free telephone lines in all of the countries in which Aegon conducts business (24 hours a day, seven days a week). All reports are investigated and results are reported to the Audit Committee of the Supervisory Board. As part of an open and supportive culture Aegon will protect employees against any form of retaliation who, in good faith and with due care, report concerns of poor practice, inappropriate, unethical or illegal behaviour. Employees who believe they have experienced retaliation are encouraged to immediately bring the issue to the attention of the Group Compliance Officer.

Regulation and supervision

Individual regulated Aegon companies are each subject to prudential supervision in their respective home countries. (Re)insurance companies and Aegon Bank, as well as a number of the investment undertakings in the Group, are required to maintain a minimum solvency margin based on local requirements. In addition, some parts of the Group are subject to prudential requirements on a (sub)-consolidated basis, including capital and reporting requirements. Such additional requirements lead, in certain circumstances, to duplicative requirements, such as the simultaneous application of consolidated banking requirements and Solvency II group solvency requirements. Eligible capital to cover solvency requirements includes shareholders equity, perpetual capital securities, and dated subordinated debt.

Solvency II

Introduction

The Solvency II framework imposes prudential requirements at group level as well as on the individual EU insurance and reinsurance companies in the Aegon Group. Insurance supervision is exercised by local supervisors on the individual insurance and reinsurance companies in the Aegon Group, and by the group supervisor at group level. The Dutch Central Bank (DNB) is Aegon s Solvency II group supervisor. Solvency II, which came into effect in EU member states on January 1, 2016, introduced economic, risk-based capital requirements for insurance and reinsurance companies in all EU member states, as well as for groups with insurance and/or reinsurance activities in the EU. The Solvency II approach to prudential supervision can be described as a total balance sheet-approach, and takes material risks to which insurance companies are exposed into account in addition to the correlation between these risks.

The Solvency II framework is structured along three pillars. Pillar 1 comprises quantitative requirements (including technical provisions, valuation of assets and liabilities, solvency requirements and own fund requirements). Pillar 2 requirements include governance and risk management requirements, and requirements for effective supervision (the supervisory review process). Pillar 3 consists of disclosure and supervisory reporting requirements. These three pillars should not only be considered in isolation, but also in terms of how they interact with one another. More complex risks, for instance, require a stronger risk management and governance structure, and a more complex governance structure could lead to higher capital requirements.

In addition to these requirements, which apply to individual EU insurers and reinsurers, the Solvency II framework is complemented by requirements that apply at group level (group supervision). This means that a number of requirements from the Solvency II framework that apply to the individual EU insurance and reinsurance undertakings apply, with necessary

modifications, at group level. The core focus of EU insurance supervision is, however, on the supervision of individual EU insurance and reinsurance undertakings.

Pillar 1

Solvency II requires EU insurance and reinsurance companies to determine technical provisions at a value that corresponds with the present exit value of their insurance and reinsurance obligations towards policyholders and other beneficiaries of insurance and reinsurance contracts. The calculation of the technical provisions should be based on market consistent information to the extent to which that information is available. The value of the technical provisions is equal to the sum of a best estimate and a risk margin. The discount rate at which technical provisions are calculated is an important element in order to determine the technical provisions. This and other parameters to determine the technical provisions may have an important effect on the amount and volatility of the own funds that insurance and reinsurance undertakings are required to maintain. The Solvency II framework contains several measures (in particular the volatility adjustment and matching adjustment) that should reduce volatility of the technical provisions and own funds, in particular for insurance and reinsurance products with long-term guarantees.

Insurers and reinsurers are required to hold eligible own funds in addition to the assets held to cover the technical provisions in order to ensure that they are able to meet their obligations over the next 12 months with a probability of at least 99.5% (insurance or reinsurance company s balance sheet ability to withstand a 1-in-200-year event). The buffer that insurance and reinsurance companies are required to hold is the Solvency Capital Requirement (SCR). Insurance and reinsurance companies are allowed to: (a) use a standard formula to calculate their SCR (the rules for which are set out in detail in the Solvency II rules and guidelines); (b) use an internal model (for which the approval of the supervisory authorities is required); or (c) use a partial internal model (PIM) (which is a combination of the standard formula and an internal model, and requires approval of the supervisory authorities). An internal model is developed by the insurance or reinsurance company in question, and should better reflect the actual risk profile of the insurance or reinsurance company than the standard formula. Aegon (as a group) uses a PIM.

In addition to the SCR, insurance and reinsurance companies should also calculate a Minimum Capital Requirement (MCR). This represents a lower level of financial security than the SCR, below which the level of eligible own funds held by the insurance or reinsurance company is not allowed to drop. An irreparable breach of the MCR would lead to the withdrawal of an insurance or reinsurance company s license.

Insurance and reinsurance companies are required to hold eligible own funds against the SCR and MCR. Own funds capital is divided into three tiers in accordance with the quality of the own funds. The lower tiers of own funds (tiers 2 and 3) represent a limited part of the eligible own funds, as excess lower tier capital is disregarded for purposes of calculating SCR. Furthermore, the SCR may consist of limited amounts of off-balance sheet own funds (ancillary own funds such as letters of credits or guarantees). The MCR must be covered entirely by on-balance sheet items (basic own funds).

Pillar 2

Under Pillar 2, insurance and reinsurance companies are required to set up and maintain an adequate and effective system of governance, which includes an appropriate internal organization (such as policies and procedures), a risk governance system and an effective assessment of the risk and solvency position of the Company (including a prospective assessment of risks), through the Own Risk and Solvency Assessment (ORSA) process. In general, Solvency II requires insurance and reinsurance companies to maintain an effective system of governance that is proportionate to the nature, scale and complexity of the insurance or reinsurance company. A number of risks that insurance or reinsurance companies face can only be addressed through proper governance structures, rather than quantitative requirements. Management of the insurance or reinsurance company is ultimately responsible for the maintenance of an effective governance system.

Insurance and reinsurance companies are required to have an adequate and transparent organizational structure, with a clear allocation and appropriate segregation of responsibilities. The system of governance should be subject to regular internal review. Solvency II requires insurance and reinsurance companies to have written policies in a number of areas (such as risk management, internal control, internal audit and outsourcing (where appropriate)). A number of key functions are required to be part of the system of governance (compliance, risk management, the actuarial function and internal audit). The persons responsible for these functions are required to be fit and proper.

The Pillar 2 requirements include specific requirements relating to the risk management system. This should cover at least the following areas: underwriting and reserving, asset-liability matching, investments (in particular derivatives and similar commitments), liquidity and concentration risk management, operational risk management, reinsurance and other risk mitigating techniques. Risk management relating to Solvency II is discussed in further detail in the section Risk management on page 90. As part of the risk management system, insurance and reinsurance undertakings are required to undertake an ORSA, which includes the overall solvency needs of the undertaking, taking into account the risk profile, risk tolerance limits and business strategy, the ongoing compliance with Solvency II capital requirements and rules regarding technical provisions, and the

extent to which the risk profile of the undertaking deviates from the assumptions underlying the calculation of the SCR. Solvency II Pillar 2 requirements also include detailed requirements with respect to outsourcing, including intra group outsourcing.

The Supervisory Review Process (SRP), which is part of Pillar 2, allows supervisory authorities to supervise the ongoing compliance of insurance and reinsurance undertakings with Solvency II requirements. Possible enforcement measures include: the imposition of capital add-ons (for instance in the event that the risk profile of the undertaking deviates from the SCR calculation or if there are weaknesses in the system of governance); the requirement to submit and execute a recovery plan (in the event of a (potential) breach of the SCR or a short-term financing plan (in the event of a (threatening) breach of the MCR); and ultimately, the revocation of an insurance or reinsurance license (a measure that relates to EU-licensed insurance or reinsurance undertakings, and not to the Group as a whole, which does not have a license).

Pillar 3

Solvency II has introduced new and more detailed reporting and disclosure requirements than formerly prescribed under the Solvency I framework. These requirements include non-public supervisory reporting on a regular (usually tri-annual) basis through regular supervisory reports (RSR), complemented by detailed quantitative reporting templates (QRTs) reported on a quarterly basis, which contain detailed financial data. In addition, it is a requirement to publish a Solvency and Financial Condition Report (SFCR) on an annual basis.

Group supervision

Solvency II not only imposes regulatory requirements on individual EU insurance and reinsurance undertakings; many of the requirements that apply to the individual insurance and reinsurance undertakings apply, with the necessary modifications, at group level. These requirements include group solvency requirements, group reporting and disclosure requirements, and requirements regarding the system of governance, risk management and internal control framework at group level. The group requirements do not include an MCR. Solvency II does however require groups to maintain eligible own funds, at least equal to a floor, as further defined in the Solvency II rules (the absolute floor of the group solvency), which can be considered to be an MCR at group level. Although entities that are not subject to solo supervision under Solvency II (such as entities in other financial sectors, non-financial entities, and regulated and non-regulated entities in third countries) are not directly subject to Solvency II requirements, these entities may be affected indirectly by the Solvency II group requirements. Entities in other financial sectors are, in most cases, taken into account in the group solvency calculation, applying the capital requirements of that specific financial sector (such as Basel III requirements for banks and certain investment firms) and using the Deduction and Aggregation method for inclusion of these entities in the group calculation (as opposed to the Accounting Consolidation method, which is the default method under Solvency II).

However, subject to certain conditions, entities in other financial sectors may be included in accordance with the accounting consolidation method. In particular, this may be the case when the group supervisor is satisfied as to the level of integrated management and internal control regarding these entities. Furthermore, the DNB may require groups to deduct any participation from the own funds eligible for the Group Solvency ratio. As required by the DNB, Aegon deducts its participation in Aegon Bank N.V. from Aegon s group solvency. However, Aegon Bank N.V. is subject to Basel III requirements (as implemented in Europe in the EU Capital Requirements Directive (CRD IV) and EU Capital Requirements Regulation (CRR) on a solo-basis and on consolidated basis, whereby consolidation takes place at the level of Aegon Bank N.V.. The prudential requirements (including CRD IV and CRR) are described in more detail on page 73.

As referred to in the Capital and liquidity management section, Aegon uses a combination of the two aggregation methods defined within the Solvency II framework to calculate the Group Solvency ratio, the Accounting Consolidation method and the Deduction and Aggregation method. Aegon applies the Accounting Consolidation method as the default method.

However, for insurance entities domiciled outside the EEA for which provisional or full equivalence applies, such as the United States, Aegon uses the Deduction and Aggregation method, with local regulatory requirements to translate these into the Group Solvency position. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local US (RBC) requirements. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local U.S. Risk-Based Capital (RBC) requirements. Until June 30, 2017, Aegon used 250% of the local Company Action Level (CAL) RBC as the SCR equivalent. Aegon received approval from the DNB to apply a revised methodology, as of July 1, 2017, that includes lowering the conversion factor from 250% to 150% RBC, and reducing the contribution to own funds by 100% of the local Company Action Level RBC requirement to reflect transferability restrictions. This methodology is subject to annual review, and the change enhances comparability with European peers. The RBC and CAL, as well as the allocation of restricted Tier 1 and Tier 2 capital instruments between the accounting consolidation and deduction and aggregation part of the Group are described in more detail in the Capital and Liquidity section of this Annual Report.

Solvency II group supervision is exercised by a combination of the supervisory authorities of the local insurance and reinsurance entities and the group supervisor. An important role in the cooperation between the supervisory authorities in the context of group supervision is played by the college of supervisors, in which the local and group supervisors are represented. This college is chaired by the group supervisor.

Recent developments Solvency II

On November 9, 2018, the European Commission published a proposal for public consultation for the amendment of the Solvency II Delegated Regulation. This draft proposal is the preliminary result of the 2018 review of the Solvency II Framework. The consultation period ended on December 7, 2018. On March 8, 2019, the European Commission adopted the formal text for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework. The amendments are expected to enter into force after the scrutiny period of three months, that is available to the European Parliament and the European Council has ended, and the amendments have been approved accordingly by the European Parliament and Council. Aegon is investigating the impact, if any, of these upcoming amendments.

The proposals include amendments to the Solvency II standard formula calculations, such as in the counterparty default risk sub module, which might specifically impact the treatment of guarantees of Dutch mortgages under the standard formula. The changes included in the proposal may impact the Solvency II Standard Formula calculations. Furthermore, amongst others, the proposal contains amendments related to tiering requirements for subordinated liabilities as part of own funds and LAC DT. Currently it is not yet clear when the amendments will enter into force but Aegon is monitoring the finalization of the legislative process closely. These changes are also expected to impact the Standard Formula scope of the Partial Internal Model.

In addition to the review of the 2018 review of the Solvency II Delegated Regulation, a review of the Solvency II Directive has been foreseen, referred to as the 2020 review. This includes a review, as foreseen in the directive by the end of 2020, on the impact of the so-called long-term guarantees package, in particular the functioning and stability of European insurance markets, the extent to which insurance and reinsurance undertakings continue to operate as long-term investors, and the availability and pricing of long-term insurance products. In this context, the European Commission has requested EIOPA to provide by the end of 2019, the European Commission with information on insurance liabilities (including illiquid liabilities), information on asset management of insurers and information on long-term guarantee measures and information on the market valuation of insurance liabilities.

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Furthermore, the context of the Solvency II 2020 review, EIOPA has recently launched a public call for advice on the application of disclosure and reporting requirements under Solvency II.

In addition, on February 10, 2019, the European Commission has requested EIOPA to provide, in the context of the 2020 review, by June 30, 2020, technical advice in the following areas: long-term guarantees (LTG) measures and measures on equity risk;
Specific methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement standard formula;
Rules and supervisory authorities practices on the calculation of the Minimum Capital Requirement;
The supervision of insurance and reinsurance undertakings in a group, and
Other items related to the supervision of insurance and reinsurance undertakings.

The information provided by EIOPA to the European Commission as described above, is expected to be taken into account in the Solvency II 2020 review. No EC legislative proposals have been published so far in that context.

Furthermore, EIOPA recently (end of 2018) launched consultations on the integration of sustainability risks and factors in Solvency and the Insurance Distribution Directive. At the beginning of 2019 EIOPA has launched for input for a call for evidence by the European Commission to EIOPA on integration of sustainability risks in Solvency II.

In addition, as of January 1, 2019, amendments to the Solvency II framework entered into force, relating to Solvency II standard formula treatment of standardised, transparent and simple (STS) securitisations. Aegon will take these amended provisions into account as of first quarter 2019 (confidential) supervisory reporting and future Solvency II public disclosures.

Financial conglomerate supervision

Since October 2009, Aegon has been subject to supplemental group supervision by the DNB in accordance with the requirements of the EU s Financial Conglomerate Directive. Supplemental group supervision pursuant to the Financial Conglomerate Directive includes supplementary capital adequacy requirements for financial conglomerates and supplementary supervision on risk concentrations and intra-group transactions in the financial conglomerate. Due to the introduction of the Solvency II group supervisory requirements which include similar, and to a large extent overlapping, requirements to those covered by Financial Conglomerates Directive the relevance of supplemental group supervision pursuant to the Financial Conglomerates Directive has become significantly less.

Globally systemically important insurer (G-SII)

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 for 2018 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 annual 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).

International Capital Standards and G-SII

In 2013, the IAIS announced its plan to develop a risk-based global insurance capital standard (ICS). This was in response to the request by the Financial Stability Board (FSB) that the IAIS produce a work plan to create a comprehensive group wide supervisory and regulatory framework for Internationally Active Insurance Groups (including G-SIIs) and as such, if and when adopted, might shape or influence the future regulatory framework for insurance groups such as Aegon.

In 2017, for financial year 2016, G-SIIs have calculated and reported a Basic Capital Requirement (BCR) and Higher Loss Absorbing Capacity (HLAC) 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 (ICS) for Internationally Active Insurance Groups (IAIGs). Aegon will qualify as such. After an extended 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.

IAIS holistic framework for systemic risk in the insurance sector

Recently, the International Association of Insurance Supervisors (IAIS) has held a public consultation in which it proposes a holistic framework to assess and mitigate systemic risk in the insurance sector The IAIS is of the view that the implementation of the holistic framework should remove the need for an (annual) G-SII identification by the FSB and national authorities. The global monitoring exercise, including data collection, assessment and consideration of any insurer demonstrating a significant level and/or a trend of increasing potential (global) systemic impact from its distress or failure, will continue to be overseen by the IAIS and reported to the FSB.

If and when this framework would be adopted, an enhanced set of policy measures and supervisory powers of intervention would be applied in a proportionate manner to a broader set of insurers by integrating these measures into the holistic framework. According to the IAIS, a final decision on the need for an (annual) G-SII identification should, however, depend on an assessment of the consistent application of the holistic framework by supervisors and the effectiveness of the IAIS global monitoring exercise. In November 2022, based on the initial years of implementation of the holistic framework, it is recommended that the FSB reviews the need to either discontinue or re-establish an annual identification of G-SIIs. According to the IAIS, between 2020, when the holistic framework is implemented, and 2022, when the review takes place, it is recommended to suspend the annual identification of G-SIIs.

EIOPA activities on systemic risk in the insurance sector

During the last few years, EIOPA has published a series of reports on systemic risk in the insurance sector. Thus far, these report have not led to concrete regulatory changes, but might have an impact on the further development of the regulatory framework for insurance companies in Europe, in particular the Solvency II framework and potentially the development of specific regulatory tools, aimed at systemic risk in the insurance sector, as well as EU wide regulatory initiatives respect of recovery and resolution of insurance and reinsurance companies, which is currently still developed at national level by EU member states. International Capital Standards (ICS).

US EU Covered Agreement

On January 13, 2017, the European Commission and the US Department of the Treasury announced the signing of the US-EU Covered Agreement on insurance and reinsurance measures. The Covered Agreement covers three areas of prudential insurance oversight: reinsurance, group supervision and exchange of information between supervisors. The impact of this agreement (or any changes made to the regulatory frameworks in the US or the EU as a result of this agreement) on Aegon is expected to be limited. Currently, insurance group supervision is only exercised at the level of Aegon N.V.,

pursuant to Solvency II, and the Covered Agreement increases the likelihood that this will continue to be the case. Also the impact of the agreed measures in the other areas covered in the agreement is expected to be limited.

Recovery and resolution

Dutch Act on Recovery & Resolution for Insurers

On January 1 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties.

The R&R Act has introduced a revised regulatory framework for recovery and resolution of Dutch insurance and reinsurance companies and provides for a range of measures to be taken by these companies and the Dutch Central Bank ex ante, in order for these insurance and reinsurance companies to be prepared for recovery in circumstances where it no longer meets the required solvency requirements and for orderly resolution, in circumstances where it is failing or is likely to fail.

The R&R Act introduces a requirement for Dutch insurance companies and reinsurance companies, such as the Dutch insurance and reinsurance subsidiaries in the Aegon Group, to draw up and maintain an *ex ante* recovery plan, that should allow these entities, when faced with financial problems, to take measures to recover their solvency ratio and continue to operate in going concern. In addition, the Dutch Central Bank, in its capacity as national resolution authority in *gone concern* circumstances (as opposed to its role as supervisory authority in *going concern)* is required to draw up and maintain a resolution plan, which should provide for the orderly resolution of the Dutch insurance and reinsurance entities in the group, or the group, to avoid unnecessary damage to policyholders and beneficiaries and to provide an alternative to ordinary bankruptcy proceedings.

The R&R Act allows DNB to require a Dutch insurance or reinsurance company or a group in certain circumstances, to remove, ex ante, impediments to effective resolution of a Dutch insurance or reinsurance undertaking, such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the group, or securing certain critical business lines.

The R&R Act allows DNB to intervene in situations where a Dutch insurer or reinsurer, where it is failing or is likely to fail, as defined in the R&R Act. The powers under the R&R Act may also extend to the level of the Group and to entities, other than in insurance or reinsurance entities in the Netherlands, that are part of the group, such as Aegon N.V.. The powers include the transfer of the undertaking to a third party, the transfer to a bridge institution and the transfer of certain specific assets and/or liabilities. In addition, a bail-in tool is introduced, that allows for the write-off or conversion of rights of creditors, including policyholders and beneficiaries, while respecting the principle that they should not be worse off through resolution, including the application of the bail-in tool, than they would in ordinary insolvency proceedings.

Bank Recovery and Resolution Directive

Furthermore, to parts of the Aegon Group, in particular Aegon Bank N.V., the framework of the EU Directive on the recovery and resolution of credit institutions and investments firms (the Bank Recovery and Resolution Directive) is applicable. The Bank Recovery and Resolution Directive also contains provisions that, in certain specific circumstances, where both Aegon Bank N.V. and Aegon N.V. fail or are likely to fail, could be applied to mixed financial holding companies such as Aegon N.V., including the right of bail-in of creditors.

Intervention by the Dutch Minister of Finance

Lastly, under Part 6 of the Dutch Financial Supervision Act, the Dutch Minister of Finance may intervene immediately, when the stability of the financial system is threatened by the situation of a financial institution, in which case legal or statutory provisions, applicable to the financial institution, might be surpassed. The intervention measures available to the Minister of Finance, include in particular the right to expropriate assets of the financial institution, as well as securities and/or other financial instruments issued by or with the cooperation of the financial instruments. The exercise of this power may significantly impact the rights of the owners or holders of these assets, securities and/or financial instruments.

IBOR transition

The future of IBORs (Interbank Offered Rates) such as Euribor, Eonia and LIBOR has been a major topic on the global agenda since the G20 asked the Financial Stability Board (FSB) to undertake a fundamental review of leading interest rate benchmarks in 2013. The FSB proposed new standards to reform interest rate benchmarks and the use of transaction-based input data instead of non-transactionalvpanel input data. In the EU this is adopted in the new Benchmark Regulations (BMR) which stipulates that from January 2020 only BMR

Aegon is evaluating the impact of IBOR transitions on the business model and operating model of our reporting units. Furthermore, Aegon is in the process of designing an IBOR transition plan including project solutions and actions, timelines and ownership to ensure timely preparation and implementation.

Brexit

compliant benchmarks may be used within the EU.

Aegon recognizes that IBOR transitions potentially have implications for all reporting units, including our insurance, asset management and banking activities. Despite current uncertainties on how the transition from IBORs to alternative benchmarks will be managed, it is widely acknowledged that IBOR benchmarks impact financial products and contracts, including derivatives, corporate bonds, structured debt products, deposits and mortgages and other financial instruments like (re-)insurance, guarantees and funding.

The dynamics of Brexit are complex given its multifaceted nature, and its position within the wider geopolitical context. Hence, any description of the current and forward-looking status of Brexit will to a certain extent be outdated as soon as it has been documented. To date the UK Government has not succeeded in passing the negotiated Brexit deal with the European Union through parliament and it is still not clear if a deal will be approved. Aegon is prepared for all scenarios, including a so-called hard Brexit . In this scenario the UK becomes a third country and leaves the internal market of the EU on March 30, 2019 at 00:00h (CET). The main consequences of a hard Brexit have been identified and contingency plans are in place. These plans are updated on a continuous basis. Focus areas for Aegon have been derivatives, data transfer and cross border policies.

Capital and liquidity management

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 strengthen 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 capital generation, solvency and liquidity, risk balance and responsible business with effective controls. Its core aim is to assist management in carrying out Aegon s strategy within the Group s capital and liquidity resources.

Management of capital

The Company s overall capital management strategy is based on adequate solvency capital, capital quality and the use of leverage.

Capital adequacy

Aegon s goal for both its operating units and for the Aegon Group as a whole is to maintain a strong financial position and to be able to sustain losses resulting from adverse business and market conditions. The capitalization of Aegon and its operating units is managed in accordance with the most stringent of local regulatory requirements, rating agency requirements and self-imposed criteria.

Regulatory capital requirements

For EU-domiciled insurance and reinsurance entities, the Solvency II regulatory framework determines the regulatory capital requirements. In Aegon s Non-EEA (European Economic Arena) regions, (re)insurance entities domiciled in third-countries deemed (provisionally) equivalent (US Life insurance entities, Bermuda, Japan, Mexico and Brazil), the capital requirement is based on local capital requirements.

On November 9, 2018, the European Commission (EC) has published a proposal, for public consultation, for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework that was carried out by the EC. The EC has published a formal proposal on March 8, 2019. Aegon is investigating the impact, if any, of these upcoming amendments.

Please note that numbers and ratios related to Solvency II as disclosed in this section represent Aegon s estimates and are subject to supervisory review. At December 31, 2018, Aegon has applied a loss absorbing capacity of deferred taxes (LAC-DT) factor in the Netherlands of 75% unchanged from 2017, while the corporate tax rate was lowered to reflect the upcoming tax rate changes in 2020 and 2021. The LAC-DT factor will be recalibrated on a quarterly basis using the agreed methodology. In 2018 the Dynamic Volatility Adjustment (VA) model has been updated for Aegon the Netherlands, to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA). 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.

On November 9, 2018, the European Commission has published a proposal, for public consultation, for the amendment of the Solvency II Delegated Regulation. This draft proposal is the preliminary result of the 2018 review of the Solvency II framework. The consultation period ended on December 7, 2018. On March 8, 2019 the European Commission has adopted the formal text for the amendment of the Solvency II Delegated Regulation in respect of the 2018 review of the Solvency II Framework. The amendments are expected to enter into force, after the scrutiny period of three months, that is available to the European Parliament and the European Council has ended, and the amendments have been approved accordingly by the European Parliament and Council. Aegon is investigating the impact, if any, of these upcoming amendments. The proposals include amendments to the Solvency II standard formula calculations, such as in the counterparty default risk sub module, which might specifically impact the treatment of guarantees of Dutch mortgages under the standard formula. These changes also impact the Standard Formula scope of the Partial Internal Model. Furthermore, amongst others, the proposal contains amendments related to tiering requirements for subordinated liabilities, as part of Own Funds and LAC DT. Currently it is not yet clear when the amendments will enter into force but is monitoring the finalization of the legislative process closely.

Furthermore, EIOPA has recently launched (end of 2018) consultations on the integration of sustainability risks and factors in the Solvency and the Insurance Distribution Directive. During 2019 more consultations on sustainability are expected.

In addition, as per January 1, 2019, amendments to the Solvency II framework entered into force, relating to Solvency II standard formula treatment of standardized, transparent and simple (STS) securitizations. Aegon will take these amended provisions into account as of first quarter 2019 (confidential) supervisory reporting and future Solvency II public disclosures.

Adequate capitalization

To calculate its Group Solvency Ratio, Aegon applies a combination of the Group consolidation methods available under Solvency II: the Accounting Consolidation (AC) and Deduction & Aggregation (D&A) 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. Aegon Bank is excluded from the Group Solvency ratio, as required by the Group Solvency II supervisor, the DNB.

As at December 31, 2018, Aegon s estimated capital position was:

	December 31, 2018 [1,2,3]	December 31, 2017 [2,3]
Group own funds	17,602	15,628
Group SCR	8,349	7,774
Group Solvency II ratio	211%	201%

1 The Solvency II ratios are estimates and subject to supervisory review.
2 The Solvency II ratios are based on Aegon s partial internal model.
3 Aegon Bank is not included in the Group Solvency II ratio.

Aegon Group Own Funds amounted to EUR 17,602 million on December 31, 2018 (2017: EUR 15,628 million). The increase of EUR 1,974 million in Own Funds since December 31, 2017, is mostly driven by normalized capital generation by Aegon s operating units and favorable one-time items. These one-items include the sale of Aegon Ireland, introduction of unit matching in Aegon UK, and the merger of the captive US insurance entity named Firebird into Transamerica Life Insurance Company (TLIC). The increase was partly offset by the negative impact from new business strain, the impact of the dividend paid and the impact from framework, model and assumption changes (including the decrease in Ultimate Forward Rate (UFR) (from 4.2% to 4.05%) following revision of the UFR methodology by the European Insurance and Ocupational Pension Authority (EIOPA).

Aegon Group Partial Internal Model (PIM) Solvency Capital Requirement (SCR) amounted to EUR 8,349 million on December 31, 2018 (2017: EUR 7,774 million). The SCR increase by EUR 575 million is mainly due to various large offsetting actions. The SCR increased mainly due to negative market movements, SCR for new business and one-time items (mainly US Tax Reform and the impact of tax changes in the Netherlands). These were largely offset by SCR release following the sale of Aegon Ireland and the merger of Firebird into TLIC.

As a result of the above changes in Own Funds and PIM SCR, the Group Solvency II ratio improved by 10% to 211% in 2018. The capitalization levels of the most relevant country units are as follows:

	Capitalization December 31, 2018 [1,2]	Capitalization December 31, 2017 [2]
Aegon USA (Life entities) (RBC CAL)	465%	472%
Aegon the Netherlands (Solvency II ratio)	181%	199%
Aegon United Kingdom (Solvency II ratio)	184%	176%

1 The Solvency II ratios are estimates, are not final until filed with the regulator and are subject to supervisory review.
2 Refer to section Internal capital management framework for Aegon s capitalization target ranges.

Aegon Americas

In the United States, regulation of the insurance business is principally undertaken at the state level. State insurance regulators and the National Association of Insurance Commissioners have adopted 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 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 set at 200% of the Authorized Control Level (ACL), the level at which regulators are permitted to seize control of the Company. At the end of 2018, the combined risk-based capital ratio of Aegon s life insurance subsidiaries in the United States was estimated to be 465% (2017: 472%) of the CAL risk-based capital requirement. As of January 1, 2016, under the Solvency II requirements, the activities of Aegon Americas life insurance and reinsurance companies have been consolidated into the Aegon Group Solvency II figures through Deduction & Aggregation using available and required capital as per the local capital regimes. US insurance and reinsurance entities are included in Aegon s group solvency calculation in accordance with local US (RBC) requirements of the top regulated entity. Aegon uses 150% of the local RBC Company Action Level as the SCR equivalent for including the US life insurance and reinsurance entities into the Group solvency calculation. The US conversion methodology is subject to annual review and approval by DNB. 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. The contribution of the Aegon Americas entities to the Group Solvency II position on December 31, 2018, is estimated to be 210% (2017: 199%). This ratio includes the US Life insurance and reinsurance entities as well as non-regulated US entities and US holding companies. The Americas ratio does not include a diversification benefit between the US life companies and there is no diversification benefit between US and other group entities.

Aegon the Netherlands

Aegon the Netherlands uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of the volatility adjustment (VA), but does not include the use of any transitional measures. In 2018, the Dynamic VA model has been updated for Aegon the Netherlands to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA) and the updated Dynamic VA model uses an asset-only model approach to quantify required capital for spread risk. The initial internal model of Aegon the Netherlands was approved on November 26, 2015, by the supervisor, DNB, as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon the Netherlands, including Aegon Bank, on December 31, 2018, is estimated to be 181% (2017: 199%). This decrease is mainly driven by one-time items, including the lowering

of the UFR by 15 basis points to 4.05%, impact of tax changes in the Netherlands and changes to the assumptions regarding mortgages, mortality rates and lapses for individual life policies. This negative impact is partly offset by favorable market impacts mainly due to decreased interest rates combined with an increase of the EIOPA VA, and narrowed mortgage spread. The solvency position of the banking activities is calculated using the CRR/CRD IV framework. As at December 31, 2018, the factor of LAC DT is set at 75%, unchanged from 2017, while the corporate tax rate was lowered to reflect the upcoming tax rate changes in 2020 and 2021. The upcoming decrease from the corporate tax rate in The Netherlands resulted in a change in LAC DT (Loss absorbing capacity of deferred taxes) and a change in deferred tax position. The Solvency II capital ratio of the Group and Aegon the Netherlands does 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.

Aegon UK

Aegon UK uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of both the matching adjustment and volatility adjustment (for the with-profits fund). The initial internal model of Aegon UK was approved on December 14, 2015, by the PRA as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon in the UK on December 31, 2018, is estimated to be 184% (2017: 176%). This increase mainly reflects the positive expense assumption update due to the improved price agreement with Atos, and the positive impact of management actions, which was dominated by the replacements of gilts held in the shareholder fund with a combination of interest and inflation swaps. Other management actions include the restructure of existing BlackRock and Baillie Gifford External Fund Links (EFLs) and the impact of trades to sell excess credit. This is partly offset by new business strain and the completion of the Part VII transfer of BlackRock.

Sensitivities

Aegon calculates sensitivities of its Solvency II ratios as part of its risk management framework. The following table provides an overview of the shocks to parameters used to assess the sensitivities, and their estimated impact on the Solvency II ratio as at December 31, 2018.

Aegon is mainly exposed to movements in equity, interest rates, credit spreads and defaults/migrations, and longevity.

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	Scenario	Group		US		NL		UK	
		December 31, 2018	December 31, 2017	**December 31, 2018**	December 31, 2017	**December 31, 2018**	December 31, 2017	**December 31,2018**	December 31, 2017
Equity markets	(20%)	n.a.	(5%)	n.a.	(10%)	n.a.	(5%)	n.a.	12%
Equity markets	20%	n.a.	10%	n.a.	17%	n.a.	5%	n.a.	(10%)
Equity markets	(25%)	(11%)	n.a.	(23%)	n.a.	(5%)	n.a	(2%)	n.a.
Equity markets	25%	15%	n.a.	34%	n.a.	2%	n.a	(7%)	n.a.
Interest rates	-100bps	n.a.	(16%)	n.a.	(21%)	n.a.	(11%)	n.a.	(16%)
Interest rates	+100bps	n.a.	12%	n.a.	12%	n.a.	8%	n.a.	12%
Interest rates	-50bps	(6%)	n.a.	(14%)	n.a.	(1%)	n.a	(4%)	n.a.
Interest rates	+50bps	3%	n.a.	(0%)	n.a.	3%	n.a	2%	n.a.
Credit spreads [1]	+100bps	n.a.	(2%)	n.a.	-	n.a.	(2%)	n.a.	13%
Credit spreads [1]	-50bps	(5%)	n.a.	(4%)	n.a.	(7%)	n.a.	(10%)	n.a.
Credit spreads [1]	+50bps	5%	n.a.	2%	n.a.	7%	n.a.	8%	n.a.
US credit defaults [2]	~+200bps	(19%)	(23%)	(35%)	(53%)	n.a.	n.a	n.a.	n.a.
Ultimate Forward Rate	-50bps	n.a.	(4%)	n.a.	n.a.	n.a.	(12%)	n.a.	n.a.
Ultimate Forward Rate	-15bps	(1%)	n.a.	n.a.	n.a.	(3%)	n.a.	n.a.	n.a.
Longevity shock	+5%	(6%)	(10%)	(4%)	(9%)	(9%)	(12%)	(3%)	(3%)

1 Non-government bonds credit spreads.
2 Additional defaults for 1 year including rating migration of structured products.
3 Note 1: Equity markets +/- 25%, Interest rate +/-50% and UFR -15bps sensitivities were introduced in 2018 and therefore they are not available (n.a.) on December 31,2017. These new sensitivities are introduced as these are more relevant than the previous sensitivities, refer to note 2.
4 Note 2: Equity markets +/- 20%, Interest rate +/-100% and UFR -50bps sensitivities are not available (n.a.) in 2018 as these are replaced by new more relevant sensitivities introduced in 2018, refer to note 1.

The Group is exposed to the risk of a fall in equity markets driven by adverse impacts on the solvency ratio in US, NL and UK. An increase in equity market values has a positive impact on the ratio for all CUs with the exception of UK. UK Own Funds do increase but the SCR also increases significantly resulting in a decrease in UK solvency ratio. The non-linearity in SCR is owing to the equity hedges (put options) held in the General Account which are not symmetric between an equity up and down shock. Furthermore upward equity sensitivity for US is high as reserves set up in the equity decline in the fourth quarter of 2018 would be expected to be released.

