SOLVENCY AND FINANCIAL CONDITION REPORT

2018
# SUMMARY

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INTRODUCTION

This report is the Solvency and Financial Condition Report (SFCR) of the AXA Group for the reporting period ended December 31, 2018 (this “Report”), pursuant to Articles 51, 53, 54, 256 and 256a of Directive 2009/138/EC, as amended (the “Directive”) and Articles 290 to 298 and 359 to 364 of Delegated Regulation (EU) 2015/35, as amended (the “Regulation” and, together with the Directive, the “Solvency II Regulations”). The Report has been prepared in accordance with the Solvency II Regulations governing insurance group reporting and guidance from the European Insurance and Occupational Pensions Authority and the Autorité de Contrôle Prudentiel et de Résolution, and is solely intended to fulfil the requirements thereof.

Relevant information about the business of the AXA Group is provided in AXA’s Annual Report for the year ended December 31, 2018 (the “Annual Report”), which is available on AXA’s website (www.axa.com).

Pursuant to Article 51 of the Directive, certain information provided in this Report is incorporated by reference to the Annual Report. No information, document or material from the website of the Company or any other source shall form part of this Report, unless such information, document or material is expressly incorporated by reference into this Report.

There are, however, certain specific SFCR requirements which are not already reported publicly elsewhere, and those are specifically included in this Report. In particular, this Report includes reporting of the Solvency II valuation undertaken at December 31, 2018, and the associated capital position for the Group. Those results are also presented in the Quantitative Reporting Templates (QRTs) which are available on AXA’s website (www.axa.com). Other than in the case of the Consolidated Financial Statements, or as otherwise specified, amounts presented herein are unaudited.

Presentation of information

In this Report, unless provided otherwise, (I) the “Company”, “AXA” and “AXA SA” refer to AXA, a société anonyme (a public limited company) organized under the laws of France, which is the publicly traded parent company of the AXA Group, and (II) the “AXA Group”, the “Group” and “we” refer to AXA SA together with its direct and indirect consolidated subsidiaries.

The Company’s consolidated financial statements and related notes are prepared in accordance with International Financial Reporting Standards (IFRS) (the “Consolidated Financial Statements”) and published in Euro (“Euro”, “euro”, “EUR” or “€”). Unless otherwise stated, all amounts in this Report are (I) expressed in Euro, and (II) presented in millions for convenience. Such amounts may have been rounded. Rounding differences may exist, including for percentages.

In addition to the Consolidated Financial Statements included in the Annual Report, which are audited by the Company’s Statutory Auditors, this Report or documents incorporated by reference herein include (I) Solvency II valuation figures, which have been prepared in compliance with the Solvency II Regulations which, as described herein, differ in many respects from IFRS principles, and (II) certain non-GAAP financial measures, or alternative performance measures (“APMs”), used by Management in analyzing the Group’s operating trends, financial performance and financial position and providing investors with additional information that Management believes to be useful and relevant regarding the Group’s results. These non-GAAP financial measures generally have no standardized meaning and therefore may not be comparable to similarly labelled measures used by other companies. As a result, none of these non-GAAP financial measures should be considered in isolation from, or as a substitute for, the Consolidated Financial Statements included in Part 5 – “Consolidated Financial Statements” of the Annual Report. The non-GAAP financial measures used by the Group are defined in the Glossary set forth in Appendix V to the Annual Report.
Cautionary statement regarding forward looking statements

This Report may include statements with respect to future events, trends, plans, expectations or objectives and other forward-looking statements relating to the Group’s future business, financial condition, results of operations, performance, and strategy. Forward-looking statements are not statements of historical fact and may contain the terms “may”, “will”, “should”, “continue”, “aims”, “estimates”, “projects”, “believes”, “intends”, “expects”, “plans”, “seeks” or “anticipates” or words of similar meaning. Such statements are based on Management’s current views and assumptions and, by nature, involve known and unknown risks and uncertainties; therefore, undue reliance should not be placed on them. Actual financial condition, results of operations, performance or events may differ materially from those expressed or implied in such forward-looking statements, due to a number of factors including, without limitation, general economic and political conditions and competitive situation; future financial market performance and conditions, including fluctuations in exchange and interest rates; frequency and severity of insured loss events, and increases in loss expenses; mortality and morbidity levels and trends; persistency levels; changes in laws, regulations and standards; the impact of acquisitions and disposal, including related integration issues, and reorganization measures; and general competitive factors, in each case on a local, regional, national and/or global basis. Many of these factors may be more likely to occur, or more pronounced, as a result of catastrophic events, including weather-related catastrophic events, or terrorist-related incidents. Please refer to Part 4 – “Risk factors and Risk Management” of the Annual Report for a description of certain important factors, risks and uncertainties that may affect AXA’s business and/or results of operations. AXA assumes no obligation to update or revise any of these forward-looking statements, whether to reflect new information, future events or circumstances or otherwise, except as required by applicable laws and regulations.
Pursuant to the Solvency II Regulations, the following is a summary overview of each section of this report. Please refer to each section in its entirety, including materials incorporated by reference therein, if any.

This report is the Solvency and Financial Condition Report (“SFCR”) of the AXA Group (the “Group”) for the reporting period ended December 31, 2018 (the “Report”), pursuant to Articles 51, 53, 54, 256 and 256a of Directive 2009/138/EC, (as amended (the “Directive”) and Articles 290 to 298 and 359 to 364 of Delegated Regulation (EU) 2015/35, (as amended (the “Regulation” and, together with the Directive, the “Solvency II Regulations”). The Report has been prepared in accordance with the Solvency II Regulations governing insurance group reporting and is solely intended to fulfill the requirements thereof.

Significant business developments that have occurred over the reporting period and had a material impact on the Group include, in particular, the acquisition of the XL Group; the initial public offering, secondary offering and related share buyback of AXA Equitable Holdings, Inc. (“AEH”); the transformation of the Group’s Life business in Switzerland (finalized on January 1, 2019) and the announced sale of AXA Life Europe.

Our business and performance (Section A)
The Group operates primarily in six segments: France, Europe, Asia, AXA XL, the US and International (including the Middle East, Latin America and Africa).

The Group has five operating activities: Life & Savings, Property & Casualty, Health, Asset Management and Banking. In addition, various holding companies within the Group conduct certain non-operating activities.

Our system of governance (Section B)
AXA SA, the holding company of the Group, is a French société anonyme with a Board of Directors and a Chief Executive Officer. The Executive Management of the Group comprises the Chief Executive Officer, the Management Committee and the Partners Group.

To manage the risks to which the Group is exposed, the Group has put in place a comprehensive system of internal controls and risk management governance, including an internal framework with three risk-related lines of defense, and the four key functions (Risk Management; Compliance; Internal Audit; and Actuarial) required by the Solvency II Regulations.

Our risk profile (Section C)
The Group uses an internal model to control and measure exposure to its main risks (underwriting, market, credit, liquidity, operational and other risks), in line with the Solvency II framework. In addition, the Group performs sensitivity analyses of its Solvency II ratio to material risks and events. The results of the sensitivity analyses as of December 31, 2018 reveal limited and asymmetric sensitivity to interest rates and equities, and limited sensitivity to corporate spreads, and demonstrates that the Group’s Solvency II ratio is resilient to a wide range of shocks.

Valuation for solvency purposes (Section D)
The Group’s Solvency II balance sheet is prepared as of December 31, in compliance with the Solvency II Regulations.

Capital management (Section E)
The Group’s Solvency II ratio as of December 31, 2018, published on February 21, 2019, was 193%, compared to 205% as of December 31, 2017, and remains within the Group’s target range of 170%-220%.

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<th>In Euro million (except percentage)</th>
<th>2018</th>
<th>2017</th>
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<td>Revenues</td>
<td>102,874</td>
<td>98,549</td>
</tr>
<tr>
<td>Underlying earnings Group share</td>
<td>6,182</td>
<td>6,002</td>
</tr>
<tr>
<td>Net consolidated income</td>
<td>2,140</td>
<td>6,209</td>
</tr>
<tr>
<td>Total assets</td>
<td>930,695</td>
<td>870,128</td>
</tr>
<tr>
<td>Shareholders’ equity</td>
<td>62,428</td>
<td>69,611</td>
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<tr>
<td>New business value</td>
<td>2,607</td>
<td>2,787</td>
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<tr>
<td>Solvency ratio</td>
<td>193%</td>
<td>205%</td>
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<table>
<thead>
<tr>
<th>In Euro billion</th>
<th>2018</th>
<th>2017</th>
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<td>Own funds</td>
<td>58.2</td>
<td>57.8</td>
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<tr>
<td>SCR</td>
<td>30.2</td>
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A.1 BUSINESS

Information on the Group

AXA SA is the holding company of the AXA Group, a worldwide leader in Insurance and Asset Management. In 2018, AXA remained the 1st global insurance brand for the 10th consecutive year(1) and AXA Group was one of the world’s largest insurance groups(2) with total assets of €931 billion and the world’s 11th largest asset manager(3) with total assets under management of €1,424 billion for the year ended December 31, 2018.

AXA operates primarily in six segments: France, Europe, Asia, AXA XL, the US and International (including the Middle East, Latin America and Africa).

AXA has five operating activities: Life & Savings, Property & Casualty, Health, Asset Management and Banking. In addition, various holding companies within the Group conduct certain non-operating activities.

A description of the legal and organizational structure of the AXA Group, with a description of all material subsidiaries and related undertakings is incorporated herein by reference to Section 1.3 “Business Overview” on pages 22 to 29 and Note 2.1 “Consolidated Companies” in Part 5 – “Consolidated Financial Statements” on pages 247 to 252 of the Annual Report. A list of all subsidiaries and related undertakings of the AXA Group is provided in QRT S.32.01.22.

Information on the Group’s governance structure is included in Section B “System of Governance” of this Report and is incorporated herein by reference to Section 3.1 “Corporate governance structure” on pages 100 to 127 of the Annual Report.

Following the completion of the acquisition of the XL Group on September 12, 2018, the AXA Group reorganized its financial reporting under the seven following segments: France, Europe, Asia, AXA XL, the US, International and Transversal & Central Holdings. Additional information on these reporting changes is incorporated herein by reference to subsection “Reporting Changes” in Part 1 – “The AXA Group” on page 14 of the Annual Report.

SUPERVISORY AUTHORITY

The AXA Group’s principal supervisor is the Autorité de Contrôle Prudentiel et de Résolution (ACPR).

Autorité de Contrôle Prudentiel et de Résolution
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STATUTORY AUDITORS


TRANSACTIONS WITHIN THE GROUP

The Group’s operating entities are reinsured by AXA Global Re. AXA Global Re places externally on the reinsurance market a portion of the risk exposure ceded to it internally through Group covers (including pools), retained and mitigated. Additional information on those pools is incorporated herein by reference to Section 4.6 “Insurance Risks - Reinsurance strategy” on page 209 of the Annual Report.

Information on (i) dividends received by AXA SA from its subsidiaries, (ii) AXA SA receivables from subsidiaries, (iii) guarantees given by AXA SA to its subsidiaries and (iv) loans granted by AXA SA to its subsidiaries is incorporated herein by reference to Note 30.2 “Loans/guarantees/capital contributions, etc.” in Part 5 – “Consolidated Financial Statements” on pages 360 and 361 of the Annual Report.