The Group is exposed to a decrease in interest rates. The sensitivity towards lower interest rates is mainly caused by higher SCRs in NL and UK and lower Own Funds in the US due to additional reserves. The asymmetry in the interest rate movements arises from the set-up of required capital on the Fixed Annuity business in the US which increases in an upward interest rate sensitivity, but which is subject to a floor and therefore insensitive to a downward interest rate sensitivity. The amount of interest rate risk capital changes under the scenarios based on the extent of asset liability mismatches under different interest rate levels. In rising interest rate scenarios bonds backing the annuity liabilities may need to be sold at their lower market values in order to fund higher

anticipated annuity withdrawals. This reduces the cash flow available to fund the remaining policyholder contracts.

Credit spread sensitivities at Group level are driven by movements in Aegon NL and the EIOPA VA. NL is exposed to a reduction in spreads since this leads to an increase to the liabilities (via the lower VA) which are only partly offset by gains on the fixed income assets resulting in a net loss on Qwn Funds due to the spread duration mismatch. In the US, we have included the impact of credit spreads on the pension plan. Spread widening results in gains from the rise in the discount rate being greater than the loss on plan assets.

Lower mortality rates increase the longevity exposed liabilities. The higher liability values decrease Own Funds in US and NL, as longevity is only partially hedged, and increase the SCR.

Rating agency ratings

Aegon s objective is to maintain a very strong financial strength rating in its main operating units, and this plays an important role in determining the Company s overall capital management strategy. Aegon maintains strong financial strength ratings from leading international rating agencies for its main operating units, and a strong credit rating for Aegon N.V..

Agency

December 31, 2018	Aegon N.V.	Aegon USA	Aegon the Netherlands	Aegon UK
S&P Global				
Financial strength	-	AA-	AA-	A+
Long-term issuer	A-	-	-	-
Senior debt	A-	-	-	-
Subordinated debt	BBB	-	-	-
Commercial paper	A-2	-	-	-
Moody s Investors Service				
Financial strength	-	A1	-	-
Long-term issuer	A3	-	-	-
Senior debt	A3	-	-	-
Subordinated debt	Baa1	-	-	-
Commercial paper	P-2	-	-	-
Fitch Ratings				
Financial strength	-	A+	-	A+
Long-term issuer	A-	-	-	-
Senior debt	BBB+	-	-	-
Subordinated debt	BBB-	-	-	-
Commercial paper	F2	-	-	-
A.M. Best				
Financial strength	-	A+	-	-

Internal capital management framework

In managing the capital adequacy of the Group and its operating units, Aegon s capital management framework is built on, among other things, managing capitalizations towards target

capital management zones. Under Aegon s capital management framework, the most relevant target capitalization zones are as follows:

	Capitalization target range [1]
Aegon Group	150% 200% Solvency II Capital Ratio
Aegon USA (Life entities)	350% 450% RBC Company Action Level
Aegon the Netherlands	150% 190% Solvency II Capital Ratio
Aegon United Kingdom	145% 185% Solvency II Capital Ratio

1 Capitalization target ranges follow the revised capital management policy as of the second quarter of 2017

The frequent monitoring of actual and forecast capitalization levels of both the Aegon Group and of its underlying businesses is an important element in Aegon s capital framework in order to actively steer and manage towards maintaining adequate capitalization levels. Aegon s capital framework is based on several capital management zones in which escalating management actions are called for in a timely manner to ensure

that there is always adequate capitalization of both the Aegon Group and its operating units.

The capital management zones and the management interventions connected to these zones are set consistently throughout the Group, as illustrated in the following table.

Aegon Group	Capitalization management zones[1]	US Life entities	The Netherlands	United Kingdom	Capitalization management actions
>200% SCR	Opportunity	>450% RBC	>190% SCR	>185% SCR	Accelerate capital redeployment and/or additional dividends.
150% 200% SCR	Target	350% 450% RBC	150% 190% SCR	145% 185% SCR	Execute capital deployment and remittances according to capital plan.
120% 150% SCR	Retention	300% 350% RBC	130% 150% SCR	130% 145% SCR	Re-assess capital plan and risk positions.
100% 120% SCR	Recovery	100% 300% RBC	100% 130% SCR	100% 130% SCR	Re-assess capital plan and risk positions. Reduce or suspend remittances.
<100% SCR	Regulatory plan	<100% RBC	<100% SCR	<100% SCR	Suspension of dividends. Regulatory plan required.

1 Capitalization management zones follow the revised capital management policy as of the second quarter of 2017.

Aegon the Netherlands has started a process to review its capitalization zones as a result of a change in credit sensitivities and increased 1-in-10 year combined sensitivities for the Netherlands. The higher capital sensitivities arise from the adoption of a new dynamic VA model which has been adopted to align with the guidance from the European Insurance and Occupational Pensions Authority (EIOPA).

Minimum solvency requirements

Insurance laws and regulations in local regulatory jurisdictions often contain minimum regulatory capital requirements. For insurance companies in the European Union, Solvency II formally

defines a lower capital requirement: the Minimum Capital Requirement (MCR). An irreparable breach of the MCR would lead to a withdrawal of the insurance license. Similarly, for the US insurance entities, the withdrawal of the insurance license is triggered by a breach of the 100% Authorized Control Level (ACL), which is set at 50% of the

CAL.

With the introduction of Solvency II for EEA countries, Aegon views these minimum regulatory capital requirements as the level at which regulators will formally require management to provide regulatory recovery plans. This is set at 100% CAL for US insurance entities, and 100% SCR for insurance companies in the European Union.

The minimum regulatory capital requirements, as viewed by Aegon for its main operating units and the capitalization levels as at December 31, 2018, are included in the following table:

Capital requirements	Minimum capital requirement	Actual capitalization	Excess over minimum capital requirement
Aegon USA (Life entities) [1]	100% Company Action Level (NAIC RBC CAL)	465% of combined CAL	EUR 6.9 bln
Aegon the Netherlands [1,2]	100% Solvency II SCR	181% Solvency II SCR	EUR 3.1 bln
Aegon United Kingdom [1]	100% Solvency II SCR	184% Solvency II SCR	EUR 1.2 bln

1 Please note, this reflects Aegon s estimated Capitalization levels.
2 Including Aegon Bank.

The capitalization level and shareholders equity of the operating units can be impacted by various factors (e.g. general economic conditions, capital markets risks, underwriting risk factors, changes in government regulations, legal and arbitrational proceedings). To mitigate the impact of such factors on the ability of operating units to transfer funds, the operating units hold additional capital in excess of the levels of the minimum regulatory solvency requirements.

In practice and for upstreaming purposes Aegon manages the capitalization of its operating units towards the capitalization target ranges as identified in Aegon s capital framework.

These ranges are both in excess of the minimum regulatory requirements contained in the applicable regulations, and in excess of the minimum requirements stated in the table above.

Improving risk-return profile

Aegon continues to take measures to improve its risk-return profile. These measures include de-emphasizing the selling of various spread based products and the strategic growth in fee-based businesses. In 2016, Aegon divested its annuity business in the UK, and reinvested part of the proceeds for the acquisition of Cofunds and BlackRock s DC business in the UK. In 2017, Aegon continued its commitment to optimize its portfolio by divesting UMG in the Netherlands and completing the sale of the majority of its US run-off businesses. In 2018, Aegon divested its business in Ireland and the remaining US run-off business, acquired the income protection service provider Robidus in The Netherlands and expanded its business in the Netherlands and Spain.

Extensive asset-liability management and hedging programs are also in place. Examples of these programs include hedging the interest rate and equity risk stemming from guarantees in the Netherlands, hedging of interest rate risk and equity risk in Aegon UK, and hedging the capital position in the Americas against adverse equity and interest rate movements. In addition, Aegon is actively involved in hedging longevity risk in the Netherlands and has an active global reinsurance program in order to optimize the risk-return profile of other insurance risks. Aegon strictly monitors the risk-return profile of new business written, withdrawing products that do not meet the required hurdle rates for all stakeholders including the policyholders and shareholders.

G-SII designation and International Capital Standards

For more information about Aegon s G-SII designation, the impact thereof and the status of development of the International Capital Standards, please refer to section Regulation and supervision .

Capital quality

Capital quality is a reflection of Aegon s stability and ability to absorb future financial losses.

Solvency II distinguishes between basic Own Funds and ancillary Own Funds. Aegon s total Own Funds are comprised of Tier 1, Tier 2 and Tier 3 basic Own Funds. Aegon does not currently have ancillary Own Funds. Tier 1 basic Own Funds are divided into unrestricted Tier 1 items and restricted Tier 1 items. The latter category contains Own Fund items subject to the restrictions of article 82 (3) of the Solvency II Delegated Regulation, which includes grandfathered Tier 1 Own Fund items. Based on agreements with its supervisory authorities, Aegon applies a fungibilty and transferability restriction with respect to charitable trusts within Aegon Americas, and a restriction equal to the Own Funds of Aegon Bank. These restrictions, applied to Aegon s basic own funds, result in Aegon s available Own Funds.

Available 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 yet to be 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.

Restricted Tier 1 capital consists of Aegon s junior perpetual capital securities and perpetual cumulative subordinated bonds, both of which are grandfathered. Restricted Tier 1 capital is subject to tiering restrictions.

Aegon s Tier 2 capital consists of Solvency II compliant subordinated liabilities that were issued during 2018 and grandfathered dated subordinated notes. Tier 2 capital is subject to tiering restrictions.

The grandfathered restricted Tier 1 and Tier 2 capital instruments are grandfathered to count as capital under Solvency II for up to 10 years as of January 1, 2016. All call dates are listed in note 33 Other equity instruments and note 34 Subordinated borrowings to Aegon s consolidated financial statements.

Aegon s Tier 3 capital under the Solvency II framework consists of Aegon s deferred tax asset position under Solvency II.

Eligible Own Funds

Under Solvency II regulation, restrictions apply to the eligibility of Tier 2 and Tier 3 capital, as well as the eligibility of restricted Tier 1 capital. The total of Tier 2 and Tier 3 capital may not exceed 50% of the SCR while the eligibility of Tier 3 capital is limited to 15% of SCR. Restricted Tier 1 capital may not exceed 20% of Tier 1 Own Funds. As a result, it is possible that part of the Own Funds overflows to another tier or that is not considered eligible in determining the Group Solvency ratio.

When applying the eligibility restrictions, Aegon determines its tiering limits based on:

- EEA entities representing the part of the Group covered by the Accounting Consolidation based method, for which tiering limits are based on the SCR of the consolidated part of the Group, i.e. the consolidated group SCR; and
- Non-EEA entities representing the part of the Group covered by the Deduction & Aggregation method. If a prudential regime of an equivalent or provisionally equivalent third-country applies, such as the regulatory regimes in the United States, Aegon does not initially categorize these Own Funds into tiers or define tiers that are significantly different from those established under the Solvency II Directive. The Own Funds brought in by the Deduction & Aggregation method are then allocated to tiers according to the principles laid out in Articles 87 to 99 of the Solvency II Directive for each individual third-country insurance undertaking.

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The table below shows the composition of Aegon s available and eligible Own Funds, taking into consideration tiering restrictions.

	December 31, 2018		December 31, 2017	
	Available own funds	Eligible own funds	Available own funds	Eligible own funds
Unrestricted Tier 1	12,204	12,204	10,428	10,428
Restricted Tier 1	3,406	2,888	3,540	2,451
Tier 2	1,487	2,005	1,213	2,302
Tier 3	505	505	448	448
Total Tiers	**17,602**	**17,602**	**15,628**	**15,628**

As a result of applying the restrictions to the available Own Funds, there was an overflow from Restricted Tier 1 Own Funds of EUR 518 to Tier 2 in the eligible Own Funds as of December 31, 2018.

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, 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.

For further information, please refer to note 46 Capital Management and Solvency in the consolidated financial statements.

Operational leverage

Although operational leverage is not considered part of Aegon s total capitalization, it is an important source of liquidity and funding. Operational leverage relates primarily to financing Aegon s mortgage portfolios through securitizations, warehouse facilities, covered bonds, and the funding of US Regulation XXX and Guideline AXXX redundant reserves.

Aegon enters into reinsurance agreements for risk and capital management purposes with several affiliated captive insurance companies (captives). All captives are fully consolidated for IFRS reporting and for Solvency II based on local valuations under equivalence.

The captives are utilized for a number of purposes that may include:

- Financing term life insurance (subject to Regulation XXX reserves) and universal life insurance with secondary guarantees (subject to Regulation AXXX reserves) to support lower-risk statutory reserves at a lower cost for policyholders and shareholders;
- Managing and segregating risks; and
- Monetizing embedded value.

All external financing provided to captives to support statutory reserves is disclosed in note 39 Borrowings to the consolidated financial statements to the extent to which it has been funded. Letters of Credit (LOCs) issued by third parties provided to captives to provide collateral to affiliated insurers are disclosed in note 48 Commitments and contingencies to the consolidated financial statements. These LOCs have been provided by third parties for the benefit of the affiliated company whose liabilities are reinsured.

Funding and back-up facilities

The majority of Aegon s financial leverage is issued by Aegon N.V., the parent company. A limited number of other Aegon companies have also issued debt securities, but for the most part these securities are guaranteed by Aegon N.V.

Aegon N.V. has regular access to international capital markets under a USD 6 billion debt issuance program. Access to the capital market in the United States is made possible by a separate shelf registration.

Aegon also has access to domestic and international money markets through its EUR 2.5 billion commercial paper programs. As at December 31, 2018, Aegon had EUR 82 million outstanding under these programs (2017: EUR 72 million).

To support its commercial paper programs and need for LOCs, and to enhance its liquidity position, Aegon maintains backup credit and LOC facilities with international lenders. The Company s principal arrangements comprise a EUR 2 billion syndicated revolving credit facility and a LOC facility of USD 2.6 billion. In 2018, the company refinanced its syndicated revolving credit facility. The new facility matures in 2023. The LOC facility matures in 2021. In addition, Aegon also maintains various shorter-dated bilateral backup liquidity facilities, and committed and uncommitted LOC facilities.

Liquidity management

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 under extreme conditions.

Liquidity is coordinated centrally and managed both at Aegon N.V. and at the operating unit level. Aegon maintains a liquidity policy that requires all business units to project and assess their sources and uses of liquidity over a two-year period under normal and severe business and market scenarios. This policy ensures that liquidity is measured and managed consistently across the Company, and that liquidity stress management plans are in place.

Sources and uses of liquidity

Liquidity in Aegon s subsidiaries

Aegon s operating units are primarily engaged in the life insurance and pensions business, which is a long-term activity with relatively illiquid liabilities and generally matching assets. Liquidity consists of liquid assets held in investment portfolios, in addition to inflows generated by premium payments and customer deposits. These are used primarily to purchase investments, as well as to fund benefit payments to policyholders, policy surrenders, operating expenses, and, if the subsidiary s capital position allows, to pay dividends to the holding.

After investments have been made in new business to generate organic growth, capital generated by Aegon s operating units is available for distribution to the holding company, while maintaining a capital and liquidity position in the operating units in line with Aegon s capital management and liquidity risk policies. In addition, the ability of Aegon s insurance subsidiaries to transfer funds to the holding company is also constrained by the requirement for these subsidiaries to remain adequately capitalized at the levels set by local insurance regulations, and as administered by local insurance regulatory authorities.

Aegon N.V.

The main sources and uses of liquidity at the holding company Aegon N.V. are dividends from operating units, movements in debt, net expenses (including interest), funding operations, capital returns to shareholders, and the balance of acquisitions and divestitures. In addition, contingent internal and external liquidity programs are maintained to provide additional safeguards against extreme unexpected liquidity stresses.

Aegon uses cash flows from its operating units to pay for holding expenses, including funding costs. The remaining cash flow is available to execute the Company s strategy and to fund dividends on its shares. Aegon aims to pay out a sustainable dividend to enable equity investors to share in its performance.

When determining whether to declare or propose a dividend, Aegon s Executive Board balances prudence with offering an attractive return to shareholders. This is particularly important during adverse economic and/or financial market conditions. Furthermore, Aegon s operating subsidiaries are subject to local insurance regulations that could restrict dividends to be paid to the holding company. There is no requirement or assurance that Aegon will declare and pay any dividends.

Aegon s holding excess cash

The ability of the holding company to meet its cash obligations depends on the amount of liquid assets on its balance sheet and on the ability of the operating units to pay dividends to the holding company. In order to ensure the holding company s ability to fulfil its cash obligations and maintain sufficient management flexibility to allocate capital and liquidity support for Aegon s operating units and external dividend stability, it is the Company s policy that the holding excess cash position, including Aegon s centrally managed (unregulated) holding companies, is managed to a target range of EUR 1.0 to 1.5 billion.

As at December 31, 2018, Aegon held a balance of EUR 1.3 billion in excess cash in the holding, compared with EUR 1.4 billion on December 31, 2017. The decrease of EUR 0.1 billion reflects the net impact of dividends from subsidiaries and capital injections in subsidiaries, divestments, acquisitions, the issuance and redemptions of capital instruments and senior unsecured notes, holding expenses and capital returns to shareholders. During 2018 Aegon exercised the right to redeem the USD 525 million 8% non-cumulative subordinated notes (grandfathered Tier 2) and the EUR 200 million 6% perpetual capital securities (grandfathered Restricted Tier 1), which was pre-financed by the issuance of USD 800 million Tier 2 subordinated debt securities, first callable on April 11, 2028, and maturing on April 11, 2048. Additionally, the 1-year EUR 500 million senior unsecured notes that were issued in 2017, were redeemed.

An amount of EUR 97 million was paid for the acquisition of the protection income service provider Robidus in The Netherlands. The payments in 2018 were offset by proceeds from the sale of Aegon Ireland of EUR 196 million and dividends from Aegon Americas (EUR 906 million), Aegon NL (EUR 200 million), and Aegon UK (EUR 113 million). Dividends from other units were largely offset by capital injections, amounting to a net of EUR 14 million.

During 2018, payments related to the 2017 final dividend and 2018 interim dividend and the corresponding share buybacks amounted to EUR 577 million and holding and funding expenses amounted to EUR 333 million.

Aegon s liquidity is invested in accordance with the Company s internal risk management policies. Aegon believes that its working capital, backed by its external funding programs and facilities, is ample for the Company s present requirements.

Asset liability management

Aegon specializes in writing long-term life insurance business with key markets in the US, Europe and Asia. Its product suite includes savings and annuity products that feature a guaranteed level of benefit. Aegon also issues mortgage loans in The Netherlands that are initiated using long-term insurance funds. Products are priced using a market-consistent framework, and comprehensive asset-liability management (ALM) programs are implemented to ensure that the assets backing policyholder benefits are invested prudently over the long term.

A range of ALM techniques are used across the Group. These range in terms of sophistication and complexity from cash-flow matching (for traditional fixed annuities) to duration matching (for the universal life family) to derivative-based semi-static and dynamic hedges (to match variable annuities).

The Enterprise Risk Management (ERM) framework includes a number of risk policies that govern ALM strategies, such as the Investment and Counterparty Risk Policy (ICRP), the Interest Rate Risk Policy (IRRP) and the Currency Risk Policy (CRP). The ICRP governs the management of investment risks associated with credit, equity, property and alternative asset classes, in addition to option markets and implied volatility risk. The other policies govern interest rate and currency risk, including the risk associated with interest rate options and swaptions.

As well as product-level ALM programs, subsidiary businesses are required by the ICRP to maintain overarching ALM strategies that set the direction and limits for the various individual product-level programs. Significant or complex ALM strategies are approved at group level, and all programs are subject to group risk oversight.

Together with the ICRP, IRRP and CRP, which guide ALM strategy, a number of other ERM policies govern concentration risk, liquidity risk, use of derivatives and securities lending and repos. As Aegon uses derivatives extensively, collateral calls can be significant depending on market circumstances. Liquidity is managed at legal entity level in the first instance, and the large US and Dutch units may use external market solutions to match projected liquidity requirements with funding.

The introduction of Dodd-Frank and the European Market Infrastructure Regulation (EMIR) derivative regulations led to Aegon transitioning a significant proportion of formerly over-the-counter positions to clearing houses in recent years. Collateral and margin requirements increased, introducing the potential for liquidity strain, which has to be carefully managed. Market volatility can cause collateral requirements to increase rapidly, which means that it is important to have sufficient high quality collateral available at all times. Regular liquidity stress testing is used to monitor required liquidity and ensure that sufficient funding is available.

Americas

The investment choices of Aegon USA s companies are subject to regulation dependent upon the laws of the applicable state in which each such company is domiciled. Each state prescribes the nature, quality and percentage of various types of investments that may be made by the companies. Such laws generally permit investments in government bonds, corporate debt, preferred and common stock, real estate and mortgage loans, while limiting investment in other classes of investments.

A range of ALM strategies are used at the product-group level. For traditional general account insurance, the ALM strategy is to select high-quality investment assets that are matched to the corresponding liability. This strategy takes currency, yield and maturity characteristics into consideration. Asset quality and diversification are also taken into account, together with policyholders reasonable expectations with regard to the sharing of excess interest.

Transamerica also writes a significant volume of variable annuity business, which is managed using sophisticated dynamic hedging techniques. Clearly-defined hedge strategies cover first order delta and rho , together with higher order programs covering gamma and vega sensitivities. The Distributed Earning Macro Program is an overlay hedge that provides additional protection for distributable earnings against a sharp fall in equity markets.

Aegon USA also uses various liquidity management techniques, including a contingent liquidity management facility, to ensure sufficient access to funding for collateral calls in the event of rapidly rising interest rates. Regular stress testing is used to monitor and manage liquidity risk.

Europe

The Netherlands

Aegon the Netherlands uses fixed income instruments to match its long-term liabilities. These include high-quality sovereign and corporate bonds, together with a sizeable portfolio of Dutch residential mortgages. Cash flow matching is used to manage the asset portfolio, and a derivative-based dynamic hedge program in addition to the cash flow matching. The hedge program is rebalanced on a daily basis in order to both offset embedded guarantee sensitivities, and protect against volatility in best estimate economic cost of these guarantees.

Derivatives are central to Aegon s hedging strategy, and the derivatives market has been subject to a large number of changes in recent years. These include the introduction of the EMIR in Europe. Furthermore, counterparty risks associated with derivative contracts are mitigated by collateral, and the introduction of central clearing has increased collateral requirements and reduced counterparty risk over recent years.

United Kingdom

Having disposed of the majority of its annuity portfolio, the primary role of ALM at Aegon UK is to protect Solvency II own funds. This is achieved by using options and equity and interest rate swaps to guard against fluctuations in best estimate liabilities. This year a new Solvency II unit matching program was introduced to reduce residual basis risk associated with unit-linked liabilities. Programs are also in place to match assets with the liabilities of the remaining annuity book and the staff pension scheme.

The UK with-profits business is written in the policyholder-owned fund (otherwise called the with-profits fund). The funds with the highest guaranteed rates have been closed to premiums since 1999, and all funds have been closed to new business with investment guarantees since October 2002 (except for a small increase in regular payments). The fund contains free assets that have not yet been fully distributed to individual policyholders. Free assets help meet the cost of guarantees and provide a buffer to protect the fund from the impact of adverse events. The free assets are partly invested in equity put options and interest rate swaps and swaptions. Aegon UK has an exposure

only once these assets have been exhausted. The risk of exposure has been assessed by Aegon UK as remote, based on applying the risk-based capital approach required for Solvency II reporting in the UK. As the fund is closed for new business, the free assets are gradually being distributed to the with-profit policyholders through the applicable bonus system.

Central & Eastern Europe and Spain & Portugal

Aegon has a range of ALM programs in place across life and non-life businesses in the Central & Eastern Europe region and in Spain and Portugal. Across the CEE units, ALM focuses on asset-liability matching in terms of duration and liquidity. In Spain & Portugal, insurance liabilities are predominately long-term life benefits, and the focus of ALM is to minimize interest rate risk by duration matching.

Asia

Aegon and Sony Life jointly established a reinsurance company, SA Reinsurance Ltd. (SARe). SARe uses a sophisticated dynamic hedge program to manage guarantee risk included in variable annuity products associated with equity markets and interest rates.

Reinsurance ceded

Aegon uses reinsurance to manage and diversify risk, limit volatility, improve capital positions, limit maximum losses, and sometimes to enter into strategic partnerships and gain access to reinsurer technology. While the objectives and use can vary by region due to local market considerations and product offerings, the use is coordinated and monitored globally.

In order to minimize its exposure to reinsurer defaults, Aegon regularly monitors the creditworthiness of its reinsurers, and where appropriate, arranges additional protection through letters of credit, trust agreements and overcollateralization. For certain agreements, funds are withheld for investment rather than relying on the reinsurer to meet investment expectations. Default exposure is further reduced by the use of multiple reinsurers within certain reinsurance agreements. Aegon has experienced no material reinsurance recoverability problems in recent years.

External reinsurance counterparties are in general major global reinsurers (approximately 60% of reinsurance premium) with more local reinsurers ensuring a balance between regional and global considerations. The key way in which reinsurance is used and the role that it plays by region is as follows:

Corporate Center and Blue Square Re

Global coordination takes place through Aegon Corporate Center working closely with local business units. The Global Reinsurance Use Committee (GRUC) is a global body that shares and discusses updates and matters of interest among local and global reinsurance managers. The GRUC also oversees Aegon s Reinsurance Use Policy and facilitates approval of transactions if counterparties are not pre-approved. Reports are shared with the Global Risk and Capital Committee and Group Management Board as appropriate.

Blue Square Re is a global reinsurer 100% owned by Aegon N.V. that specializes in internal reinsurance and related consideration, and offers product and underwriting expertise to Aegon units and partners. In accepting risks from Aegon units, Blue Square Re may at times retrocede risk to external reinsurers, thereby realizing economies of scale and diversification.

Americas

Aegon Americas manages its life insurance exposure through various types of agreements with reinsurers. It relies heavily on quota-share and excess-of-loss reinsurance arrangements. The primary purpose of these agreements is to diversify Aegon Americas overall risk and limit the maximum loss on risks that exceed policy retention levels. Maximum retention levels vary by product, method of underwriting, and the nature of the risk being reinsured.

Europe

The Netherlands

Aegon the Netherlands reinsures part of its insurance exposure with third-party reinsurers under traditional indemnity and excess of loss contracts. Reinsurance helps Aegon manage, mitigate and diversify its insurance risks, and thereby limit the maximum loss it may incur. Since January 1, 2014, Aegon the Netherlands has reinsured its term life assurance through a quota-sharing contract. For non-life, Aegon the Netherlands only reinsures its property, general and motor third-party liability business. For property insurance, motor third-party liability insurance, and general third-party liability, excess of loss contracts are in place.

United Kingdom

Aegon UK uses reinsurance to both manage risk and maximize financial value through returns achieved and efficient capital management. The degree to which reinsurance is used across the product lines varies, depending largely on the appropriateness and value of reinsurance available in the market. The protection business is significantly reinsured. A reinsurance panel is in place to provide reinsurance, predominantly on a quota share basis, across the range of benefits. A facultative reinsurance panel is also used to assist the placement of very large cases.

Central & Eastern Europe

Aegon CEE uses reinsurance for its life and non-life businesses in order to mitigate insurance risk. The majority of treaties in force for Aegon s operations in Central & Eastern Europe are non-proportional excess of loss programs except for the life reinsurance treaties which are made on a surplus and quota-share basis (including various riders). The most significant reinsurance programs currently in force are property catastrophe excess of loss treaty and excess of loss treaties for other risks.

Spain & Portugal

Aegon Spain has a one Aegon reinsurance management policy. This means that both its joint ventures in Spain & Portugal and own business are treated as a whole, with similar economic conditions and a similar panel of reinsurers, while individual profit shares without losses are carried forward by each entity belonging to Aegon Spain. The main contract for mortality and morbidity provides proportional reinsurance protection for both its individual risk and group risk policies. Aegon Spain thereby seeks to optimize the cost of reinsurance coverage, including through profit sharing, while achieving prudential diversification of its insurance risk by limiting the maximum possible losses on risks that exceed retention levels. Household insurance contracts for the Aegon Santander joint ventures follow the same principles, with maximum retention levels varying both by product and by the nature of the risk being reinsured. Natural catastrophe reinsurance programs are also in place to provide cover for high impact low frequency events.

Asia

China: Aegon THTF

Aegon THTF shares its morbidity and mortality risk with international and national reinsurers. The mortality risk of individual products is shared through a surplus reinsurance structure. Aegon THTF reviews the reinsurance structure regularly, adjusting it based on claims experience and its risk acceptance capability.

India: Aegon Life

Reinsurance arrangements are regulated by the Insurance Regulatory and Development Authority of India. Aegon Life reinsures the mortality and morbidity risks of the policies it sells.

Japan: Aegon Sony Life and SARe

Aegon Sony Life reinsures 100% of its guarantees on variable annuities with SARe. In addition, Aegon Sony Life maintains a Surplus Relief reinsurance contract on a local statutory basis only. Surplus Relief provides relief from acquisition cost recovery risk.

Hong Kong and Singapore:

Transamerica Life Bermuda (TLB)

TLB uses third-party mortality reinsurance for its universal life and traditional policies. Mortality reinsurance takes the form of yearly-renewable term, excess-of-retention or quota-share arrangements. This is typically arranged through a pool of reinsurers. In October 2016, TLB entered into a reinsurance treaty to provide further protection for the local solvency position in Singapore.

Risk management

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 internal 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.

For Aegon, risk management involves:

- Understanding risks that the Company 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.

This section provides a description of Aegon s risk management. Risks and risk management are also referred to in various other sections of Aegon s Annual Report, as they are relevant throughout the Company, for its various activities and its financial results. Relevant sections are: Our operating environment on page 17; Note 4 on Financial Risks in the Notes to the consolidated financial statements on page 175; and Risk factors on page 369.

Enterprise Risk Management (ERM) 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 covers the ERM components as identified by the Organizations of the Treadway Commission (COSO). 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.

Risk strategy, risk appetite statement and risk tolerances

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 risk appetite statement and risk tolerances are established in order to assist management in carrying out Aegon s strategy using the resources available to Aegon. Aegon s risk appetite statement is linked to Aegon s strategy and purpose as expressed in the mission statement: helping people achieve a lifetime of financial security. Aegon s risk appetite statement is to:

Fulfill our promises towards our customers and other stakeholders by delivering sustainable growing long-term free capital generation, with strong resilience in solvency and liquidity, healthy balance in exposures, and by running a responsible business with effective controls.

Following from the risk appetite statement, risk tolerances are defined on:

1) Capital generation, to ensure free capital generation remains sufficiently in line with projections;

2) Solvency and liquidity, to ensure that Aegon remains solvent and liquid even under adverse scenarios;

3) Risk balance, to ensure a healthy balance of risk exposures that supports delivering on targets for capital generation and return on capital;

4) Responsible business with effective controls, which acknowledges an acceptable level of operational risk and stresses a low tolerance for (lack of) actions which could lead to material adverse risk events that result in breaking promises or not meeting reasonable expectations of customers, legal breaches or reputational damage.

The tolerances are further developed into measures, limits and thresholds that have to be complied with to remain within the tolerances.

Risk identification and risk assessment

Aegon has identified a risk universe that captures all known material risks to which the Company is exposed. 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
- When an exposure exceeds the risk tolerance of management or if 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.

Risk universe and risk appetite

The risk factors described in this Annual Report (see risk factors in the additional information section) generally have an impact on financial markets (e.g. interest rates and share prices), underwriting assumptions (e.g. longevity and policyholder behavior) or result in operational risk events (e.g. fraud and business disruption). Aegon s risk universe is structured to reflect the type of risk events to which the Company is exposed. The identified risk categories are financial risk, underwriting risk and operational risk. Specific risk types are identified within these risk categories. The risk universe captures all known material risks to which Aegon is exposed. These risks, internal or external, may affect the Company s operations, earnings, share price, value of its investments, or the sale of certain products and services. In the context of Aegon s risk strategy, a risk appetite is set for the three identified risk categories (see table below).

Risk category	Description	Appetite
Underwriting	The risk of incurring losses when actual experience deviates from Aegon s best estimate assumptions on mortality, longevity,	Medium to high Underwriting risk is Aegon s core business and meets customer needs.

	morbidity, policyholder behavior, P&C claims and expenses used to price products and establish technical provisions.		
Financial	The risk of incurring financial losses due to movements in financial markets and the market value of balance sheet items. Elements of financial risk are credit risk, investment risk, interest rate risk and currency risk.	Low to medium	Accepted where it meets customer needs and the risk return profile is acceptable.
Operational	Operational risk results from operational failures or external events, such as processing errors, legal and compliance issues, natural or man-made disasters, and cybercrime.	Low	Accepted to serve customer needs, but mitigated as much as possible.

Most significant risks

The most significant risks Aegon faces in terms of exposures and required capital are:

- Financial markets risks (particularly related to credit, equity and interest rates), and
- Underwriting risk (particularly related to longevity and policyholder behavior).

Description of risk types

Financial risk

Credit risk

Credit risk is the risk of economic loss due to the deterioration in the financial condition of counterparties, either through fair value losses on traded securities or through defaults on traded securities, loans and mortgages. Having a well-diversified investment portfolio means that Aegon can accept credit spread risk to earn a liquidity premium on assets that match liabilities. The focus is on high quality securities with low expected defaults because Aegon has a low appetite for default risk.

Equity market risk and other investment risks

Aegon runs the risk that the market value of its investments changes. Investment risk affects Aegon s direct investments in the general account, indirect investments on the account of policyholders and agreements where Aegon relies on counterparties, such as reinsurance and derivative counterparties. Aegon has a low preference for investments in equity securities via the general account. Equity investments generate an equity risk premium over the long run, but in combination with a high capital charge result in a relatively low return on capital. Aegon has experience and expertise in managing complex investment guarantees, and leverages this capability by providing customers access to a range of investment strategies and guaranteed benefits.

Interest rate risk

Aegon is exposed to interest rates as both its assets and liabilities are sensitive to movements in long- and short-term interest rates, as well as to changes in the volatility of interest rates. Aegon accepts interest rate risk in order to meet customer needs. However, as no spread is earned on this interest rate risk, Aegon prefers to mitigate the risk to the extent possible.

Currency exchange rate risk

As an international company, Aegon is exposed to different currencies, and therefore to movements in currency exchange rates. Foreign currency exposure exists primarily when policies are denominated in currencies other than the issuer s functional currency. Currency risk in the investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are held in local currencies to the extent shareholders equity is required to satisfy regulatory and self-imposed capital requirements. Currency exchange rate fluctuations therefore affect the level of shareholders equity as a result of converting local currencies into euro, the Group s reporting currency. The Company holds its capital base in various currencies in amounts that correspond to the book value of individual business units.

Liquidity risk

Aegon needs to maintain sufficient liquidity to meet short term cash demands not only under normal conditions, but also in the event of a crisis. To that end, Aegon has put a strong liquidity management strategy in place. The Company considers extreme liquidity stress scenarios, including the possibility of prolonged frozen capital markets, an immediate and permanent rise in interest rates, and policyholders withdrawing liabilities at the earliest conceivable date. In addition, the Company has liquidity stress planning in place.

Underwriting risk

Underwriting risk relates to the products sold by Aegon s insurance entities, and represents the risk of incurring losses when actual experience deviates from Aegon s best estimate assumptions on mortality, morbidity, policyholder behavior, P&C claims and expenses. Aegon has a preference to selectively grow underwriting risk, but this must work hand-in-hand with a strong underwriting process. Aegon s earnings depend, to a significant degree, on the extent to which claims experience is consistent with assumptions used to price products and establish technical liabilities. Changes in, among other things, morbidity, mortality, longevity trends and policyholder behavior may have a considerable impact on the Company s income. Assumptions used to price products and establish technical liabilities are reviewed on a regular basis. Please refer to note 3 Critical accounting estimates and judgment in applying accounting policies to the consolidated financial statement for further information.