(1) Interbrand’s Best Global ranking 2018.
(2) Ranking in terms of total assets established by AXA based on information available in 2017 Annual Reports.
(3) Ranking in terms of assets under management established by AXA based on information available as of September 30, 2018.
## Major shareholders and related undertakings

### CAPITAL OWNERSHIP

Details on holders of qualifying holdings in AXA SA are incorporated herein by reference to Section 6.2 “Share capital – Capital ownership” on pages 379 to 381 of the Annual Report.

### MATERIAL RELATED UNDERTAKINGS

A description of the scope of consolidation and a list of subsidiaries and material related companies within the Group are incorporated herein by reference to Note 2.1 “Consolidated Companies” in Part 5 – “Consolidated Financial Statements” on pages 247 to 252 of the Annual Report.

For the purpose of establishing the Group solvency position, in accordance with the Solvency II Regulations, the scope of consolidation is identical to the one used for IFRS purposes.

## Simplified Group structure

![Simplified Group structure diagram]

### Business overview

**MATERIAL LINES AND GEOGRAPHICAL AREAS OF BUSINESS**

Descriptions of the Group’s material lines of business and material geographical areas where it carries out business, including markets and competition, products and services, new product initiatives and distribution channels, are incorporated herein by reference to Section 1.3 “Business Overview” on pages 22 to 29 and Section 2.1 “Market Environment – Market conditions” on pages 33 to 36 of the Annual Report.

1) Mutuelles AXA means AXA Assurances IARD Mutuelle and AXA Assurances Vie Mutuelle, sociétés d’assurances mutuelles régie par le Code des assurances, having their registered office at 313 Terrasses de l’Arche, 92727 Nanterre Cedex.

2) AXA Assurances IARD Mutuelle (11.52% of capital ownership and 19.29% of voting rights) and AXA Assurances Vie Mutuelle (2.88% of capital ownership and 4.87% of voting rights).

3) Including 1.7% of treasury shares.
Significant business developments or other events

Significant business developments or other events that have occurred over the reporting period and had a material impact on the Group, including changes in corporate governance, significant acquisitions and disposals as well as capital operations are incorporated herein by reference to subsection “Reporting changes” in Part 1 - "The AXA Group" on page 14 and Section 2.2 “Operating highlights” on pages 37 to 44 of the Annual Report. Significant business developments or other events that have occurred between December 31, 2018 and March 11, 2019 and had a material impact on the Group are incorporated herein by reference to Section 2.5 “Events subsequent to December 31, 2018” on page 96 of the Annual Report.

Subsequent to filling of the annual report to the French Autorité des Marchés Financiers on March 11, 2019, AXA announced on March 25, 2019 the successful completion of a secondary common stock offering of 40,000,000 shares (the “Offering”) at a public offering price of USD 20.50 per share of AXA Equitable Holdings, Inc. ("EQH") and the sale to EQH of 30,000,000 shares (the “Share Buyback”) at the per share price paid by the underwriters in the Offering. In addition, the underwriters exercised in full the over-allotment option to purchase an additional 6,000,000 EQH shares.

As a result, AXA’s in EQH common stock decreased from 60.1% to 48.3%.

AXA’s retained non-controlling minority stake in EQH was deconsolidated and is currently accounted for using the equity method.

• Net proceeds of USD 1.5 billion or Euro 1.3 billion, were received by AXA including proceeds from the full exercise of the over-allotment option granted to the underwriters and the Share Buyback.

• The transaction is expected to result in a negative net income impact of approximately Euro 0.7 billion in AXA Group’s HY 2019 consolidated financial statements. This impact reflects the difference between the offering price and the consolidated book value of (I) the EQH shares sold in the transaction, and (II) AXA’s remaining stake 48.3% stake in EQH (i.e. the loss required to be taken upon deconsolidation). This does not reflect Management’s expectations on the future evolution of EQH’s share price or the price at which potential future transactions might take place.

• The transaction is also expected to result in a reduction in AXA’s Debt Gearing by approximately 1 point.

On May 2, 2019 AXA published its first quarter activity indicators confirming a growth in its preferred segments:

• Total gross revenues up 3% to Euro 35.0 billion,
• Property & Casualty Commercial lines revenues up 6% to Euro 11.4 billion,
• Health revenues up 6% to Euro 3.8 billion,
• Protection APE up 5% to Euro 0.7 billion.

Following the completion of the Share Buyback, EQH’s remaining authorization under its current share repurchase program of USD 800 million is approximately USD 200 million.

EQH’s issued and outstanding common stock as of March 7th, 2019 was 521,051,204 shares.

Including the shares to be delivered on redemption of the bonds mandatorily exchangeable into EQH shares, issued by AXA in May 2018.

Net of underwriting discounts and commissions.

Euro = 1.1297 USD as of March 22, 2019 (Source: Bloomberg).

Euro = 1.1354 USD as of March 19, 2019 (Source: Bloomberg).

Including the recycling of related currency translation adjustment, and other comprehensive income.

After EQH deconsolidation and subsequent accounting under equity method, the bonds mandatorily exchangeable into EQH shares, issued by AXA in May 2018, will be excluded from AXA’s Debt Gearing. Debt Gearing is an alternative performance measure and is defined in the Glossary set forth in Appendix V to AXA’s Annual Report.

This reflects the effect of the deconsolidation of EQH but does not reflect the intended use of the proceeds to reduce of AXA’s Debt Gearing towards the targeted range of 25%-28% by 2020.
A.2 UNDERWRITING PERFORMANCE

// Aggregate underwriting performance

The aggregate underwriting performance of the Group is described in Section 2.3 “Activity Report” in subsections “Activity indicators” on pages 45 to 48, “Alternative performance measures” on pages 50 to 51 and “Commentaries on Group Earnings” on pages 52 to 54 of the Annual Report, which are incorporated herein by reference.

// Underwriting performance by geographical area

The underwriting performance of the Group by geographical area is described in Section 2.3 “Activity Report – Segment information” on pages 57 to 89 of the Annual Report, which is incorporated herein by reference.

// Underwriting performance by product line

The underwriting performance of the Group by product line is described in Section 2.3 “Activity Report – Segment information” on pages 57 to 89 of the Annual Report, which is incorporated herein by reference.
A.3 INVESTMENT PERFORMANCE

Investment income and expenses

Information on income and expenses arising from investments of the Group is incorporated herein by reference to Note 22 “Net investment result excluding financing expenses” in Part 5 – “Consolidated Financial Statements” on pages 341 to 343 of the Annual Report.

Gains and losses directly recognized in equity

A description of gains and losses directly recognized in equity is incorporated by reference to Section 5.3 “Consolidated Statement of Comprehensive Income” on page 219 and Note 13.2 “Comprehensive income for the period” on pages 301 to 303 of the Annual Report.

Investments in securitizations

ASSET BACKED SECURITIES (ABS) BY UNDERLYING TYPE OF ASSET (EXCLUDING COLLATERALIZED MORTGAGE OBLIGATIONS (CMOs))

At December 31, 2018 and December 31, 2017, the Group held €12.9 billion and €12.4 billion of ABS, respectively, excluding the structured assets related to agency pools (CMOs and ABS). Of the €12.9 billion of ABS held at December 31, 2018, 84% consisted in holdings in collateralized loan obligations (CLOs) and 8% in holdings of commercial mortgage-backed securities (CMBS), with the remainder consisting of consumer ABS (4%), collateralized debt obligations (CDOs) (1%), Prime Residential (2%) and US Subprime, Alt-A and non-conforming residential mortgage-backed securities (RMBS) (1%). Of the €12.4 billion of ABS held at December 31, 2017, 89% consisted in holdings in collateralized loan obligations (CLOs) and 1% in holdings of commercial mortgage-backed securities (CMBS), with the remainder consisting of consumer ABS (1%), collateralized debt obligations (CDOs) (1%), Prime Residential (3%) and US Subprime, Alt-A and non-conforming residential mortgage-backed securities (RMBS) (3%).
A.4 PERFORMANCE OF OTHER ACTIVITIES

Other material income and expenses

Information on other material income and expenses incurred over the reporting period is incorporated herein by reference to Section 2.3 “Activity Report” in subsections “Underlying Earnings, adjusted earnings and net income Group share” on pages 49 to 50, “Alternative performance measures” on pages 50 to 51 and “Commentaries on Group Earnings” on pages 52 to 54 of the Annual Report.

Leasing arrangements

In 2018, the commitments given relating to operating leases (off balance sheet items) totaled €2,110 million. The main commitments given relating to leases were attributable to AB (€678 million), France (€413 million), the United States (€367 million), Germany (€337 million), AXA Investment Managers (€242 million) and AXA Services (€122 million).

In 2017, the commitments given relating to operating leases (off balance sheet items) totaled €2,684 million. The main commitments given relating to leases were attributable to AB (€637 million), the United States (€408 million), France (€408 million), Germany (€370 million) and AXA Investment Managers (€207 million).

In both 2017 and 2018, the commitments given relating to finance leases were not material at Group level.

A.5 ANY OTHER INFORMATION

Not applicable.
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SYSTEM OF GOVERNANCE

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B.1 GENERAL INFORMATION ON THE SYSTEM OF GOVERNANCE

A description of the Group’s system of governance, including the items referred to in Article 294 (1) and Article 359 (b) of the Regulation, is incorporated herein by reference to Part 3 – “Corporate governance” on pages 100 to 161 of the Annual Report.

During AXA’s Shareholders’ Meeting held on April 24, 2019, M. Jean-Pierre Clamadieu was reappointed for 4 years as director and the cooptation of Mrs. Elaine Sarsynski as director (replacing Mrs. Deanna Oppenheimer until the Shareholders’ Meeting to be held in 2021) was ratified.

Following the decision of Mr. Jean-Martin Folz, a director for 12 years and senior independent director since December 2016, not to stand for reappointment, the Board of Directors decided not to replace him as a director, reducing the number of directors from 16 to 15.

During its April 24, 2019 meeting, the Board decided to appoint Mr. Jean-Pierre Clamadieu, director since 2012, as Chairman of the Compensation & Governance Committee and senior independent director for the duration of his mandate.

B.2 FIT AND PROPER REQUIREMENTS

A description of the Group’s fit and proper policy is incorporated herein by reference to Section 4.2 “Internal control and Risk Management” on pages 181 and 182 of the Annual Report.

B.3 RISK MANAGEMENT SYSTEM INCLUDING THE OWN RISK AND SOLVENCY ASSESSMENT

A description of the Group’s Risk Management system including the own risk and solvency assessment is incorporated herein by reference to Section 4.2 “Internal control and Risk Management” on pages 181 to 194 of the Annual Report.
B.4  INTERNAL CONTROL SYSTEM

A description of the Group’s internal control system is incorporated herein by reference to Section 4.2 “Internal control and Risk Management” on pages 181 to 194 of the Annual Report.

B.5  INTERNAL AUDIT FUNCTION

A description of the Group’s internal audit function is incorporated herein by reference to Section 4.2, paragraph “Governance and Risk Management organization - Third line of defense: Group internal audit function” on page 186 of the Annual Report.

B.6  ACTUARIAL FUNCTION

A description of the Group’s actuarial function is incorporated herein by reference to Section 4.6 “Insurance risks - Technical Reserves” on pages 209 to 211 of the Annual Report.

B.7  OUTSOURCING

Outsourcing by AXA consists in the delegation to a third party of the execution of certain ongoing activities as part of service agreement. AXA adopted an outsourcing policy applicable to critical relationships both with internal and external third-parties and compliant with the Solvency II Regulations. This AXA outsourcing policy defines the fundamental principles applicable to such outsourced services: only appropriate third parties are appointed and the service they provide must meet regulatory and Group’s requirements. The AXA outsourcing policy requires that critical relationships with third-party providers are subject to appropriate due diligence, approval, and on-going monitoring. The objective of the policy is to ensure that risks inherent in outsourcing of critical relationships are identified, monitored and appropriately mitigated. Due diligence is conducted regularly at the local level to ensure that each entity maintains full responsibility over the outsourced activities. The critical outsourced activities are reported annually to the Group. In 2018, the top 3 activities that AXA outsourced internally (in number of deals, by category and jurisdiction) are: (I) Professional Services (France, Poland), (II) IT infrastructure (France, Poland, Malaysia) (III) IT Services (France, Germany). The top 3 activities that AXA outsourced externally (in number of deals, by category and jurisdiction) are: (I) Professional Services (France, US), (II) IT Services (France, Belgium), (III) Office Supplies and Document Services (France, Thailand and Indonesia).

B.8  ANY OTHER INFORMATION

Not applicable.
RISK PROFILE

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PRELIMINARY INFORMATION

The AXA Group is engaged in the insurance and asset management businesses on a global scale. As such, the AXA Group is exposed to a wide variety of risks, including market risks, credit risks, insurance risks, operational risks and other material risks, as further described in this Part C.

In order to manage these risks, the AXA Group has put in place a comprehensive system of internal control and Risk Management as detailed in Section 4.2 “Internal Control and Risk Management” on pages 181 to 194 of the Annual Report; and has developed a consistent and comprehensive Risk Management tool (the Internal Model) to control and measure exposure to its main risks, in line with the Solvency II framework and as detailed in the below sections.

Internal Model

Details on the AXA Group Internal Model (the “Internal Model”) are incorporated herein by reference to Section 4.2 “Internal Control and Risk Management” in paragraph “Internal Model” on pages 190 to 192 of the Annual Report.

The Internal Model is based on a common definition of risks used consistently throughout the Group. It aims to ensure that the Company’s risk mapping is comprehensive and that efficient procedures and reportings are in place so that roles and responsibilities are allocated to identify, measure, monitor, manage and report key risks.

The Group risk grid aims to identify all material risks applicable to the Group’s insurance businesses. The Internal Model is intended to capture all material risks to which AXA is exposed from the risk assessment performed at sub-risk level to the overall aggregation of risk categories.

The underlying methodologies and assumptions used in the Internal Model are regularly reviewed to ensure that they accurately reflect the AXA Group’s risk profile and new methods are developed and integrated regularly (in accordance with the Internal Model change policy).

The Solvency Capital Requirement (SCR), calculated on the basis of the Internal Model, represents the value at risk of Group Eligible Own Funds (EOF) at the 99.5th percentile over a one-year horizon. In other words, the SCR is the capital needed to sustain a 1-in-200-year shock. It aims to include all measurable risks (market, credit, insurance and operational) and reflects the Group’s diversified profile. The Internal Model encompasses the use of AXA Group’s economic capital model on all material entities. As in previous disclosures, all AXA US entities are taken into account assuming US equivalence. The contribution to the AXA Group Solvency II ratio from the entities that were previously part of the XL Group (“XL entities”) as at December 31, 2018, was calculated in accordance with the equivalence regime, based on the Bermudian Standard Formula SCR, plus a 5% add-on required by the AXA’s lead supervisor (i.e. the ACPR), as a transitional measure. Furthermore, in compliance with the decision from ACPR, XL entities will be fully consolidated for Solvency II purposes (as per the consolidation-based method set forth in the Solvency II Directive) and their contribution to the Group’s solvency capital requirement will be calculated using the Solvency II standard formula from March 31, 2019. Subject to the prior approval of the ACPR, the Group intends from December 31, 2020 to extend its internal model to XL entities.

In addition to the risks that impact the SCR through the Internal Model calculation, the Group also monitors its liquidity risk, reputation risk, strategic risk and regulatory risks as well as emerging threats.
Breakdown of the SCR

As at December 31, 2018, the SCR (as calculated for the AXA Group Solvency II ratio, i.e. including entities in equivalence, and bank and asset management companies as per their own sectorial requirement), can be broken down by business lines or by geography as follows:

**DIVERSIFIED BUSINESS EXPOSURE**

<table>
<thead>
<tr>
<th>Solvency Capital Requirement by business lines</th>
</tr>
</thead>
<tbody>
<tr>
<td>4% AM &amp; Banks</td>
</tr>
<tr>
<td>16% Holding &amp; Others</td>
</tr>
<tr>
<td>37% P&amp;C</td>
</tr>
<tr>
<td>43% Life and Savings</td>
</tr>
</tbody>
</table>

**DIVERSIFIED GEOGRAPHIC FOOTPRINT**

<table>
<thead>
<tr>
<th>Solvency Capital Requirement by geography</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% AM &amp; Banks, other</td>
</tr>
<tr>
<td>3% UK</td>
</tr>
<tr>
<td>6% Italy, Spain</td>
</tr>
<tr>
<td>11% XL Group</td>
</tr>
<tr>
<td>15% Asia-Pacific</td>
</tr>
<tr>
<td>17% France</td>
</tr>
<tr>
<td>6% Switzerland</td>
</tr>
<tr>
<td>4% Belgium</td>
</tr>
<tr>
<td>21% Holding &amp; Others</td>
</tr>
<tr>
<td>7% Germany</td>
</tr>
</tbody>
</table>

Breakdown of risks per nature

The following sets forth the breakdown of the insurance entity SCR (€32.3 billion before diversification amongst risks) by nature of risks at December 31, 2018. It is based on the Internal Model results excluding entities in equivalence regime (AXA US entities and XL entities). The exclusion of the US entities is motivated by the Initial Public Offering (“IPO”) started in 2018. Regarding XL entities, the Internal Model has not been validated by the ACPR yet.

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6% Operational risk</td>
<td></td>
</tr>
<tr>
<td>20% P&amp;C Insurance</td>
<td></td>
</tr>
<tr>
<td>26% Life Insurance</td>
<td></td>
</tr>
<tr>
<td>41% Market risk</td>
<td></td>
</tr>
<tr>
<td>7% Credit risk</td>
<td></td>
</tr>
</tbody>
</table>
Sensitivity analyses of the AXA Group Solvency II ratio

In addition to the SCR assessment, the Group performs sensitivity analyses of its Solvency II ratio to material risks and events.

These analyses quantify the potential impact on the AXA Group Solvency II ratio of (I) financial shocks on corporate bond spreads, on interest rates, and on equity; (II) a wide range of shocks reflecting historical stress events (such as the 2008-2009 financial crisis, the 2011 financial crisis, the 1918 Spanish flu and the 1999 Lothar & Martin storms).

These sensitivity analyses do not take into account preemptive management actions that might be taken to mitigate the effects of the defined shocks, nor indicate a probability of occurrence, but, are designed:

- to demonstrate that the AXA Group Solvency II ratio is resilient to a wide range of shocks;
- to ensure through the Group’s risk appetite framework that senior management in each entity (I) reviews and approves the risks that arise in their company, (II) understands the consequences of an adverse development of such risks, and (III) has developed action plans that can be implemented in case of unfavorable developments; and
- to verify the robustness of the Internal Model.

The results of the sensitivity analyses as of December 31, 2018 reveal limited and asymmetric sensitivity to interest rates and equities, and limited sensitivity to corporate spreads, and demonstrate that the AXA Group Solvency II ratio is resilient to a wide range of shocks.

### AXA GROUP SOLVENCY II RATIO

<table>
<thead>
<tr>
<th>Ratio as of FY 2018</th>
<th>Available capital</th>
<th>Required capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>57.8</td>
<td>28.2</td>
<td>30.2</td>
</tr>
<tr>
<td>205%</td>
<td>193%</td>
<td></td>
</tr>
</tbody>
</table>

### SENSITIVITY ANALYSIS OF THE AXA GROUP SOLVENCY II RATIO TO FINANCIAL SHOCKS

<table>
<thead>
<tr>
<th>Financial Shock</th>
<th>In Euro billion</th>
<th>Ratio as of FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate -50 bps</td>
<td>193%</td>
<td></td>
</tr>
<tr>
<td>Interest rate +50 bps</td>
<td>182%</td>
<td></td>
</tr>
<tr>
<td>Equity markets +25%</td>
<td>200%</td>
<td></td>
</tr>
<tr>
<td>Equity markets -25%</td>
<td>195%</td>
<td></td>
</tr>
<tr>
<td>Corp. spreads +50 bps</td>
<td>186%</td>
<td></td>
</tr>
</tbody>
</table>

### SENSITIVITY ANALYSIS OF THE AXA GROUP SOLVENCY II RATIO TO A WIDE RANGE OF SHOCKS REFLECTING HISTORICAL STRESS EVENTS

<table>
<thead>
<tr>
<th>Historical Event</th>
<th>In Euro billion</th>
<th>Ratio as of FY 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/20 year shock (Market &amp; Credit) -28 pts</td>
<td>164%</td>
<td></td>
</tr>
<tr>
<td>2008/2009 financial crisis -32 pts</td>
<td>160%</td>
<td></td>
</tr>
<tr>
<td>2011 financial crisis -10 pts</td>
<td>183%</td>
<td></td>
</tr>
<tr>
<td>1918 Spanish flu -3 pts</td>
<td>190%</td>
<td></td>
</tr>
<tr>
<td>1/20 year shock (Nat-Cat) -2 pts</td>
<td>191%</td>
<td></td>
</tr>
</tbody>
</table>

* AXA Group Solvency II ratio as at December 31, 2018. The AXA Group Solvency II ratio is based on AXA Group’s Internal Model calibrated based on adverse 1/200 years shock and assuming US and Bermuda equivalence.
C.1 UNDERWRITING RISK

Information on the Group’s exposure to underwriting risk is incorporated herein by reference to Section 4.1 “Risk factors – Risks related to the Company and its business – Pricing and underwriting-related risks” on pages 169 to 171 and Section 4.6 “Insurance risks” on pages 207 to 211 of the Annual Report.

Sensitivity analyses of the AXA Group Solvency II ratio to material risk events are disclosed in the paragraph “Sensitivity analyses of the AXA Group Solvency II ratio” in the Section C – “Risk Profile – Preliminary information” of this Report.