Operational risk

Like other companies, Aegon faces operational risk resulting from operational failures or external events, such as processing errors, inaccuracies in used models, acts from personnel, non-compliance to laws and regulations, and natural or man-made disasters including climate change. In addition, major programs or organizational transformations may also increase potential for operational risks. 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 monitors and analyses these risks on a regular basis, and where necessary revises contingency plans to deal with them. Aegon s operational risk universe distinguishes eight risk types: Business risk; Legal, regulatory, conduct and compliance risks; Tax risk; Financial crime risk; Processing risk; Systems and business disruption risk; People risk; and Facility risk. These level 1 risk types are split out into more granular level 2 risk types. The operational risk universe also covers social and environmental risks. Please refer to the chapter non-financial policies, procedures and outcomes for an overview of how various social and environmental issues are incorporated in decision making processes and policies throughout the company.

Cyber risk

Cyber security has been recognized by Aegon as an important operational risk. Aegon s digital security controls and cyber threat management program, as defined within the Company s global information security program, are intended to establish security controls that safeguard data, technology and operations, as well as activities outsourced to third parties. Aegon recognizes the need to commit significant resources to protect and continually strengthen its existing security control environment and preventative tooling as new cyber threats and exposures emerge. Evaluations and scenario testing of security controls including detection and response capabilities are performed by both internal and external experts, and identified vulnerabilities are tracked and monitored by management. This program is overseen by Aegon s Global Chief Information Security Officer, who has a direct reporting line to the Global Chief Technology Officer, who is a member of the Management Board, in conjunction with local business unit management and information security officers. Moreover, periodic updates are provided to Aegon s Supervisory Board. Aegon takes cybercrime very seriously, and is committed to enhancing its existing systems over time in order to provide additional protections to its systems and information.

Conduct Risk

Both industry-wide and within Aegon, cultural and behavioral elements of risks increasingly play a role within overall risk frameworks. Relevant in this context are, among others, the European Insurance Distribution Directive (IDD) and the General Data Protection Regulation (GDPR). Conduct risk refers to the risks inherent in behaviors, business and staff integrity and business culture, including, but not limited to, meeting the standards of Aegon s Market Conduct Principles.

Emerging risk process and materiality assessment

In addition to the management of described risk types, Aegon performs an emerging risk process and a materiality assessment. These processes are meant to ensure ongoing appropriateness of the risk universe, to ensure completeness of Aegon s risk assessment and to provide input for ongoing strategy development.

The emerging risk process is performed on an annual basis. Aegon defines an emerging risk as follows:

A newly developing or changing risk, which is perceived to have a potential significant impact on Aegon s financial strength, competitive position or reputation. Emerging Risk may not be fully understood yet or factored into terms and conditions, pricing, reserving or capital setting.

The aim of the process is to enhance Aegon s ERM framework by ensuring that the most significant emerging risks are identified on a timely and an ongoing basis, thus limiting the possible impact on the business. The process consists of risk identification and analysis. In the risk identification phase inputs are collected from a number of sources, including a contest among all employees, interviews with experts and the use of external sources. Intermediate decisions to perform a risk analysis can be taken in case a material emerging risk is identified in the timeframe between the annually structured process through regular risk identification and monitoring. Topics that have been analysed relate to for instance economic and financial market developments, regulatory developments, innovations and developments impacting underwriting risks.

In addition, every year Aegon performs a materiality exercise with the aim to incorporate the results into Aegon s strategy and reporting processes. The exercise involves both stakeholders and Aegon s senior management. Material topics are those likely to have the most impact, over the next few years, on Aegon s business, profits, reputation, and its ability to continue creating long-term value for stakeholders. For the identified material topics it is determined to which degree Aegon can influence and control these topics, what the risks and opportunities are and the actions taken in anticipation or response to the topic. For the material topics identified for 2018, the relevant risks are:

1. A loss of trust from customers impacting sales, reputation and profitability.
2. Fines from regulators and loss of trust and business following from cyber security breaches.
3. Tougher competition from peers and new distributors following from new technologies and digital transformation, increasing investment needs, and job losses in certain areas as a result of further automation.
4. Lower investment returns due to low interest rates.
5. A loss of business if Aegon does not adapt quickly enough to changing customer behavior.

The mentioned risks fall in the risk categories investment risks, mismatch risk, underwriting risks (including longevity and policyholder behaviour) and operational risks (including business risks and strategic risks). For more information to the materiality exercise refer to the section: Our operating environment on page 17.

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 operating 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 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.

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.

For a description of the main roles and responsibilities of the SBRC see the section on the Risk Committee on page 94 of the Report of the Supervisory Board in this Annual Report.

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.

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 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 which threaten the risk balance, 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 purpose of the ERMAAC is to assist the GRCC, Executive Board and Management Board with financial risk framework setting and maintenance across all group-level balance sheet bases, including policies, standards, guidelines, methodologies and assumptions.

The purpose of the NFRC is to assist the GRCC, Executive Board and Management Board with non-financial risk framework setting and maintenance, including policies, standards, guidelines and methodologies and to act as formal discussion and exchange of information platform on matters of concern regarding non-financial risk management.

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.

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.

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.

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 investments;
- 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;
- 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.

Internal control system

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 Risk Management (ORM) 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 has been 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 IFRS and Solvency II 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.

In 2018, 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.

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 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 includes the risk management function. The risk management function facilitates and oversees the effectiveness and integrity of ERM across the Company. The third line of defense the audit function provide independent assurance on the effectiveness and integrity of the internal control, risk management and governance functions.

Controls and procedures

Disclosure controls and procedures

At the end of the period covered by this Annual Report, Aegon s management carried out an evaluation, under the supervision and with the participation of its Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of Aegon s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on this evaluation, Aegon s CEO and CFO concluded that, as of December 31, 2018, the disclosure controls and procedures were effective. There have been no material changes in the Company s internal controls or in other factors that could significantly affect internal controls over financial reporting subsequent to the end of the period covered by this Annual Report.

Due to the listing of Aegon shares on the New York Stock Exchange, Aegon is required to comply with the US Securities and Exchange Commission regulations adopted pursuant to Section 404 of the Sarbanes-Oxley Act, or SOX 404. These regulations require that Aegon s CEO (the Chairman of the Executive Board) and CFO report on and certify the effectiveness of Aegon s internal controls over financial reporting on an annual basis. Furthermore, external auditors are required to provide an opinion on the effectiveness of Aegon s internal controls over financial reporting. The SOX 404 statement by the Executive Board is stated below, followed by the report of the external auditor.

Management s Annual Report on internal control over financial reporting

The directors and management of Aegon are responsible for establishing and maintaining adequate internal control over financial reporting. Aegon s internal control over financial reporting is a process designed under the supervision of Aegon s principal executive and financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of its published financial statements. Internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with generally accepted accounting principles;
- Provide reasonable assurance that receipts and expenditures are made only in accordance with the authorizations of management and directors of the Company; and
- Provide reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on Aegon s financial statements would be prevented or detected in a timely manner.

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

Management assessed the effectiveness of Aegon s internal control over financial reporting as of December 31, 2018.

In making its assessment management used the criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO, 2013 framework).

Based on the assessment, management concluded that, in all material aspects, the internal control over financial reporting was effective as of December 31, 2018. They have reviewed the results of its work with the Audit Committee of the Supervisory Board.

The effectiveness of internal control over financial reporting as of December 31, 2018, was audited by PricewaterhouseCoopers Accountants N.V., an independent registered public accounting firm, as stated in their report included on the following page.

Management s assessment of going concern

The directors and management of Aegon have adopted a going concern basis, in preparing the consolidated financial statements, on the reasonable assumption that the Company is, and will be, able to continue its normal course of business in the foreseeable future.

Relevant facts and circumstances relating to the consolidated financial position on December 31, 2018, were assessed in order to reach the going concern assumption. The main areas assessed are financial performance, capital adequacy, financial flexibility, liquidity and access to capital markets, together with the factors likely to affect Aegon s future development, performance and financial position. Commentary on these is set out in the Capital and liquidity management , Risk management , Results of operations and Business Overview sections in this Annual Report. Takin into account the financial performance of the Company, its continued ability to access capital markets, the fact that its solvency and leverage ratios are well within target range, and the level of excess cash in the holding, management concluded that the going concern assumption is appropriate.

The Hague, the Netherlands, March 21, 2019

The Executive Board of Aegon N.V.

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Selected financial data

The financial results in this Annual Report are based on Aegon s consolidated financial statements, which have been prepared in accordance with International Financial Reporting Standards as issued by the IASB.

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. There can be no assurance that actual results will not differ materially from those estimates. Accounting policies that are critical to the presentation of the financial statements and that require

complex estimates or significant judgment are described in the notes to the financial statements.

A summary of historical financial data is provided in the table below. It is important to read this summary in conjunction with the consolidated financial statements and related notes (see pages 140-307) of this Annual Report.

Selected consolidated income statement information					
In EUR million (except per share amount)	**2018**	2017	2016	2015	2014
Amounts based upon IFRS					
Premium income	19,316	22,826	23,453	22,925	19,864
Investment income	7,035	7,338	7,788	8,525	8,148
Total revenues [1]	28,914	32,973	33,655	33,902	30,157
Income/(loss) before tax	751	2,534	610	(514)	916
Net income/(loss)	711	2,469	438	(431)	766
Earnings per common share					
Basic	0.29	1.14	0.15	(0.27)	0.29
Diluted	0.29	1.14	0.15	(0.27)	0.29
Earnings per common share B					
Basic	0.01	0.03	-	(0.01)	0.01
Diluted	0.01	0.03	-	(0.01)	0.01

[1] Excluded from the income statements prepared in accordance with IFRS are receipts related to investment-type annuity products and investment contracts.

Selected consolidated balance sheet information

In million EUR	2018	2017	2016	2015	2014
Amounts based upon IFRS					
Total assets	392,633	395,923	425,425	415,415	424,112
Insurance and investment contracts	330,552	324,362	344,844	343,558	321,384
Borrowings including subordinated and trust pass-through securities	13,583	14,532	14,076	13,361	15,049
Shareholders equity	19,225	20,288	20,520	22,441	23,847

Number of common shares

In thousands	2018	2017	2016	2015	2014
Balance at January 1	2,095,648	2,074,549	2,147,037	2,145,948	2,131,459
Share issuance	-	-	-	-	-
Stock dividends	-	21,099	10,629	1,089	14,489
Shares withdrawn	-	-	(83,117)	-	-
Balance at end of period	**2,095,648**	**2,095,648**	**2,074,549**	**2,147,037**	**2,145,948**

Number of common shares B					
In thousands	**2018**	2017	2016	2015	2014
Balance at January 1	585,022	585,022	585,022	581,326	579,005
Share issuance	-	-	-	3,696	2,320
Balance at end of period	**585,022**	**585,022**	**585,022**	**585,022**	**581,326**

Dividends

Aegon declared interim and final dividends on common shares for the years 2013 through 2017 in the amounts set forth in the following table. The 2018 interim dividend amounted to EUR 0.14 per common share and EUR 0.0035 per common share B. The interim dividend was paid in cash or stock at the election of the shareholder. The interim dividend was payable as of September 21, 2018. At the General Meeting of Shareholders on May 17, 2019, the Supervisory Board will, absent unforeseen circumstances, propose a final dividend of EUR 0.15 per common share (at each shareholders option

in cash or in stock), which will bring the total dividend for 2018 to EUR 0.29. With respect to the Common Shares B, each which has financial rights attached to it of 1/40th of a Common Share, the proposed final dividend will be EUR 0.00375. After taking the interim-dividend 2018 of EUR per Common Share B into account, this will result in a total 2018 dividend of EUR 0.00725 per Common Share B. Dividends in US dollars are calculated based on the foreign exchange reference rate (WM/ Reuters closing spot exchange rate fixed at 5.00 pm Central European Summer Time (CEST)) on the US-ex dividend day.

	EUR per common share [1]			USD per common share [1]		
Year	Interim	Final	Total	Interim	Final	Total
2014	0.11	0.12	0.23	0.15	0.13	0.28
2015	0.12	0.13	0.25	0.13	0.15	0.28
2016	0.13	0.13	0.26	0.15	0.15	0.29
2017	0.13	0.14	0.27	0.15	0.16	0.32
2018	0.14	0.15 [2]	0.29	0.16		

1 Paid at each shareholders option in cash or in stock.

2 Proposed.

Results of operations

This Annual Report includes the non-IFRS financial measure: underlying earnings before tax. The reconciliation of this measure to the most comparable IFRS measure is presented in the table below in addition to note 5 Segment information of the consolidated financial statements. This non-IFRS measure is calculated by consolidating on a proportionate basis the revenues and expenses of Aegon s joint ventures in China, Japan, Mexico, the Netherlands, Portugal and Spain and Aegon s associates in Brazil, India, Mexico, the Netherlands and United Kingdom.

The table also includes the non-IFRS financial measure: net underlying earnings. This is the after-tax equivalent of underlying earnings before tax. The reconciliation of net underlying earnings to the most comparable IFRS measure is presented in the table below. Aegon believes that these non-IFRS measures provides meaningful supplemental information about the underlying operating results of Aegon s businesses, including insight into the financial measures that senior management uses in managing the businesses.

Aegon s senior management is compensated based in part on Aegon s results against targets using the non-IFRS measures presented in this report. While many other insurers in Aegon s peer group present substantially similar non-IFRS measures, the non-IFRS measures presented in this document may nevertheless differ from the non-IFRS measures presented by other insurers. There is no standardized meaning to these measures under IFRS or any other recognized set of accounting standards and readers are cautioned to consider carefully the different ways in which Aegon and its peers present similar information before making a comparison. Aegon believes the non-IFRS measures present within this report, when read together with Aegon s reported IFRS financial statements, provide meaningful supplemental information for the investing public. This enables them to evaluate Aegon s businesses after eliminating the impact of current IFRS accounting policies for financial instruments and insurance contracts, which embed a number of accounting policy alternatives that companies may select in presenting their results (as companies may use different local generally accepted accounting principles (GAAPs)), and this may make the comparability difficult between time periods.

Change in measurement of performance measure[1]

Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Previously, direct returns on these investments were reported as part of underlying earnings before tax and the fair value movements were reported as part of Fair value items. From January 1, 2018, fair value items include the over-or underperformance for the real estate investments of Aegon the Netherlands, for which management s best estimate is included in underlying earnings before tax. In addition, Aegon the Netherlands started to record its management s best estimate investment return on consumer loan investments (net of expected impairments) in underlying earnings before tax, where previously the gross returns were recorded in underlying earnings before tax and the impairments in the impairment line. All other alternative investments are reported similarly with management s best estimate investment return being included in underlying earnings before tax and the over- or underperformance in Fair value items.

For segment reporting purposes, the impact of this change in measurement on full year 2017 was an increase in Aegon Group consolidated underlying earnings before tax of EUR 37 million and a decrease in fair value items of EUR 61 million and a decrease in impairment charges of EUR 24 million. There is no impact on net income in any of the reporting periods. Comparative numbers have been restated in Aegon s segment reporting note, enabling a like for like comparison. The presentation of the items in the IFRS income statement remains unchanged and continue to be part of the line Investment income .

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

Results 2018 worldwide

Underlying earnings geographically			
Amounts in EUR millions	2018	2017 [1]	%
Net underlying earnings	**1,754**	**1,571**	*12*
Tax on underlying earnings	320	568	*(44)*
Underlying earnings before tax geographically			
Americas	1,216	1,381	*(12)*
The Netherlands	615	557	*10*
United Kingdom	128	116	*10*
Central & Eastern Europe	72	67	*8*
Spain & Portugal	24	4	*n.m.*
Europe	839	744	*13*
Asia	55	49	*12*
Asset Management	151	136	*12*
Holding and other activities	(188)	(170)	*(10)*
Underlying earnings before tax	**2,074**	**2,140**	***(3)***
Fair value items	(291)	81	*n.m.*
Gains/(losses) on investments	(77)	413	*n.m.*
Net impairments	(19)	(15)	*(24)*
Other income/(charges)	(875)	(68)	*n.m.*
Run-off businesses	(14)	30	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**798**	**2,579**	*(69)*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	47	44	*6*
Income tax	(87)	(110)	*21*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(47)	(44)	*(6)*
Net income/(loss)	**711**	**2,469**	***(71)***
Commissions and expenses	6,673	6,309	*6*
of which operating expenses	3,786	3,878	*(2)*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales			
Amounts in EUR millions	2018	2017	%
Americas	420	472	*(11)*

The Netherlands	101	99	*2*
United Kingdom	40	37	*8*
Central & Eastern Europe	83	88	*(6)*
Spain & Portugal	54	48	*11*
Europe	278	273	*2*
Asia	122	151	*(19)*
Total recurring plus 1/10 single	**820**	**896**	***(9)***

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Gross deposits (on and off balance)			
Amounts in EUR millions	**2018**	2017	%
Americas	38,279	38,543	*(1)*
The Netherlands	10,169	8,061	*26*
United Kingdom	13,223	17,259	*(23)*
Central & Eastern Europe	374	323	*16*
Spain & Portugal	32	36	*(11)*
Europe	23,798	25,679	*(7)*
Asia	128	222	*(42)*
Asset Management	59,495	61,332	*(3)*
Total gross deposits	**121,700**	**125,776**	***(3)***

Net deposits (on and off balance)			
Amounts in EUR millions	**2018**	2017	%
Americas	(14,734)	(29,713)	*50*
The Netherlands	1,411	1,067	*32*
United Kingdom	1,225	4,665	*(74)*
Central & Eastern Europe	156	176	*(11)*
Spain & Portugal	(14)	13	*n.m.*
Europe	2,779	5,921	*(53)*
Asia	7	129	*(95)*
Asset Management	7,526	6,913	*9*
Total net deposits excluding run-off businesses	**(4,421)**	**(16,750)**	***74***
Run-off businesses	(234)	(338)	*31*
Total net deposits/(outflows)	**(4,656)**	**(17,088)**	***73***

Vorldwide revenues

eographically 2018

mounts in EUR millions												
otal life insurance gross remiums	7,004	1,632	7,509	405	217	*9,763*	779	-	2	17,548	(579)	16,969
ccident and health nsurance premiums	1,571	219	29	2	100	*351*	94	-	-	2,015	(36)	1,979
eneral insurance remiums	-	136	-	231	112	*479*	-	-	-	479	(112)	367
otal gross premiums	**8,575**	**1,987**	**7,539**	**638**	**429**	***10,592***	**873**	-	**2**	**20,042**	**(727)**	**19,316**
nvestment income	3,125	2,265	1,346	48	36	*3,695*	268	5	2	7,095	(59)	7,035

ees and commission ncome	1,826	211	198	47	16	*473*	58	632	(206)	2,782	(224)	2,558
)ther revenue	5	-	-	-	-	*-*	2	1	4	12	(6)	5
otal revenues	**13,530**	**4,463**	**9,083**	**733**	**480**	***14,760***	**1,201**	**638**	**(199)**	**29,930**	**(1,016)**	**28,914**
umber of employees, ncluding agent mployees	8,824	3,548	3,135	2,318	519	*9,520*	6,344	1,464	390	26,543		

Results 2018 worldwide

Aegon s net income in 2018 declined compared with 2017 to EUR 711 million. Underlying earnings before tax decreased by 3% compared with 2017 to EUR 2,074 million in 2018, as higher underlying earnings before tax from Europe, Asia and Asset Management were more than offset by lower underlying earnings before tax from Americas and Holding and other activities. The net income in 2018 was impacted by fair value losses of EUR 291 million as well as EUR 875 million other charges.

Net income

Net income amounted to EUR 711 million in 2018, as underlying earnings before tax of EUR 2,074 million were partly offset by fair value losses, below the average nominal tax rate, other charges, losses on investments, net impairements, losses from run-off businesses and income taxes. The effective tax rate amounted to 11% as a result of one-time tax benefits of declining US and Dutch corporate income tax rates next to the regular tax exempt income items and tax credits.

Underlying earnings before tax

Aegon s underlying earnings before tax decreased compared with 2017 to EUR 2,074 million in 2018. This was mainly driven by lower fee revenue due to declining equity markets and net outflows of revenue generating investments, and unfavorable mortality experience in the Americas, which more than offset higher earnings in Europe, Asia and Asset Management.

- In Americas, underlying earnings before tax in 2018 decreased by 12% compared with 2017 to EUR 1,216 million caused by adverse currency movements, lower fee revenue due to declining equity markets and net outflows, and unfavorable mortality experience. This was partly offset by expense reductions.
- In Europe, underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million as a result of growth in all regions.
- In Asia, underlying earnings before tax improved by 12% compared with 2017 to EUR 55 million in 2018, mainly as a result of higher earnings in the High-Net-Worth business.
- Underlying earnings before tax from Asset Management increased by 12% in 2018 compared with 2017 to EUR 151 million. This increase was mainly driven by higher underlying earnings before tax in 2018 compared with 2017 from Strategic partnerships and the Netherlands.
- Total Holdings costs amounted to EUR 188 million in 2018 compared with EUR 170 million in 2017, as a result of interest expenses on USD 800 million Tier 2 securities issued in April 2018 to replace perpetual securities. Interest expenses for these Tier 2 securities are taken through the profit & loss statement, while the interest expenses for the perpetuals were recognized directly through equity.

Fair value items

The loss from fair value items amounted to EUR 291 million in 2018. Fair value losses in the Americas amounted to EUR 613 million in 2018, which was primarily related to hedge losses, reflecting the equity market decline at the end of the year, and losses on fair value investments. Fair value gains in Europe amounted to EUR 315 million, as a result of real estate investments in the Netherlands and gains on equity hedges in the United Kingdom. Gains on fair value items in Asia and at the Holding totaled EUR 8 million.

Realized gains on investments

Realized losses on investments amounted to EUR 77 million in 2018, as losses on the sale of US treasuries as part of normal trading activity were more than offset by realized gains on investments in the Netherlands and the united Kingdom.

Impairment charges

Net impairments of EUR 19 million in 2018 primarily related to an impairment of corporate bonds caused by a bankruptcy filing.

Other charges

Other charges amounted to EUR 875 million in 2018. Other charges in the Americas of EUR 397 million in 2018 mainly related to the transition and conversion charges for the TCS partnership (EUR 127 million), a EUR 140 million charge for a class action litigation settlement with universal life policyholders, a EUR 93 million book loss on the divestment of the last remaining substantial block of life reinsurance business, EUR 33 million impact from assumption updates, and a EUR 27 million addition to the provision for unclaimed property. Other charges in Europe of EUR 409 million in 2018 reflect EUR 111 million model & assumption changes in the Netherlands, EUR 93 million loss on the sale of Aegon Ireland, EUR 75 million integration expenses for Cofunds and Blackrock s DC business, and a EUR 49 million reserve strengthening related to the residual annuity book in the UK. Other charges at the Holdings amounted to EUR 57 million in 2018 and were driven by IFRS 9/17 implementation expenses for the Group.

Run-off businesses

The results of run-off businesses declined compared with 2017 to a loss of EUR 14 million in 2018, following the divestment of the majority of the remainder of these businesses in 2017.

Income tax

The effective tax rate amounted to 11% as a result of one-time tax benefits of declining US and Dutch corporate income tax rates next to the regular tax exempt income items and tax credits. The effective tax rate on underlying earnings before tax amounted to 15%, reflecting the lowering of the US tax rate.

Commissions and expenses

Commissions and expenses increased by 6% compared with 2017 to EUR 6.7 billion in 2018. Operating expenses decreased by 2% compared with 2017 to EUR 3.8 billion in 2018. Expense savings and the divestment of UMG in 2017 more than offset restructuring expenses associated with the acquisitions of Cofunds and BlackRock s defined contribution business in the United Kingdom as well as the partnership with TCS in the United States.

Production

Compared with 2017, gross deposits were down by 3% to EUR 121.7 billion in 2018, driven by lower platform deposits in the United Kingdom and lower Asset Management deposits. Net outflows amounted to EUR 4.7 billion as inflows in Asset Management, the United Kingdom platform and the Dutch banking business were more than offset by outflows in the United States mainly caused by Retirement Plans due to a small number of large contract discontinuances and higher participant withdrawals. New life sales declined by 9% compared with 2017 to EUR 820 million in 2018, mostly driven by lower indexed universal life and term life production in the United States. New premium production for accident & health and property & casual insurance decreased by 52% compared with 2017 to EUR 429 million in 2018, caused by the strategic decision to exit the travel insurance, affinity and stop loss insurance segments.

Capital management

During 2018, shareholders equity decreased by EUR 1.1 billion to EUR 19.2 billion, as net income and strengthening of the US Dollar were more than offset by dividends paid to shareholders, a reduction in revaluation reserves as a result of widening credit spreads and higher interest rates in the United States. Aegon s shareholders equity, excluding revaluation reserves, amounted to EUR 15.8 billion on December 31, 2018, or EUR 7.70 per common share.

As announced in our 2H 2018 earnings release on February 14, 2018, to align closer to definitions used by peers and rating agencies, Aegon has retrospectively changed its internal definition of adjusted shareholders equity used in calculating return on equity for the group, return on capital for its units, and the gross financial leverage ratio. Shareholders equity will no longer be adjusted for the re-measurement of defined benefit plans. All figures in this annual report, including comparatives, are based on the new definition, unless stated otherwise. The gross leverage ratio (based on IFRS as adopted by the EU) improved to 29.2% on December 31, 2018, compared with 30.7% at the end of 2018, which was mostly the result of the maturity of EUR 500 million senior debt in August 2018. Excess cash in the holding declined in 2018 compared with 2017 to EUR 1.3 billion, as remittances from business units were more than offset by dividends to shareholders, interest payments, operating expenses and capital injections into the units, and the repayment of unstructured senior debt.

On December 31, 2018, Aegon s estimated Solvency II ratio amounted to 211%, up from 201% at the end of 2017. This increase was driven by capital generation net of dividends to shareholders. The RBC ratio in the United States remained relatively stable compared with the end of 2017 to 465% on December 31, 2018. In the Netherlands, the estimated Solvency II ratio at the end of 2018 amounted to 181%, down from 199% at the end of 2017. The ratio was impacted by adverse market impacts, the impact of tax changes and the lowering of the Ultimate Forward Rate. The estimated Solvency II ratio at the end of 2018 of Aegon United Kingdom amounted to 184%, up from 176% at the end of 2017. The normalized capital generation, the positive impact from market movements, and de-risking of the investment portfolio, were only partly offset by other items including remittances to the group and the completion of the Part VII transfer related to the acquisition of BlackRock s defined contribution business.

The Solvency ratios as disclosed in this section represent

Aegon s estimates, are not final until filed with the regulator, and are subject to supervisory review.

Dividends from and capital contributions to business units

Aegon s business units remitted over EUR 1.3 billion to the Group during 2018, including EUR 0.9 billion from the Americas, EUR 200 million from the Netherlands and EUR 113 million from the United Kingdom. Aegon spent EUR 144 million on capital injections, while the proceeds from divestments net of acquisitions amounted to EUR 98 million.

Results 2017 worldwide

Underlying earnings geographically			
Amounts in EUR millions	2017 [1]	2016 [1]	%
Net underlying earnings	**1,571**	**1,483**	***4***
Tax on underlying earnings	568	429	*30*
Underlying earnings before tax geographically			
Americas	1,381	1,249	*11*
The Netherlands	557	534	*(2)*
United Kingdom	116	59	*98*
Central & Eastern Europe	67	55	*20*
Spain & Portugal	4	8	*(47)*
Europe	744	655	*8*
Asia	49	21	*131*
Asset Management	136	149	*(9)*
Holding and other activities	(170)	(162)	*(5)*
Underlying earnings before tax	**2,140**	**1,913**	***10***
Fair value items	81	(840)	*91*
Gains/(losses) on investments	413	340	*21*
Net impairments	(15)	(54)	*59*
Other income/(charges)	(68)	(771)	*91*
Run-off businesses	30	54	*(45)*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**2,579**	**641**	**192**
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	44	31	*45*
Income tax	(110)	(203)	*69*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(44)	(31)	*(45)*
Net income/(loss)	**2,469**	**438**	***n.m.***
Commissions and expenses	6,309	6,696	*(6)*
of which operating expenses	3,878	3,764	*3*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales			
Amounts in EUR millions	2017	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*
Europe	273	299	*(9)*
Asia	151	128	*18*
Total recurring plus 1/10 single	**896**	**969**	***(8)***

Gross deposits (on and off balance)

Amounts in EUR millions	2017	2016	%
Americas	38,543	40,881	*(6)*
The Netherlands	8,061	6,686	*21*
United Kingdom	17,259	5,791	*n.m.*
Central & Eastern Europe	323	265	*22*
Spain & Portugal	36	31	*15*
Europe	25,679	12,773	*n.m.*
Asia	222	304	*(27)*
Asset Management	61,332	46,366	*32*
Total gross deposits	**125,776**	**100,325**	***25***

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)*
Europe	5,921	1,260	*n.m.*
Asia	129	259	*(50)*
Asset Management	6,913	2,964	*133*
Total net deposits excluding run-off businesses	**(16,750)**	**3,468**	***n.m.***
Run-off businesses	(338)	(759)	*55*
Total net deposits/(outflows)	**(17,088)**	**2,709**	***n.m.***

orldwide revenues

ographically 2017

mounts in EUR millions												
otal life insurance gross emiums	7,437	1,857	9,603	411	208	*12,079*	983	-	(1)	20,498	(546)	19,952
ccident and health surance premiums	2,115	203	32	1	83	*319*	97	-	-	2,531	(20)	2,511
eneral insurance emiums	-	148	-	216	103	*467*	-	-	-	466	(103)	363
otal gross premiums	**9,553**	**2,208**	**9,635**	**628**	**394**	***12,865***	**1,080**	**-**	**(2)**	**23,496**	**(670)**	**22,826**
vestment income	3,368	2,172	1,517	49	37	*3,774*	246	4	5	7,396	(58)	7,338
	1,919	326	235	43	17	*621*	63	609	(221)	2,991	(189)	2,802

es and commission come												
her revenue	5	-	-	-	3	*3*	1	-	4	13	(5)	7
otal revenues	**14,844**	**4,706**	**11,387**	**720**	**450**	***17,263***	**1,390**	**613**	**(214)**	**33,895**	**(922)**	**32,973**
umber of employees, cluding agent nployees	10,951	3,089	3,435	2,337	610	*9,471*	6,025	1,500	371	28,318		

Results 2017 worldwide

Aegon s net income in 2017 improved compared with 2016 to EUR 2,469 million. Underlying earnings before tax increased by 10% compared with 2016 to EUR 2,140 million in 2017, as higher underlying earnings before tax from the Americas, Europe and Asia were only partly offset by lower Asset Management underlying earnings before tax and Holding and other activities. The net result in 2017 benefited from realized gains of EUR 413 million mainly related to normal trading in the investment portfolio, as well as a EUR 554 million benefit related to the US tax reform. Other charges amounted to EUR 68 million in 2017, as the net gain from divestments was more than offset by other items, including charges related to assumption changes and model updates.

Net income

Net income amounted to EUR 2,469 million in 2017 driven by underlying earnings before tax of EUR 2,140 million, realized gains and an effective tax rate of only 4% 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 2,140 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 744 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, favourable 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 Holdings 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 a gain of EUR 81 million 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 113 million, as gains on real estate investments in the Netherlands and the positive result from the mismatch on an IFRS basis between interest rate hedges on the mortgage portfolio and the underlying mortgages 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 15 million in 2017 primarily related to a single commercial mortgage loan in the United States.

Other 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.

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 110 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 4%. 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.

Capital management

During 2017, shareholders equity decreased by EUR 0.2 billion to EUR 20.3 billion, as net income was more than offset by a weakening of the US Dollar, dividends paid to shareholders, and a reduction in revaluation reserves net of deferred tax liabilities. During the year, the revaluation reserves net of deferred tax liabilities decreased by EUR 0.5 billion to EUR 4.9 billion. The benefit from US tax reform in connection to the reduction in net deferred tax liabilities related to revaluation reserves was more than offset by the adverse impact from higher interest rates. Aegon s shareholders equity, excluding revaluation reserves amounted to EUR 15.7 billion on December 31, 2017, or 7.66 per common share. The gross leverage ratio (based on IFRS as adopted by the EU) improved to 30.8% on December 31, 2017, compared with 32.2% at the end of 2016, which was mostly the result of retained earnings. Excess cash in the holding declined in 2017 compared with 2016 to EUR 1.4 billion, as remittances from business units were more than offset by dividends to shareholders, interest payments, operating expenses and capital injections into the units, including a EUR 1 billion injection to increase the Solvency II ratio of Aegon the Netherlands.

On December 31, 2017, Aegon s estimated Solvency II ratio amounted to 201%, up from 157% at the end of 2016. This increase was driven by capital generation, divestments and an amendment of the conversion methodology for US Life insurance entities under Solvency II. This methodology is consistent with EIOPA s guidance on how to calculate group solvency in the context of equivalence. It includes a conversion factor of 150% for required capital and reducing own funds by 100% RBC requirement to reflect transferability restrictions. The methodology is subject to annual review. The RBC ratio in the United States increased from 440% at year-end 2016 to 472% on December 31, 2017. The benefit to the ratio from capital generation and the divestment of the majority of the run-off businesses more than offset remittances to the Group. In the Netherlands, the estimated Solvency II ratio at the end of 2017 amounted to 199%, up from 134% at the end of 2016. The ratio benefited from the aforementioned capital injection, model changes, derisking and the divestment of UMG. The estimated Solvency II ratio at the end of 2017 of Aegon United Kingdom amounted to 176%, up from 156% at the end of 2016. The capital generation, the completion of the Part VII transfers related to the divestment of the majority of the UK annuity book and model changes more than offset remittances to the Group.

The Solvency ratios as disclosed in this section represent

Aegon s estimates, are not final until filed with the regulator, and are subject to supervisory review.

Dividends from and capital contributions to business units

Aegon s business units remitted over EUR 1.8 billion to the Group during 2017, including EUR 1.4 billion from the Americas, EUR 176 million from Asia and EUR 167 million from the United Kingdom. Aegon spent EUR 1.1 billion on capital injections, including EUR 1 billion into the Netherlands.