C.2 MARKET RISK

Information on the Group’s exposure to market risk is incorporated herein by reference to Section 4.1 “Risk factors – Financial risks – Market-related risks” on pages 164 to 167 and Section 4.3 “Market risks” on pages 195 to 201 of the Annual Report.

Sensitivity analyses of the AXA Group Solvency II ratio to material risk events are disclosed in the paragraph “Sensitivity analyses of the AXA Group Solvency II ratio” in the Section C – “Risk Profile – Preliminary information” of this Report.

C.3 CREDIT RISK

Information on the Group’s exposure to credit risk is incorporated herein by reference to Section 4.1 “Risk factors – Financial risks – Credit and liquidity-related risks” on pages 167 to 168 and Section 4.4 “Credit risk” on pages 202 to 205 of the Annual Report.

Sensitivity analyses of the AXA Group Solvency II ratio to material risk events are disclosed in the paragraph “Sensitivity analyses of the AXA Group Solvency II ratio” in the Section C – “Risk Profile – Preliminary information” of this Report.

C.4 LIQUIDITY RISK

Information on the Group’s exposure to liquidity risk is incorporated herein by reference to Section 2.4 “Liquidity and Capital Resources” on pages 90 to 93, Section 4.1 “Risk factors – Financial risks – Credit and liquidity-related risks” on pages 167 to 168 and Section 4.5 “Liquidity risk” on page 206 of the Annual Report.

In addition, the Group’s aggregate expected profit included in future premiums(1), as calculated in accordance with Article 260 – (2) of the Regulation, was estimated at €7,593 million as of December 31, 2018.

(1) “The expected profit included in future premiums shall be calculated as the difference between the technical provisions without a risk margin calculated in accordance with Article 77 of the Directive and a calculation of the technical provisions without a risk margin under the assumption that the premiums relating to existing insurance and reinsurance contracts that are expected to be received in the future are not received for any reason other than the insured event having occurred, regardless of the legal or contractual rights of the policyholder to discontinue the policy.”
C.5 OPERATIONAL RISK

Information on the Group’s exposure to operational risk is incorporated herein by reference to Section 4.1 “Risk factors – Risks related to the Company and its business – Operational-related risks” on pages 171 to 176 and Section 4.7 “Operational risk” on page 212 of the Annual Report.

C.6 OTHER MATERIAL RISKS

Information on the Group’s exposure to other material risks is incorporated herein by reference to Section 4.1 “Risk factors – Risks related to the Company and its business - Regulatory-related risks” on pages 176 to 180 and Section 4.8 “Other material risks” on pages 213 to 214 of the Annual Report.

C.7 ANY OTHER INFORMATION

Not applicable.
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D.5 ANY OTHER INFORMATION 46
General valuation principles

AXA’s Solvency II balance sheet is prepared as of December 31, in compliance with the Solvency II Regulations.

Assets and liabilities are valued based on the assumption that the Company will pursue its business on a going concern basis.

Technical provisions are recognized with respect to all insurance and reinsurance obligations to policyholders and beneficiaries of insurance or reinsurance contracts. The value of technical provisions corresponds to the current amount that the Group would have to pay if it were to transfer its insurance and reinsurance obligations to another insurance or reinsurance undertaking.

Assets and liabilities, other than technical provisions, are recognized in compliance with IFRS and interpretations of the IFRS Interpretations Committee as endorsed by the European Union before the balance sheet date with a compulsory date on or before January 1, 2018, provided that such standards and interpretations include valuation methods that are in accordance with the market consistent valuation approach set out in Article 75 of the Directive, as follows:

- assets shall be valued at the amount for which they could be exchanged between knowledgeable willing parties in an arm’s length transaction;
- liabilities shall be valued at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm’s length transaction (without adjustment to take account of the Company own credit standing).

The main adjustments between IFRS and Solvency II assets and liabilities relate to:

- differences in the consolidation and valuation method of some entities included in the scope of consolidation;
- the elimination of some intangible assets including deferred acquisition costs and goodwill;
- the re-measurement of assets that are not measured at fair value in the IFRS financial statements;
- the re-measurement of technical provisions;
- the recognition of the Risk Margin (also referred to as Market Value Margin);
- the re-measurement of reinsurance assets and liabilities;
- the recognition of contingent liabilities where those exist;
- the reclassification of subordinated debt in own funds;
- the re-measurement at fair value of financial debt, excluding subordinated debt;
- the tax impacts related to the adjustments listed above.

The preparation of the balance sheet in accordance with Solvency II requires the use of estimates and assumptions and a degree of judgment in the application of the Solvency II principles. This applies particularly to assets accounted for at fair value, deferred tax assets, assets and liabilities related to the insurance business, pension benefit obligations and balances related to share-based compensations. The principles set out below specify the measurement methods used for these items.

Unless otherwise stated, AXA’s Solvency II valuation principles have been consistently applied to all the periods presented in this Report.

The Solvency II balance sheet is presented in Euro, the Euro being the Company’s presentational currency. Assets and liabilities resulting from transactions denominated in foreign currencies are converted into Euro at the local closing exchange rate.
Basis of consolidation

SCOPE OF CONSOLIDATION

AXA aligns the scope of entities included in the consolidated Solvency II balance sheet to the scope used for the IFRS balance sheet.

The scope of consolidation includes:

- companies in which AXA exercises control, which are referred to as subsidiaries. AXA controls an investee when 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. Only substantive rights (i.e. the holder must have the ability to exercise them in practice) and rights that are not protective are considered. AXA can have power over an investee with less than a majority of the voting rights of an investee, in particular through:
  - the high proportion of ownership in comparison to the other investors,
  - potential voting rights,
  - a contractual arrangement between the investor and other shareholders,
  - rights arising from other contractual arrangements, or
  - a combination of these indicators;
- companies over which AXA exercises a joint controlling influence alongside one or more third parties which are referred to as joint ventures, and
- companies in which AXA exercises significant influence which are referred to as associates. Significant influence is presumed when AXA does not exercise control but directly or indirectly holds 20% or more of the voting rights. Significant influence can also be exercised through an agreement with other shareholders.

Please refer to Note 10 “Investments accounted for using the equity method” in Part 5 – “Consolidated Financial Statements” on pages 292 to 296 of the Annual Report for information on joint ventures and associates.

CONSOLIDATION METHODS

The consolidation methods to be used for the Solvency II consolidated balance sheet are not detailed in the Solvency II Regulations. However, consolidation principles are defined for the data to be used as a basis for the calculation of the consolidated solvency capital requirements – referred to as Method 1 (Default Method) and Method 2 (Deduction and Aggregation) below.

General principle (Method 1 under Solvency II)

- consistent with IFRS, subsidiaries are fully consolidated under Solvency II from the date on which the control is transferred to AXA;
- in theory, joint ventures should be consolidated according to the proportionate method. However, as under IFRS 11 joint ventures are accounted for under the equity method and their impact is not material for AXA considering the scope of its joint ventures, the adjusted equity method is applied in the preparation of the consolidated Solvency II balance sheet. With the adjusted equity method, participations in insurance and reinsurance companies are valued according to the underlying company’s individual Solvency II own funds, whereas participations in other entities are valued according to IFRS equity method;
- investments in associates (as defined using IFRS criteria) are accounted for under the adjusted equity method;
- investment funds (including real estate companies) are either fully consolidated or accounted for under the adjusted equity method, depending on which conditions of IFRS 10/IFRS 11/IAS 28 they meet. Fees received by asset managers are also taken into account in the assessment of the exposure to variability of returns. For fully consolidated investment funds, minority interests are recognized at fair value and shown as liabilities in the balance sheet, if the companies’ instruments can be redeemed at any time by the holder at fair value.

Under IFRS, the assets and liabilities of entities held for sale are measured at the lower of net carrying value and fair value net of selling costs and are presented as separate line items in the consolidated balance sheet.
Specific cases (Method 2 under Solvency II)

Assets and liabilities of entities consolidated under the Deduction & Aggregation Method for solvency capital requirements purposes (SCR) are reported on a net basis under the participation aggregate of the Solvency II consolidated balance sheet. This method is applied to the following subsidiaries, associates and joint ventures:

- US-based insurance entities;
- XL Group as Bermudian insurance group (the equivalence regime is a transitional measure as specified on page 190 of the Annual Report in the paragraph “Internal Model” of Section 4.2 “Internal control and Risk Management”);
- credit and financial institutions, investment firms, non-regulated entities carrying out financial activities (except investment funds and real estate companies), or Institutions for Occupational Retirement Provisions (IORP).

Intra-group transactions

The same approach is applied under both IFRS and Solvency II.

Intra-group payables/receivables are eliminated in full for subsidiaries including those that have minority interests recognized in the consolidated balance sheet, and to the extent of AXA’s interest in other entities.
D.1 ASSETS

Fair value measurement

The table below summarizes, for each material asset class, the values according to Solvency II and on an IFRS basis as at December 31, 2018.

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Carrying Value (IFRS)</th>
<th>IFRS after reclassification</th>
<th>Fair Value (Solvency II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodwill</td>
<td>16,771</td>
<td>8,742</td>
<td>-</td>
</tr>
<tr>
<td>Deferred acquisition costs</td>
<td>26,415</td>
<td>14,274</td>
<td>-</td>
</tr>
<tr>
<td>Other Intangible assets</td>
<td>7,128</td>
<td>4,120</td>
<td>-</td>
</tr>
<tr>
<td>Deferred tax assets</td>
<td>915</td>
<td>309</td>
<td>309</td>
</tr>
<tr>
<td>Pension benefit surplus</td>
<td>40</td>
<td>40</td>
<td>-</td>
</tr>
<tr>
<td>Property, plant &amp; equipment held for own use</td>
<td>1,588</td>
<td>1,133</td>
<td>1,318</td>
</tr>
<tr>
<td>Investments (other than assets held for index-linked and unit-linked contracts)</td>
<td>515,526</td>
<td>443,618</td>
<td>446,227</td>
</tr>
<tr>
<td>Investment in real estate properties (not for own use)</td>
<td>10,491</td>
<td>10,365</td>
<td>16,003</td>
</tr>
<tr>
<td>Holdings in related undertakings, including participations</td>
<td>2,929</td>
<td>25,978</td>
<td>19,419</td>
</tr>
<tr>
<td>Equities</td>
<td>27,172</td>
<td>25,673</td>
<td>26,694</td>
</tr>
<tr>
<td>Debt Instruments</td>
<td>448,031</td>
<td>357,560</td>
<td>357,707</td>
</tr>
<tr>
<td>Investment funds</td>
<td>28,861</td>
<td>25,475</td>
<td>27,832</td>
</tr>
<tr>
<td>Derivatives</td>
<td>(1,956)</td>
<td>(1,432)</td>
<td>(1,432)</td>
</tr>
<tr>
<td>Other investments (c)</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Loans and mortgages</td>
<td>74,096</td>
<td>27,972</td>
<td>28,766</td>
</tr>
<tr>
<td>Assets held for index-linked and unit-linked contracts</td>
<td>160,176</td>
<td>63,643</td>
<td>63,643</td>
</tr>
<tr>
<td>Reinsurance recoverables</td>
<td>25,751</td>
<td>8,733</td>
<td>7,587</td>
</tr>
<tr>
<td>Receivables</td>
<td>37,002</td>
<td>23,280</td>
<td>20,836</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>32,733</td>
<td>23,091</td>
<td>23,082</td>
</tr>
<tr>
<td>Deposits to cedants</td>
<td>2,727</td>
<td>1,867</td>
<td>1,867</td>
</tr>
<tr>
<td>Other assets not included in the aggregates above</td>
<td>29,828</td>
<td>28,554</td>
<td>30,292</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td><strong>930,695</strong></td>
<td><strong>649,376</strong></td>
<td><strong>623,927</strong></td>
</tr>
</tbody>
</table>

(a) The value of the column Carrying Value (IFRS) is in line with the amounts disclosed in the Annual Financial Statements. However, the breakdown of assets by aggregates follows the Solvency II balance sheet presentation, which slightly differs from the one in the Annual Financial Statements. The primary impacts are on “Investments in real estate properties”, “Receivables”, “Other assets”, “Derivatives” and “Loans and mortgages”.