Results 2018 Americas

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
Net underlying earnings	**1,276**	**1,158**	*10*	**1,080**	**1,026**	*5*
Tax on underlying earnings	161	401	*(60)*	136	355	*(62)*
Underlying earnings before tax by business						
Life	263	251	*5*	223	222	-
Accident & health	259	284	*(9)*	220	252	*(13)*
Retirement plans	195	315	*(38)*	165	279	*(41)*
Mutual funds	45	54	*(16)*	38	48	*(20)*
Variable annuities	469	410	*15*	397	363	*9*
Fixed annuities	114	145	*(22)*	96	129	*(25)*
Stable Value Solutions	93	99	*(6)*	79	88	*(11)*
Latin America	(2)	1	*n.m.*	(2)	1	*n.m.*
Underlying earnings before tax	**1,437**	**1,560**	***(8)***	**1,216**	**1,381**	***(12)***
Fair value items	(724)	192	*n.m.*	(613)	170	*n.m.*
Gains/(losses) on investments	(241)	177	*n.m.*	(204)	157	*n.m.*
Net impairments	(10)	(19)	*45*	(9)	(17)	*47*
Other income/(charges)	(469)	(409)	*(15)*	(397)	(353)	*(13)*
Run-off businesses	(16)	33	*n.m.*	(14)	30	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**(23)**	**1,535**	***n.m.***	**(20)**	**1,369**	***n.m.***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	2	5	*(53)*	2	5	*(55)*
Income tax	84	227	*(63)*	71	198	*(64)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(2)	(5)	*53*	(2)	(5)	*55*
Net income/(loss)	**61**	**1,762**	***(97)***	**51**	**1,567**	***(97)***
Life insurance gross premiums	8,276	8,397	*(1)*	7,004	7,437	*(6)*
Accident and health insurance premiums	1,856	2,388	*(22)*	1,571	2,115	*(26)*
Total gross premiums	**10,132**	**10,786**	***(6)***	**8,575**	**9,553**	***(10)***
Investment income	3,693	3,803	*(3)*	3,125	3,368	*(7)*

Fees and commission income	2,157	2,167	-	1,826	1,919	*(5)*
Other revenues	6	6	-	5	5	*(5)*
Total revenues	**15,988**	**16,761**	***(5)***	**13,530**	**14,844**	***(9)***
Commissions and expenses	4,776	4,071	*17*	4,042	3,606	*12*
of which operating expenses	1,852	1,798	*3*	1,567	1,593	*(2)*

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	Amounts in USD millions			Amounts in EUR millions		
New life sales	**2018**	2017	*%*	**2018**	2017	
Life	416	460	*(9)*	352	407	*(13)*
Latin America	80	74	*8*	67	65	*3*
Total recurring plus 1/10 single	**496**	**533**	***(7)***	**420**	**472**	***(11)***

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	*%*	**2018**	2017	*%*
New premium production accident and health insurance	312	818	*(62)*	264	725	*(64)*

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	**2018**	2017	*%*	**2018**	2017	*%*
Life	8	7	*22*	7	6	*17*
Retirement plans	34,284	34,235	*-*	29,015	30,321	*(4)*
Mutual funds	7,029	5,695	*23*	5,949	5,043	*18*
Variable annuities	3,252	3,190	*2*	2,752	2,825	*(3)*
Fixed annuities	443	317	*40*	375	281	*33*
Latin America	214	75	*186*	181	66	*173*
Total gross deposits	**45,231**	**43,518**	***4***	**38,279**	**38,543**	***(1)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	**2018**	2017	*%*	**2018**	2017	*%*
Life	(36)	(33)	*(9)*	(30)	(29)	*(4)*
Retirement plans	(12,620)	(30,480)	*59*	(10,681)	(26,995)	*60*
Mutual funds	(627)	377	*n.m.*	(530)	334	*n.m.*
Variable annuities	(3,046)	(2,284)	*(33)*	(2,577)	(2,023)	*(27)*
Fixed annuities	(1,245)	(1,181)	*(5)*	(1,054)	(1,046)	*(1)*
Latin America	165	52	*n.m.*	139	46	*n.m.*
Total net deposits excluding run-off businesses	**(17,409)**	**(33,549)**	***48***	**(14,734)**	**(29,713)**	***50***
Run-off businesses	(277)	(382)	*28*	(234)	(338)	*31*
Total net deposits/(outflows)	**(17,686)**	**(33,931)**	***48***	**(14,968)**	**(30,051)**	***50***

	Weighted average rate		Closing rate as of	
Exchange rates			**December 31,**	December 31,
Per 1 EUR	**2018**	2017	**2018**	2017
USD	1.1816	1.1291	1.1432	1.2008

Results 2018 Americas

The net income from the Americas amounted to USD 61 million in 2018. Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion caused by lower fee revenue due to declining equity markets and net outflows of revenue generating investments, and unfavorable mortality experience, partly offset by expense reductions. Gross deposits increased by 4% to USD 45.2 billion in 2018 compared with 2017, as a result of increases at all business lines. New life sales declined to USD 496 million in 2018 compared with USD 533 million in 2017 due to lower indexed universal life and term life sales. New premium production for accident & health insurance was down 62% compared with 2017 to USD 312 million in 2018, reflecting the strategic decision to exit travel insurance, affinity and stop loss insurance segments.

Net income

The net income amounted to USD 61 million as underlying earnings before tax were largely offset by losses from fair value items, realized losses on investments and other charges. Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion. Results on fair value items amounted to a loss of USD 724 million in 2018, which was primarily related to:

- The loss on fair value hedges without an accounting match under IFRS was USD 558 million. This loss was higher than anticipated, mainly due to USD 96 million lower than expected gains as a result of the lack of implied volatility movements during the equity market decline at the end of the year.
- The result on fair value hedges with an accounting match amounted to a loss of USD 7 million.
- The results on fair value investments amounted to an underperformance of USD 152 million, mainly from lower commodity prices and equity markets, as well as widening credit spreads. This was partly offset by positive revaluations on real estate.

Realized losses on investments were USD 241 million resulting from the sale of US treasuries as part of normal trading activity. Net impairments amounted to USD 10 million, reflecting an impairment of corporate bonds caused by a bankruptcy filing. Income before tax from run-off businesses in 2018 was a loss of USD 16 million, which is in line with expectations following the divestment of the majority of the remainder of these businesses in 2017. Other charges of USD 469 million in 2018 mainly related to USD 150 million transition and conversion charges for the TCS partnership, a USD 166 million charge for a class action litigation settlement with universal life policyholders, a USD 110 million book loss on the divestment of the last remaining substantial block of life reinsurance business, USD 39 million impact from assumption updates, and a USD 32 million addition to the provision for unclaimed property.

Underlying earnings before tax

Underlying earnings before tax in 2018 decreased by 8% compared with 2017 to USD 1.4 billion caused by lower fee revenue due to declining equity markets and net outflows, and unfavorable mortality experience. This was partly offset by expense reductions.

Underlying earnings before tax from Life increased 5% to USD 263 million in 2018 compared with USD 251 million in 2017. This increase was driven by higher investment income and lower expenses, which were largely offset by adverse mortality experience and adverse persistency.

Accident & health underlying earnings before tax decreased to USD 259 million in 2018 compared with USD 284 million in 2017, mainly due to lower favorable morbidity experience.

Underlying earnings before tax from Mutual Funds declined from USD 54 million in 2017 to USD 45 million in 2018. This was caused by higher expenses as a result of changes in the expense allocation between product lines, partly offset by higher fee income from business growth.

Retirement Plans underlying earnings before tax were down 38% to USD 195 million in 2018 compared with USD 315 million in 2017. This was the result of lower fee income from lower asset balances, a lower investment margin, unfavorable mortality, and higher operating expenses as a result of changes in expense allocations between product lines and investment spend to support growth and improve the Workplace experience.

Underlying earnings before tax from Variable Annuities increased by 15% to USD 469 million in 2018 compared with USD 410 million in 2017, driven by lower operating expenses as a result of changes in expense allocations between product lines.

Fixed Annuity underlying earnings before tax decreased by 22% compared with 2017 to USD 114 million in 2018, mainly due to lower investment income, reflecting the continued balance reduction.

- Underlying earnings before tax from Stable Value Solutions amounted to USD 93 million in 2018 compared with USD 99 million in 2017 caused by margin pressure and lower asset balances.
- Latin America declined from USD 1 million underlying earnings before tax in 2017 to an underlying loss before tax of USD 2 million, reflecting increased expenses.

Commissions and expenses

Commissions and expenses increased by 17% compared with 2017 to USD 4.8 billion in 2018. Operating expenses increased by 3% compared with 2017 to USD 1.9 billion in 2018 reflecting higher restructuring expenses due to the transition and conversion charges related to the TCS partnership.

Production

Gross deposits increased by 4% in 2018 compared with 2017 to USD 45.2 billion as a result of increases in all business lines, most notably Mutual Funds, Fixed Annuities and Latin America. Net outflows amounted to USD 17.4 billion, mainly caused by Retirement Plans due to a small number of large contract discontinuances and higher participant withdrawals. Variable Annuities and Fixed Annuities saw outflows as these books mature.

New life sales declined by 7% in 2018 to USD 496 million compared with 2017, as a result of lower indexed universal life and term life sales, reflecting a loss of market share due to increased competition. New premium production for accident & health insurance was down by 62% compared with 2017 to USD 312 million in 2018 caused by the strategic decision to exit the travel insurance, affinity and stop loss insurance segments.

Results 2017 Americas

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
Net underlying earnings	**1,158**	**1,059**	***9***	**1,026**	**956**	***7***
Tax on underlying earnings	401	323	*24*	355	292	*22*
Underlying earnings before tax by business						
Life	251	174	*44*	222	157	*41*
Accident & health	284	218	*30*	252	197	*28*
Retirement plans	315	280	*13*	279	253	*11*
Mutual funds	54	50	*8*	48	45	*6*
Variable annuities	410	393	*4*	363	355	*2*
Fixed annuities	145	172	*(15)*	129	155	*(17)*
Stable Value Solutions	99	96	*3*	88	87	*1*
Latin America	1	1	*66*	1	1	*63*
Underlying earnings before tax	**1,560**	**1,382**	***13***	**1,381**	**1,249**	***11***
Fair value items	192	(577)	*n.m.*	170	(521)	*n.m.*
Gains/(losses) on investments	177	(14)	*n.m.*	157	(13)	*n.m.*
Net impairments	(19)	(33)	*44*	(17)	(30)	*45*
Other income/(charges)	(409)	(111)	*n.m.*	(353)	(100)	*n.m.*
Run-off businesses	33	60	*(44)*	30	54	*(45)*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,535**	**706**	***117***	**1,369**	**638**	***115***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	*5*	*3*	*48*	*5*	*3*	*45*
Income tax	227	(88)	*n.m.*	198	(80)	*n.m.*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	*(5)*	*(3)*	*(48)*	*(5)*	*(3)*	*(45)*
Net income/(loss)	**1,762**	**618**	***185***	**1,567**	**559**	***181***
Life insurance gross premiums	8,397	8,150	*3*	7,437	7,363	*1*
Accident and health insurance premiums	2,388	2,440	*(2)*	2,115	2,204	*(4)*
Total gross premiums	**10,786**	**10,590**	***2***	**9,553**	**9,567**	***-***
Investment income	3,803	4,114	*(8)*	3,368	3,717	*(9)*
Fees and commission income	2,167	1,828	*19*	1,919	1,651	*16*

Other revenues	6	5	*20*	5	4	*18*
Total revenues	**16,761**	**16,537**	***1***	**14,844**	**14,940**	***(1)***
Commissions and expenses	4,071	4,532	*(10)*	3,606	4,095	*(12)*
of which operating expenses	1,798	1,834	*(2)*	1,593	1,656	*(4)*

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	Amounts in USD millions			Amounts in EUR millions		
New life sales	2017	2016	%	2017	2016	
Life	460	547	*(16)*	407	494	*(18)*
Latin America	74	53	*39*	65	48	*37*
Total recurring plus 1/10 single	**533**	**600**	***(11)***	**472**	**542**	***(13)***

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
New premium production accident and health insurance	818	895	*(9)*	725	808	*(10)*

	Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)	2017	2016	%	2017	2016	%
Life	7	8	*(22)*	6	8	*(23)*
Retirement plans	34,235	35,137	*(3)*	30,321	31,743	*(4)*
Mutual funds	5,695	5,467	*4*	5,043	4,939	*2*
Variable annuities	3,190	4,375	*(27)*	2,825	3,952	*(29)*
Fixed annuities	317	254	*25*	281	230	*22*
Latin America	75	10	*n.m.*	66	9	*n.m.*
Total gross deposits	**43,518**	**45,251**	***(4)***	**38,543**	**40,881**	***(6)***

	Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)	2017	2016	%	2017	2016	%
Life	(33)	(40)	*19*	(29)	(37)	*21*
Retirement plans	(30,480)	268	*n.m.*	(26,995)	242	*n.m.*
Mutual funds	377	38	*n.m.*	334	34	*n.m.*
Variable annuities	(2,284)	(125)	*n.m.*	(2,023)	(113)	*n.m.*
Fixed annuities	(1,181)	(1,265)	*7*	(1,046)	(1,143)	*8*
Latin America	52	1	*n.m.*	46	1	*n.m.*
Total net deposits excluding run-off businesses	**(33,549)**	**(1,123)**	***n.m.***	**(29,713)**	**(1,015)**	***n.m.***
Run-off businesses	(382)	(841)	*55*	(338)	(759)	*55*
Total net deposits/(outflows)	**(33,931)**	**(1,964)**	***n.m.***	**(30,051)**	**(1,774)**	***n.m.***

	Weighted average rate		Closing rate as of	
Exchange rates				
Per 1 EUR	2017	2016	December 31, 2017	December 31, 2016

USD	1.1291	1.1069	1.2008	1.0548

Results 2017 Americas

The net income from the Americas amounted to USD 1.8 billion in 2017.

Underlying earnings before tax in 2017 increased by 13% compared with 2016 to USD 1.6 billion as expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows. Gross deposits decreased by 4% to USD 43.5 billion in 2017 compared with 2016, mainly as a result of lower variable annuity and retirement plans deposits. New life sales declined to USD 533 million in 2017 compared with 2016 due to lower indexed universal life and term life sales, partly as a result of not following competitors pricing changes. New premium production for accident & health insurance was down 9% to USD 0.8 billion in 2017 compared with 2016, as product exits and lower supplemental health sales more than offset higher travel sales.

Net income

The net income amounted to USD 1.8 billion in 2017, as underlying earnings before tax, gains from fair value items, realized gains, a net gain on divestments, and a benefit from US tax reform were partly offset by other charges which mainly relate to model updates and assumption changes. Underlying earnings before tax in 2017 strongly increased compared with 2016 to USD 1.6 billion. Results on fair value items amounted to a gain of USD 192 million in 2017, which was primarily related to changes to hedging programs to a 100% option based program and real estate investments. Income before tax from run-off businesses in 2017 almost halved compared with 2016 to USD 33 million following the divestment of the majority of run-off businesses in 2017, while realized gains on investments in 2017 amounted to USD 177 million. Net impairments amounted USD 19 million in 2017, primarily related to a single commercial mortgage loan. Other charges of USD 409 million in 2017 mainly related to the impact of model updates and assumption changes related to conversion of the largest block of universal life business to a new model and a provision in anticipation of a possible settlement in connection with an investigation by the US SEC (USD 51 million), which more than offset a net gain on divestments due to the sale of BOLI/ COLI and Payout annuities (USD 250 million) and life reinsurance block (USD 119 million). The benefit from US tax reform amounted to USD 626 million driven by a reduction in deferred tax liabilities.

Underlying earnings before tax

Underlying earnings before tax in 2017 increased by 13% compared with 2016 to USD 1.6 billion. Expense reductions, an improvement in claims experience, and higher fee revenue resulting from favorable equity market performance more than offset net outflows.

Underlying earnings before tax from Life increased to USD 251 million in 2017 compared with USD 174 million in 2016. This increase was mainly driven by an improvement in mortality experience.

Accident & health underlying earnings before tax increased by 30% to USD 284 million in 2017 compared with USD 218 million in 2016, as an improvement in claims experience and expense savings

more than offset the negative impact on underlying earnings before tax of product exits.
Underlying earnings before tax from Mutual Funds increased by USD 4 million in 2017 compared with 2016 to USD 54 million. Increased fee income from higher average account balances driven by equity market performance and inflows more than offset increased expenses.
Retirement Plans underlying earnings before tax were up 13% to USD 315 million in 2017 compared with USD 280 million in 2016, primarily driven by increased fee income compared with 2016. This was the result of higher fee revenue from higher asset balances with favorable equity market performance more than offsetting net outflows related to the conversion of the Mercer business to Aegon USA s platform.
Underlying earnings before tax from Variable Annuities increased by 4% to USD 410 million in 2017 compared with USD 393 million in 2016 , primarily driven by the benefit of expense savings and increased fee income compared with 2016. This was the result of higher fee revenue from higher asset balances with favorable equity market performance more than offsetting net outflows.
Fixed Annuity underlying earnings before tax decreased by 15% in 2017 compared with 2016 to USD 145 million, reflecting the continued balance reduction and unfavorable adjustments of deferred acquisition costs.
Underlying earnings before tax from Stable Value Solutions amounted to USD 99 million in 2017 compared with USD 96 million in 2016 mainly due to lower hedging costs.
Latin America remained stable at USD 1 million of underlying earnings before tax in 2017.

Commissions and expenses

Commissions and expenses decreased by 10% compared with 2016 to USD 4.1 billion in 2017 mainly driven by lower sales of life and annuity products. Operating expenses decreased by 2% compared with 2016 to USD 1.8 billion in 2017 as a result of expense savings, which were partly offset by investments in business transformation and project expenses.

Production

Gross deposits decreased by 4% in 2017 compared with 2016 to USD 43.5 billion. Higher gross deposits in Mutual Funds and Latin Americas in 2017 were more than offset by a decline in variable annuity and retirement plan deposits compared with 2016. Decreased variable annuity deposits in 2017 compared with 2016 were caused by lower market demand following the implementation of the Department of Labor Fiduciary Rule, in addition to not following competitors pricing changes for some products and partners deciding to offer their own variable annuities solutions. Retirement plan deposits decreased in 2017

compared with 2016, as higher recurring deposits were more than offset by lower takeover deposits. Net outflows amounted to USD 33.9 billion due to contract discontinuances from the business acquired from Mercer. These outflows were in line with guidance provided in 2017, and are driven by the conversion of customers to Aegon USA s recordkeeping platform.

New life sales declined by 11% in 2017 to USD 533 million compared with 2016, as a result of lower indexed universal life and term life sales. Universal life production was down in 2017 compared with 2016, as a result of a decline in market share in indexed universal life. Sales of term life products declined in 2017 compared with 2016 as Aegon did not lower its pricing in line with a number of its competitors. New premium production for accident & health insurance was down by 9% to USD 0.8 billion in 2017 compared with 2016, as product exits and lower supplemental health sales more than offset higher travel sales.

Introduction Europe

The Results 2018 Europe cover the following operating segments:

The Netherlands, United Kingdom, Central & Eastern Europe, Spain & Portugal.

This segment reporting is based on the businesses as presented in internal reports that are regularly reviewed by the Executive Board which is regarded as Aegon s chief operating decision maker. For Europe, the underlying businesses are separate operating segments which under IFRS 8 cannot be aggregated, therefore further details will be provided for these operating

segments in this section. Management is of the opinion that presenting the information for the entire European area is beneficial to the users of the financial information as it aligns to how Aegon management is looking at the information following convergence in Europe from a regulatory standpoint and financial markets perspective.

Income statement Underlying earnings			Central & Eastern		
Amounts in EUR millions	The Netherlands	United Kingdom	Europe	Spain & Portugal	**Europe**
2018					
Net underlying earnings	480	117	64	13	**674**
Tax on underlying earnings	135	12	8	10	165
Underlying earnings before tax by product segment	615	128	72	24	**839**
Fair value items	250	59	4	2	315
Gains/(losses) on investments	46	83	1	(1)	129
Net impairments	6	-	(1)	-	5
Other income/(charges)	(132)	(252)	(7)	(18)	(409)
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**784**	**19**	**69**	**7**	**879**
Income tax	(136)	20	(8)	(10)	(136)
Net income/(loss)	**648**	**38**	**60**	**(3)**	**743**
2018					
Revenues					
Life insurance gross premiums	1,632	7,509	405	217	9,763

Accident and health insurance premiums	219	29	2	100	351
General insurance premiums	136	-	231	112	479
Total gross premiums	**1,987**	**7,539**	**638**	**429**	**10,592**
Investment income	2,265	1,346	48	36	3,695
Fees and commission income	211	198	47	16	473
Other revenues	-	-	-	-	-
Total revenues	**4,463**	**9,083**	**733**	**480**	**14,760**
Commissions and expenses	812	704	265	210	1,991
of which operating expenses	703	521	165	106	1,496

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Income statement **Underlying earnings**

Amounts in EUR millions	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe [1]
2017					
Net underlying earnings	427	96	58	(2)	**580**
Tax on underlying earnings	130	20	9	6	164
Underlying earnings before tax by product segment	557	116	67	4	**744**
Fair value items	(31)	(82)	-	-	(113)
Gains/(losses) on investments	184	62	1	-	248
Net impairments	7	-	(2)	-	5
Other income/(charges)	296	40	-	-	336
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,013**	**137**	**66**	**4**	**1,220**
Income tax	(196)	(56)	(9)	(6)	(266)
Net income/(loss)	**818**	**81**	**57**	**(2)**	**954**
2017					
Revenues					
Life insurance gross premiums	1,857	9,603	411	208	12,079
Accident and health insurance premiums	203	32	1	83	319
General insurance premiums	148	-	216	103	467
Total gross premiums	**2,208**	**9,635**	**628**	**394**	**12,865**
Investment income	2,172	1,517	49	37	3,774
Fees and commission income	326	235	43	17	621
Other revenues	-	-	-	3	3
Total revenues	**4,706**	**11,387**	**720**	**450**	**17,263**
Commissions and expenses	930	757	262	192	2,141
of which operating expenses	818	546	152	94	1,610

Income statement **Underlying earnings**

Amounts in EUR millions	The Netherlands	United Kingdom	Central & Eastern Europe	Spain & Portugal	Europe
2016					
Net underlying earnings	414	89	47	(1)	**548**
Tax on underlying earnings	119	(30)	9	9	107
Underlying earnings before tax by product segment	534	59	55	8	**655**
Fair value items	(228)	(7)	-	(1)	(236)
Gains/(losses) on investments	189	153	-	(1)	342
Net impairments	(12)	-	1	-	(10)

Other income/(charges)	44	(678)	(23)	(0)	(658)
Income/(loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**526**	**(474)**	**34**	**6**	**92**
Income tax	(109)	18	(15)	(8)	(114)
Net income/(loss)	**418**	**(456)**	**19**	**(2)**	**(22)**
2016					
Revenues					
Life insurance gross premiums	2,015	9,888	399	191	12,493
Accident and health insurance premiums	210	36	1	73	320
General insurance premiums	266	-	179	92	536
Total gross premiums	**2,491**	**9,924**	**578**	**355**	**13,348**
Investment income	2,135	1,661	45	45	3,886
Fees and commission income	350	95	36	14	495
Other revenues	-	-	-	2	2
Total revenues	**4,976**	**11,680**	**659**	**416**	**17,732**
Commissions and expenses	975	667	244	172	2,058
of which operating expenses	821	394	143	88	1,445

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

The results of operations Europe for 2017 and 2016 are based on the figures of the separate operating segments that are further disclosed on the following pages.

Results 2018 Europe

Amounts in EUR millions	2018	2017 [1]	%
Net underlying earnings	**674**	580	*16*
Tax on underlying earnings	165	164	-
Underlying earnings before tax by business/country			
The Netherlands	615	557	*10*
United Kingdom	128	116	*10*
Central & Eastern Europe	72	67	*8*
Spain & Portugal	24	4	*n.m.*
Underlying earnings before tax	**839**	**744**	***13***
Fair value items	315	(113)	*n.m.*
Gains/(losses) on investments	129	248	*(48)*
Net impairments	5	5	*(6)*
Other income/(charges)	(409)	336	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**879**	**1,220**	*(28)*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	11	6	*70*
Income tax	(136)	(266)	*49*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(11)	(6)	*(70)*
Net income/(loss)	**743**	**954**	***(22)***
Life insurance gross premiums	9,763	12,079	*(19)*
Accident and health insurance premiums	351	319	*10*
General insurance premiums	479	467	*3*
Total gross premiums	**10,592**	**12,865**	***(18)***
Investment income	3,695	3,774	*(2)*
Fees and commission income	473	621	*(24)*
Other revenues	-	3	*(98)*
Total revenues	**14,760**	**17,263**	***(14)***
Commissions and expenses	1,991	2,141	*(7)*
of which operating expenses	1,496	1,610	*(7)*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales

Amounts in EUR millions	**2018**	2017	%
The Netherlands	101	99	*2*
United Kingdom	40	37	*8*
Central & Eastern Europe	83	88	*(6)*
Spain & Portugal	54	48	*11*
Total recurring plus 1/10 single	**278**	**273**	***2***

Amounts in EUR million	**2018**	2017	%
New premium production accident and health insurance	36	39	*(8)*
New premium production general insurance	121	109	*11*

Gross deposits (on and off balance)	2018	2017	%
The Netherlands	10,169	8,061	*26*
United Kingdom	13,223	17,259	*(23)*
Central & Eastern Europe	374	323	*16*
Spain & Portugal	32	36	*(11)*
Total gross deposits	**23,798**	**25,679**	***(7)***

Net deposits (on and off balance)	2018	2017	%
The Netherlands	1,411	1,067	*32*
United Kingdom	1,225	4,665	*(74)*
Central & Eastern Europe	156	176	*(11)*
Spain & Portugal	(14)	13	*n.m.*
Total net deposits/(outflows)	**2,779**	**5,921**	***(53)***

Exchange rates	Weighted average rate	
Per 1 EUR	2018	2017
Pound sterling	0.8844	0.8758
Czech koruna	25.6237	26.3165
Hungarian forint	318.2582	308.7564
Polish zloty	4.2594	4.2558
Romanian leu	4.6521	4.5665
Turkish Lira	5.6958	4.1197
Ukrainian Hryvnia	32.1972	30.2092

Results 2018 Europe

Net income declined by 22% compared with 2017 to EUR 743 million in 2018, as higher underlying earnings before tax and positive fair value items were more than offset by other charges. The impact from model & assumption changes in the Netherlands, restructuring charges in the United Kingdom and the loss on the sale of Aegon Ireland were the main drivers for other charges of EUR 409 million in 2018. Underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million, reflecting increases in all regions.

Net income

Net income amounted to EUR 743 million in 2018 compared with EUR 954 million in 2017, as higher underlying earnings before tax and positive fair value items were more than offset by other charges. Other charges of EUR 409 million in 2018 included EUR 111 million for model & assumption changes in the Netherlands, EUR 94 million restructuring expenses in the United Kingdom and a EUR 93 million loss on the sale of Aegon Ireland, and EUR 49 million reserve strengthening in the UK related to the net residual annuity book.

Net income for the Netherlands

Net income from Aegon s businesses in the Netherlands amounted to EUR 648 million in 2018, largely driven by underlying earnings before tax of EUR 615 million. Results on fair value items increased compared with 2017 to a gain of EUR 250 million in 2018, driven by positive real estate revaluations. Realized gains of EUR 46 million in 2018 were the result of normal trading activity in the investment portfolio. Net impairments amounted to a net recovery of EUR 6 million in 2018. Other charges amounted to EUR 132 million in 2018 and reflect EUR 111 million model & assumption changes, mainly related to updated mortality and lapse assumptions.

Net income for the United Kingdom

Net income from Aegon s businesses in the United Kingdom amounted to EUR 38 million in 2018. The main driver was the underlying result before tax of EUR 128 million. Gains from fair value items of EUR 59 million were the result of gains on equity hedging programs as a result of lower equity markets where hedges have been set up to protect against such a decline. Realized gains amounted to EUR 83 million in 2018 and reflect optimization of the investment portfolio. Other charges amounted to EUR 252 million, mainly caused by EUR 93 million loss on the sale of Aegon Ireland, EUR 75 million integration expenses for Cofunds and Blackrock s DC business as well as EUR 19 million transition and conversion charges related to the agreement with Atos for administration services, and a EUR 49 million reserve strengthening related to the residual annuity book.

Net income for Central & Eastern Europe

Net income from Aegon s businesses in Central & Eastern Europe (CEE) amounted to EUR 60 million in 2018 and reflect underlying earnings before tax of EUR 72 million mainly offset by other charges of EUR 72 million and income taxes of EUR 8 million.

Net income for Spain & Portugal

Net income from Aegon s businesses in Spain & Portugal amounted to a loss of EUR 3 million in 2018 as underlying earnings before tax of EUR 24 million were more than offset by EUR 18 million other charges, reflecting a restructuring charge in Aegon s own business in Spain, and income tax of EUR 10 million.

Underlying earnings before tax

Underlying earnings before tax in 2018 increased by 13% compared with 2017 to EUR 839 million as a result of growth in all regions.

Underlying earnings before tax for the Netherlands

Underlying earnings before tax for the Netherlands in 2018 increased by 10% compared with 2017 to EUR 615 million.

- Underlying earnings before tax from Life increased by 15% compared with 2017 to EUR 460 million, driven by a higher investment margin, reflecting a shift to higher-yielding assets.
- Underlying earnings before tax from Non-life were up by 18% compared with 2017 to EUR 40 million, due to improved disability underwriting results, reflecting higher provision releases.
- Banking s underlying earnings before tax increased by 32% compared with 2017 to EUR 103 million, driven by a higher net interest margin as a result of balance sheet growth and lower funding costs. This was partly offset by higher expenses in line with the bank s growth.
- Underlying earnings before tax from the Service business decreased by 75% compared with 2017 to EUR 11 million. The decrease was caused by the loss of earnings due to sale of UMG, and investments in new digital propositions.

Underlying earnings before tax for the United Kingdom

Underlying earnings before tax in the United Kingdom increased by 10% compared with 2017 to EUR 128 million in 2018.

- Underlying earnings before tax from Existing Business declined by 14% compared with 2017 to EUR 107 million in 2018, reflecting net outflows, including upgrades to the digital platform, and lower investment income following bond sales.
- Underlying earnings before tax from Digital Solutions improved from a loss of EUR 8 million in 2017 to a profit of EUR 21 million in 2018. This was driven by higher fee income as a result of new business inflows and upgrades to the platform, as well as the realization of cost synergies related to the Cofunds integration.

Underlying earnings before tax for Central & Eastern Europe

Underlying earnings before tax from Central & Eastern Europe increased to EUR 72 million in 2018, up 8% compared with 2017. This increase was primarily driven by business growth, most notably in Turkey and Hungary.

Underlying earnings before tax for Spain & Portugal

Underlying earnings before tax from Spain & Portugal increased from EUR 4 million in 2017 to EUR 24 million in 2018, driven by portfolio growth and better underwriting results in the joint ventures with Santander and lower expenses in Aegon s own business, reflecting the restructuring program, while 2017 included one-time expenses.

Commissions and expenses

Commissions and expenses decreased by 7% compared with 2017 to EUR 1,991 million in 2018. Operating expenses declined by 7% compared with 2017 to EUR 1,496 million in 2018.

Commissions and expenses for the Netherlands

Commissions and expenses decreased by 13% compared with 2017 to EUR 812 million in 2018. Operating expenses were down by 14% compared with 2017 to EUR 703 million in 2018, reflecting the sale of UMG in the fourth quarter of 2017 and expense savings in the insurance businesses. This was partly offset by investments in new digital propositions.

Commissions and expenses for the United Kingdom

Commissions and expenses decreased by 7% compared with 2017 to EUR 704 million in 2018. Operating expenses decreased by 5% compared with 2017 to EUR 521 million in 2018, as higher restructuring expenses were more than offset by the realization of cost synergies and the sale of Aegon Ireland.

Commissions and expenses for Central & Eastern Europe

Commissions and expenses increased by 1% compared with 2017 to EUR 265 million in 2018. Operating expenses increased by 9%

compared with 2017 to EUR 165 million in 2018, reflecting the growth of the business.

Commissions and expenses for Spain & Portugal

Commissions and expenses increased by 9% compared with 2017 to EUR 210 million in 2018. Operating expenses increased by 13% compared with 2017 to EUR 106 million in 2018, mainly reflecting the restructuring expenses for Aegon s own business, partly offset by expense reductions and the non-recurrence of one-time expense items.

Production

Gross deposits decreased by 7% compared with 2017 to EUR 23.8 billion in 2018, primarily caused by lower platform flows in the United Kingdom.

New life sales increased by 2% compared with 2017 to EUR 278 million in 2018, driven by higher protection sales in the United Kingdom. New premium production for accident & health insurance decreased by 8% compared with 2017 to EUR 36 million in 2018, as 2017 included one-time higher sales in the Netherlands following legislative changes. New premium production in property & casualty insurance increased compared with 2017 to EUR 121 million in 2018, mainly driven by growth in Hungary.

Production for the Netherlands

Gross deposits increased by 26% compared with 2017 to EUR 10.2 billion in 2018, mainly driven by the growth of Knab, Aegon s online bank. New life sales were up by 2% compared with 2017 to EUR 101 million in 2018, as a result of higher immediate annuity sales and pension indexation premiums.

Production for the United Kingdom

Gross deposits decreased by 23% compared with 2017 to EUR 13.2 billion in 2018, due to lower retail and institutional platform flows. New life sales rose by 8% compared with 2017 to EUR 40 million in 2018, due to higher protection sales.

Production for Central & Eastern Europe

Gross deposits increased by 16% compared with 2017 to EUR 374 million in 2018, driven by higher pension deposits in Romania, Poland, Hungary and Slovakia. New life sales declined by 6% compared with 2017 to EUR 83 million in 2018, reflecting adverse currency movements.

Production for Spain & Portugal

Gross deposits decreased by 11% in 2018 compared with 2017 to EUR 32 million, driven by lower sales of savings products. New life sales in Spain & Portugal in 2017 increased by 11% compared with 2017 and amounted to EUR 54 million, driven by increasing sales through the joint venture with Banco Santander.

Results 2017 Europe

Amounts in EUR millions	2017 [1]	2016 [1]	%
Net underlying earnings	**580**	**548**	*6*
Tax on underlying earnings	164	107	*54*
Underlying earnings before tax by business/country			
The Netherlands	557	534	*4*
United Kingdom	116	59	*98*
Central & Eastern Europe	67	55	*20*
Spain & Portugal	4	8	*(47)*
Underlying earnings before tax	**744**	**655**	***14***
Fair value items	(113)	(236)	*52*
Gains/(losses) on investments	248	342	*(27)*
Net impairments	5	(10)	*n.m.*
Other income/(charges)	336	(658)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**1,220**	**92**	*n.m.*
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	6	7	*(16)*
Income tax	(266)	(114)	*(133)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(6)	(7)	*16*
Net income/(loss)	**954**	**(22)**	***n.m.***
Life insurance gross premiums	12,079	12,493	*(3)*
Accident and health insurance premiums	319	320	-
General insurance premiums	467	536	*(13)*
Total gross premiums	**12,865**	**13,348**	***(4)***
Investment income	3,774	3,886	*(3)*
Fees and commission income	621	495	*25*
Other revenues	3	2	*38*
Total revenues	**17,263**	**17,732**	***(3)***
Commissions and expenses	2,141	2,058	*4*
of which operating expenses	1,610	1,445	*11*

[1] Aegon has changed the measurement of underlying earnings before tax for its real estate investments portfolio held by Aegon the Netherlands. Comparative numbers have been restated accordingly. For further details please refer to page 206.

New life sales

Amounts in EUR millions	2017	2016	%
The Netherlands	99	111	*(11)*
United Kingdom	37	66	*(44)*
Central & Eastern Europe	88	83	*6*
Spain & Portugal	48	39	*23*
Total recurring plus 1/10 single	**273**	**299**	***(9)***

Amounts in EUR million	2017	2016	%
New premium production accident and health insurance	39	34	*14*
New premium production general insurance	109	94	*16*

Gross deposits (on and off balance)	2017	2016	%
The Netherlands	8,061	6,686	*21*
United Kingdom	17,259	5,791	*n.m.*
Central & Eastern Europe	323	265	*22*
Spain & Portugal	36	31	*15*
Total gross deposits	**25,679**	**12,773**	***n.m.***

Net deposits (on and off balance)	2017	2016	%
The Netherlands	1,067	1,909	*(44)*
United Kingdom	4,665	(846)	*n.m.*
Central & Eastern Europe	176	176	-
Spain & Portugal	13	20	*(37)*
Total net deposits/(outflows)	**5,921**	**1,260**	***n.m.***

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
Pound sterling	0.8758	0.8187
Czech koruna	26.3165	27.0184
Hungarian forint	308.7564	310.9128
Polish zloty	4.2558	4.3616
Romanian leu	4.5665	4.4889
Turkish Lira	4.1197	3.3426
Ukrainian Hryvnia	30.2092	28.3029

Results 2017 Europe

Net income improved to EUR 954 million in 2017 compared with 2016 driven by Other income and higher underlying earnings before tax. The gain on the sale of the insurance broker UMG in the Netherlands was the main driver behind Other income of EUR 336 million. Underlying earnings before tax in 2017 increased compared with 2016 to EUR 744 million. This was mainly the result of higher results in the United Kingdom, reflecting higher fee income.

Net income

Net income amounted to EUR 954 million in 2017 compared to a loss of EUR 22 million in 2016. Drivers of this improvement were Other income, improved results of fair value items and a higher underlying earnings before tax. Other income of EUR 336 million in 2017 included a gain on the sale of UMG in the Netherlands, while the sale of the majority of the UK annuity portfolio was the main driver behind Other charges of EUR 658 million in 2016.

Net income for the Netherlands

Net income from Aegon s businesses in the Netherlands amounted to EUR 818 million in 2017, largely driven by underlying earnings before tax of EUR 557 million. Results on fair value items improved compared with 2016 to a gain of EUR 30 million in 2017, as positive real estate revaluations and the positive result from the mismatch on an IFRS basis between interest rate hedges, on the mortgage portfolio and the underlying mortgages were offset by losses on credit spread and interest rate hedges due to a mismatch on an IFRS basis between the valuation of hedges and liabilities. Realized gains of EUR 184 million in 2017 were the result of asset-liability management adjustments and normal trading activity in the investment portfolio. Impairments amounted to EUR 17 million in 2017 and were mostly driven by a loan loss provision related to growing consumer loan origination. Other income amounted to EUR 296 million in 2017. This reflects the EUR 208 million gain on the sale of UMG and EUR 101 million positive assumption changes and model updates mainly related to the guarantee provision in the Netherlands.

Net income for the United Kingdom

Net income from Aegon s businesses in the United Kingdom amounted to EUR 81 million in 2017. The main driver was the underlying result before tax of EUR 116 million. Losses from fair value items of EUR 82 million were mainly caused by losses on equity hedging programs as a result of increased equity markets where hedges have been set up to protect against a decline in equity markets. Realized gains amounted to EUR 62 million in 2017 and reflect rebalancing of the investment portfolio, and the sale of bonds to fund remittances to the Group. Other income amounted to EUR 40 million, mainly driven by the net release of provisions following the completion of the Part VII transfers of the annuity

portfolios sold to Rothesay and Legal & General. This was partly offset by integration expenses for the acquired Cofunds and BlackRock s defined contribution business and the impairment of intangible assets related to the announced sales of Aegon Ireland.

Net income for Central & Eastern Europe

Net income from Aegon s businesses in Central & Eastern Europe (CEE) amounted to EUR 57 million in 2017 and reflect underlying earnings before tax of EUR 67 million.

Net income for Spain & Portugal

Net income from Aegon s businesses in Spain & Portugal amounted to a loss of EUR 2 million in 2017 as underlying earnings before tax of EUR 4 million were more than offset by income tax of EUR 6 million.

Underlying earnings before tax

Underlying earnings before tax in 2017 increased by 8% compared with 2016 to EUR 744 million. This was driven by higher fee income in the United Kingdom and growth in CEE.

Underlying earnings before tax for the Netherlands

Underlying earnings before tax for the Netherlands in 2017 decreased by 2% compared with 2016 to EUR 557 million.

Underlying earnings before tax from Life & Savings declined by 2% compared with 2016 to EUR 301 million, reflecting lower investment income in Life, partly offset by a higher interest margin in Savings.

Underlying earnings before tax from Pensions decreased by 9% compared with 2016 to EUR 209 million, mainly due to lower investment income.

The results from the Non-life business increased from EUR 1 million in 2016 to EUR 30 million in 2017. The main drivers were favorable claims experience, in part due to management actions, and one-time claims provision releases.

Underlying earnings before tax from the Distribution business decreased compared with 2016 to EUR 17 million. The decrease was caused by the sale of UMG and pressure on fee income due to increased competition.

Underlying earnings before tax for the United Kingdom

Underlying earnings before tax in the United Kingdom amounted to EUR 116 million in 2017.

Underlying earnings before tax from Life increased in 2017 compared with 2016 to EUR 65 million, reflecting higher results on inflation-linked bonds and growth in the protection business.

Underlying earnings before tax from Pensions improved from EUR 9 million in 2016 to EUR 51 million in 2017. This was driven by higher fee income from favorable equity markets and net inflows, as well as the inclusion of Cofunds in 2017.

Underlying earnings before tax for Central & Eastern Europe

Underlying earnings before tax from Central & Eastern Europe increased to EUR 67 million in 2017, up from EUR 55 million in 2016. This increase was primarily driven by business growth, better underwriting results and the acquisition of a non-life portfolio in Hungary.

Underlying earnings before tax for Spain & Portugal

Underlying earnings before tax from Spain & Portugal decreased compared with 2016 to EUR 4 million in 2017, mainly caused by higher operating expenses due to the write-down of an IT system, governance costs and project related expenses.

Commissions and expenses

Commissions and expenses increased by 4% compared with 2016 to EUR 2,141 million in 2017. Operating expenses increased by 11% compared with 2016 and amounted to EUR 1,610 million in 2017.

Commissions and expenses for the Netherlands

Commissions and expenses decreased by 5% compared with 2016 to EUR 930 million in 2017. Operating expenses were down by 0% compared with 2016 to EUR 818 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 for the United Kingdom

Commissions and expenses increased by 13% in 2017 to EUR 757 million compared with 2016. Operating expenses increased by 39% in 2017 to EUR 546 million compared with 2016, mainly due to the inclusion of Cofunds and BlackRock s defined contribution business and integration of related activities.

Commissions and expenses for Central & Eastern Europe

Commissions and expenses increased by 7% compared with 2016 to EUR 262 million in 2017. Operating expenses increased by 6% compared with 2016 to EUR 152 million in 2017, reflecting the growth of the business and higher variable personnel expenses.

Commissions and expenses for Spain & Portugal

Commissions and expenses increased by 12% compared with 2016 to EUR 192 million in 2017. Operating expenses increased by 7% compared with 2016 to EUR 94 million in 2017, mainly resulting from the growth of Aegon s joint ventures with Santander and project-related expenses, severance costs and the write-down of an IT system.

Production

Gross deposits increased from EUR 12.8 billion in 2016 to EUR 25.7 billion in 2017. The increase compared with 2016 was primarily driven by the higher platform sales in the United Kingdom.

New life sales declined by 9% compared with 2016 to EUR 273 million in 2017. The decline compared with 2016 was mainly the result of the sale of the annuity business in the United Kingdom. New premium production for general and accident & health insurance increased compared with 2016 to EUR 148 million in 2017.

Production for the Netherlands

Gross deposits increased by 21% compared with 2016 to EUR 8.1 billion in 2017, mainly driven by the growth of Knab, Aegon s online bank. New life sales declined compared with 2016 to EUR 99 million in 2017, caused by lower DB pension sales and individual life sales. Premium production for accident & health increased compared with 2016 to EUR 16 million in 2017, while property & casualty insurance production decreased compared with 2016 to EUR 15 million in 2017.

Production for the United Kingdom

Gross deposits increased from EUR 5.8 billion in 2016 to EUR 17.2 billion in 2017 as a result of higher platform sales, reflecting the inclusion of Cofunds. New life sales decreased compared with 2016 to EUR 37 million in 2017, mainly due to the sale of the majority of the annuity business in the second half of 2016.

Production for Central & Eastern Europe

In Central & Eastern Europe, new life sales in 2017 increased compared with 2016 to EUR 88 million, driven by sales growth in Turkey. For the property & casualty insurance business, there were higher sales compared with 2016 amounting to EUR 64 million in 2017, reflecting the acquisition of a portfolio in Hungary.

Production for Spain & Portugal

New life sales in Spain & Portugal in 2017 increased by 23% compared with 2016 and amounted to EUR 48 million, driven by increasing sales through the joint venture with Banco Santander. Property & casualty insurance and accident & health insurance sales increased compared with 2016 to EUR 53 million in 2017, also as a result of higher sales from the joint ventures with Santander.

Results 2018 Asia

	Amounts in USD millions			Amounts in EUR millions		
	2018	2017	%	**2018**	2017	%
Net underlying earnings	**30**	7	*n.m.*	**25**	6	*n.m.*
Tax on underlying earnings	35	48	*(27)*	30	43	*(31)*
Underlying earnings before tax by business/country						
High net worth businesses	71	67	*7*	60	59	*2*
Aegon Insights	9	10	*(15)*	7	9	*(18)*
Strategic partnerships	(15)	(21)	*29*	(13)	(19)	*32*
Underlying earnings before tax	**65**	**55**	***17***	**55**	**49**	***12***
Fair value items	3	(1)	*n.m.*	3	(0)	*n.m.*
Gains/(losses) on investments	(10)	5	*n.m.*	(8)	4	*n.m.*
Net impairments	(7)	(1)	*n.m.*	(5)	(1)	*n.m.*
Other income/(charges)	(9)	(21)	*59*	(7)	(19)	*61*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**43**	**38**	***14***	**36**	**33**	***9***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	15	19	*(19)*	13	16	*(23)*
Income tax	(29)	(32)	*7*	(25)	(28)	*11*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(15)	(19)	*19*	(13)	(16)	*23*
Net income/(loss)	**13**	**6**	***117***	**11**	**5**	***107***
Life insurance gross premiums	921	1,110	*(17)*	779	983	*(21)*
Accident and health insurance premiums	111	110	*1*	94	97	*(4)*
Total gross premiums	**1,032**	**1,220**	***(15)***	**873**	**1,080**	***(19)***
Investment income	317	277	*14*	268	246	*9*
Fees and commission income	68	72	*(4)*	58	63	*(8)*
Other revenues	2	1	*n.m.*	2	1	*n.m.*
Total revenues	**1,419**	**1,569**	***(10)***	**1,201**	**1,390**	***(14)***
Commissions and expenses	273	257	*6*	231	228	*1*
of which operating expenses	187	176	*7*	159	155	*2*

New life sales	Amounts in USD millions 2018	2017	%	Amounts in EUR millions 2018	2017	%
High net worth businesses	53	84	*(38)*	45	75	*(40)*
Strategic partnerships	92	86	*7*	78	76	*2*
Total recurring plus 1/10 single	**144**	**170**	***(15)***	**122**	**151**	***(19)***

Gross deposits (on and off balance)		Amounts in USD millions 2018	2017	%	Amounts in EUR millions 2018	2017	%
Strategic partnerships	China	3	3	-	3	3	*(5)*
Strategic partnerships	Japan	148	247	*(40)*	125	219	*(43)*
Total gross deposits		**151**	**250**	***(40)***	**128**	**222**	***(42)***

Net deposits (on and off balance)		Amounts in USD millions 2018	2017	%	Amounts in EUR millions 2018	2017	%
Strategic partnerships	China	4	-	*n.m.*	3	-	*n.m.*
Strategic partnerships	Japan	5	146	*(97)*	4	129	*(97)*
Total net deposits/(outflows)		**8**	**146**	***(94)***	**7**	**129**	***(95)***

	Amounts in USD millions 2018	2017	%	Amounts in EUR millions 2018	2017	%
New premium production accident and health insurance	9	14	*(34)*	8	12	*(37)*

Exchange rates	Weighted average rate	
Per 1 EUR	**2018**	2017
US dollar	1.1816	1.1291
Chinese Yuan Renminbi	7.8079	7.6520

Results 2018 Asia

Net income in 2018 increased by USD 7 million to USD 13 million in 2018 compared with 2017. This was mainly driven by improved underlying earnings before tax. Underlying earnings before tax improved by USD 10 million to USD 65 million in 2018 compared with 2017. This was mainly driven by improved underlying earnings before tax and lower other charges, partly offset by losses and impairments on investments. Gross deposits decreased to USD 151 million in 2018 compared with USD 250 million in 2017, primarily due to lower variable annuity sales in Japan as a result from a shrinking market due to the low interest rate environment. New life sales amounted to USD 144 million for 2018, and mainly related to the critical illness product in China and universal life sales from the High Net Worth business.

Net income

Net income improved from USD 6 million in 2017 to USD 13 million in 2018, mainly due to increased underlying earnings before tax in the High Net Worth business and Strategic partnerships. Fair value gains improved from a loss of USD 1 million 2017 to a gain of USD 3 million in 2018 due to hedging gains in Japan. Realized losses amounted to USD 10 million in 2018 compared with a USD 5 million realized gains in 2017 due to portfolio rebalancing on available for sale assets in the High Net Worth businesses to achieve higher yields. Other charges improved to USD 9 million in 2018 compared with USD 21 million in 2017 as a result of a lower impact of assumption changes and model updates. Income tax decreased to USD 29 million in 2018 compared with USD 32 million in 2017.

Underlying earnings before tax

In Asia, underlying earnings before tax improved by 17% compared with 2017 to USD 65 million in 2018.

- Underlying earnings before tax from the High Net Worth businesses in Hong Kong and Singapore increased to USD 71 million in 2018, compared with USD 67 million in 2017. This increase was mainly the result of a benefit related to higher investment yields and favorable claims experience.
- Underlying earnings before tax in Aegon Insights decreased to USD 9 million in 2018 compared with USD 10 million in 2017 as lower operating expenses were more than offset by a reduced size of the in-force business, and by favorable one-time reserve and fee adjustments in 2017.
- Losses from Strategic partnerships improved to USD 15 million in 2018 compared with USD 21 million in 2017 mainly a result of business growth and lower new business related expenses in Japan and India, partially offset by higher operating expenses due to higher sales in China.

Commissions and expenses

Commissions and expenses increased to EUR 273 million in 2018 compared with EUR 257 million in 2017. Operating expenses increased by 7% in 2018 compared with 2017 to USD 187 million. The increase in operating expenses was mainly driven by strong sales in China and investments in the High Net Worth businesses.

Production

New life sales decreased by 15% in 2018 to USD 144 million compared with 2017.

In the High Net Worth businesses in Hong Kong and Singapore, new life sales were down 38% to USD 53 million in 2018, compared with USD 84 million in 2017. This decrease was mainly the result of higher cost of premium financing for customers as short-term interest rates rose.
New life sales in Strategic Partnerships were up 7% to USD 92 million in 2018 compared with 2017 due to strong sales in China that was mainly driven by the critical illness product. Gross deposits in Asia declined to USD 151 million in 2018 compared with USD 250 million in 2017 as variable annuity sales in Japan continue to be impacted by a shrinking market due to the low interest rate environment.

Results 2017 Asia

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
Net underlying earnings	**7**	**(7)**	***n.m.***	**6**	**(6)**	***n.m.***
Tax on underlying earnings	48	30	*59*	43	27	*56*
Underlying earnings before tax by business/country						
High net worth businesses	67	61	*9*	59	55	*6*
Aegon Insights	10	1	*n.m.*	9	1	*n.m.*
Strategic partnerships	(21)	(39)	*45*	(19)	(35)	*46*
Underlying earnings before tax	**55**	**23**	***136***	**49**	**21**	***131***
Fair value items	(1)	(10)	*95*	-	(9)	*95*
Gains/(losses) on investments	5	9	*(47)*	4	8	*(48)*
Net impairments	(1)	(1)	*48*	(1)	(1)	*49*
Other income/(charges)	(21)	(6)	*n.m.*	(19)	(5)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**38**	**16**	***141***	**33**	**14**	***136***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	19	2	*n.m.*	16	2	*n.m.*
Income tax	(32)	(30)	*(6)*	(28)	(27)	*(4)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(19)	(2)	*n.m.*	(16)	(2)	*n.m.*
Net income/(loss)	**6**	**(14)**	***n.m.***	**5**	**(13)**	***n.m.***
Life insurance gross premiums	1,110	1,240	*(11)*	983	1,121	*(12)*
Accident and health insurance premiums	110	115	*(5)*	97	104	*(6)*
Total gross premiums	**1,220**	**1,355**	***(10)***	**1,080**	**1,225**	***(12)***
Investment income	277	257	*8*	246	232	*6*
Fees and commission income	72	67	*6*	63	61	*4*
Total revenues	**1,569**	**1,680**	***(7)***	**1,390**	**1,517**	***(8)***
Commissions and expenses	257	257	-	228	232	*(2)*
of which operating expenses	176	161	*9*	155	146	*7*

	Amounts in USD millions			Amounts in EUR millions		
New life sales	2017	2016	%	2017	2016	%
High net worth businesses	84	88	*(4)*	75	79	*(6)*
Strategic partnerships	86	54	*60*	76	49	*56*
Total recurring plus 1/10 single	**170**	**142**	***20***	**151**	**128**	***18***

		Amounts in USD millions			Amounts in EUR millions		
Gross deposits (on and off balance)		2017	2016	%	2017	2016	%
Strategic partnerships	China	3	7	*(57)*	3	6	*(58)*
Strategic partnerships	Japan	247	330	*(25)*	219	298	*(27)*
Total gross deposits		**250**	**337**	***(26)***	**222**	**304**	***(27)***

		Amounts in USD millions			Amounts in EUR millions		
Net deposits (on and off balance)		2017	2016	%	2017	2016	%
Strategic partnerships	China	-	5	*n.m.*	-	4	*n.m.*
Strategic partnerships	Japan	146	282	*(48)*	129	255	*(49)*
Total net deposits/(outflows)		**146**	**287**	***(49)***	**129**	**259**	***(50)***

	Amounts in USD millions			Amounts in EUR millions		
	2017	2016	%	2017	2016	%
New premium production accident and health insurance	14	19	*(27)*	12	17	*(28)*

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
US dollar	1.1291	1.1069
Chinese Yuan Renminbi	7.6520	7.3364

Results 2017 Asia

Net income in 2017 amounted to USD 6 million, which was mainly driven by improved underlying earnings before tax and a one-time tax benefit from the write-down of deferred tax liabilities as a result of US tax reform. Underlying earnings before tax improved to USD 55 million in 2017 compared with 2016 mainly due to higher underlying earnings before tax from the High Net Worth businesses, Aegon Insights and China. Gross deposits decreased to USD 250 million in 2017 compared with USD 337 million in 2016, primarily due to sales of the recently launched foreign currency variable annuity being more than offset by lower Japanese Yen-denominated variable annuity sales. New life sales amounted to USD 170 million for 2017, mainly related to the critical illness product in China and the new direct sales strategy implemented in India.

Net income

Net income improved from a loss of USD 14 million in 2016 to USD 6 million in 2017, mainly due to increased underlying earnings before tax in the High Net Worth business, Aegon Insights and China. Fair value losses improved compared with 2016 to USD 1 million due to lower losses on hedging of the variable annuity business in Japan. Realized gains decreased to USD 5 million in 2017 due to lower gains from normal trading activity compared with 2016. Other charges increased compared with 2016 to USD 21 million as a result of the net impact of assumption changes and model updates in 2017. Income tax increased to USD 32 million in 2017 compared with USD 30 million in 2016 as higher taxes on higher underlying earnings before tax were partially offset by a one-time tax benefit of USD 10 million from the write-down of deferred tax liabilities in Aegon Insights as a result of US tax reform.

Underlying earnings before tax

In Asia, underlying earnings before tax improved by 136% compared with 2016 to USD 55 million in 2017.

- Underlying earnings before tax from the high net worth businesses in Hong Kong and Singapore increased to USD 67 million in 2017, compared with USD 61 million in 2016. This increase was mainly the result of favorable mortality experience and favorable intangible adjustments related to anticipated investment yields compared with 2016.
- Underlying earnings before tax in Aegon Insights increased to USD 10 million in 2017 compared with USD 1 million in 2016 due to an accident & health reserve release, an expense release in Indonesia, and lower operating expenses as a result of discontinuing the outbound telemarketing business.
- Losses from Strategic Partnerships decreased to USD 21 million in 2017 compared with USD 39 million in 2016 mainly a result of favorable persistency and lower new business related expenses. Following the strong results in China throughout 2017, Aegon THTF is now profitable.

Commissions and expenses

Commissions and expenses remained stable in 2017 compared with 2016 at USD 257 million. Operating expenses increased by 9% in 2017 compared with 2016 to USD 176 million. The increase in operating expenses was mainly driven by strong sales in China and India throughout the year and investments made to support future growth, partially offset by lower operating expenses in Aegon Insights as a result of discontinuing the outbound telemarketing business.

Production

New life sales increased by 20% in 2017 to USD 170 million compared with 2016.

- In the high net worth businesses in Hong Kong and Singapore, new life sales were down 4% to USD 84 million in 2017, compared with USD 88 million in 2016. This decrease was mainly the result of lower sales of universal life products due to increased competitive environment.
- New life sales in Strategic Partnerships were up 60% to USD 86 million in 2017 compared with 2016 due to a strong increase from sales in China that was mainly driven by the critical illness product and the new direct sales strategy implemented in India during the first half of 2017.

Gross deposits in Asia declined to USD 250 million in 2017 compared with USD 337 million in 2016. Increased inflows from foreign currency variable annuities were more than offset by lower Japanese Yen-denominated variable annuity sales. The latter was the result of a pricing change in order to maintain profitability by strictly adhering to Aegon s pricing policy.

New premium production in Asia s accident & health declined by 27% in 2017 compared with 2016 to USD 14 million as a result of running off the Aegon Insights outbound telemarketing business.

Results 2018 Aegon Asset Management

Amounts in EUR millions	2018	2017	%
Net underlying earnings	**113**	**94**	***20***
Tax on underlying earnings	39	42	*(7)*
Underlying earnings before tax by business/country			
Americas	62	59	*5*
Europe	31	31	*(1)*
Rest of World	(10)	(7)	*(33)*
Strategic partnerships	69	53	*29*
Underlying earnings before tax	**151**	**136**	***12***
Fair value items			*n.m.*
Gains/(losses) on investments	2	3	*(40)*
Net impairments			*n.m.*
Other income/(charges)	(5)	(49)	*91*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**149**	**90**	***65***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	22	17	*27*
Income tax	(44)	(42)	*(3)*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(22)	(17)	*(27)*
Net income/(loss)	**105**	**48**	***119***
Management fees	492	473	*4*
Performance fees	33	36	*(8)*
Other	65	67	*(4)*
Total revenues	**589**	**576**	***2***
Commissions and expenses	488	481	*2*
of which operating expenses	439	444	*(1)*
Cost/income ratio	74.5%	77.1%	

Amounts in EUR millions	2018	2017	%
Gross flows external third-party			
Americas	9,619	10,567	*(9)*
Europe	12,292	10,419	*18*
Rest of World [1]	(72)	127	*n.m.*

Strategic partnerships	37,657	40,220	*(6)*
Total gross flows external third-party	**59,495**	**61,332**	***(3)***
Net flows external third-party			
Americas	1,267	1,913	*(34)*
The Netherlands	6,648	3,256	*104*
United Kingdom	(3,370)	(6,770)	*50*
Rest of World [1]	(566)	167	*n.m.*
Strategic partnerships	3,547	8,345	*(57)*
Total net flows external third-party	**7,526**	**6,913**	***9***

1 Rest of world include intragroup eliminations from internal sub-advised agreements

Exchange rates	Weighted average rate	
Per 1 EUR	**2018**	2017
US dollar	1.1816	1.1291
Pound sterling	0.8844	0.8758
Hungarian forint	318.2582	308.7564
Chinese Yuan Renminbi	7.8079	7.6520

Results 2018 Aegon Asset Management

Net income in 2018 increased to EUR 105 million compared with EUR 48 million in 2017 as a result of higher underlying earnings before tax compared with 2017 and the fact that 2017 contained a provision related to the settlement with the SEC. Gross flows in external third-party asset management decreased by 3% to EUR 59.5 billion in 2018 compared with 2017. Higher gross inflows in the Netherlands were more than offset by lower gross inflows in Strategic partnerships, the Americas the UK. Inflows in Strategic partnerships in 2017 included a single large mandate won by Aegon s strategic partner LBPAM.

Net income

Net income in 2018 increased by 119% compared with 2017 to EUR 105 million. This was partly driven by higher underlying earnings before tax in 2018 compared with 2017. In addition, 2017 included a provision related to the settlement with the SEC totalling EUR 40 million.

Underlying earnings before tax

Underlying earnings before tax increased by 12% in 2018 compared with 2017 to EUR 151 million. This increase was mainly driven by higher underlying earnings before tax in 2018 compared with 2017 from Strategic partnerships and the Netherlands.

- Americas underlying earnings before tax increased to EUR 62 million in 2018, compared with EUR 59 million in 2017, mainly driven by higher management and origination fees, in addition to expense savings in 2018 compared with 2017.
- Underlying earnings before tax from Europe in 2018 decreased by EUR 1 million to EUR 30 million compared with 2017, as expense savings and higher management fee income in 2018 compared with 2017 in the Netherlands were more than offset by lower management fees in the United Kingdom.
- Rest of World underlying earnings before tax in 2018 decreased by EUR 3 million compared with 2017 to a loss of EUR 10 million.
- Underlying earnings before tax from Strategic partnerships increased by EUR 16 million compared with 2017 to EUR 69 million in 2018. Aegon s Chinese asset management joint venture AIFMC had higher management and performance fee income in 2018 compared with 2017.

Commissions and expenses

Commissions and expenses increased by 2% in 2018 compared with 2017 to EUR 488 million. Operating expenses decreased by 1% in 2018 compared with 2017 to EUR 439 million. This decrease was mainly driven by lower expenses in the Americas and the United Kingdom as a result of continued strong expense control. These were partly offset by higher personnel expenses in China as a result of its strong performance. The cost/income ratio in 2018 improved by 2 percentage points compared with 2017 to 75%, as result from lower expenses and higher revenues in 2018 compared with 2017. Annualized operating expenses as a percentage of average assets under management remained stable at 14 basis points in 2018 compared with 2017.

Production

Gross inflows in external third-party decreased by 3% in 2018 to EUR 59.5 billion compared with 2017. Higher gross inflows in the Netherlands were more than offset by lower gross inflows in Strategic partnerships, the Americas and the UK. In addition, gross inflows in 2017 included a single large mandate won by Aegon s strategic partner LBPAM.

Net external third-party inflows in 2018 increased compared with 2017 to EUR 7.5 billion, as higher net flows in the Netherlands were partly offset by net outflows in the United Kingdom and lower net inflows in Strategic partnerships and the Americas.

Assets under management

Assets under management decreased by EUR 2 billion in 2018 to EUR 316 billion compared with the start of 2018. Net inflows in external third-party and favorable currency movements were more than offset by outflows in the general account, outflows in affiliates, and unfavorable market movements.

Results 2017 Aegon Asset Management

Amounts in EUR millions	2017	2016	%
Net underlying earnings	**94**	**99**	***(5)***
Tax on underlying earnings	42	50	*(16)*
Underlying earnings before tax by business/country			
Americas	59	55	*6*
Europe	31	44	*(29)*
Rest of World	(7)	(4)	*(84)*
Strategic partnerships	53	54	*(1)*
Underlying earnings before tax	**136**	**149**	***(9)***
Fair value items	-	-	*n.m.*
Gains/(losses) on investments	3	3	*6*
Net impairments	-	(5)	*n.m.*
Other income/(charges)	(49)	(2)	*n.m.*
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	**90**	**145**	***(38)***
Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	17	19	*(7)*
Income tax	(42)	(48)	*11*
Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax	(17)	(19)	*7*
Net income/(loss)	**48**	**97**	***(51)***
Management fees	473	503	*(6)*
Performance fees	36	34	*4*
Other	67	63	*7*
Total revenues	**576**	**601**	***(4)***
Commissions and expenses	481	486	*(1)*
of which operating expenses	444	451	*(2)*
Cost/income ratio	77.1%	75.1%	

Amounts in EUR millions	2017	2016	%
Gross flows external third-party			
Americas	10,567	4,536	*133*
Europe	10,419	9,487	*10*
Rest of World [1]	127	(317)	*n.m.*

Strategic partnerships	40,220	32,660	*23*
Total gross flows external third-party	**61,332**	**46,366**	***32***
Net flows external third-party			
Americas	1,913	499	*n.m.*
The Netherlands	3,256	3,669	*(11)*
United Kingdom	(6,770)	(865)	*n.m.*
Rest of World [1]	167	62	*170*
Strategic partnerships	8,345	(402)	*n.m.*
Total net flows external third-party	**6,913**	**2,964**	***133***

[1] Rest of world include intragroup eliminations from internal sub-advised agreements

	Weighted average rate	
Exchange rates		
Per 1 EUR	2017	2016
US dollar	1.1291	1.1069
Pound sterling	0.8758	0.8187
Hungarian forint	308.7564	310.9128
Chinese Yuan Renminbi	7.6520	7.3364

Results 2017 Aegon Asset Management

Net income in 2017 decreased compared with 2016 to EUR 48 million as a result of lower underlying earnings before tax compared with 2016 and a provision taken for a potential settlement with the SEC. Lower underlying earnings before tax in 2017 compared with 2016 was mainly the result of lower management fees in the United Kingdom. Gross flows in external third-party asset management increased by 32% to EUR 61.3 billion in 2017 compared with 2016, mainly driven by higher gross inflows in the US, the Netherlands and Strategic partnerships.

Net income

Net income in 2017 declined 51% compared with 2016 to EUR 48 million. This was partly driven by lower underlying earnings before tax in 2017 compared with 2016.

In addition, Aegon has taken a provision in anticipation of a possible settlement in connection with a previously disclosed investigation by the US Securities and Exchange Commission (SEC). The investigation relates to the operation or existence of errors in the quantitative models in question and disclosures regarding these matters. Aegon had discovered these errors in its asset management operations in the United States. The Company notified the SEC and cooperated fully with the investigation. Following the discovery of the errors, Aegon concluded a comprehensive and detailed review.

As a result of recent discussions, Aegon has taken a provision through Other charges in the fourth quarter of 2017 for a potential settlement. This amount is partly recorded in the Americas and partly in Asset Management (EUR 40 million). Aegon believes that the investigation will come to a conclusion in 2018.

Underlying earnings before tax

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

- Americas underlying earnings before tax increased to EUR 59 million in 2017, compared with EUR 55 million in 2016, as lower expenses more than offset lower management fee income in 2017 compared with 2016.
- Underlying earnings before tax from Europe in 2017 decreased by EUR 13 million to EUR 31 million compared with 2016, as higher management fee income in the Netherlands was more than offset by lower management fees in the United Kingdom and higher expenses in the Netherlands in 2018 compared with 2017.
- Rest of World underlying earnings before tax in 2017 decreased by EUR 3 million compared with 2016 to a loss of EUR 7 million.

Underlying earnings before tax from Strategic partnerships decreased by EUR 1 million compared with 2016 to EUR 53 million in 2017. Aegon s Chinese asset management joint venture AIFMC had lower performance fee income in 2017 compared with 2016. This was partly offset by higher underlying earnings before tax from French joint venture La Banque Postale Asset Management in 2017 compared with 2016.

Commissions and expenses

Commissions and expenses declined in 2017 compared with 2016 to EUR 481 million. Operating expenses decreased by 2% in 2017 compared with 2016 to EUR 444 million. This decrease was mainly driven by lower expenses in the Americas and the United Kingdom as a result of continued strong expense control and favorable currency movements. These were partly offset by restructuring charges and higher one-time expenses in the Netherlands. The cost/income ratio in 2017 increased by 2 percentage points to 77% compared with 2016, as lower expenses were more than offset by lower revenues in 2017 compared with 2016. Annualized operating expenses as a percentage of average assets under management increased in 2017 compared with 2016 by 1 basis point to 14 basis points.

Production

Gross inflows in external third-party increased by 32% in 2017 to EUR 61.3 billion compared with 2016. This was mainly the result of higher gross flows in Strategic partnerships in 2017 compared with 2016, and higher gross flows in the US and the Netherlands.

Net external third-party inflows in 2017 increased compared with 2016 to EUR 6.9 billion, as higher net flows in Strategic partnerships and the Americas were partly offset by net outflows in the United Kingdom and lower net inflows in the Netherlands.

Assets under management

Assets under management decreased by EUR 14 billion in 2017 to EUR 318 billion compared with the start of 2017. Favorable market movements and net inflows in external third-party were more than offset by outflows in the general account, primarily resulting from the divestment of the majority of the run-off businesses in the US, outflows in affiliates, and unfavorable currency movements.

Exchange rates

Exchange rates at December 31,

		2018			2017			2016		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1432	0.8976	-	1.2008	0.8877	-	1.0548	0.8536
1	USD	0.8747	-	0.7852	0.8328	-	0.7393	0.9480	-	0.8093
1	GBP	1.1141	1.2736	-	1.1265	1.3527	-	1.1715	1.2357	-

Weighted average exchange rates

		2018			2017			2016		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1816	0.8844	-	1.1291	0.8758	-	1.1069	0.8187
1	USD	0.8463	-	0.7485	0.8857	-	0.7757	0.9034	-	0.7396
1	GBP	1.1307	1.3360	-	1.1418	1.2892	-	1.2214	1.3520	-

Consolidated income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million (except per share data)	Note	2018	2017	2016
Premium income	6	19,316	22,826	23,453
Investment income	7	7,035	7,338	7,788
Fee and commission income	8	2,558	2,802	2,408
Other revenues		5	7	7
Total revenues		**28,914**	**32,973**	**33,655**
Income from reinsurance ceded	9	3,740	4,288	3,687
Results from financial transactions	10	(11,701)	20,250	15,753
Other income	11	8	540	66
Total income		**20,961**	**58,052**	**53,162**
Premiums paid to reinsurers	6	2,663	3,431	3,176
Policyholder claims and benefits	12	10,557	45,599	41,974
Profit sharing and rebates	13	23	23	49
Commissions and expenses	14	6,224	5,925	6,351
Impairment charges/(reversals)	15	78	42	95
Interest charges and related fees	16	507	435	347
Other charges	17	375	235	700
Total charges		**20,427**	**55,689**	**52,693**
Income before share in profit/(loss) of joint ventures, associates and tax		**535**	**2,363**	**470**
Share in profit/(loss) of joint ventures		210	161	137
Share in profit/(loss) of associates		6	11	3
Income/(loss) before tax		**751**	**2,534**	**610**
Income tax (expense)/benefit	18	(40)	(65)	(172)
Net income/(loss)		**711**	**2,469**	**438**
Net income/(loss) attributable to:				
Owners of Aegon N.V.		710	2,469	437
Non-controlling interests		1	-	-
Earnings per share (EUR per share)	19			
Basic earnings per common share		0.29	1.14	0.15

Basic earnings per common share B	0.01	0.03	-
Diluted earnings per common share	0.29	1.14	0.15
Diluted earnings per common share B	0.01	0.03	-

Consolidated statement of comprehensive income of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2018	2017	2016
Net income/(loss)	**711**	**2,469**	**438**
Items that will not be reclassified to profit or loss:			
Changes in revaluation reserve real estate held for own use	(32)	8	8
Remeasurements of defined benefit plans	(134)	224	(392)
Income tax relating to items that will not be reclassified	(8)	(166)	86
Items that may be reclassified subsequently to profit or loss:			
Gains/(losses) on revaluation of available-for-sale investments	(2,138)	1,283	854
(Gains)/losses transferred to income statement on disposal and impairment of available-for- sale investments	66	(1,330)	(2,122)
Changes in cash flow hedging reserve	5	(853)	(54)
Movement in foreign currency translation and net foreign investment hedging reserves	602	(2,149)	69
Equity movements of joint ventures	9	(15)	9
Equity movements of associates	(1)	(5)	3
Disposal of group assets	36	7	-
Income tax relating to items that may be reclassified	493	951	225
Other	(2)	9	12
Total other comprehensive income/(loss)	**(1,104)**	**(2,038)**	**(1,301)**
Total comprehensive income/(loss)	**(393)**	**431**	**(863)**
Total comprehensive income/(loss) attributable to:			
Owners of Aegon N.V.	(395)	435	(878)
Non-controlling interests	2	(3)	15

Consolidated statement of financial position of Aegon N.V.