(b) The interim column of the table sets forth the IFRS value of the Company’s main asset classes but applying Solvency II presentational rules for equity method for US entities, XL Group as Bermudian insurance group, banks, pension funds and asset managers (presented for their Group share under the line “Holdings in related undertakings, including participations”).

(c) The amount reported in “Other investments” refers to “Deposits other than cash equivalents” which are reported under “Cash and cash equivalents” under IFRS.
The Group applies the IFRS 13 fair value hierarchy as described below for all assets and liabilities (excluding technical provisions). The fair value hierarchy is consistent with the one defined in the Solvency II Regulations. Principles A) to C) below address mostly assets given the nature of the activities of the Group.

A) ACTIVE MARKET: QUOTED PRICE

Fair values of assets traded on active markets are determined using quoted market prices when available. An instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency and those prices represent actual and regularly occurring market transactions on an arm’s length basis between a willing seller and a willing buyer. For financial instruments traded in active markets, quotes received from external pricing services represent consensus prices, i.e. using similar models and inputs resulting in a very limited dispersion.

B) ACTIVE VERSUS INACTIVE MARKETS – FINANCIAL INSTRUMENTS

Equity instruments quoted on exchange traded markets and bonds actively traded on liquid markets are generally considered as being quoted in an active market when:
- quotes that represent consensus are regularly provided by external pricing services with limited dispersion; and
- prices are readily available.

Liquidity for debt instruments is assessed using a multi criteria approach including the number of quotes available, the place of issuance and the evolution of the widening of bid/ask spreads.

A financial instrument is regarded as not quoted in an active market:
- if there is little observation of transaction prices as an inherent characteristic of the instrument;
- when there is a significant decline in the volume and level of trading activity;
- in case of significant illiquidity;
- or if observable prices cannot be considered as representing fair value because of dislocated market conditions.

Characteristics of inactive markets can therefore be very different in nature, inherent to the instrument or indicative of a change in the conditions prevailing in certain markets.

C) ASSETS AND LIABILITIES NOT QUOTED IN AN ACTIVE MARKET

The fair values of assets and liabilities that are not traded in an active market are estimated:
- using external and independent pricing services; or
- using valuation techniques.

No active market: use of external pricing services

External pricing services may be fund asset managers in the case of investments in funds. To the extent possible, the Group collects quotes from external pricing providers as inputs to measure fair values. Prices received may form tight clusters or dispersed quotes which may then lead to the use of valuation techniques. The dispersion of quotes received may be an indication of the large range of assumptions used by external pricing providers given the limited number of transactions to be observed or reflect the existence of distress transactions. In addition, given current market conditions since the financial crisis and the inactivity of some markets since then, many financial institutions ceased to be engaged in the origination or trading of structured assets deals and are as a result no longer in a position to deliver meaningful quotes for such assets.

No active market: use of valuation techniques

The objective of valuation techniques is to arrive at the price at which an orderly transaction would take place between market participants (a willing buyer and a willing seller) at the measurement date. Valuation technique models include:
- market approach: The consideration of recent prices and other relevant information generated by market transactions involving substantially similar assets or liabilities;
- income approach: Use of discounted cash flow analysis, option pricing models, and other present value techniques to convert future amounts to a single current (i.e. discounted) amount;
- cost approach: The consideration of amounts that would currently be required to construct or replace the service capacity of an asset.

Valuation techniques are highly subjective in nature and significant judgment is involved in establishing fair values. The use of valuation techniques and the related underlying assumptions could produce different estimates of fair value. Valuations are determined using generally accepted models (discounted cash flows, Black & Scholes models, etc.) based on quoted market prices for similar instruments or underlying factors (index, credit spread, etc.) whenever such directly observable data are available and valuations are adjusted for liquidity and credit risk.
Valuation techniques may be used when there is little observation of transaction prices as an inherent characteristic of the market, when quotes made available by external pricing providers are too dispersed or when market conditions are so dislocated that observed data cannot be used or need significant adjustments. Internal mark to model valuations are therefore normal market practices for certain assets and liabilities scarcely traded or for exceptional processes implemented due to specific market conditions.

Use of valuation techniques in dislocated markets

The dislocation of certain markets may be evidenced by various factors, such as very large widening of bid/ask spreads which may be helpful indicators in understanding whether market participants are willing to transact, wide dispersion in the prices of the small number of current transactions, varying prices over time or among market participants, inexistence of secondary markets, disappearance of primary markets, closing down of dedicated desks in financial institutions, distress and forced transactions motivated by strong needs of liquidity or other difficult financial conditions implying the necessity to dispose of assets immediately with insufficient time to market the assets to be sold, and large bulk sales to exit such markets at all costs and that may involve side arrangements (such as sellers providing finance for a sale to a buyer).

In such cases, the Group uses valuation techniques including observable data whenever possible and relevant, adjusted if needed to develop the best estimate of fair value, including adequate risk premiums or develops a valuation model based on unobservable data representing estimates of assumptions that willing market participants would use when prices are not current, relevant or available without undue costs and efforts: in inactive markets, transactions may be inputs when measuring fair value, but would likely not be determinative and unobservable data may be more appropriate than observable inputs.

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Intangible assets

Under Solvency II, only intangible assets related to the business in force, that are separable and for which there is evidence of transactions for the same or similar assets, indicating they are saleable in the market place, are recognized. As a result of Solvency II principles, goodwill and other intangible assets recognized under IFRS have no value in the Solvency II consolidated balance sheet.

Please refer to Note 5 “Goodwill” on pages 259 to 266, Note 6 “Value of purchased business in-force” on page 267, Note 7 “Deferred acquisition costs and equivalent” on pages 268 to 269 and Note 8 “Other intangible assets” on pages 269 to 271 each in Part 5 – “Consolidated Financial Statements” of the Annual Report for detailed information regarding intangible assets recognized under IFRS.

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Deferred taxes

Differences arise between IFRS and Solvency II deferred tax balances due to differences in underlying valuation principles for assets and liabilities. However, recognition and valuation principles of deferred taxes under both IFRS and Solvency II frameworks are similar.

Deferred tax assets and liabilities emerge from temporary differences with tax values of assets and liabilities, and, when applicable, from tax losses carry-forwards. Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available to offset the temporary differences, taking into account the existence of tax groups and any legal or regulatory requirements on the limits (in terms of amounts or timing) related to the carry forward of unused tax losses or the carry forward of unused tax credits. Projections made for future taxable profits are broadly consistent with assumptions used for other projected cash flows. The recoverability of deferred tax assets recognized in previous periods is re-assessed at each closing period.
The measurement of deferred tax liabilities and deferred tax assets reflects the expected tax impact that would result from the way the Group expects to recover or settle the carrying amount of its assets and liabilities. When income taxes are calculated at a different rate if dividends are paid, deferred taxes are measured at the tax rate applicable to undistributed profits. The income tax consequences of dividends are only accounted when a liability to pay the dividend is recognized.

For presentation purposes, deferred tax assets are offset with deferred tax liabilities at fiscal entity (or tax group if any) level.

Deferred tax assets and liabilities mainly arise from temporary differences between tax basis and valuation under Solvency II of technical provisions and investments. They are expected to be reversed on a mid to long term period. € 556 million of potential deferred tax assets related to €2,771 million of tax losses carried forward have not been recognised because they are considered as unrecoverable. The major part of these losses has no expiry date for tax deduction.

Property, plant and equipment held for own use

Under Solvency II, property, plant and equipment held for own use is recognized at fair value whereas it is recognized at cost under IFRS. Asset components are depreciated over their estimated useful lives under IFRS and a reversible impairment is recognized if specific conditions are met. Under IFRS, when an asset is intended to be sold within twelve months, it is measured at the lower of net carrying value and fair value net of selling costs.

Investments and loans

The “investments” aggregate in the Solvency II balance sheet includes investments in real estate properties (other than for own use), participations (including entities other than investment funds) that are accounted for under the (adjusted) equity method and other entities recognized using the Deduction & Aggregation method), equity instruments, bonds, investment funds, derivatives and deposits other than cash equivalents.

Investments in real estate properties (not for own use)

Under Solvency II, investments in real estate properties are recognized at fair value. Under IFRS, they are recognized at cost excluding investments in real estate properties totally or partially backing liabilities arising from contracts where the financial risk is borne by policyholders that are accounted for at fair value. Under IFRS, the components of properties are depreciated over their estimated useful lives and reversible impairment is recognized if specific conditions are met. When a property is intended to be sold within twelve months, it is measured at the lower of net carrying value and fair value net of selling costs.

Please refer to the table in Note 9.2 “Investment in real estate properties” in Part 5 – “Consolidated Financial Statements” on page 276 of the Annual Report, which indicates the breakdown of the carrying value and fair value of investment in real estate properties at amortized cost, including the impact of all derivatives, except derivatives related to macro-hedges which are shown separately.

Please refer to the table in Note 9.10.1 “Investments recognized at fair value” in Part 5 – “Consolidated Financial Statements” on pages 283 to 285 of the Annual Report, which indicates the breakdown by valuation method of investments in real estate properties recognized at fair value in IFRS (including derivatives).
Holdings in related undertakings, including participations (including those under consolidation Method 2 under Solvency II)

Participations in insurance and reinsurance companies are valued according to the underlying company’s individual Solvency II own funds (according to the valuation method called “adjusted equity method” under Solvency II and described previously).

Assets and liabilities of entities consolidated under the Deduction & Aggregation Method for Solvency Capital Requirements purposes (SCR) which correspond to US-based insurance entities, XL Group as Bermudian insurance group, credit and financial institutions, investment firms, non-regulated entities carrying out financial activities (except investment funds and real estate companies), or institutions for occupational retirement provisions are presented on a net basis under the “participations” aggregate in the balance sheet.

Financial assets including loans

Under Solvency II, financial assets are recognized at fair value.
Under IFRS, they are recognized at fair value, except:
- debt securities held to maturity, accounted for at amortized cost;
- loans and receivables (including some debt instruments not quoted in an active market) accounted for at amortized cost using the effective interest rate method.

Under IFRS, these instruments accounted for at amortized cost are subject to impairment based respectively on future cash flows discounted using the initial effective interest rate, or on fair value if future cash flows may not be fully recoverable due to a credit event relating to the issuer. If the credit risk is eliminated or improves, the impairment may be reversed.

Please refer to the table in Note 9.1 “Breakdown of investments” in Part 5 – “Consolidated Financial Statements” on pages 272 to 275 of the Annual Report which presents each investment item net of the related hedging derivatives (IAS 39 qualifying hedges or economic hedges) except derivatives related to macro-hedges which are shown separately.

Derivatives

Under both IFRS and Solvency II, derivatives are recognized at fair value.

Please refer to Note 20 “Derivative instruments” in Part 5 – “Consolidated Financial Statements” on pages 329 to 337 of the Annual Report. This note includes information on all types of derivatives including derivative instruments held by consolidated investment funds in the “satellite investment portfolio” (see Note 1.8.2 “Financial instruments classification” in Part 5 – “Consolidated Financial Statements” on pages 237 to 238 of the Annual Report) which are recognized at fair value in accordance with the IFRS hierarchy as described previously in this Section D.1 but excluding derivative instruments that meet the definition of shareholders’ equity instruments (see Note 13 “Shareholders’ equity and minority interests” in Part 5- “Consolidated Financial Statements” on pages 299 to 304 of the Annual Report for additional information).
Leasing

IAS 17 – Lease prescribes, for lessees and lessors, the appropriate accounting policies to apply in relation to leases. Measurement principles for operating leases and lessors in finance leases are consistent with Solvency II valuation principles.

A lease contract shall be classified as either an operating or a finance lease. A finance lease is an agreement that transfers substantially all the risks and rewards associated with ownership of the asset to the lessee.

**OPERATING LEASES**

Lease payments made by the lessee shall be recognized as an expense on a straight line basis over the lease term.

On the other hand, the lessor shall present the asset on its financial statements according to the nature of the asset.

**FINANCE LEASES**

In general, leased assets include real estate, office furniture, and IT equipment. The lessee should recognize a finance lease as an asset and a liability on its balance sheet at the lower of fair value and the present value of the minimum lease payments. A liability is recognized as a counterpart. Under Solvency II framework, when measuring financial liabilities, no adjustment is made to take into account AXA’s own credit standing.

The lessor records the lease as a receivable at an amount equal to the net investment in the lease (present value of the aggregate of the minimum lease payments and any unguaranteed residual value accruing to the lessor).

**Assets held for index-linked and unit-linked contracts**

Under both IFRS and Solvency II, assets backing liabilities arising from contracts where the financial risk is borne by policyholders are presented in a separate aggregate of the balance sheet so that they are shown in a symmetrical manner to the corresponding liabilities. The same valuation approach is applied under both IFRS and Solvency II frameworks.

Please refer to the table in Note 9.11 “Investments backing contracts where the financial risk is borne by policyholders” in Part 5 – “Consolidated Financial Statements” on page 286 of the Annual Report which provides a breakdown of assets held for index-linked and unit-linked contracts.

**Reinsurance and special purpose vehicles recoverables**

Please refer to Section D.2. of this Report.
Receivables

For detailed information on receivables, please refer to Note 11 “Receivables” in Part 5 – “Consolidated Financial Statements” on page 297 of the Annual Report.

Other assets

All other assets (tangibles assets and other long term assets) are recorded at fair value under Solvency II but by default, the IFRS value is kept. Other assets mainly include held for sale assets, and prepayment charges.
D.2 TECHNICAL PROVISIONS

General principles

Under Solvency II, technical provisions are split amongst Non-Life (excluding Health), Health (similar to non-Life), Health (similar to life), Life (excluding health, index-linked and unit-linked), index-linked and unit-linked.

Technical provisions are measured using a twofold “building block” approach:
- Best Estimate Liabilities (“BEL”); and
- Risk margin for non-hedgeable risks which is added to the best estimate liabilities.

The valuation of technical provisions requires in-depth analysis of the underlying obligations, collection of qualitative and quantitative information, projection tools and models, and expert judgment in a number of areas.

Under IFRS 4 in phase 1 of the IASB’s (International Accounting Standards Board) insurance project, different criteria apply to classification and therefore measurement. AXA continues to apply previous accounting policies to policyholders’ assets and liabilities related to all contracts classified as insurance contracts and investment contracts with discretionary participating features. A liability adequacy test is performed at each balance sheet date at each consolidated entity level to ensure the adequacy of contract liabilities net of related Deferred Acquisition Costs (“DAC”) and Value of Business In-Force (VBI).

Furthermore, investment contracts without discretionary participating features (primarily unit-linked contracts with no insurance features) are accounted for under IAS 39.

Please refer to Note 1.14 on “Liabilities arising from insurance and investment contracts” in Part 5 – “Consolidated Financial Statements” on pages 240 to 242 of the Annual Report for more details on the IFRS accounting of insurance contracts.

The table below summarizes AXA’s technical provisions under Solvency II together with a comparison on an IFRS basis as of December 31, 2018.
<table>
<thead>
<tr>
<th>(in Euro million)</th>
<th>Carrying Value (IFRS)</th>
<th>IFRS after reclassification (a)</th>
<th>Fair Value (Solvency II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical provisions – non-Life (b)</td>
<td>108,934</td>
<td>72,146</td>
<td>58,794</td>
</tr>
<tr>
<td>Technical provisions – non-Life (excluding Health)</td>
<td>92,007</td>
<td>55,745</td>
<td>47,703</td>
</tr>
<tr>
<td>Best Estimate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>45,682</td>
</tr>
<tr>
<td>Risk margin</td>
<td>n.a.</td>
<td>n.a.</td>
<td>2,021</td>
</tr>
<tr>
<td>Technical provisions – Health (similar to non-Life)</td>
<td>16,857</td>
<td>16,402</td>
<td>11,091</td>
</tr>
<tr>
<td>Best Estimate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>10,816</td>
</tr>
<tr>
<td>Risk margin</td>
<td>n.a.</td>
<td>n.a.</td>
<td>276</td>
</tr>
<tr>
<td>Technical provisions – Life (excluding index-linked and unit-linked) (c)</td>
<td>405,083</td>
<td>327,953</td>
<td>335,734</td>
</tr>
<tr>
<td>Technical provisions – Health (similar to Life)</td>
<td>34,037</td>
<td>34,037</td>
<td>30,973</td>
</tr>
<tr>
<td>Best Estimate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>27,554</td>
</tr>
<tr>
<td>Risk margin</td>
<td>n.a.</td>
<td>n.a.</td>
<td>3,419</td>
</tr>
<tr>
<td>Technical provisions – Life (excluding Health and index-linked and unit-linked)</td>
<td>371,045</td>
<td>293,916</td>
<td>304,762</td>
</tr>
<tr>
<td>Best Estimate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>300,507</td>
</tr>
<tr>
<td>Risk margin</td>
<td>n.a.</td>
<td>n.a.</td>
<td>4,255</td>
</tr>
<tr>
<td>Technical provisions – index-linked and unit-linked</td>
<td>163,275</td>
<td>66,742</td>
<td>61,829</td>
</tr>
<tr>
<td>Best Estimate</td>
<td>n.a.</td>
<td>n.a.</td>
<td>60,676</td>
</tr>
<tr>
<td>Risk margin</td>
<td>n.a.</td>
<td>n.a.</td>
<td>1,152</td>
</tr>
</tbody>
</table>

(a) The interim column of the table is providing the value of the Company’s main asset classes under IFRS but applying Solvency II presentational rules for US entities, XL Group as a Bermudian insurance group, banks, pension funds and asset managers (presented for their Group share).
(b) Sum of Technical provisions – non-life (excluding health) and Technical provision – Health (similar to non-life).
(c) Sum of Technical provisions – Health (similar to Life) and Technical provisions Life (excluding Health and index-linked and unit-linked).
Best Estimate Liabilities

AXA Group IFRS technical reserves are valued according to IFRS general principles incorporated herein by reference to the Annual Report, section 5.6 “Notes to the Consolidated Financial Statements - Note1 accounting principles” on pages 226 to 246 of the Annual Report; as such they differ from Solvency II principles of BEL described below. The BEL corresponds to the probability-weighted average of future cash flows, including policyholders’ benefit payments, expenses, taxes, premiums related to existing insurance and reinsurance contracts taking into account the time value of money (i.e. by discounting these future cash flows to present value). The calculation of the best estimate liability is based upon up-to-date reliable information and realistic assumptions. The cash flow projection used in the calculation includes all the cash in- and out-flows required to settle the insurance and reinsurance obligations over their lifetime.

The best estimate liability is recognized on a gross of reinsurance basis, without deduction of amounts recoverable from reinsurance contracts and special purpose vehicles. The latter are recognized separately.

The risk margin is defined as the cost of non-hedgeable risk, i.e. a margin in addition to the expected present value of liability cash flows required to manage the business on an on-going basis. It is deemed to be the present value of the cost of future economic capital requirements for non-hedgeable risks.

A best estimate assumption is defined as one where there is the same probability that the actual experience develops more or less favorably than the assumption. It is neither a prudent nor an optimistic assumption. It is set at a level that is neither deliberately overstated nor deliberately understated. Due to the inherent uncertainties, if two assumptions are equally reasonable the more prudent one is retained.
ASSUMPTIONS AND FRAMEWORK

Assumptions regarding future experience are intended to be reasonable, and, to the extent possible, take into account the historical and current experience of the Group, adjusted to reflect known changes in the environment and identifiable trends. Available experience studies are reviewed. Should no experience studies be available, they are developed where appropriate and practical. In some instances, data may not be available or may be insufficient to provide a credible basis on which to develop assumptions. Consequently, it may be necessary to rely more on judgment, taking into consideration the Group’s pricing and/or reserving assumptions and the experience of other companies with comparable products, markets, and operating procedures.

Assumptions are used to project future cash flows, and are therefore selected with due regard to the future context or expected future operating environment of the Group. Thus, they may or may not be consistent with past experience.

The analysis of future experience will depend on the context and the risk characteristics of the products analysed. The impact of the external environment on future cash flows and financial statements must also be recognised. Setting corresponding assumptions requires sound knowledge of the current and projected policies of management in charge of investment, underwriting, reinsurance, claims settlement, marketing, pricing, policyholder dividend/bonus declaration and administration. Specific considerations include economic factors such as inflation as well as the regulatory, legislative and political environments.

Assumptions in respect of best estimate metrics are derived consistently over time and within homogeneous risk groups and lines of business without arbitrary changes. The assumptions are designed to adequately reflect any uncertainty underlying the cash flows.

Non-market assumptions, based on latest best estimate assumptions (historical data and expert judgment), include the following:

- loss ratios;
- best estimate schedule of lapses;
- policyholder behavior (e.g. dynamic lapses, election to guaranteed annuity); and
- management actions (e.g. discretionary benefits distribution policy).

Market parameters are determined using latest financial information available.

CHARACTERISTICS OF CERTAIN ASSUMPTIONS

Expenses

Expenses include administrative, investment management, claims management and acquisition expenses which relate to recognized insurance and reinsurance obligations. The assumptions underlying expense projections are consistent with the Group’s strategy, taking into account future new business and any change in expenses as decided by the management.