As at December 31

Amounts in EUR million	Note	2018	2017
Assets			
Cash and cash equivalents	21	8,744	10,768
Assets held for sale	22	-	5,249
Investments	23	138,625	136,804
Investments for account of policyholders	24	194,353	194,063
Derivatives	25	7,615	5,912
Investments in joint ventures	26	1,745	1,712
Investments in associates	27	327	308
Reinsurance assets	28	20,507	19,202
Defined benefit assets	41	-	55
Deferred tax assets	43	125	79
Deferred expenses	29	10,910	10,135
Other assets and receivables	30	7,954	10,002
Intangible assets	31	1,727	1,633
Total assets		**392,633**	**395,923**
Equity and liabilities			
Shareholders equity	32	19,225	20,288
Other equity instruments	33	3,320	3,794
Issued capital and reserves attributable to owners of Aegon N.V.		**22,545**	**24,082**
Non-controlling interests		22	20
Group equity		**22,567**	**24,102**
Subordinated borrowings	34	1,389	764
Trust pass-through securities	35	133	133
Insurance contracts	36	115,294	110,818
Insurance contracts for account of policyholders	36	117,113	122,168
Investment contracts	37	18,048	16,943
Investment contracts for account of policyholders	37	80,097	74,434
Derivatives	25	7,230	7,130
Borrowings	39	12,061	13,635
Provisions	40	320	210
Defined benefit liabilities	41	3,989	4,005
Deferred gains	42	12	13
Deferred tax liabilities	43	538	1,029

Liabilities held for sale	22	-	5,003
Other liabilities	44	13,454	15,208
Accruals	45	388	329
Total liabilities		**370,065**	**371,821**
Total equity and liabilities		**392,633**	**395,923**

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Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2018

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves	Non-controlling interests	Total
At January 1, 2018		8,053	9,374	4,920	(1,669)	(390)	3,794	24,082	20	**24,102**
Net income/(loss) recognized in the income statement		-	710	-	-	-	-	710	1	711
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	(32)	-	-	-	(32)	-	(32)
Remeasurements of defined benefit plans		-	-	-	(134)	-	-	(134)	-	(134)
Income tax relating to items that will not be reclassified		-	-	7	(15)	-	-	(8)	-	(8)
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of available-for-sale investments		-	-	(2,138)	-	-	-	(2,138)	-	(2,138)

(Gains)/losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	66	-	-	-	66	-	66
Changes in cash flow hedging reserve		-	-	5	-	-	-	5	-	5
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	119	(32)	515	-	602	-	602
Equity movements of joint ventures		-	-	-	-	9	-	9	-	9
Equity movements of associates		-	-	-	-	(1)	-	(1)	-	(1)
Disposal of group assets		-	-	-	-	36	-	36	-	36
Income tax relating to items that may be reclassified		-	-	513	-	(20)	-	493	-	493
Other		-	(3)	-	-	-	-	(3)	1	(2)
Total other comprehensive income/(loss)		**-**	**(3)**	**(1,459)**	**(182)**	**539**	**-**	**(1,105)**	**1**	**(1,104)**
Total comprehensive income/(loss) for 2018		**-**	**707**	**(1,459)**	**(182)**	**539**	**-**	**(395)**	**2**	**(393)**
Shares issued		-	-	-	-	-	-	-	-	-
Issuance and purchase of treasury shares		-	14	-	-	-	-	14	-	14
Issuance and redemption of other equity instruments		-	2	-	-	-	(471)	(468)	-	(468)
Dividends paid on common shares		(244)	(329)	-	-	-	-	(573)	-	(573)
Dividend withholding tax reduction		-	1	-	-	-	-	1	-	1
Coupons on perpetual securities		-	(102)	-	-	-	-	(102)	-	(102)
Coupons on non-cumulative subordinated notes		-	(11)	-	-	-	-	(11)	-	(11)
Incentive plans		-	-	-	-	-	(2)	(2)	-	(2)
At December 31, 2018	**32,33**	**7,808**	**9,657**	**3,461**	**(1,850)**	**149**	**3,320**	**22,545**	**22**	**22,567**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2017

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves [1]	Non-controlling interests	Total
At January 1, 2017		8,193	7,419	5,381	(1,820)	1,347	3,797	24,318	23	24,341
Net income/(loss) recognized in the income statement		-	2,469	-	-	-	-	2,469	-	2,469
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	8	-	-	-	8	-	8
Remeasurements of defined benefit plans		-	-	-	224	-	-	224	-	224
Income tax relating to items that will not be reclassified		-	-	9	(175)	-	-	(166)	-	(166)
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of		-	-	1,283	-	-	-	1,283	-	1,283

available-for-sale investments										
(Gains)/losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	(1,330)	-	-	-	(1,330)	-	(1,330)
Changes in cash flow hedging reserve		-	-	(853)	-	-	-	(853)	-	(853)
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	(452)	102	(1,800)	-	(2,149)	-	(2,149)
Equity movements of joint ventures		-	-	-	-	(15)	-	(15)	-	(15)
Equity movements of associates		-	-	-	-	(5)	-	(5)	-	(5)
Disposal of group assets		-	-	-	-	7	-	7	-	7
Income tax relating to items that may be reclassified		-	-	874	-	76	-	951	-	951
Other		-	13	-	-	-	-	13	(3)	9
Total other comprehensive income/(loss)		**-**	**13**	**(461)**	**151**	**(1,737)**	**-**	**(2,034)**	**(3)**	**(2,038)**
Total comprehensive income/(loss) for 2017		**-**	**2,482**	**(461)**	**151**	**(1,737)**	**-**	**435**	**(3)**	**431**
Shares issued		3	-	-	-	-	-	3	-	3
Issuance and purchase of treasury shares		-	(105)	-	-	-	-	(105)	-	(105)
Dividends paid on common shares		(142)	(296)	-	-	-	-	(439)	-	(439)
Dividend withholding tax reduction		-	2	-	-	-	-	2	-	2
Coupons on perpetual securities		-	(103)	-	-	-	-	(103)	-	(103)
Coupons on non-cumulative subordinated notes		-	(28)	-	-	-	-	(28)	-	(28)
Incentive plans		-	4	-	-	-	(4)	(1)	-	(1)
At December 31, 2017	**32,33**	**8,053**	**9,374**	**4,920**	**(1,669)**	**(390)**	**3,794**	**24,082**	**20**	**24,102**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

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Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2016

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves 1	Non-controlling interests	Total
At January 1, 2016		8,387	7,832	6,471	(1,532)	1,283	3,800	26,241	9	26,250
Net income/(loss) recognized in the income statement		-	437	-	-	-	-	437	-	438
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	8	-	-	-	8	-	8
Remeasurements of defined benefit plans		-	-	-	(392)	-	-	(392)	-	(392)
Income tax relating to items that will not be reclassified		-	-	(3)	89	-	-	86	-	86
Items that may be reclassified subsequently to profit or loss:										
Gains/(losses) on revaluation of		-	-	854	-	-	-	854	-	854

available-for-sale investments										
(Gains)/losses transferred to income statement on disposal and impairment of available- for-sale investments		-	-	(2,122)	-	-	-	(2,122)	-	(2,122)
Changes in cash flow hedging reserve		-	-	(54)	-	-	-	(54)	-	(54)
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	(38)	16	91	-	69	-	69
Equity movements of joint ventures		-	-	-	-	9	-	9	-	9
Equity movements of associates		-	-	-	-	3	-	3	-	3
Income tax relating to items that may be reclassified		-	-	264	-	(39)	-	225	-	225
Other		-	(2)	-	-	-	-	(2)	14	12
Total other comprehensive income/(loss)		**-**	**(2)**	**(1,090)**	**(288)**	**64**	**-**	**(1,315)**	**14**	**(1,301)**
Total comprehensive income/(loss) for 2016		**-**	**435**	**(1,090)**	**(288)**	**64**	**-**	**(878)**	**15**	**(863)**
Shares issued		1	-	-	-	-	-	1	-	1
Shares withdrawn		(10)	(372)	-	-	-	-	(382)	-	(382)
Issuance and purchase of treasury shares		-	(27)	-	-	-	-	(27)	-	(27)
Dividends paid on common shares		(186)	(304)	-	-	-	-	(490)	-	(490)
Dividend withholding tax reduction		-	(2)	-	-	-	-	(2)	-	(2)
Coupons on perpetual securities		-	(105)	-	-	-	-	(105)	-	(105)
Coupons on non-cumulative subordinated notes		-	(28)	-	-	-	-	(28)	-	(28)
Incentive plans		-	(9)	-	-	-	(3)	(12)	-	(12)
At December 31, 2016	**32, 33**	**8,193**	**7,419**	**5,381**	**(1,820)**	**1,347**	**3,797**	**24,318**	**23**	**24,341**

[1] Issued capital and reserves attributable to owners of Aegon N.V.

Consolidated cash flow statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	Note	2018	2017	2016
Income/(loss) before tax		**751**	**2,534**	**610**
Results from financial transactions		11,516	(23,445)	(16,294)
Amortization and depreciation		1,315	781	1,208
Impairment losses		68	84	88
Income from joint ventures		(210)	(161)	(137)
Income from associates		(6)	(11)	(3)
Release of cash flow hedging reserve		(80)	(739)	(59)
Other		145	(620)	577
Adjustments of non-cash items		**12,749**	**(24,112)**	**(14,621)**
Insurance and investment liabilities		1,989	(613)	2,640
Insurance and investment liabilities for account of policyholders		(21,751)	12,988	10,716
Accrued expenses and other liabilities		(2,384)	309	2,610
Accrued income and prepayments		709	(1,797)	(2,812)
Changes in accruals		**(21,437)**	**10,887**	**13,153**
Purchase of investments (other than money market investments)		(31,279)	(32,057)	(34,873)
Purchase of derivatives		(1,525)	752	(831)
Disposal of investments (other than money market investments)		29,192	35,512	33,246
Disposal of derivatives		(597)	(878)	2,373
Net purchase of investments for account of policyholders		10,819	8,869	5,160
Net change in cash collateral		1,029	(455)	(1,347)
Net purchase of money market investments		823	(659)	532
Cash flow movements on operating items not reflected in income		**8,462**	**11,082**	**4,260**
Tax (paid)/received		(9)	173	(116)
Other		1	(12)	34
Net cash flows from operating activities	**21**	**517**	**553**	**3,319**
Purchase of individual intangible assets (other than VOBA and future servicing rights)		(42)	(34)	(22)
Purchase of equipment and real estate for own use		(81)	(72)	(69)
Acquisition of subsidiaries, net of cash		(89)	(52)	(2)
Acquisition joint ventures and associates		(146)	(121)	(112)
Disposal of intangible asset		2	1	-
Disposal of equipment		14	5	3
Disposal of subsidiaries and businesses, net of cash		(200)	(1,054)	(1,082)
Disposal joint ventures and associates		7	2	3

Dividend received from joint ventures and associates		97	129	203
Net cash flows from investing activities	**21**	**(438)**	**(1,196)**	**(1,078)**
Issuance of treasury shares		-	2	-
Purchase of treasury shares		(248)	(266)	(623)
Proceeds from TRUPS [1], Subordinated borrowings and borrowings		4,185	9,170	3,711
Repayment of TRUPS [1], Subordinated borrowings and borrowings		(5,211)	(7,918)	(3,070)
Repayment of perpetuals		(200)	-	-
Repayment of non-cumulative subordinated note		(443)	-	-
Dividends paid		(328)	(294)	(306)
Coupons on perpetual securities		(136)	(138)	(140)
Coupons on non-cumulative subordinated notes		(14)	(37)	(38)
Net cash flows from financing activities	**21**	**(2,395)**	**519**	**(465)**
Net increase/(decrease) in cash and cash equivalents [2]		**(2,317)**	**(125)**	**1,776**
Net cash and cash equivalents at the beginning of the year		11,026	11,347	9,593
Effects of changes in exchange rate		35	(196)	(23)
Net cash and cash equivalents at the end of the year	**21**	**8,744**	**11,026**	**11,346**

[1] Trust pass-through securities.

[2] Included in net increase/(decrease) in cash and cash equivalents are interest received (2018: EUR 5,914 million, 2017: EUR 6,215 million and 2016: EUR 6,691 million) dividends received (2018: EUR 1,222 million, 2017: EUR 1,292 million and 2016: EUR 1,387 million) and interest paid (2018: EUR 400 million, 2017: EUR 311 million and 2016: EUR 300 million). All included in operating activities except for dividend received from joint ventures and associates (2018: EUR 97 million, 2017: EUR 129 million and 2016: EUR 203 million).

The cash flow statement is prepared according to the indirect method.

Notes to the consolidated financial statements

1 General information

Aegon N.V., incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law and recorded in the Commercial Register of The Hague registered under number 27076669 and with its registered address at Aegonplein 50, 2591 TV, The Hague, the Netherlands. Aegon N.V. serves as the holding company for The Aegon Group and has listings of its common shares in Amsterdam and New York.

Aegon N.V. (or the Company) and its subsidiaries (Aegon or the Group) have life insurance and pensions operations in more than 20 countries in the Americas, Europe and Asia and are also active in savings and asset management operations, accident and health insurance, general insurance and to a limited extent banking operations. Headquarters are located in The Hague, the Netherlands. The Group employs over 26,000 people worldwide (2017: over 28,000).

Aegon Funding Company LLC

Aegon Funding Company LLC (AFC) is an indirect wholly owned subsidiary of Aegon that was established as a financing vehicle to raise funds for the US subsidiaries of Aegon. AFC has been fully consolidated in the financial statements of Aegon under IFRS. If AFC issues debt securities, Aegon will fully and unconditionally guarantee the due and punctual payment of the principal, any premium and any interest on those debts securities when and as these payments become due and payable, wheather at maturity, upon redemption or declaration of acceleration, or otherwise. The guarantees of senior debt securities will constitute an unsecured, unsubordinated obligation of Aegon and will rank equally with all other unsecured and unsubordinated obligations of Aegon. The guarantees of subordinated debt securities will constitute an unsecured obligation of Aegon and will be subordinated in right of payment to all senior indebtedness of Aegon.

2 Significant accounting policies

2.1 Basis of presentation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS) and with Part 9 of Book 2 of the Netherlands Civil Code for purpose of reporting with the U.S. Securities and Exchange Commission (SEC), including financial information contained in this Annual Report on Form 20-F.

The consolidated financial statements have been prepared in accordance with the historical cost convention as modified by the revaluation of investment properties and those financial instruments (including derivatives) and financial liabilities that have been measured at fair value. Information on the standards and interpretations that were adopted in 2018 is provided below in note

2.1.1 Adoption of new IFRS accounting standards. The consolidated financial statements are presented in euro and all values are rounded to the nearest million unless otherwise stated. The consequence is that the rounded amounts may 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.

The preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses for the reporting period. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs, value of business acquired and other purchased intangible assets, goodwill, policyholder claims and benefits, insurance guarantees, pension plans, income taxes and the potential effects of resolving litigation matters.

The consolidated financial statements of Aegon N.V. were approved by the Executive Board and by the Supervisory Board on March 21, 2019. The financial statements will be put for adoption to the Annual General Meeting of Shareholders on May 17, 2019. The shareholders meeting can decide not to adopt the financial statements but cannot amend them.

Other than for SEC reporting, Aegon prepares its Annual Accounts under International Financial Reporting Standards as adopted by the European Union, including the decisions Aegon made with regard to the options available under International Financial Reporting Standards as adopted by the EU (IFRS-EU). IFRS-EU differs from IFRS in respect of certain paragraphs in IAS 39 Financial Instruments: Recognition and Measurement regarding hedge accounting for portfolio hedges of interest rate risk (faitr value macro hedges) in accordance with the EU carve out version of IAS 39. Under IFRS, hedge accounting for fair value macro hedges cannot be applied to mortage loans and ineffectiveness arises whenever the revised estimate of the amount of cash flows in scheduled time buckets is either more or less than the original designated amount of that bucket.

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A reconciliation between IFRS and IFRS-EU is included in the table below.

	Shareholders equity			Net income		
	2018	2017	2016	**2018**	2017	2016
In accordance with IFRS	19,225	20,288	20,520	711	2,469	438
Adjustment of EU IAS 39 carve-out	399	368	510	31	(142)	195
Tax effect of the adjustment	(81)	(83)	(117)	3	34	(47)
Effect of the adjustment after tax	318	285	393	34	(108)	149
In accordance with IFRS-EU	**19,543**	**20,573**	**20,913**	**744**	**2,361**	**586**

2.1.1 Adoption of new IFRS accounting standards

New standards and amendments to standards become effective at the date specified by IFRS, but may allow companies to opt for an earlier adoption date. In 2017, the following amendments to existing standards issued by the IASB became mandatory, but are not currently relevant or do not significantly impact the financial position or financial statements:

Accounting standard/amendment/interpretation	IASB effective date	Impact for Aegon
IFRS 9 Financial instruments, including the separate amendment applying IFRS 9 Financial instruments with IFRS 4 Insurance contracts	January 1, 2018 (Aegon makes use of the amendment)	See 2.1.2 for comments
IFRS 15 Revenue from Contracts with Customers, including Clarifications to IFRS 15 as issued in 2016	January 1, 2018	See below for comments
IFRS 2 Clarifications of Classification and measurement of Share Based Payments Transactions	January 1, 2018	Low
IAS 40 Investment property, amendments regarding the transfer of property	January 1, 2018	Low
IFRIC 22 Foreign currency transactions and advance consideration	January 1, 2018	Low
Annual improvements 2014-2016	January 1, 2018	Low

IFRS 15 Revenue from Contracts with Customers

IFRS 15 Revenue from Contracts with Customers issued in May 2014 and the amendments to IFRS 15 issued in April 2016 are effective for the Group from January 1, 2018. The adoption of this standard has a very limited impact on the Group s financial statements because insurance revenue is not in scope of IFRS 15 and because the other types of revenue are already materially compliant with this standard. Given the very limited impact on the Group s financial statements, Aegon chose to apply the modified retrospective approach as transition method.

2.1.2 Future adoption of new IFRS accounting standards

The following standards and amendments to existing standards, published prior to January 1, 2019, were not early adopted by the Group, but will be applied in future years:

Accounting standard/amendment/interpretation	IASB effective date	Early adopted by Aegon	Impact for Aegon
Amendment to IFRS 9 Financial instruments on prepayment features with negative compensation	January 1, 2019	No	See below for comments
IFRS 16 Leases	January 1, 2019	No	See below for comments
IFRS 17 Insurance contract	January 1, 2021	No	See below for comments
IFRIC 23 Uncertainty over Tax Treatments	January 1, 2019	No	Low
Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures	January 1, 2019	No	Low
Annual improvements 2015-2017	January 1, 2019	No	Low
Amendment to IAS 19 Plan amendment, curtailment or settlement	January 1, 2019	No	Low
Amendments to References to the Conceptual Framework in IFRS Standards	January 1, 2020	No	Low
Amendment to IFRS 3 Business Combinations	January 1, 2020	No	Low
Amendments to IAS 1 and IAS 8: Definition of Material	January 1, 2020	No	Low

IFRS 16 Leases

IFRS 16 Leases, which replaces IAS 17 Leases has been issued by the IASB in January 2016. It will be mandatorily effective for annual reporting periods beginning on or after January 1, 2019. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments, which will replace the current Operating lease obligations disclosed under note 48 Commitments and Contingencies. Lease costs will be recognised in the form of depreciation of the right-of-use asset and interest on the lease liability, as oppose to the treatment under IAS 17 where expenses are recognised when occurred in Administration expenses . From a lessor perspective, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17, only with additional disclosure requirements. Accordingly, a lessor continues to classify its leases as operating leases or finance leases, and to account for those two types of leases differently. Aegon has assessed the impacts of IFRS 16 during 2018, and has completed the implementation of the standard.

In order to implement the standard, the Group has adopted a number of key options and practical expedients allowed under IFRS 16 of which the following are the most significant:

- The Group will apply the modified retrospective approach and therefore will not restate the comparative amounts for the year prior to initial application. Under this approach, on a lease-by-lease basis, the following two options are available: (i) right-of-use assets (mainly high value properties) measured on transition as if the new rules had always been applied, but discounted using the lessee s incremental borrowing rate at the date of initial application; or (ii) right-of-use assets measured at the amount of the lease liability on adoption (adjusted for any prepaid or accrued lease expenses). The group will apply these two available options on a lease-by-lease basis;
- The Group has applied the exemption not to recognize right-of-use assets and liabilities for liabilities with less than 12 months of lease term;
- The Group has elected to apply the grandfather option, which means that all conclusions previously reached under IAS 17 (and IFRIC 4 Determining Whether an Arrangement Contains a Lease) are deemed compliant with IFRS 16;
- The Group has elected to use hindsight in areas that involve judgment or estimation, such as in determining the lease term if the contract contains options to extend or terminate the lease.

At transition, the Group expects to recognise right-of-use assets of approximately EUR 248 million and lease liabilities of EUR 299 million (adjusted for any prepaid or accrued lease expenses) on January 1, 2019. The adverse impact on shareholders equity is expected to be approximately EUR 51 million pre-tax and is recognized as an adjustment to the 2019 opening balance of retained earnings. The right-of-use assets mainly consist of approximately EUR 216 million properties and of approximately EUR 32 million equipment. The Group does not expect material movements in net income going forward.

The most significant judgment for the Group is related to the determination of the lease term. Under IFRS 16, the lease term includes extension periods where it is reasonably certain that a lease extension option will be exercised or that a lease termination option will not be exercised. Judgement is also required to determine the appropriate incremental borrowing rate.

IFRS 9 Financial Instruments

The IASB issued the complete version of IFRS 9 Financial Instruments in July 2014. IFRS 9 combines classification and measurement, the expected credit loss impairment model and hedge accounting. The standard replaces IAS 39 and all previous versions of IFRS

9. Under IFRS 9 Classification and Measurement, financial assets are measured at amortized cost, fair value through profit or loss or fair value through other comprehensive income, based on both the entity s business model for managing the financial assets and the financial asset s contractual cash flow characteristics. The classification and measurement of financial liabilities is unchanged from existing requirements apart from own credit risk. For financial liabilities that are designated at fair value through profit or loss, the changes which are attributable to the change in an entity s own credit risk are presented in other comprehensive income, unless doing so would enlarge or create an accounting mismatch. For the impairment component, the IASB included requirements for a credit loss allowance or provision which should be based on expected losses rather than incurred losses.

Application of IFRS 9 is required for annual periods beginning on or after January 1, 2018. However, on May 18, 2017, the IASB published the final version of the IFRS 17 Insurance Contracts standard. Prior to its finalization, the IASB issued an amendment to IFRS 4 Insurance Contracts (the predecessor standard to IFRS 17) that provides for a qualifying insurer a temporary exemption that permits, but does not require, the insurer to apply IAS 39 Financial Instruments: Recognition and Measurement rather than IFRS 9 for annual periods beginning before January 1, 2021 (i.e., a temporary exemption of IFRS 9). The objective of the amendment is to address the temporary accounting consequences of the different effective dates of IFRS 9 and IFRS 17. However, in November 2018, the IASB agreed to start the process to amend IFRS 17, which could lead to the temporary exemption from IFRS 9 to be extended until January 1, 2022.

An entity is eligible to apply the temporary exemption if the carrying amount of its liabilities connected with insurance activities is

- greater than 90% of the total carrying value of all liabilities; or
- between 80% and 90% of the total carrying value of all its liabilities, and the insurer does not have significant activities unrelated to insurance.

Aegon performed this analysis at December 31, 2015, and concluded that it meets the requirements for the temporary exception as 94% of its liabilities are connected with insurance activities. As a result, Aegon elected to defer implementation of IFRS 9 until January 1, 2021.

As Aegon defers the application of IFRS 9 until 2021, the full impact of the standard is not yet clear, however an initial impact assessment resulted in the expectation that it will have a significant impact on shareholders equity, income and/or other comprehensive income and disclosures. An implementation project has started in 2017 and is combined with the implementation of IFRS17 Insurance Contracts.

By qualifying for and electing the temporary exemption, the IFRS 4 amendment requires certain additional disclosures; specifically, Aegon is required to disclose information to enable users of financial statements to compare insurers applying the temporary exemption with entities applying IFRS 9. This information is presented below:

Fair value changes

The table below presents an overview of the fair value of the classes of financial assets as of December 31, 2018, as well as the change in fair value during the reporting period. The asset classes are divided into two categories:

- SPPI: assets of which cash flows represent solely payments of principal and interest on an outstanding principal amount, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis; and
- Other: all financial assets other than those specified in SPPI:
  - with contractual terms that do not give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding;
  - that meet the definition of held for trading in IFRS 9; or
  - that are managed and whose performance are evaluated on a fair value basis.

Financial assets at fair value		Fair value at the end of the reporting period	Change in fair value during the reporting period
Shares	SPPI	68	(2)
	Other	2,092	87
Debt securities	SPPI	76,283	(2,997)
	Other	4,970	(123)
Money Markets and other short-term investments	SPPI	3,126	-

	Other	3,181	-
Mortgage loans	SPPI	39,758	(1,213)
	Other	-	
Private loans	SPPI	4,452	(63)
	Other	42	(5)
Deposits with financial institutions	SPPI	141	-
	Other	-	-
Policy loans	SPPI	-	
	Other	1,973	-
Other financial assets	SPPI	111	-
	Other	3,637	(210)
At December 31		**139,834**	**(4,525)**

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Cash and cash equivalents, deposits with financial institutions, and receivables all pass the SPPI test and are held at amortized cost, whereby the amortized cost is assumed to approximate fair value due to the short-term nature of the assets. For movement schedules of these financial assets, refer to respective notes.

The fair value at the end of the reporting period in the table reconciles back to the respective table in the fair value note.

Credit Risk

The table below details the credit risk rating grades, as of December 31, 2018, for financial assets with cash flows that are SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis. The tables show the carrying value of those financial assets applying IAS 39 (in the case of financial assets measured at amortized cost, before adjusting for any impairment allowances).

SPPI compliant financial assets at carrying value	AAA	AA	A	BBB	BB	B	CCC or lower	Not Rated	**Total**
Shares Carried at fair value	-	-	-	42	9	17	-	-	68
Debt securities Carried at fair value	25,637	9,224	17,057	20,330	1,480	1,159	1,395	-	76,283
Money market and other short-term investments-carried at fair value	55	158	2,561	351	-	-	-	-	3,126
Mortgage loans Carried at amortized cost	941	3,204	3,567	266	15	-	-	28,647	36,639
Private loans Carried at amortized cost	1,611	83	261	924	52	-	-	1,136	4,068
Other financial assets Carried at fair value	-	-	64	12	44	61	1	70	252
At December 31	**28,244**	**12,670**	**23,510**	**21,925**	**1,601**	**1,237**	**1,396**	**29,853**	**120,436**

As no external ratings are available for residential mortgage loans, the residential portfolio is included under Not rated .

For assets that do not have low credit risk (rated BB or below) and of which cash flows represent SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis, the table below provides the credit risk exposure from the financial assets held by Aegon[1]. The financial assets are categorized by asset class with a carrying amount and fair value measured in accordance with IAS 39 measurement requirements.

SPPI compliant financial assets with no low credit risk	Carrying amount	Fair value
Shares Carried at fair value	26	26
Debt securities Carried at fair value	4,035	4,035
Money market and other short-term investments Carried at fair value	-	-
Mortgage loans Carried at amortized cost	28,661	31,711
Private loans Carried at amortized cost	1,189	1,225
Deposits with financial institutions Carried at amortized cost	70	70
Other financial assets Carried at fair value	106	106
At December 31	**34,087**	**37,173**

Investments in joint ventures and associates

All Aegon s equity accounted investments remain to apply IAS 39. Except AMVEST Vastgoed B.V. (AMVEST), Aegon does not hold any other individually material joint-venture nor associate. As most of AMVEST financial assets are measured at fair value through profit or loss, there is no material difference between the financial statements of AMVEST under IFRS 9 and IAS 39. As the remaining joint ventures and associates are not material on a consolidated level, the additional information required by IFRS 4 for electing the temporary exemption are not disclosed for these entities.

Subsidiaries and joint ventures applying IFRS 9 in their statutory accounts

Information on the adoption of IFRS 9 by principal subsidiaries and joint ventures that for statutory purposes cannot elect to defer the effective date of IFRS 9 can be found in the publicly available statutory annual reports on www.aegon.nl and or Chamber of Commerce.

This information is not part of the audited consolidated financial statements of Aegon N.V.. The related entities are:

- Aegon Bank N.V.
- Aegon Hypotheken B.V.
- Aegon Asset Management Holding B.V.
- Amvest Vastgoed B.V.

[1] Mortgage loans with no low credit risk are defined as being more than 90 days past due, in line with regulatory guidelines.

IFRS 17 Insurance Contracts

The IASB issued IFRS 17 Insurance Contracts in May 2017. The Standard will replace IFRS 4, which was intended as an interim solution and allowed insurers to continue to use accounting principles that they had applied prior to the initial adoption of IFRS. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts issued, reinsurance contracts held and investment contracts with discretionary participating features issued. The objective of the Standard is to ensure that entities provide relevant information in a way that faithfully represents those contracts. This information should provide users of financial statements with a basis to assess the effects that the contracts have on the financial position, financial performance and cash flows of the insurer. The Standard also specifies presentation and disclosure requirements to enhance comparability between insurance companies.

In November 2018, the IASB agreed to start the process to amend IFRS 17 to defer the mandatory effective date of IFRS 17 by one year (original effective date was January 1, 2021). Subject to IASB due process, entities will be required to apply IFRS 17 for annual periods beginning on or after January 1, 2022. The IASB noted that given the considerations to propose amendments to IFRS 17 in June/July 2019, and in light of the criteria for assessing them, any such potential amendments could take a year to finalize. As a consequence of the IFRS 17 deferral, the IASB also agreed to revise the fixed expiry date of the temporary exemption from IFRS 9 in IFRS 4 to allow entities to continue applying the temporary exemption from IFRS 9 until January 1, 2022. The Standard represents a fundamental change to current financial reporting and the implementation effort is expected to be significant. Early adoption of the standard is therefore not expected. An implementation project was started soon after the publication of the new Standard. Currently no choices have been made as to the accounting policy options provided in IFRS 17, however, it is expected that the impact of the initial application on Aegon s financial statements is significant.

2.2 Basis of consolidation

Subsidiaries

The consolidated financial statements include the financial statements of Aegon N.V. and its subsidiaries. Subsidiaries (including consolidated structured entities) are entities over which Aegon has control. Aegon controls an entity when Aegon is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The assessment of control is based on the substance of the relationship between the Group and the entity and, among other things, considers existing and potential voting rights that are substantive. For a right to be substantive, the holder must have the practical ability to exercise that right.

The subsidiary s assets, liabilities and contingent liabilities are measured at fair value on the acquisition date and are subsequently accounted for in accordance with the Group s accounting policies, which is consistent with IFRS. Intra-group transactions, including Aegon N.V. shares held by subsidiaries, which are recognized as treasury shares in equity, are eliminated. Intra-group losses may indicate an impairment that requires recognition in the consolidated financial statements. Non-controlling interests are initially stated at their share in the fair value of the net assets on the acquisition date and subsequently adjusted for the non-controlling share in changes in the subsidiary s equity.

The excess of the consideration paid to acquire the interest and the fair value of any interest already owned, over the Group s share in the net fair value of assets, liabilities and contingent liabilities acquired is recognized as goodwill. Negative goodwill is recognized directly in the income statement. If the fair value of the assets, liabilities and contingent liabilities acquired in the business combination has been determined provisionally, adjustments to these values resulting from the emergence of new evidence within 12 months after the acquisition date are made against goodwill. Aegon recognized contingent considerations either as provision or as financial liability depending on the characteristics. Contingent considerations recognized as provisions are discounted and the unwinding is recognized in the income statement as an interest expense. Any changes in the estimated value of contingent consideration given in a business combination are recognized in the income statement. Contingent considerations recognized as financial liabilities are measured at fair value through profit or loss.

The identifiable assets, liabilities and contingent liabilities are stated at fair value when control is obtained.

Subsidiaries are deconsolidated when control ceases to exist. Any difference between the net proceeds plus the fair value of any retained interest and the carrying amount of the subsidiary including non-controlling interests is recognized in the income statement.

Transactions with non-controlling interests

Transactions with non-controlling interests are accounted for as transactions with owners. Therefore disposals to non-controlling interests and acquisitions from non-controlling interests, not resulting in losing or gaining control of the subsidiary are recorded in equity. Any difference between consideration paid or received and the proportionate share in net assets is accounted for in equity attributable to shareholders of Aegon N.V.

Investment funds

Investment funds managed by the Group in which the Group holds an interest are consolidated in the financial statements if the Group has power over that investment fund and it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. In assessing control, all interests held by the Group in the fund are considered, regardless of whether the financial risk related to the investment is borne by the Group or by the policyholders (unless a direct link between the policyholder and the fund can be assumed).

In determining whether Aegon has power over an investment fund all facts and circumstances are considered, including the following:

- Control structure of the asset manager (i.e. whether an Aegon subsidiary);
- The investment constraints posed by investment mandate;
- Legal rights held by the policyholder to the separate assets in the investment vehicle (e.g. policyholders could have the voting rights related to these investments);
- The governance structure, such as an independent board of directors, representing the policyholders, which has substantive rights (e.g. to elect or remove the asset manager); and
- Rights held by other parties (e.g. voting rights of policyholders that are substantive or not).

Exposure or rights to variability of returns can be the result of, for example:

- General account investment of Aegon;
- Aegon s investments held for policyholder;
- Guarantees provided by Aegon on return of policyholders in specific investment vehicles;
- Fees dependent on fund value (including, but not limited to, asset management fees); and
- Fees dependent on performance of the fund (including, but not limited to, performance fees).

Investment funds where Aegon acts as an agent are not consolidated due to lack of control of the funds. In particular, for some separate accounts, the independent board of directors has substantive rights and therefore Aegon does not have power over these separate accounts but acts as an agent.

For limited partnerships, the assessment takes into account Aegon s legal position (i.e. limited partner or general partner) and any substantive removal rights held by other parties. Professional judgment is applied concerning the substantiveness of the removal rights and the magnitude of the exposure to variable returns, leading to the conclusion that Aegon controls some, but not all, of the limited partnerships in which it participates.

Upon consolidation of an investment fund, a liability is recognized to the extent that the Group is legally obliged to buy back participations held by third parties. The liability is presented in the consolidated financial statements as investment contracts for account of policyholders. Where no repurchase obligation exists, the participations held by third parties are presented as non-controlling interests in equity. The assets allocated to participations held by third parties or by the Group on behalf of policyholders are presented in the consolidated financial statements as investments for account of policyholders.

Equity instruments issued by the Group that are held by investment funds are eliminated on consolidation. However, the elimination is reflected in equity and not in the measurement of the related financial liabilities towards policyholders or other third parties.