Boundary of an insurance or reinsurance contract

AXA Group applies Solvency II contract boundary rules. As such, the Solvency II balance sheet excludes all premiums expected from new business not yet written and some future premiums expected from existing contracts if the insurer has the power to either reject them on an unilateral basis or to fully re-price them so as to reflect the risks covered.

Management actions

Management actions are taken into account. They include, but are not limited to:

- change in strategic asset allocation;
- change in crediting rates for participating business;
- product re-pricing; and
- expense reduction.

Assumptions related to management actions are consistent with business practices, the Group’s strategy and/or policyholders’ obligations.

Reference rate curve and stochastic scenarios

Where a stochastic simulation is required in the calculation of the best estimate cash flows (e.g. in the valuation of financial options and guarantees), scenarios are designed to be market consistent using a risk neutral approach. Within the risk neutral valuation, investment returns and discount rates are stochastic and deemed inseparable. The risk neutral scenarios used consist in a very large number of scenarios where asset classes are projected with their implied volatility but with the average return of the spot risk free rate curve. Discount rates used for both life and non-Life reserves are basic risk free rates adjusted to mitigate the effect of exaggeration of bond spreads by the use of a volatility adjustment.
STATEMENT ON THE USE OF THE VOLATILITY ADJUSTMENT AND ULTIMATE FORWARD RATE

The volatility adjustment is an adjustment to the basic risk-free rate term-structure that prevents pro-cyclical investment behavior by mitigating the effect of the volatility of asset spreads (mainly corporate and government bonds) on valuation of liabilities. The application of the volatility adjustment is conditional on the type of business. In practice, for General Account business, 100% of the volatility adjustment is applied, while 0% is used for Unit Linked business. The volatility adjustment is added to the zero-coupon spot rates of the basic risk-free interest rate term structure until the last liquid point observable in the market.

In order to derive the relevant risk-free curve beyond the last observable liquid forward rate, an interpolation based on Smith-Wilson technique is performed between this point and the Ultimate Forward Rate (UFR). The UFR is specified by Solvency II Regulations by currency zone and corresponds to the sum of expected long term inflation and real interest rates.

As at December 31, 2018, AXA’s Solvency II ratio without applying the volatility adjustment amount to 153%, compared to 193% after applying the volatility adjustment.

The eligible own funds without considering the volatility adjustment would decrease by €2.8 billion to €55.4 billion, reflecting the increase in best estimate liabilities due to a lower discount rate.

The total SCR would increase by €6.1 billion mainly due to higher market risks and, notably, spread risks.

This calculation is performed to address a specific regulatory requirement. However, the results obtained through this approach are not considered to provide conclusions economically in line with the nature of the business underwritten and the related asset allocation strategy implemented within the Group.

STATEMENT ON THE USE OF THE TRANSITIONAL MEASURES FOR TECHNICAL PROVISIONS

The Group did not apply the transitional risk-free interest rate term structure referred to in Article 308c of the Directive nor the transitional deduction referred to in Article 308d of the Directive.

NON-LIFE BEST ESTIMATE LIABILITIES

Non-Life BEL represent expected future cash flows discounted to take into account the time value of money for non-Life obligations and generally do not require stochastic projections nor dynamic assumptions.

The valuation of non-Life technical provisions is based on the application of a wide range of actuarial projection models, including the following elements:

- the portfolio’s main features in terms of risk drivers, underwriting and claims policies, social, economic and legal context, local requirements (such as statutory, accounting, tax), market conditions and policyholders’ behaviors;
- quality, relevance and consistency over time of available statistical data;
- consistency and limits of the set of selected forecasting methods, given the business features and the available data;
- selection of relevant actuarial assumptions and models;
- ability to economically interpret and justify the projected range of results, both quantitatively and qualitatively.

Analyses are performed by line of business. Projections rely on tools developed either internally or externally.

Non-Life technical provisions are valued based on modelled run-offs of projected out-flows on the basis of past payment patterns adjusted whenever relevant in order to make reserve projections until their estimated final settlement.

Unearned premium reserves

In addition to the valuation above, the non-Life BEL include the adjusted valuation of unearned premium reserves that aim to cover the unexpired risk periods for which the Group already received premiums.

Under IFRS, unearned premium reserves are usually based on a pro-rata of premiums received related to the unexpired period of coverage plus an amount to cover deficiencies when the combined ratio based on technical reserves is higher than 100% (net of reinsurance).

Under Solvency II, such reserves are adjusted taking into account (I) a best estimate expected loss ratio applied to the proportion of the premiums related to the unexpired period (II) and the time value of money.
LIFE & SAVINGS BEST ESTIMATE LIABILITIES

The calculation of BEL for some short term protection businesses is similar to the calculation of Property & Casualty BEL. However, for other life contracts, though also based on cash flow projections, the estimation of the BEL follows a different process. This is due to the multiple cash flows to be projected, including the significant impact of asset related flows in the estimation of amounts to be paid to policyholders (profit sharing) as well as the need to run stochastic projections to assess the time value of options and guarantees for life products excluding unit-linked.

The framework is based on projections of the key components of statutory financial statements i.e. income or expenses that relate to policyholders and beneficiaries obligations and assets backing those liabilities.

Projections are based on statutory financial statements for the following reasons:

- **policyholder bonuses**: bonuses on participating contracts are based on the current statutory balance sheet calculations;
- **timing of the distribution of cash flows**: timing is driven by statutory accounting;
- **taxation**: taxation is calculated using liabilities based on statutory accounts and is necessary for the calculation of deferred taxes loss absorbency to be allowed for in calculating the SCR;
- **dividend policy**: statutory accounts directly impact dividend distribution capacity.

Valuation of contractual options and financial guarantees

The Options and Guarantees (O&G) valued in best estimate cash flow projections cover all material O&G embedded in Group’s Life & Savings business. The key options and guarantees considered are:

- interest rate guarantees of traditional products, such as guaranteed cash values, Guaranteed Annuity Options (GAOs);
- profit sharing rules (such as bonus rates, credited interest rates, policyholders’ dividends), which, when combined with guarantees, can create asymmetric returns for shareholders;
- guaranteed benefits (GMDB, GMIB) on unit-linked annuity products;
- dynamic policyholder behavior, that notably relates to the options that policyholders can elect at a time that would not be favorable to the Group (such as full or partial surrender, premium discontinuance, annuitization).

Risk margin

In addition to the BEL, a risk margin is recognized to obtain values consistent with the determination of market prices when there are no deep and liquid markets. The risk margin is defined as the cost of non-hedgeable risks, i.e. a margin in addition to the expected present value of liability cash flows required to manage the business on an on-going basis. In general, most insurance risks (e.g. mortality or property risks) are deemed non-hedgeable.

Non-hedgeable risks comprise:

- Property & Casualty and Life insurance risks;
- Reinsurance default risks; and
- Operational risks.

The SCR for the non-hedgeable risks is projected for future years until the portfolio runs-off using suitable risk drivers. Depending on the businesses, the risk drivers can be provisions, expenses, sum at risk or, present value of annuities.

The risk margin is determined as the present value at the basic risk free interest rate structure of the future capital charges using a 6% cost of capital for all lines of business as per Solvency II regulation requirement.

The cost of capital is a premium over the risk free rate that represents the reduction in economic “value” (cost) linked to the risks considered.
Reinsurance and Special purpose vehicles recoverables

As technical provisions are reported gross of reinsurance, a reinsurance asset is identified separately. Transactions related to reinsurance assumed and ceded are accounted for in the balance sheet in a similar way to direct business transactions in agreement with contractual clauses. Indeed, the methods used to value reinsurance balances depend on the type of reinsurance contracts (e.g. treaties/facultatives, proportional/non-proportional), the nature of the business and the ceded portion.

Differences in valuations of gross technical provisions between IFRS and Solvency II trigger differences in valuations of ceded technical provisions between the two frameworks.

Material changes in assumptions in 2018

The most material changes in assumptions in FY18 affecting best estimate liabilities are the following:

- the transformation of the in-force Swiss Group Life business to a semi-autonomous model and the transfer of reserves to occupational benefits foundations (€+0.9 billion post tax);
- a change in lapse and medical expenses assumptions in Japan increasing the best estimate liabilities (€+0.3 billion post tax);
- a change in expenses, lapses and mortality assumptions for Life and Savings in France increasing the best estimate liabilities (€+0.3 billion post tax); and
- an update on best estimate of claims reserve for Property and Casualty in France and Switzerland, decreasing the best estimate of liabilities (€-1.5 billion post tax).

REINSURANCE RECEIVABLES/PAYABLES

Under Solvency II, reinsurance assets from reinsurance contracts and special purpose vehicles are adjusted from their IFRS value to take into account the expected losses due to default of the counterparty.
### D.3 OTHER LIABILITIES

The table below summarizes the value of AXA’s other liabilities according to Solvency II and on an IFRS basis as at December 31, 2018.

<table>
<thead>
<tr>
<th>(in Euro million)</th>
<th>Carrying Value (IFRS)(^{(a)})</th>
<th>IFRS after reclassification(^{(b)})</th>
<th>Fair Value (Solvency II)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contingent liabilities</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Provisions other than technical provisions</td>
<td>2,646</td>
<td>1,630</td>
<td>1,489</td>
</tr>
<tr>
<td>Pension benefit obligations</td>
<td>8,716</td>
<td>7,215</td>
<td>5,595</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>4,621</td>
<td>4,145</td>
<td>4,239</td>
</tr>
<tr>
<td>Derivatives</td>
<td>(2,057)</td>
<td>(980)</td>
<td>(980)</td>
</tr>
<tr>
<td>Financial Liabilities</td>
<td>63,062</td>
<td>52,636</td>
<td>55,342</td>
</tr>
<tr>
<td>Subordinated liabilities</td>
<td>18,049</td>
<td>16,637</td>
<td>18,641</td>
</tr>
<tr>
<td>Subordinated liabilities not in Basic Own Funds</td>
<td>11,200</td>
<td>9,788</td>
<td>-</td>
</tr>
<tr>
<td>Subordinated liabilities in Basic Own Funds</td>
<td>6,849</td>
<td>6,849</td>
<td>18,641</td>
</tr>
<tr>
<td>Debts owed to credit institutions</td>
<td>773</td>
<td>483</td>
<td>483</td>
</tr>
<tr>
<td>Financial liabilities other than debts owed to credit institutions</td>
<td>44,240</td>
<td>35,516</td>
<td>36,218</td>
</tr>
<tr>
<td>Payables</td>
<td>31,638</td>
<td>17,887</td>
<td>16,786</td>
</tr>
<tr>
<td>Deposits from reinsurers</td>
<td>1,808</td>
<td>1,543</td>
<td>1,543</td>
</tr>
<tr>
<td>Other liabilities not included in the aggregates above and excluding technical provisions</td>
<td>76,568</td>
<td>37,472</td>
<td>39,800</td>
</tr>
</tbody>
</table>

(a) The values of the column Carrying Value (IFRS) are in line with the amounts disclosed in the Consolidated Financial Statements. However, the breakdown of liabilities by aggregates follows the Solvency II balance sheet presentation, which slightly differs from the one in the Consolidated Financial Statements. Main aggregates impacted are “Derivatives” and “Subordinated liabilities”.