Structured entities

A structured entity is defined in IFRS 12 as An entity that has been designed so that voting rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements. In these instances the tests and indicators to assess control provided by IFRS 10 have more focus on the purpose and design of the investee (with relation to the relevant activities that most significantly affect the structured entity) and the exposure to variable returns, which for structured entities lies in interests through e.g. derivatives, and will not be focused on entities that are controlled by voting rights.

Structured entities that are consolidated include certain mortgage backed securitization deals, where Aegon was involved in the design of the structured entities and also has the ability to use its power to affect the amount of the investee s returns. Other factors that contribute to the conclusion that consolidation of these entities is required includes consideration of whether Aegon fully services the investees and can therefore influence the defaults of the mortgage portfolios and the fact that in these cases the majority of risks are maintained by Aegon.

Structured entities that are not consolidated include general account investments in non-affiliated structured entities that are used for investment purposes.

Non-current assets held for sale and disposal groups

Disposal groups are classified as held for sale if they are available for immediate sale in their present condition, subject only to the customary sales terms of such assets and disposal groups and their sale is considered highly probable. Management must be committed to the sale, which is expected to occur within one year from the date of classification as held for sale.

Upon classification as held for sale, the carrying amount of the disposal group (or group of assets) is compared to their fair value less cost to sell. If the fair value less cost to sell is lower than the carrying value, this expected loss is recognized through a reduction of the carrying value of any goodwill related to the disposal group or the carrying value of certain other non-current, non-financial assets to the extent that the carrying value of those assets exceeds their fair value. Any excess of the expected loss over the reduction of the carrying amount of these relevant assets is not recognized upon classification as held for sale, but is recognized as part of the result on disposal if and when a divestment transaction occurs.

Classification into or out of held for sale does not result in restating comparative amounts in the statement of financial position.

2.3 Foreign exchange translation

a. Translation of foreign currency transactions

The Group s consolidated financial statements are presented in euros. Items included in the financial statements of individual group companies are recorded in their respective functional currency which is the currency of the primary economic environment in which each entity operates. Transactions in foreign currencies are initially recorded at the exchange rate prevailing at the date of the transaction.

At the reporting date, monetary assets and monetary liabilities in foreign currencies are translated to the functional currency at the closing rate of exchange prevailing on that date, except for own equity instruments in foreign currencies which are translated using historical exchange rates. Non-monetary items carried at cost are translated using the exchange rate at the date of the transaction, while assets carried at fair value are translated at the exchange rate when the fair value was determined.

Exchange differences on monetary items are recognized in the income statement when they arise, except when they are deferred in other comprehensive income as a result of a qualifying cash flow or net investment hedge. Exchange differences on non-monetary items carried at fair value are recognized in other comprehensive income or the income statement, consistently with other gains and losses on these items.

b. Translation of foreign currency operations

On consolidation, the financial statements of group entities with 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. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are translated at the closing rates on the reporting date.

The resulting exchange differences are recognized in the foreign currency translation reserve , which is part of shareholders equity. On disposal of a foreign entity the related cumulative exchange differences included in the reserve are recognized in the income statement.

2.4 Segment reporting

Reporting segments and segment measures are explained and disclosed in note 5 Segment information.

2.5 Offsetting of assets and liabilities

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis or simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterpart.

2.6 Intangible assets

a. Goodwill

Goodwill is recognized as an intangible asset for interests in subsidiaries and is measured as the positive difference between the acquisition cost and the Group s interest in the net fair value of the entity s identifiable assets, liabilities and contingent liabilities. Subsequently, goodwill is carried at cost less accumulated impairment charges. It is derecognized when the interest in the subsidiary is disposed.

b. Value of business acquired

When a portfolio of insurance contracts is acquired, whether directly from another insurance company or as part of a business combination, the difference between the fair value and the carrying amount of the insurance liabilities is recognized as value of business acquired (VOBA). The Group also recognizes VOBA when it acquires a portfolio of investment contracts with discretionary participation features.

VOBA is amortized over the useful life of the acquired contracts, based on either the expected future premiums, revenues or the expected gross profit margins. The amortization period and pattern are reviewed at each reporting date; any change in estimates is recorded in the income statement. For all products, VOBA, in conjunction with deferred policy acquisition costs (DPAC) where appropriate, is assessed for recoverability using aggregation levels on a geographical jurisdiction basis or at the level of portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. The portion determined not to be recoverable is charged to the income statement. VOBA is considered in the liability adequacy test for each reporting period, for more details refer to 2.19.f Liability adequacy testing.

When unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, VOBA is adjusted to equal the effect that the realization of the gains or losses (through a sale or impairment) would have had on VOBA. The adjustment is recognized in OCI and accumulated in the related revaluation reserve in shareholders equity. VOBA is derecognized when the related contracts are settled or disposed.

c. Future servicing rights

On the acquisition of a portfolio of investment contracts without discretionary participation features under which Aegon will render investment management services, the present value of future servicing rights is recognized as an intangible asset. Future servicing rights can also be recognized on the sale of a loan portfolio or the acquisition of insurance agency activities.

The present value of the future servicing rights is amortized over the servicing period and is subject to impairment testing. It is derecognized when the related contracts are settled or disposed.

Where applicable, Aegon recognizes other intangibles on the acquisition of a business combination such as those related to customer relationships. This can include customer contracts, distribution agreements and client portfolios. For these intangibles the present value of future cash flows are recognized and amortized in the period when future economic benefits arise from these intangibles. These intangible assets are also presented under future servicing rights.

d. Software and other intangible assets

Software and other intangible assets are recognized to the extent that the assets can be identified, are controlled by the Group, are expected to provide future economic benefits and can be measured reliably. The Group does not recognize internally generated intangible assets arising from research or internally generated goodwill, brands, customer lists and similar items.

Software and other intangible assets are carried at cost less accumulated depreciation and impairment losses. Depreciation of the asset is over its useful life as the future economic benefits emerge and is recognized in the income statement as an expense. The depreciation period and pattern are reviewed at each reporting date, with any changes recognized in the income statement.

An intangible asset is derecognized when it is disposed of or when no future economic benefits are expected from its use or disposal.

2.7 Investments

General account investments comprise financial assets, excluding derivatives, as well as investments in real estate.

a. Financial assets, excluding derivatives

Financial assets are recognized at trade date (except for Private placements that are recognized at settlement date) when the Group becomes a party to the contractual provisions of the instruments. All financial assets are classified for accounting purposes depending on the characteristics of the instruments and the purpose for which they were purchased.

Classification

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

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

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

Measurement

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

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

Amortized cost

The amortized cost of a debt instrument is the amount at which it is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization of any difference between the initial amount and the maturity amount, and minus any reduction for impairment. The effective interest rate method is a method of calculating the amortized cost and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the debt instrument or, when appropriate, a shorter period to the net carrying amount of the instrument. When calculating the effective interest rate, all contractual terms are considered. Possible future credit losses are not taken into account. Charges and interest paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts are included in the calculation.

Fair value

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

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

Derecognition

A financial asset is derecognized when the contractual rights to the asset s cash flows expire or when the Group retains the right to receive cash flows from the asset but has an obligation to pay any received cash flows in full without delay to a third party and either: has transferred the asset and substantially all the risks and rewards of ownership, or has neither transferred nor retained all the risks and rewards but has transferred control of the asset. Financial assets of which the Group has neither transferred nor retained significantly all the risk and rewards are recognized to the extent of the Group s continuing involvement. If significantly all risks are retained, the assets are not derecognized.

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

Security lending and repurchase agreements

Financial assets that are lent to a third party or that are transferred subject to a repurchase agreement at a fixed price are not derecognized as the Group retains substantially all the risks and rewards of the asset. A liability is recognized for cash (collateral) received, on which interest is accrued.

A security that has been received under a borrowing or reverse repurchase agreement is not recognized as an asset. A receivable is recognized for any related cash (collateral) paid by Aegon. The difference between sale and repurchase price is treated as investment income. If the Group subsequently sells that security, a liability to repurchase the asset is recognized and initially measured at fair value.

Collateral

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

b. Real estate

Investments in real estate include property held to earn rentals or for capital appreciation, or both. Investments in real estate are presented as Investments . Property that is occupied by the Group and that is not intended to be sold in the near future is classified as real estate held for own use and is presented in Other assets and receivables .

All property is initially recognized at cost. Such cost includes the cost of replacing part of the real estate and borrowing cost for long-term construction projects if recognition criteria are met. Subsequently, investments in real estate are measured at fair value with the changes in fair value recognized in the income statement. Real estate held for own use is carried at its revalued amount, which is the fair value at the date of revaluation less subsequent accumulated depreciation and impairment losses. Depreciation is calculated on a straight line basis over the useful life of a building. Land is not depreciated. On revaluation the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount.

On disposal of an asset, the difference between the net proceeds received and the carrying amount is recognized in the income statement. Any remaining surplus attributable to real estate in own use in the revaluation reserve is transferred to retained earnings.

Maintenance costs and other subsequent expenditure

Expenditure incurred after initial recognition of the asset is capitalized to the extent that the level of future economic benefits of the asset is increased. Costs that restore or maintain the level of future economic benefits are recognized in the income statement as incurred.

2.8 Investments for account of policyholders

Investments held for account of policyholders consist of investments in financial assets as well as investments in real estate.

Investment return on these assets is passed on to the policyholder. Also included are the assets held by consolidated investment funds that are backing liabilities towards third parties. Investments for account of policyholders are valued at fair value through profit or loss.

2.9 Derivatives

a. Definition

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.

Assets and liabilities may include derivative-like terms and conditions. With the exception of features embedded in contracts held at fair value through profit or loss, embedded derivatives that are not considered closely related to the host contract are bifurcated, carried at fair value and presented as derivatives. In assessing whether a derivative-like feature is closely related to the contract in which it is embedded, the Group considers the similarity of the characteristics of the embedded derivative and the host contract. Embedded derivatives that transfer significant insurance risk are accounted for as insurance contracts.

Derivatives with positive values are reported as assets and derivatives with negative values are reported as liabilities. Derivatives for which the contractual obligation can only be settled by exchanging a fixed amount of cash for a fixed amount of Aegon N.V. equity instruments are accounted for in shareholders equity .

b. Measurement

All derivatives recognized on the statement of financial position are carried at fair value.

The fair value is calculated net of the interest accrued to date and is based on market prices, when available. When market prices are not available, other valuation techniques, such as option pricing or stochastic modeling, are applied. The valuation techniques incorporate all factors that market participants would consider and are based on observable market data, to the extent possible.

c. Hedge accounting

As part of its asset liability management, the Group enters into economic hedges to limit its risk exposure. These transactions are assessed to determine whether hedge accounting can and should be applied.

To qualify for hedge accounting, the hedge relationship is designated and formally documented at inception, detailing the particular risk management objective and strategy for the hedge (which includes the item and risk that is being hedged), the derivative that is being used and how hedge effectiveness is being assessed. A derivative has to be highly effective in accomplishing the objective of offsetting either changes in fair value or cash flows for the risk being hedged. The effectiveness of the hedging relationship is evaluated on a prospective and retrospective basis using qualitative and quantitative measures of correlation. Qualitative methods may include comparison of critical terms of the derivative to the hedged item. Quantitative methods include a comparison of the changes in the fair value or discounted cash flow of the hedging instrument to the hedged item. A hedging relationship is considered highly effective if the results of the hedging instrument are within a ratio of 80% to 125% of the results of the hedged item.

For hedge accounting purposes, a distinction is made between fair value hedges, cash flow hedges and hedges of a net investment in a foreign operation.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in the profit and loss account, together with fair value adjustments to the hedged item attributable to the hedged risk. If the hedge relationship no longer meets the criteria for hedge accounting, the cumulative adjustment of the hedged item is, in the case of interest bearing instruments, amortized through the profit and loss account over the remaining term of the original hedge or recognized directly when the hedged item is derecognized.

Cash flow hedges

Cash flow hedges are hedges of the exposure to variability in cash flows that is attributable to a particular risk of a forecasted transaction or a recognized asset or liability and could affect profit or loss. To the extent that the hedge is effective, the change in the fair value of the derivative is recognized in the related revaluation reserve in shareholders equity. Any ineffectiveness is recognized directly in the income statement. The amount recorded in shareholders equity is released to the income statement to coincide with the hedged transaction, except when the hedged transaction is an acquisition of a non-financial asset or liability. In this case, the amount in shareholders equity is included in the initial cost of the asset or liability.

Net investment hedges

Net investment hedges are hedges of currency exposures on a net investment in a foreign operation. To the extent that the hedge is effective, the change in the fair value of the hedging instrument is recognized in the net foreign investment hedging reserve in shareholders equity. Any ineffectiveness is recognized in the income statement. The amount in shareholders equity is released to the income statement when the foreign operation is disposed of.

Hedge accounting is discontinued prospectively for hedges that are no longer considered effective. When hedge accounting is discontinued for a fair value hedge, the derivative continues to be carried on the statement of financial position with changes in its fair value recognized in the income statement. When hedge accounting is discontinued for a cash flow hedge because the cash flow is no longer expected to occur, the accumulated gain or loss in shareholders equity is recognized immediately in the income statement. In other situations where hedge accounting is discontinued for a cash flow hedge, including those where the derivative is sold, terminated or exercised, accumulated gains or losses in shareholders equity are amortized into the income statement when the income statement is impacted by the variability of the cash flow from the hedged item.

2.10 Investments in joint arrangements

In general, joint arrangements are contractual agreements whereby the Group undertakes, with other parties, an economic activity that is subject to joint control. Joint control exists when it is contractually agreed to share control over an economic activity. Joint control exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor has rather than the legal structure of the joint arrangement. Aegon has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

Under the equity method of accounting, interests in joint ventures are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If joint ventures are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group s share in the net assets of the joint venture and is subject to impairment testing. The net assets are determined based on the Group s accounting policies. Any gains and losses recorded in other comprehensive income by the joint venture are recognised in OCI and reflected in other reserves in shareholders equity, while the share in the joint ventures net income is recognized as a separate line item in the consolidated income statement. The Group s share in losses is recognized until the investment in the joint ventures equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the joint ventures are eliminated to the extent of the Group s interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the joint venture are not eliminated.

On disposal of an interest in a joint venture, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

2.11 Investments in associates

Entities over which the Group has significant influence through power to participate in financial and operating policy decisions, but which do not meet the definition of a subsidiary, are accounted for using the equity method. Interests held by venture capital entities, mutual funds and investment funds that qualify as an associate are accounted for as an investment held at fair value through profit or loss. Interests held by the Group in venture capital entities, mutual funds and investment funds that are managed on a fair value basis, are also accounted for as investments held at fair value through profit or loss.

Interests in associates are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If associates are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group s share in the net assets of the associate and is subject to impairment testing. The net assets are determined based on the Group s accounting policies. Any gains and losses recorded in other comprehensive income by the associate are reflected in other reserves in shareholders equity, while the share in the associate s net income is recognized as a separate line item in the consolidated income statement. The Group s share in losses is recognized until the investment in the associate s equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the associate are eliminated to the extent of the Group s interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the associate are not eliminated.

On disposal of an interest in an associate, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

2.12 Reinsurance assets

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.

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.

Aegon is not relieved of its legal liabilities when entering into reinsurance transactions, therefore the reserves relating to the underlying insurance contracts will continue to be reported on the consolidated statement of financial position during the contractual term of the underlying contracts.

Reinsurance premiums, commissions and claim settlements are accounted for in the same way as the original contracts for which the reinsurance was concluded. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.13 Deferred expenses

a. Deferred policy acquisition costs (DPAC)

DPAC relates to all insurance contracts as well as investment contracts with discretionary participation features and represents directly attributable costs that are related to the selling, underwriting and initiating of these insurance contracts.

DPAC are deferred to the extent that they are recoverable and are subsequently amortized based on factors such as expected gross profit margins. For products sold in the United States with amortization based on expected gross profit margins or revenues, the amortization period and pattern are reviewed at each reporting date and any change in estimates is recognized in the income statement. Estimates include, but are not limited to: an economic perspective in terms of future returns on bond and equity instruments, mortality, morbidity and lapse assumptions, maintenance expenses and expected inflation rates.

For all products, DPAC, in conjunction with VOBA where appropriate, is assessed for recoverability at least annually as part of the liability adequacy test for each reporting period. If appropriate, the assumptions included in the determination of estimated gross profits or revenues are adjusted. The portion of DPAC that is determined not to be recoverable is charged to the income statement.

For products sold in the United States, when unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, DPAC is adjusted to equal the effect that the realization of the gains or losses (through sale or impairment) would have had on its measurement. This is recognized in OCI and accumulated in the related revaluation reserve in shareholders equity.

DPAC is derecognized when the related contracts are settled or disposed.

b. Deferred cost of reinsurance

A deferred cost of reinsurance is established when Aegon enters into a reinsurance transaction, except for reinsurance transactions that are entered into as part of a plan to exit a business. When Aegon enters into a reinsurance contract as part of a plan to exit a business, an immediate loss is recognized in the income statement. Upon reinsurance, Aegon is not relieved of its legal liabilities, so the reserves relating to the underlying reinsured contracts will continue to be reported in the consolidated statement of financial position during the contractual term of the underlying contracts.

The difference, if any, between amounts paid in a reinsurance transaction and the amount of the liabilities relating to the underlying reinsured contracts is part of the deferred cost of reinsurance.

When losses on buying reinsurance are deferred, the amortization is based on the assumptions of the underlying insurance contracts. The amortization is recognized in the income statement.

c. Deferred transaction costs

Deferred transaction costs relate to investment contracts without discretionary participation features under which Aegon will render investment management services. Incremental costs that are directly attributable to securing these investment management contracts are recognized as an asset if they can be identified separately and measured reliably and if it is probable that they will be recovered.

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For contracts involving both the origination of a financial liability and the provision of investment management services, only the transaction costs allocated to the servicing component are deferred. The other transaction costs are included in the carrying amount of the financial liability.

The deferred transaction costs are amortized in line with fee income, unless there is evidence that another method better represents the provision of services under the contract. The amortization is recognized in the income statement. Deferred transaction costs are subject to impairment testing at least annually.

Deferred transaction costs are derecognized when the related contracts are settled or disposed.

2.14 Other assets and receivables

Other assets include trade and other receivables, prepaid expenses, equipment and real estate held for own use. Trade and other receivables are initially recognized at fair value and are subsequently measured at amortized cost. Equipment is initially carried at cost, depreciated on a straight line basis over its useful life to its residual value and is subject to impairment testing. The accounting for real estate held for own use is described in note 2.7 Investments.

2.15 Cash and cash equivalents

Cash comprises cash at banks and in-hand. Cash equivalents are short-term, highly liquid investments generally with original maturities of three months or less that are readily convertible to known cash amounts, are subject to insignificant risks of changes in value and are held for the purpose of meeting short-term cash requirements. Money market investments that are held for investment purposes (backing insurance liabilities, investment liabilities or equity based on asset liability management considerations) are not included in cash and cash equivalents but are presented as investments or investments for account of policyholders.

2.16 Impairment of assets

An asset is impaired if the carrying amount exceeds the amount that would be recovered through its use or sale. For tangible and intangible assets, financial assets and reinsurance assets, if not held at fair value through profit or loss, the recoverable amount of the asset is estimated when there are indications that the asset may be impaired. Irrespective of the indications, goodwill and other intangible assets with an indefinite useful life that are not amortized, are tested at least annually.

There are a number of significant risks and uncertainties inherent in the process of monitoring investments and determining if impairment exists. These risks and uncertainties include the risk that the Group s assessment of an issuer s ability to meet all of its contractual obligations will change based on changes in the credit characteristics of that issuer and the risk that the economic outlook will be worse than expected or have more of an impact on the issuer than anticipated. Any of these situations could result in a charge against the income statement to the extent of the impairment charge recorded.

a. Impairment of non-financial assets

Assets are tested individually for impairment when there are indications that the asset may be impaired. For goodwill and intangible assets with an undefined life, an impairment test is performed at least once a year or more frequently as a result of an event or change in circumstances that would indicate an impairment charge may be necessary. The impairment loss is calculated as the difference between the carrying and the recoverable amount of the asset, which is the higher of an asset s value in use and its fair value less cost of disposal. The value in use represents the discounted future net cash flows from the continuing use and ultimate disposal of the asset and reflects its known inherent risks and uncertainties. The valuation utilizes the best available information, including assumptions and projections considered reasonable and supportable by management. The assumptions used in the valuation involve significant judgments and estimates. Refer to note 31 Intangible assets for more details.

Impairment losses are charged to other comprehensive income to the extent that they offset a previously recorded revaluation reserve relating to the same item. Any further losses are recognized directly in the income statement. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/(reversals).

With the exception of goodwill, impairment losses are reversed when there is evidence that there has been a change in the estimates used to determine the asset s recoverable amount since the recognition of the last impairment loss. The reversal is recognized in the income statement to the extent that it reverses impairment losses previously recognized in the income statement. The carrying amount after reversal cannot exceed the amount that would have been recognized had no impairment taken place.

Non-financial assets that only generate cash flows in combination with other assets and liabilities are tested for impairment at the level of the cash-generating unit. The goodwill acquired in a business combination, for the purpose of impairment testing, is allocated to cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination. The allocation is based on the level at which goodwill is monitored internally and cannot be larger than an operating segment. When impairing a cash-generating unit, any goodwill allocated to the unit is first written-off and recognized in the income statement. The remaining impairment loss is allocated on a pro rata basis among the other assets, on condition that the resulting carrying amounts do not fall below the individual assets recoverable amounts.

b. Impairment of debt instruments

Debt instruments are impaired if there is objective evidence that a credit event has occurred after the initial recognition of the asset that has a negative impact on the estimated future cash flows. Individually significant loans and other receivables are first assessed separately. All non-impaired assets measured at amortized cost are then grouped by credit risk characteristics and collectively tested for impairment.

For debt instruments carried at amortized cost, the carrying amount of impaired financial assets is reduced through an allowance account. The impairment loss is calculated as the difference between the carrying and recoverable amount of the investment. The recoverable amount is determined by discounting the estimated probable future cash flows at the original effective interest rate of the asset. For variable interest debt instruments, the current effective interest rate under the contract is applied.

For debt instruments classified as available-for-sale, the asset is impaired to its fair value. Any unrealized loss previously recognized in other comprehensive income is taken to the income statement in the impairment loss. After impairment the interest accretion on debt instruments that are classified as available-for-sale is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Impairment losses recognized for debt instruments can be reversed if in subsequent periods the amount of the impairment loss decreases and that decrease can be objectively related to a credit event occurring after the impairment was recognized. For debt instruments carried at amortized cost, the carrying amount after reversal cannot exceed what the amortized cost would have been at the reversal date, had the impairment not been recognized.

c. Impairment of equity instruments

For equity instruments, objective evidence of impairment of an investment in an equity instrument classified as available-for-sale includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in fair value below initial cost is also considered objective evidence of impairment and always results in a loss being recognized in the income statement. Significant or prolonged decline is defined as an unrealized loss position for generally more than six months or a fair value of less than 80% of the cost price of the investment. Equity investments are impaired to the asset s fair value and any unrealized gain or loss previously recognized in shareholders equity is taken to the income statement as an impairment loss. The amount exceeding the balance of previously recognized unrealized gains or losses is recognized in the income statement. If an available-for-sale equity security is impaired based upon Aegon s qualitative or quantitative impairment criteria, any further declines in the fair value at subsequent reporting dates are recognized as impairments. Therefore, at each reporting period, for an equity security that is determined to be impaired based upon Aegon s impairment criteria, an impairment is recognized for the difference between the fair value and the original cost basis, less any previously recognized impairments.

Impairment losses on equity instruments cannot be reversed.

d. Impairment of reinsurance assets

Reinsurance assets are impaired if there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that not all amounts due under the terms of the contract may be received. In such a case, the value of the reinsurance asset recoverable is determined based on the best estimate of future cash flows, taking into consideration the reinsurer s current and expected future financial conditions plus any collateral held in trust for Aegon s benefit. The carrying value is reduced to this calculated recoverable value, and the impairment loss recognized in the income statement.

2.17 Equity

Financial instruments that are issued by the Group are classified as equity if they represent a residual interest in the assets of the Group after deducting all of its liabilities and the Group has an unconditional right to avoid delivering cash or another financial asset to settle its contractual obligation. In addition to common shares, the Group has issued perpetual securities. Perpetual securities have no final maturity date, repayment is at the discretion of Aegon and for junior perpetual capital securities, Aegon has the option to defer coupon payments at its discretion. The perpetual capital securities are classified as equity rather than debt, are measured at par and those that are denominated in US dollars are translated into euro using historical exchange rates.

Non-cumulative subordinated notes were identified as a compound instrument due to the nature of this financial instrument. For these non-cumulative subordinated notes, Aegon had an unconditional right to avoid delivering cash or another financial asset to settle the coupon payments. The redemption of the principal was however not at the discretion of Aegon and therefore Aegon had a contractual obligation to settle the redemption in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for Aegon. Compound instruments were separated into liability components and equity components. The liability component for the non-cumulative subordinated notes was equal to the present value of the redemption amount and carried at amortized cost using the effective interest rate method. The unwinding of the discount of this component was recognized in the income statement. At initial recognition the equity component was assigned the residual amount after deducting the liability component from the fair value of the instrument as a whole. The equity component in US dollars was translated into euro using historical exchange rates. With effect on May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. As the Group s obligation under the contract has expired, the liability and equity components of the non-cumulative subordinated notes have been derecognised.

Incremental external costs that are directly attributable to the issuing or buying back of own equity instruments are recognized in equity, net of tax. For compound instruments incremental external costs that were directly attributable to the issuing or buying back of the compound instruments were recognized proportionate to the equity component and liability component, net of tax.

Dividends and other distributions to holders of equity instruments are recognized directly in equity, net of tax. A liability for non-cumulative dividends payable is not recognized until the dividends have been declared and approved.

Treasury shares are shares issued by Aegon N.V. that are held by Aegon, one of its subsidiaries or by another entity controlled by Aegon. Treasury shares are deducted from Group equity, regardless of the objective of the transaction. No gain or loss is recognized in the income statement on the purchase, sale, issue or cancellation of the instruments. If sold, the difference between the carrying amount and the proceeds is reflected in retained earnings. The consideration paid or received is recognized directly in shareholders equity. All treasury shares are eliminated in the calculation of earnings per share and dividend per common share.

2.18 Trust pass-through securities and (subordinated) borrowings

A financial instrument issued by the Group is classified as a liability if the contractual obligation must be settled in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for the Group.

Trust pass-through securities and (subordinated) borrowings are initially recognized at their fair value including directly attributable transaction costs and are subsequently carried at amortized cost using the effective interest rate method, with the exception of specific borrowings that are designated as at fair value through profit or loss to eliminate, or significantly reduce, an accounting mismatch, or specific borrowings which are carried as at fair value through profit or loss as they are managed and evaluated on a fair value basis. The liability is derecognized when the Group s obligation under the contract expires, is discharged or is cancelled.

Subordinated borrowings include the liability component of non-cumulative subordinated notes. These notes are identified as a compound instrument due to the nature of this financial instrument. Compound instruments are separated into equity components and liability components. The liability component for the non-cumulative subordinated notes is related to the redemption amount. For further information on the accounting policy of the non-cumulative subordinated notes refer to note 2.17 Equity.

2.19 Insurance contracts

Insurance contracts are accounted for under IFRS 4 Insurance Contracts. In accordance with this standard, Aegon continues to apply the existing accounting policies that were applied prior to the adoption of IFRS with certain modifications allowed by IFRS 4 for standards effective subsequent to adoption. Aegon applies, in general, non-uniform accounting policies for insurance liabilities and insurance related intangible assets to the extent that it was allowed under Dutch Accounting Principles. As a result, specific methodologies applied may differ between Aegon s operations as they may reflect local regulatory requirements and local practices for specific product features in these local markets. At the time of IFRS adoption, Aegon was applying US GAAP for its United States operations whereas in the Netherlands and the United Kingdom, Aegon was applying Dutch Accounting Principles. Since adoption of IFRS, Aegon has considered new and amended standards in those GAAPs which have become effective subsequent to the date of transition to IFRS. If any changes are made to current accounting policies for insurance contracts, these will be in accordance with IFRS 4.

Insurance contracts are contracts under which the Group accepts a significant risk other than a financial risk from a policyholder by agreeing to compensate the beneficiary on the occurrence of an uncertain future event by which he or she will be adversely affected. Contracts that do not meet this definition are accounted for as investment contracts. The Group reviews homogeneous books of contracts to assess whether the underlying contracts transfer significant insurance risk on an individual basis. This is considered the case when at least one scenario with commercial substance can be identified in which the Group has to pay significant additional benefits to the policyholder. Contracts that have been classified as insurance are not reclassified subsequently.

Insurance liabilities are recognized when the contract is entered into and the premiums are charged. The liability is derecognized when the contract expires, is discharged, disposed or cancelled. Within the United States, the Netherlands and the United Kingdom, substantially modified contracts are accounted for as an extinguishment of the original liability and the recognition of a new liability.

Insurance assets and liabilities are valued in accordance with the accounting principles that were applied by the Group prior to the transition to IFRS and with consideration of standards effective subsequent to the date of transition to IFRS, as further described in the following paragraphs. In order to reflect the specific nature of the products written, subsidiaries are allowed to apply local accounting principles to the measurement of insurance contracts. All valuation methods used by the subsidiaries are based on the general principle that the carrying amount of the net liability must be sufficient to meet any reasonably foreseeable obligation resulting from the insurance contracts.

a. Life insurance contracts

Life insurance contracts are insurance contracts with life-contingent benefits. The measurement of the liability for life insurance contracts varies depending on the nature of the product.

Liabilities arising from traditional life insurance products that are offered by Aegon, particularly those with fixed and guaranteed account terms, are typically measured using the net premium method. Under this method the liability is determined as the sum of the discounted value of the expected benefits and future administration expenses directly related to the contract, less the discounted value of the expected theoretical premiums that would be required to meet the future cash outflows based on the valuation assumptions used. The liability is either based on current assumptions or calculated using the assumptions established at the time the contract was issued, in which case a margin for risk and adverse deviation is generally included. Furthermore, the liability for life insurance comprises reserves for unearned premiums and accrued annuity benefits payable.

Depending on local accounting principles, the liability may include amounts for future services on contracts where the policy administration charges are higher in the initial years than in subsequent years.

Terms and conditions, including participation features, are considered when establishing the insurance liabilities. Where the Group has discretion over the amount or timing of the bonuses distributed resulting from participation features, a liability is recognized equal to the amount that is available at the reporting date for future distribution to policyholders.

In establishing the liability, guaranteed minimum benefits issued to the policyholder are measured as described in note 2.19.c Embedded derivatives or, if bifurcated from the host contract, as described in note 2.9 Derivatives.

b. Life insurance contracts for account of policyholders

Life insurance contracts under which the policyholder bears the risks associated with the underlying investments are classified as insurance contracts for account of policyholders.

The liability for the insurance contracts for account of policyholders is measured at the policyholder account balance. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund. If applicable, the liability representing the nominal value of the policyholder unit account is amortized over the term of the contract so that interest on actuarial funding is at an expected rate of return.

c. Embedded derivatives

Life insurance contracts may include derivative-like terms and conditions. With the exception of policyholder options to surrender the contract at a fixed amount, contractual features that are not closely related to the insurance contract and that do not themselves meet the definition of insurance contracts are accounted for as derivatives.

Guaranteed minimum benefits

Certain life insurance contracts, issued by the Group, contain guaranteed minimum benefits. Bifurcated guaranteed minimum benefits are classified as derivatives.

In the United States, the additional liability for guaranteed minimum benefits that are not bifurcated is determined each period by estimating the expected value of benefits in excess of the projected account balance and recognizing the excess over the accumulation period based on total expected assessments. The estimates are reviewed regularly and any resulting adjustment to the additional liability is recognized in the income statement. The benefits used in calculating the liabilities are commonly based on the average benefits payable over a range of stochastic scenarios. Where applicable, the calculation of the liability incorporates a percentage of the potential annuitizations that may be elected by the contract holder.

In the Netherlands, an additional liability is established for guaranteed minimum investment returns on group pension plans with profit sharing and on traditional insurance contracts, with profit sharing based on an external interest index, that are not bifurcated. These guarantees are measured at fair value.

d. Shadow accounting

Shadow accounting allows that all gains and losses on investments affect the measurement of the insurance assets and liabilities in the same way, regardless of whether they are realized or unrealized and regardless of whether the unrealized gains and losses are recognized in the income statement or directly in shareholders equity in the revaluation reserve. In some instances, realized gains or losses on investments have a direct effect on the measurement of the insurance assets and liabilities. For example, some insurance contracts include benefits that are contractually based on the investment returns realized by the insurer. In addition, realization of gains or losses on available-for-sale investments can lead to unlocking of VOBA or DPAC and can also affect the outcome of the liability adequacy test to the extent that it considers actual future investment returns. For similar changes in unrealized gains and losses, shadow accounting is applied. If an unrealized gain or loss triggers a shadow accounting adjustment to VOBA, DPAC or the insurance liabilities, the corresponding adjustment is recognized through other comprehensive income in the revaluation reserve, together with the unrealized gain or loss.

Some profit sharing schemes issued by the Group entitle the policyholder to a bonus which is based on the actual total return on specific assets held. To the extent that the bonus relates to gains or losses on available-for-sale investments for which the unrealized gains or losses are recognized through other comprehensive income in the revaluation reserve in shareholders equity, shadow accounting is applied. This means that the increase in the liability is also charged through other comprehensive income to shareholders equity to offset the unrealized gains rather than to the income statement.

e. Non-life insurance contracts

Non-life insurance contracts are insurance contracts where the insured event is not life-contingent. For non-life products the insurance liability generally includes reserves for unearned premiums, unexpired risk, inadequate premium levels and outstanding claims and benefits. No catastrophe or equalization reserves are included in the measurement of the liability.

The reserve for unearned premiums includes premiums received for risks that have not yet expired. Generally, the reserve is released over the coverage period of the premium and is recognized as premium income.

The liability for outstanding claims and benefits is established for claims that have not been settled and any related cash flows, such as claims handling costs. It includes claims that have been incurred but have not been reported to the Group. The liability is calculated at the reporting date using statistical methods based on empirical data and current assumptions that may include a margin for adverse deviation. Liabilities for claims subject to periodic payment are calculated using actuarial methods consistent with those applied to life insurance contracts. Discounting is applied if allowed by the local accounting principles used to measure the insurance liabilities. Discounting of liabilities is generally applied when there is a high level of certainty concerning the amount and settlement term of the cash outflows.

f. Liability adequacy testing

At each reporting date, the adequacy of the life insurance liabilities (including life insurance contracts for account of policyholders), net of VOBA and DPAC, is assessed using a liability adequacy test.

All tests performed within the Group are based on current estimates of all contractual future cash flows, including related cash flows from policyholder options and guarantees. A number of valuation methods are applied, including discounted cash flow methods, option pricing models and stochastic modeling. Aggregation levels are set either on geographical jurisdiction or at the level of portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. Specifically, in the Netherlands the liability adequacy test is performed on a consolidated basis for all life and non-life business, whereas in the Americas and the UK it is performed at the level of the portfolio of contracts. To the extent that the tests involve discounting of future cash flows, the interest rate applied is based on market rates or is based on management s expectation of the future return on investments. These future returns on investments take into account management s best estimate related to the actual investments and, where applicable, reinvestments of these investments at maturity. Aegon the Netherlands, as required locally, adjusts the outcome of the liability adequacy test for the difference between the fair value and the book value of the assets that are measured at amortized cost in the statement of financial position.

To the extent that the account balances are insufficient to meet future benefits and expenses, any resulting deficiency is recognized in the income statement, initially by impairing the DPAC and VOBA and subsequently by establishing an insurance liability for the remaining loss, unless shadow loss recognition has taken place. In the Netherlands, in situations where market interest rates for the valuation of debt securities leads to a change in the revaluation reserve, and where the result of using the same assumptions for the liabilities could lead to a deficiency in the liability adequacy test that should be recognized in the income statement, shadow loss recognition is applied. Shadow loss recognition is applied to the extent that the deficiency of the insurance liabilities relates to the revaluation of debt securities as a result of movements in interest rates, the addition to the insurance liabilities is then offset against the revaluation reserve. If in subsequent periods such a deficiency of the insurance liability is no longer applicable, shadow loss recognition is reversed via the revaluation reserve.

The adequacy of the non-life insurance liability is tested at each reporting date. Changes in expected claims that have occurred, but that have not been settled, are reflected by adjusting the liability for claims and future benefits. The reserve for unexpired risk is increased to the extent that the future claims and expenses in respect of current insurance contracts exceed the future premiums plus the current unearned premium reserve.

2.20 Investment contracts

Aegon conducts its operations through the following reporting segments:

Contracts issued by the Group that do not transfer significant insurance risk, but do transfer financial risk from the policyholder to the Group are accounted for as investment contracts. Depending on whether the Group or the policyholder runs the risks associated with the investments allocated to the contract, the liabilities are classified as investment contracts or as investment contracts for account of policyholders. Investment contract liabilities are recognized when the contract is entered into and are derecognized when the contract expires, is discharged, cancelled or substantially modified.

a. Investment contracts with discretionary participation features

Some investment contracts have participation features whereby the policyholder has the right to receive potentially significant additional benefits which are based on the performance of a specified pool of investment contracts, specific investments held by the Group or on the issuer s net income. If the Group has discretion over the amount or timing of the distribution of the returns to policyholders, the investment contract liability is measured based on the accounting principles that apply to insurance contracts with similar features.

Some unitized investment contracts provide policyholders with the option to switch between funds with and without discretionary participation features. The entire contract is accounted for as an investment contract with discretionary participation features if there is evidence of actual switching resulting in discretionary participation benefits that are a significant part of the total contractual benefits.

b. Investment contracts without discretionary participation features

At inception, investment contracts without discretionary participation features are carried at amortized cost.

Investment contracts without discretionary participation features are carried at amortized cost based on the expected cash flows and using the effective interest rate method. The expected future cash flows are re-estimated at each reporting date and the carrying amount of the financial liability is recalculated as the present value of estimated future cash flows using the financial liability s original effective interest rate. Any adjustment is immediately recognized in the income statement. For these investment contracts deposit accounting is applied, meaning that deposits are not reflected as premium income, but are recognized as part of the financial liability.

The consolidated financial statements provide information on the fair value of all financial liabilities, including those carried at amortized cost. As these contracts are not quoted in active markets, their value is determined by using valuation techniques, such as discounted cash flow methods and stochastic modeling. For investment contracts without discretionary participation features that can be cancelled by the policyholder, the fair value cannot be less than the surrender value.

c. Investment contracts for account of policyholders

Investment contracts for account of policyholders are investment contracts for which the actual return on investments allocated to the contract is passed on to the policyholder. Also included are participations held by third parties in consolidated investment funds that meet the definition of a financial liability.

Investment contracts for account of policyholders are designated at fair value through profit or loss. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund.

For unit-linked contracts without discretionary participation features and subject to actuarial funding, the Group recognizes a liability at the funded amount of the units. The difference between the gross value of the units and the funded value is treated as an initial fee paid by the policyholder for future asset management services and recognized as a deferred revenue liability, refer to note 2.23 Deferred gains.

2.21 Provisions

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. Management exercises judgment in evaluating the probability that a loss will be incurred.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the reporting date, considering all its inherent risks and uncertainties, as well as the time value of money. The estimate of the amount of a loss requires management judgment in the selection of a proper calculation model and the specific assumptions related to the particular exposure. The unwinding of the effect of discounting is recorded in the income statement as an interest expense.

Onerous contracts

With the exception of insurance contracts and investment contracts with discretionary participation features for which potential future losses are already considered in establishing the liability, a provision is recognized for onerous contracts in which the unavoidable costs of meeting the resulting obligations exceed the expected future economic benefits. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfill it.

2.22 Assets and liabilities relating to employee benefits

a. Short-term employee benefits

A liability is recognized for the undiscounted amount of short-term employee benefits expected to be settled within one year after the end of the period in which the service was rendered. Accumulating short-term absences are recognized over the period in which the service is provided. Benefits that are not service-related are recognized when the event that gives rise to the obligation occurs.

b. Post-employment benefits

The Group has issued defined contribution plans and defined benefit plans. A plan is classified as a defined contribution plan when the Group has no further obligation than the payment of a fixed contribution. All other plans are classified as defined benefit plans.

Defined contribution plans

The contribution payable to a defined contribution plan for services provided is recognized as an expense in the income statement. An asset is recognized to the extent that the contribution paid exceeds the amount due for services provided.

Defined benefit plans

Measurement

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 variables. 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. To the extent that actual experience deviates from these assumptions, the valuation of defined benefit plans and the level of pension expenses recognized in the future may be affected. Plan improvements (either vested or unvested) are recognized in the income statement at the date when the plan improvement occurs.

Plan assets are qualifying insurance policies and assets held by long-term employee benefit funds that can only be used to pay the 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.

Profit or loss recognition

The cost of the defined benefit plans are determined at the beginning of the year and comprise the following components:

- Current year service cost which is recognized in profit or loss; and
- Net interest on the net defined benefit liability (asset) which is recognized in profit or loss.

Remeasurements of the net defined benefit liability (asset) which is recognized in other comprehensive income are revisited quarterly and shall not be reclassified to profit or loss in a subsequent period.

Deducted from current year service cost are discretionary employee contributions and employee contributions that are linked to service (those which are independent of the number of years of service). Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the applicable discount rate. Net interest on the net defined benefit liability (asset) comprises interest income on plan assets and interest cost on the defined benefit obligation. Whereby interest income on plan assets is a component of the return on plan assets and is determined by multiplying the fair value of the plan assets by the applicable discount rate. The difference between the interest income on plan assets and the actual return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

Remeasurements of the net defined benefit liability (asset) comprise of:

- Actuarial gains and losses;
- The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Past service cost and gains or losses on settlements

Past service cost is the change in the present value of the defined benefit obligation for employee service, resulting from a plan amendment or curtailment.

Gains or losses on curtailments or settlements of a defined benefit plan comprise of the difference between:

- The present value of the defined benefit obligation being settled, as determined on the date of settlement; and

The settlement price, including any plan assets transferred and any payments made directly by Aegon in connection with the settlement.

Aegon recognizes (in the income statement) gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs.

c. Share-based payments

The Group has issued share-based plans that entitle employees to receive equity instruments issued by the Group or cash payments based on the price of Aegon N.V. common shares. Some plans provide employees of the Group with the choice of settlement.

For long-term share-based plans where employees are granted the conditional right to receive Aegon shares if certain performance indicators are met and depending on continued employment of the individual employee, expenses recognized are based on the fair value on the grant date of the shares. The fair value is measured at the market price of the entities shares, adjusted to take into account the terms and conditions upon which the shares were granted. For example, where the employee is not entitled to receive dividends during the vesting period, this factor is taken into account when estimating the fair value of the shares granted. For the determination of factors such as expected dividends, market observable data has been considered.

The cost for long term incentive plans are recognized in the income statement, together with a corresponding increase in shareholders equity, as the services are rendered. During this period the cumulative expense recognized at the reporting date reflects management s best estimate of the number of shares expected to vest ultimately. For cash settled components (such as net settled component of long-term share-based plans) a liability will be recognized using the fair value of the equity settled award based on the elapsed portion of the vesting period. For modifications of the terms and conditions of equity-settled plans that result in those plans to be classified as cash-settled plans, the liability is recognized using the fair value measured at the modification date. The liability is remeasured at each reporting date and at the date of settlement, with any changes in fair value recognized in the income statement.

The withholding of shares to fund the payment to the tax authority in respect of the employee s withholding tax obligation associated with the share-based payment is accounted for as a deduction from equity for the shares withheld, except to the extent that the payment exceeds the fair value at the net settlement date of the equity instruments withheld.

2.23 Deferred gains

Initial fees and front-end loadings paid by policyholders and other clients for future investment management services related to investment contracts without discretionary participation features are deferred and recognized as revenue when the related services are rendered.

2.24 Tax assets and liabilities

a. Current tax receivables and payables

Tax receivables and payables for current and prior periods are measured at the amount that is expected to be received from or paid to the taxation authorities and that reflects uncertainty to income taxes, if any. Measurement is done using the tax rates that have been enacted or substantively enacted by the reporting date.

b. Deferred tax assets and liabilities

Deferred tax assets and liabilities are recognized for the estimated future tax effects of temporary differences between the carrying value of an item and its tax value, with the exception of differences arising from the initial recognition of goodwill and of assets and liabilities that do not impact taxable or accounting profits. A tax asset is recognized for tax loss carryforwards to the extent that it is probable at the reporting date that future taxable profits will be available against which the unused tax losses and unused tax credits can be utilized.

Deferred tax liabilities relating to investments in subsidiaries, associates and joint ventures are not recognized if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the difference will not be reversed in the foreseeable future.

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

Deferred tax assets and liabilities are recognized in relation to the underlying transaction either in profit and loss, other comprehensive income or directly in equity.

2.25 Contingent assets and liabilities

Contingent assets are disclosed in the notes if the inflow of economic benefits is probable, but not virtually certain. When the inflow of economic benefits becomes virtually certain, the asset is no longer contingent and its recognition is appropriate.

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. If the outflow of economic benefits is not probable, a contingent liability is disclosed, unless the possibility of an outflow of economic benefits is remote.

2.26 Premium income

Gross premiums, including recurring and single premiums, from life and non-life insurance and investment contracts with discretionary participation features are recognized as revenue when they become receivable. For products where deposit accounting is required, the deposits are not reflected as premium income, but are recognized as part of the financial liability. For these products the surrender charges and charges assessed have been included in gross premiums.

Premium loadings for installment payments and additional payments by the policyholder towards costs borne by the insurer are included in the gross premiums. Rebates that form part of the premium rate, such as no-claim rebates, are deducted from the gross premium, others are recognized as an expense. Depending on the applicable local accounting principles, bonuses that are used to increase the insured benefits may be recognized as gross premiums. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.27 Investment income

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.

2.28 Fee and commission income

Fees and commissions from investment management services and mutual funds are performed on an ongoing basis evenly throughout the year and are accounted for monthly (1/12 of the contractual agreement). Performance fees may be charged to policyholders in the event of outperformance in the investments compared to predefined benchmark levels. They are accounted for only when specified hurdles for generating performance fees are achieved i.e. when the full performance obligation is met.

Aegon acts also as an insurance broker selling insurance contracts of other insurance companies to policyholders and receiving direct sales commission as well as commissions over time when the same policyholders renew their contracts. These commissions are recognized only when received as policyholders renewals are not certain enough to be recorded upfront.

2.29 Policyholder claims and benefits

Policyholder claims and benefits consist of claims and benefits paid to policyholders, including benefits in excess of account value for products for which deposit accounting is applied and the change in the valuation of liabilities for insurance and investment contracts. It includes internal and external claims handling costs that are directly related to the processing and settlement of claims. Amounts receivable in respect of salvage and subrogation are also considered.

2.30 Results from financial transactions

Results from financial transactions include:

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives include fair value changes of financial assets carried at fair value through profit or loss. The net gains and losses do not include interest or dividend income.

Realized gains and losses on financial investments

Gains and losses on financial investments include realized gains and losses on general account financial assets, other than those classified as at fair value through profit or loss.

Net fair value change of derivatives

All changes in fair value are recognized in the income statement, unless the derivative has been designated as a hedging instrument in a cash flow hedge or a hedge of a net investment in a foreign operation. Fair value movements of fair value hedge instruments are offset by the fair value movements of the hedged item, and the resulting hedge ineffectiveness, if any, is included in this line. In addition, the fair value movements of bifurcated embedded derivatives are included in this line.

Net fair value change on for account of policyholder financial assets at fair value through profit or loss

Net fair value change on for account of policyholder financial assets at fair value through profit or loss includes fair value movements of investments held for account of policyholders (refer to note 2.8 Investments for account of policyholders). The net fair value change does not include interest or dividend income.

Other

In addition, results from financial transactions include gains/losses on real estate (general account and account of policyholders), net foreign currency gains/(losses) and net fair value change on borrowings and other financial liabilities and realized gains on repurchased debt.

2.31 Impairment charges/(reversals)

Impairment charges and reversals include impairments and reversals on investments in financial assets, impairments and reversals on the valuation of insurance assets and other non-financial assets and receivables. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/(reversals). Refer to note 15 Impairment charges/(reversals).

2.32 Interest charges and related fees

Interest charges and related fees includes interest expense on trust pass-through securities and other borrowings. Interest expense on trust pass-through securities and other borrowings carried at amortized cost is recognized in profit or loss using the effective interest method.

2.33 Leases

Arrangements that do not take the form of a lease but convey a right to use an asset in return for a payment are assessed at inception to determine whether they are, or contain, a lease. This involves an assessment of whether fulfillment of the arrangement is dependent on the use of a specific asset and whether the purchaser (lessee) has the right to control the use of the underlying asset.

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.

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.

2.34 Events after the reporting period

The financial statements are adjusted to reflect events that occurred between the reporting date and the date when the financial statements are authorized for issue, provided they give evidence of conditions that existed at the reporting date.

Events that are indicative of conditions that arose after the reporting date are disclosed, but do not result in an adjustment of the financial statements themselves.

3 Critical accounting estimates and judgment in applying accounting policies

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs (please refer to paragraph 2.13), value of business acquired and other purchased intangible assets (please refer to paragraph 2.6), goodwill (please refer to paragraph 2.6), policyholder claims and benefits (please refer to paragraph 2.29), insurance guarantees (please refer to paragraph 2.19), pension plans (please refer to paragraph 2.22), income taxes (please refer to paragraph 2.24) and the potential effects of resolving litigation matters (please refer to paragraph 2.25). Accounting policies that are critical to the financial statement presentation and that require complex estimates or significant judgment are described in the following sections.

Valuation of assets and liabilities arising from life insurance contracts

The liability for life insurance contracts with guaranteed or fixed account terms is either based on current assumptions, on the assumptions established at inception of the contract, reflecting the best estimates at the time increased with a margin for adverse deviation or on the valuation assumptions (historical cost), without risk margin. All contracts are subject to liability adequacy testing which reflects management s current estimates of future cash flows (including investment returns). To the extent that the liability is based on current assumptions, a change in assumptions will have an immediate impact on the income statement. Also, if a change in assumption results in not passing the liability adequacy test, the entire deficiency is recognized in the income statement.

To the extent that the deficiency relates to unrealized gains and losses on available-for-sale investments, the additional liability is recognized in the related revaluation reserve in shareholders equity.

Some insurance contracts without a guaranteed or fixed contractual term contain guaranteed minimum benefits. Depending on the nature of the guarantee, it may either be bifurcated and presented as a derivative or be reflected in the value of the insurance liability in accordance with local accounting principles. Given the dynamic and complex nature of these guarantees, stochastic techniques under a variety of market return scenarios are often used for measurement purposes. Such models require management to make numerous estimates based on historical experience and market expectations. Changes in these estimates will immediately affect the income statement.

In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force are recorded as DPAC and VOBA assets respectively, and are amortized to the income statement over time. If the assumptions relating to the future profitability of these policies are not realized, the amortization of these costs could be accelerated and may require write-offs due to unrecoverability.

Actuarial and economic assumptions

The main assumptions used in measuring DPAC, VOBA and the liabilities for life insurance contracts with fixed or guaranteed terms relate to mortality, morbidity, investment return and future expenses. Depending on local accounting principles, surrender, lapse, and utilization rates may be considered.

Mortality tables applied are generally developed based on a blend of company experience and industry wide studies, taking into consideration product characteristics, own risk selection criteria, target market and past experience. Mortality experience is monitored through regular studies, the results of which are fed into the pricing cycle for new products and reflected in the liability calculation when appropriate. For contracts insuring survivorship or mortality, allowance may be made for further longevity or mortality improvements. Morbidity assumptions are based on own claims severity and frequency experience, adjusted where appropriate for industry information.

Investment assumptions are prescribed by the local regulator, market observable or based on management s future expectations. In the latter case, the anticipated future investment returns are set by management on a countrywide basis, considering available market information and economic indicators. A significant assumption related to estimated gross profits on variable annuities and variable life insurance products in the United States and some of the smaller countries, is the annual long-term growth rate of the underlying assets. The reconsideration of this assumption may affect the original DPAC or VOBA amortization schedule, referred to as DPAC or VOBA unlocking. The difference between the original DPAC or VOBA amortization schedule and the revised schedule, which is based on actual and estimates of future gross profits, is recognized in the income statement as an expense or a benefit in the period of determination.

Assumptions on future expenses are based on the current level of expenses, adjusted for expected expense inflation if appropriate. In Aegon the Netherlands, the expense basis makes an allowance for planned future cost savings, which are included in the liability adequacy test.

Surrender and lapse rates depend on product features, policy duration and external circumstances such as the interest rate environment and competitor behavior. For policies with account value guarantees based on equity market movements, a dynamic lapse assumption is utilized to reflect policyholder behavior based on whether the guarantee is in the money. Own experience, as well as industry published data, are used in establishing assumptions. Lapse experience is correlated to mortality and morbidity levels, as higher or lower levels of surrenders may indicate future claims will be higher or lower than anticipated. Such correlations are accounted for in the mortality and morbidity assumptions based on the emerging analysis of experience.

Actuarial assumption and model updates

Assumptions are reviewed periodically, historically in the third quarter, but now in the second quarter for the US and Asia and in the fourth quarter for Europe, based on historical experience, observable market data, including market transactions such as acquisitions and reinsurance transactions, anticipated trends and legislative changes. Similarly, the models and systems used for determining our liabilities are reviewed periodically and, if deemed necessary, updated based on emerging best practices and available technology.

During 2018, Aegon implemented actuarial assumption and model updates resulting in a net EUR 121 million charge to income before tax (2017: EUR 276 million charge). Refer to note 5 Segment information for further details.

For the years 2016 through 2018, Aegon kept its long-term equity market return assumption for the estimated gross profits on variable life and variable annuity products in the Americas at 8%. During the three year period, the long-term assumption for 10-year US Treasury yields was 4.25% and the uniform grading period was 10 years. Aegon s assumed returns for US separate account bond funds are 4% over the next 10 years and 6% thereafter. The long term credit spread assumption, net of assumed defaults and expenses, on our most common corporate bonds is 114bps. The 90-day Treasury yield was 2.37%, 1.39%, and 0.51% at December 31, 2018, 2017 and 2016, respectively. During the period 2016 to 2018 the 90-day Treasury yield was assumed to have a uniform grading over 10 years to 2.5%. On a quarterly basis, the estimated gross profits are updated for the difference between the estimated market return and the actual market return.

Sensitivity on variable annuities and variable life insurance products in the United States

A 1% decrease in the expected long-term equity growth rate with regard to Aegon s variable annuities and variable life insurance products in the United States would result in a decrease in DPAC and VOBA balances and reserve strengthening of approximately EUR 148 million (2017: EUR 130 million). The DPAC and VOBA balances for these products in the United States amounted to EUR 2.6 billion at December 31, 2018 (2017: EUR 2.7 billion).

A relative increase of 10% to the mortality assumption was used, dependent on product and characteristics of the block of business, would reduce net income by approximately EUR 207 million (2017: EUR 265 million). A relative 20% increase in the lapse rate assumption would increase net income by approximately EUR 89 million (2017: EUR 78 million).

Any reasonably possible changes in the other assumptions Aegon uses to determine EGP margins (i.e. maintenance expenses) would reduce net income by less than EUR 9 million (2017: EUR 15 million).

Sensitivity on long term care products (LTC) in the United States

Sensitivities of significant product liability assumptions on the LTC IFRS after-tax Gross Present Value Reserve (GPV) margin are indicated below. The GPV is the liability as determined on a best estimate assumption basis. Until an assumption change is of significant amount to breach the current margin of EUR 35 million (loss recognition block of LTC), there will be no IFRS financial impact (2017: EUR 17 million). The GPV margin is the amount by which the IFRS reserve exceeds the GPV liability.

A 5% increase in the incidence rates with regard to Aegon s long term care products would result in a GPV increase of approximately EUR 170 million. A 5% decrease in the incidence rates with regard to Aegon s long term care products would result in a GPV decrease of approximately EUR 170 million.

Removing the morbidity improvement, which is a component of the incidence assumption, would result in a GPV increase of approximately EUR 500 million, of which EUR 425 million relates to the loss recognition block.

Reducing mortality 10% would result in a GPV increase of approximately EUR 85 million. Increasing mortality 10% would result in a GPV decrease of approximately EUR 85 million.

Removing future mortality improvement would result in a GPV decrease of approximately EUR 85 million.

Determination of fair value and fair value hierarchy

The following is a description of Aegon s methods of determining fair value, and a quantification of its exposure to assets and liabilities measured at 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:

- 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.

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.

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. Additional information is provided in the table headed Effect of changes in significant unobservable assumptions to reasonably possible alternatives in note 47 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.

4 Financial risks

General

As an insurance group, Aegon is exposed to a variety of risks. Aegon s largest exposures are to changes in financial markets (e.g. foreign currency, interest rate, credit and equity market risks) that affect the value of the investments, liabilities from products that Aegon sells, deferred expenses and value of business acquired. Other risks include insurance related risks, such as changes in mortality and morbidity, which are discussed in note 36 Insurance contracts. Aegon manages risk at local level where business is transacted, based on principles and policies established at the Group level. Aegon s integrated approach to risk management involves similar measurement of risk and scope of risk coverage to allow for aggregation of the Group s risk position.

To manage its risk exposure, Aegon has risk policies in place. Many of these policies are group-wide while others are specific to the unique situation of local businesses. 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 financial derivative instruments). 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.

Aegon operates a Derivative Use Policy to govern its usage of derivatives. This policy establishes the control, authorization, execution and monitoring requirements of the usage of such instruments. In addition, the policy stipulates necessary mitigation of credit risk created through derivatives management tools. For derivatives, counterparty credit risk is normally mitigated by requirements to post collateral via credit support annex agreements or through a central clearinghouse.

As part of its risk management programs, Aegon takes inventory of its current risk position across risk categories. Aegon also measures the sensitivity of net income and shareholders equity 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.

Results of Aegon s sensitivity analyses are presented throughout this section to show the estimated sensitivity of net income and shareholders equity to various scenarios. For each type of market risk, the analysis shows how net income and shareholders equity would have been affected by changes in the relevant risk variable that were reasonably possible at the reporting date. For each sensitivity test the impact 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.

Each sensitivity analysis reflects the extent to which the shock tested would affect management s critical accounting estimates and judgment in applying Aegon s accounting policies. Market-consistent assumptions underlying the measurement of non-listed assets and liabilities are adjusted to reflect the shock tested. The shock may also affect the measurement of assets and liabilities based on assumptions that are not observable in the market. For example, a shock in interest rates may lead to changes in the amortization schedule of DPAC or to increased impairment losses on equity investments. Although management s short-term assumptions may change if there is a reasonably possible change in a risk factor, long-term assumptions will generally not be revised unless there is evidence that the movement is permanent. This fact is reflected in the sensitivity analyses.

The accounting mismatch inherent in IFRS is also apparent in the reported sensitivities. A change in interest rates has an immediate impact on the carrying amount of assets measured at fair value. However, the shock will not have a similar effect on the carrying amount of the related insurance liabilities that are measured based on locked-in assumptions or on management s long-term expectations. Consequently, the different measurement bases for assets and liabilities lead to increased volatility in IFRS net income and shareholders equity. Aegon has classified a significant part of its investment portfolio as available-for-sale , which is one of the main reasons why the economic shocks tested have a different impact on net income than on shareholders equity. Unrealized gains and losses on these assets are not recognized in the income statement but are booked directly to the revaluation reserves in shareholders equity, unless impaired. As a result, economic sensitivities predominantly impact shareholders equity but leave net income unaffected. The effect of movements of the revaluation reserve on capitalization ratios and capital adequacy are minimal. Aegon s target ratio for the composition of its capital base is based on shareholders equity excluding the revaluation reserve.

The sensitivities do not reflect what the net income for the period would have been if risk variables had been different because the analysis is based on the exposures in existence at the reporting date rather than on those that actually occurred during the year. Nor are the results of the sensitivities intended to be an accurate prediction of Aegon s future shareholders equity or earnings. The analysis does not take into account the impact of future new business, which is an important component of Aegon s future earnings. It also does 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 since effects do not tend to be linear.

Concentration risk for financial risks are measured and managed at the following levels:

- Concentration per risk type: Risk exposures are measured per risk type as part of Aegon s internal economic framework. A risk tolerance framework is in place which sets risk limits per risk type to target desired risk balance and promote diversification across risk types;
- Concentration per counterparty: Risk exposure is measured and risk limits are in place per counterparty as part of the Counterparty Name Limit Policy; and
- Concentration per sector, geography and asset class: Aegon s investment strategy is translated in investment mandates for its internal and external asset managers. Through these investment mandates limits on sector, geography and asset class are set. Compliance monitoring of the investment mandates is done by the insurance operating companies.

Moreover, concentration of financial risks are measured in Aegon business planning cycle. As part of business planning, the resilience of Aegon s business strategy is tested in several extreme event scenarios. In the Adverse Financial scenario, financial markets are stressed without assuming diversification across different market factors. Within the projection certain management actions may be implemented when management deems this necessary.

Aegon s significant financial risks and related financial information are explained in the order as follows:

- Credit risk
- Equity market risk and other investment risks
- Interest rate risk
- Currency exchange risk
- Liquidity risk

Credit risk

As premiums and deposits are received, these funds are invested to pay for future policyholder obligations. For general account products, Aegon typically bears the risk for investment performance which is equal to the return of principal and interest. Aegon is exposed to credit risk on its general account fixed-income portfolio (debt securities, mortgages and private placements), over-the-counter derivatives and reinsurance contracts. Some issuers have defaulted on their financial obligations for various reasons, including bankruptcy, lack of liquidity, downturns in the economy, downturns in real estate values, operational failure and fraud. During financial downturns, Aegon can incur defaults or other reductions in the value of these securities and loans, which could have a materially adverse effect on Aegon s business, results of operations and financial condition. Investments for account of policyholders are excluded as the policyholder bears the credit risk associated with the investments.

The table that follows shows the Group s maximum exposure to credit risk from investments in general account financial assets, as well as general account derivatives and reinsurance assets, collateral held and net exposure. Please refer to note 49 Transfer of financial assets for further information on collateral given, which may expose the Group to credit risk.

2018	**Maximum exposure to credit risk**	Cash	Securities	Letters of credit/ guarantees	Real estate property	Master netting agreements	Other	**Total collateral**	Surplus collateral (or over-collateralization)	**Net exposure**
Debt securities carried at fair value	81,253	-	-	169	-	-	-	169	-	81,084
Debt securities carried at amortized cost	-	-	-	-	-	-	-	-	-	-
	6,307	-	484	-	-	-	-	484	29	5,852

Money market and other short-term investments carried at fair value										
Mortgage loans carried at amortized cost	36,240	2,535	-	136	57,009	-	-	59,680	23,589	149
Private loans carried at amortized cost	4,103	45	-	-	-	-	-	45	-	4,058
Other loans carried at amortized cost	2,310	-	-	-	-	-	1,960	1,960	1,238	1,589
Other financial assets carried at fair value	3,551	-	-	-	-	-	-	-	-	3,551
Derivatives	7,337	2,627	233	31	-	4,606	-	7,496	225	66
Reinsurance assets	20,505	-	4,035	104	-	-	-	4,139	-	16,366
At December 31	**161,607**	**5,207**	**4,752**	**439**	**57,009**	**4,606**	**1,960**	**73,972**	**25,081**	**112,715**

2017	Maximum exposure to credit risk	Cash	Securities	Letters of credit/ guarantees	Real estate property	Master netting agreements	Other	Total collateral	Surplus collateral (or overcollateralization)	Net exposure
Debt securities carried at fair value	84,344	-	-	242	-	-	-	242	-	84,102
Debt securities carried at amortized cost	-	-	-	14	-	-	-	14	-	(14)
Money market and other short-term investments carried at fair value	6,809	-	719	-	-	-	-	719	25	6,115
Mortgage loans carried at amortized cost	33,562	2,437	-	379	49,756	-	-	52,573	19,271	260
Private loans carried at amortized cost	3,642	79	-	-	-	-	-	79	-	3,563
Other loans carried at amortized cost	2,164	-	-	-	-	-	1,886	1,886	1,195	1,473
Other financial assets carried at fair value	2,586	-	-	-	-	-	-	-	-	2,586
Derivatives	5,563	647	56	29	-	4,867	-	5,599	85	48
Reinsurance assets	19,200	-	4,395	137	-	-	-	4,532	-	14,667
At December 31	**157,869**	**3,163**	**5,171**	**801**	**49,756**	**4,867**	**1,886**	**65,644**	**20,576**	**112,800**

Debt securities

Several bonds in Aegon s Americas s portfolio are guaranteed by monoline insurers. This is shown in the table above in the column Letters of credit/guarantees . Further information on the monoline insurers is provided below under Monoline insurers .

Money market and short-term investments

The collateral reported for the money market and short-term investments are related to tri-party repurchase agreements (repos). Within tri-party repos Aegon invests under short-term reverse repurchase agreements and the counterparty posts collateral to a third party custodian. The collateral posted is typically high-quality, short-term securities and is only accessible for or available to Aegon in the event the counterparty defaults.

Mortgage loans

The real estate collateral for mortgages includes both residential and commercial properties. The collateral for commercial mortgage loans in Aegon Americas is measured at fair value. At a minimum on an annual basis, a fair value is estimated for each individual real estate property that has been pledged as collateral. When a loan is originally provided, an external appraisal is obtained to estimate the value of the property. In subsequent years, the value is typically estimated internally using various professionally accepted valuation methodologies. Internal appraisals are performed by qualified, professionally accredited personnel. International valuation standards are used and the most significant assumptions made during the valuation of real estate are the current cost of reproducing or replacing the property, the value that the property s net earning power will support, and the value indicated by recent sales of comparable properties. Valuations are primarily supported by market evidence. For Aegon the Netherlands, collateral for the residential mortgages is measured as the foreclosure value which is indexed periodically.

Cash collateral for mortgage loans includes the savings that have been received to redeem the underlying mortgage loans at redemption date. These savings are part of the credit side of the statement of financial position, but reduce the credit risk for the mortgage loan as a whole.

A substantial part of Aegon s Dutch residential mortgage loan portfolio benefits from guarantees by a Dutch government-backed trust (Stichting Waarborgfonds Eigen Woning) through the Dutch Mortgage loan Guarantee program (NHG). With exception of NHG-backed mortgage loans originated after January 1, 2014, for which a 10% lender-incurred haircut applies on realized losses on each defaulted loan, these guarantees cover all principal losses, missed interest payments and foreclosure costs incurred upon termination and settlement of defaulted mortgage loans when lender-specific terms and conditions of the guarantee are met. When not fully met, the trust may pay claims in part or in full, depending on the severity of the breach of terms and conditions. For each specific loan, the guarantee amortizes in line with an equivalent annuity mortgage loan. When the remaining loan balance at default does not exceed the amortized guarantee, it covers the full loss under its terms and conditions. Any loan balance in excess of this decreasing guarantee profile serves as a first loss position for the lender.

Derivatives

The master netting agreements column in the table relates to derivative liability positions which are used in Aegon s credit risk management. The offset in the master netting agreements column includes balances where there is a legally enforceable right of offset, but no intention to settle these balances on a net basis under normal circumstances. As a result, there is a net exposure for credit risk management purposes. However, as there is no intention to settle these balances on a net basis, they do not qualify for net presentation for accounting purposes.

Reinsurance assets

The collateral related to the reinsurance assets include assets in trust that are held by the reinsurer for the benefit of Aegon. The assets in trust can be accessed to pay policyholder benefits in the event the reinsurers fail to perform under the terms of their contract. Further information on the related reinsurance transactions is included in note 28 Reinsurance assets.

Other loans

The collateral included in the other column represents the policyholders account value for policy loans. The excess of the account value over the loan value is included in the surplus collateral column. For further information on the policy loans refer to note 23.1 Financial assets, excluding derivatives.

The total collateral includes both under- and over-collateralized positions. To present a net exposure of credit risk, the over-collateralization, which is shown in the surplus collateral column, is extracted from the total collateral.

Credit risk management

Aegon manages credit risk exposure by individual counterparty, sector and asset class, including cash positions. Normally, Aegon mitigates credit risk in derivative contracts by entering into credit support agreement, where practical, and in ISDA master netting agreements for most of Aegon s legal entities to facilitate Aegon s right to offset credit risk exposure. Main counterparties to these transactions are investment banks which are typically rated A or higher. The credit support agreement will normally dictate 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 and credit swaps. Collateral received is mainly cash (USD and EUR). The credit support agreements that outline the acceptable collateral require high quality instruments to be posted. Over the last three years, there was no default with any derivatives counterparty. The credit risk associated with financial assets subject to a master netting agreement is eliminated only to the extent that financial liabilities due to the same counterparty will be settled after the assets are realized. Eligible derivative transactions are traded via Central Clearing Houses as required by EMIR and the Dodd-Frank act. Credit risk in these transactions is mitigated through posting of initial and variation margins.

Aegon may also 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 modeling in order to assess the Group s credit risk profile, associated earnings and capital implications due to various credit loss scenarios.

Aegon operates a Credit Name Limit Policy (CNLP) under which limits are placed on the aggregate exposure that it has 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 a composite of the main rating agencies (S&P, Moody s and Fitch) and Aegon s internal rating of the counterparty. If an exposure exceeds the stated limit, then the exposure must be reduced to the limit for the country unit and rating category as soon as possible. Exceptions to these limits can only be made after explicit approval from Aegon s Group Risk and Capital Committee (GRCC). The policy is reviewed regularly.

At December 31, 2018 there was no violation of the Credit Name Limit Policy at Group level (December 31, 2017: nil).

At December 31, 2018 Aegon s largest corporate credit exposures are to Wilton Re Holdings Ltd, American United Mutual Insurance, SCOR and Reinsurance Group of America. Aegon had large government exposures, the largest being in the Americas, 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.

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Aegon group level long-term counterparty exposure limits are as follows:

Group limits per credit rating

Amounts in EUR million	**2018**	2017
AAA	900	900
AA	900	900
A	675	675
BBB	450	450
BB	250	250
B	125	125
CCC or lower	50	50

Credit rating

The ratings distribution of general account portfolios of Aegon s major reporting units, excluding reinsurance assets, are presented in the table that follows, organized by rating category and split by assets that are valued at fair value and assets that are valued at amortized cost. Aegon uses a composite rating based on a combination of the external ratings of S&P, Moody s, Fitch and National Association of Insurance Commissioners (NAIC which is for US only) and internal ratings. The rating used is the lower of the external rating and the internal rating.

Credit rating general account investments, excluding reinsurance assets 2018	Americas		The Netherlands		United Kingdom	Central & Eastern Europe	Spain & Portugal
	Amortized cost	Fair value	Amortized cost	Fair value			