(b) This interim column sets forth the value of the Company’s main asset classes under IFRS but applying Solvency II presentational rules for equity method for US entities, XL Group as Bermudian insurance group, banks, pension funds and asset managers (presented for their Group share).

(c) The carrying value of the “Subordinated liabilities in Basic Own Funds” is presented in shareholders’ equity, “Undated subordinated debt” in the Consolidated Financial Statements. The carrying value of the “Subordinated liabilities not in Basic Own Funds” is presented in “subordinated liabilities at cost” in the Consolidated Financial Statements.

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### Contingent liabilities

Contingent liabilities are:

- possible obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or

- present obligations that arise from past events but for which it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation.

Under Solvency II, contingent liabilities that are material are recognized as liabilities, unlike IFRS where they are only disclosed. Contingent liabilities are material where information about the current or potential size or nature of those liabilities could influence the decision-making or judgment of the intended user of that information, including the supervisory authorities.

The value of contingent liabilities is equal to the expected present value of future cash flows required to settle the contingent liability over the lifetime of that contingent liability, using the basic risk-free interest rate term structure.
Provisions other than technical provisions

The same approach is applied under both IFRS and Solvency II. Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of past events, when it is probable that an outflow of resources will be required to settle the obligation, and when the provision can be reliably estimated. Provisions are not recognized for future operating losses. Provisions are measured at management’s best estimate, at the balance sheet date.


Pension benefit obligations

The same approach is applied under both IFRS and Solvency II frameworks. Under the Solvency II balance sheet, pension benefit obligations amount to €5.595 billion as at December 31, 2018. They decrease by €1.620 billion as compared to IFRS reserves on a comparable basis. The difference is explained by the reclassification of pension obligations to technical provisions in Switzerland.

Pension benefit obligations include the benefits payable to the Group’s employees after they retire (e.g. retirement compensation, additional pension benefit, health insurance). In order to meet those obligations, some regulatory frameworks have allowed or enforced the set-up of dedicated funds (plan assets).

There are two different types of pension plans:

- Defined contribution plans: payments are made by the employer to a third-party (e.g. pension trusts). These payments free the employer of any further commitment, and the obligation to pay acquired benefits to the employees is transferred. No liability needs to be recorded once contributions are made;

- Defined benefit plans: an actuarial assessment of the commitments based on each plan’s internal rules is performed. The present value of the future benefits paid by the employer, known as the DBO (Defined Benefit Obligation), is calculated annually on the basis of long-term projections of rate of salary increase, inflation rate, mortality, staff turnover, pension indexation and remaining service lifetime. The amount recorded in the balance sheet for employee defined benefit plans is the difference between the present value of the Defined Benefit Obligation and the market value at the balance sheet date of the corresponding invested plan assets after adjustment for any minimum funding requirement or any asset ceiling effect. If the net result is positive, a provision is recorded. If the net result is negative, a prepaid pension asset is recorded in the balance sheet but not more than its recoverable amount (asset ceiling).

Please refer to Note 26 “Employees” in Part 5 – “Consolidated Financial Statements” on pages 345 to 358 of the Annual Report which provides detailed information on employee benefits and shared-based compensation.

Deferred taxes

Please refer to Section D.1. of this Report.

Derivatives

Please refer to Section D.1. of this Report.
Financial liabilities

Under IFRS, financial liabilities, including financing debt issued to finance the solvency requirements of operational entities or to acquire a portfolio of contracts, are accounted for at amortized cost.

Under Solvency II, financial liabilities are re-measured at fair value. However, financial liabilities issued by the Group are not subsequently adjusted to take into account the change in own credit standing of the issuer after initial recognition (frozen credit risk). A similar treatment is applied to the derivatives related to those debts.

Leasing arrangements

Please refer to Section D.1 of this Report.

Payables

Under IFRS, payables arising from direct insurance, inward reinsurance and direct outward reinsurance operations are measured at amortized cost. Under Solvency II, payables are re-measured at fair value.

Other liabilities

Under IFRS, other liabilities mainly include (I) liabilities arising from banking activities, (II) minority interests of consolidated investment funds and puttable instruments held by minority holders, and (III) liabilities held for sale. The main difference with the Solvency II framework comes from the banking activities that are presented according to the equity method under Solvency II.

With regard to share-based compensation plans, the same approach is applied under both IFRS and Solvency II frameworks. The Group’s share-based compensation plans are predominantly settled in equities. These plans, by nature, do not have an impact on assets and liabilities except for the related tax effect; cash-settled share-based compensation plans are recognized at fair value, which is re-measured at each balance sheet date.

All other liabilities are also recorded at fair value under Solvency II but by default, the IFRS value is kept.
D.4 ALTERNATIVE METHODS FOR VALUATION

For detailed information on alternative methods used for valuation of assets and liabilities other than technical provisions, please refer to C) “Assets and liabilities not quoted in an active market” in subsection “Fair value measurement” of Section D.1. of this Report.

D.5 ANY OTHER INFORMATION

Not applicable.
E.1 OWN FUNDS
- Capital management objectives
- Information on the capital structure
- Change in capital resources in 2018
- Tiering analysis of capital
- Fungibility of capital
- Reconciliation to IFRS shareholders’ equity

E.2 SOLVENCY CAPITAL REQUIREMENT AND MINIMUM CAPITAL REQUIREMENT
- General principles
- Solvency Capital Requirement (SCR)
- Main differences between any internal model used at individual undertaking level and the Internal Model used to calculate the Group’s Solvency Capital Requirement
- Minimum Capital Requirement

E.3 USE OF THE DURATION-BASED EQUITY RISK SUB-MODULE IN THE CALCULATION OF THE SOLVENCY CAPITAL REQUIREMENT

E.4 DIFFERENCE BETWEEN THE STANDARD FORMULA AND ANY INTERNAL MODEL USED
- General information
- Main differences between the Standard Formula and the Internal Model

E.5 NON-COMPLIANCE WITH THE MINIMUM CAPITAL REQUIREMENT AND NON-COMPLIANCE WITH THE SOLVENCY CAPITAL REQUIREMENT

E.6 ANY OTHER INFORMATION
E.1 OWN FUNDS

Capital management objectives

Information relating to the capital management objectives of the Group is incorporated herein by reference to Section 2.4 “Liquidity and capital resources - Capital management objectives” on page 94 of the Annual Report.

Information on the capital structure

As at December 31, 2018, consolidated eligible own funds, after taking into account all intra-group eliminations, totaled €58.2 billion. US-based insurance business and XL Group are included under local rules (€15.0 billion) as per the equivalence regime. Banks, pension funds and asset management companies are accounted for according to the corresponding sectoral rules (€3.2 billion).

The capital resources at December 31, 2018 are presented in the table below:

<table>
<thead>
<tr>
<th>(in EUR billion)</th>
<th>At December 31, 2018</th>
<th>At December 31, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share capital</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Capital in excess of nominal value</td>
<td>21.6</td>
<td>20.6</td>
</tr>
<tr>
<td>Undated subordinated debt</td>
<td>6.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Dated subordinated debt</td>
<td>11.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Surplus funds</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Reconciliation reserve</td>
<td>9.2</td>
<td>14.0</td>
</tr>
<tr>
<td>Others</td>
<td>1.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Eligible Own Funds</td>
<td>58.2</td>
<td>57.8</td>
</tr>
</tbody>
</table>

Reconciliation reserve represents the excess of assets over liabilities from the Solvency II balance sheet, reduced by capital items in the financial statements (share capital, capital in excess of nominal value excluding subordinated debts) and net of foreseen dividend to be paid in 2019 (€3.2 billion).

Change in capital resources in 2018

ELIGIBLE OWN FUNDS (EOF)

As permitted per the Solvency II regulation, US operations are considered under the equivalence regime, their contribution to Group EOF corresponds to the local available capital used for the calculation of the Risk-Based Capital (RBC) ratio. Components of available capital to cover RBC are based on US statutory accounting. Assets are accounted for at market value, amortized cost value or cost value, depending on their nature and classification. Technical liabilities are valued through actuarial models, prospective methods and specific rules. Similarly, the contribution to the AXA Group EOF from the entities that were previously part of the XL Group (“XL entities”) were calculated in accordance with the equivalence regime, based on Bermudian Own Fund. Banking as well as asset management and pension fund operations are considered under the sectoral rules.
The following table presents the evolution of the Group EOF over the indicated period.

<table>
<thead>
<tr>
<th>Group EOF roll forward (in Euro billion)</th>
<th>Group EOF 2018</th>
<th>Group EOF 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous closing</td>
<td>57.8</td>
<td>57.9</td>
</tr>
<tr>
<td>Modeling changes and opening adjustments</td>
<td>(1.7)</td>
<td>(1.5)</td>
</tr>
<tr>
<td>Opening</td>
<td>56.1</td>
<td>56.4</td>
</tr>
<tr>
<td>Expected existing business contribution</td>
<td>4.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Value of new premiums</td>
<td>2.0</td>
<td>2.5</td>
</tr>
<tr>
<td>Operating variance and change in assumptions</td>
<td>1.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Operating return</td>
<td>8.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Economic variance</td>
<td>(3.7)</td>
<td>1.8</td>
</tr>
<tr>
<td>Total return</td>
<td>4.6</td>
<td>10.3</td>
</tr>
<tr>
<td>Exchange rate impact</td>
<td>0.8</td>
<td>(3.6)</td>
</tr>
<tr>
<td>Dividend to be paid in year N+1</td>
<td>(3.2)</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Subordinated debts and others(^{(a)})</td>
<td>(0.1)</td>
<td>(2.3)</td>
</tr>
<tr>
<td>Closing</td>
<td>58.2</td>
<td>57.8</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Including subordinated debts, capital movements, internal dividends paid in 2018 and others.

Compared to the opening amount, 2018 Group Eligible Own Funds increased by €2.1 billion to €58.2 billion. The positive expected business contribution, value of new premiums and operating variance were partly offset by unfavorable economic conditions, as well as the proposed dividend to be paid in 2019.

2018 modeling changes and opening adjustments had a negative impact of €-1.7 billion, mainly from:

- **The favorable impact from the Initial Public Offering and the secondary offering of AXA Equitable Holdings (€+0.8 billion)** as cash proceeds were higher than the corresponding EOF contribution under the US RBC regime;

- **The impact of XL Group acquisition (€-1.9 billion)** as the purchase price (€12.4 billion) was higher than the corresponding EOF contribution (€10.5 billion) under the Bermudian regime standard formula. Similar to other P&C entities, XL EOF do not consider future premiums and their related profits emerging from current XL portfolio and new contracts;

- **France (€+0.5 billion)** mainly due to model improvements to better reflect (I) profit sharing rules mechanisms and (II) Group Protection business by extending the projection horizon;

- **Asia (€-0.3 billion)** mainly due to the review of contract boundaries modelling for some products in Japan; and

- **Europe (€-0.9 billion)** mainly from the transformation of the in-force Swiss Group Life business to a semi-autonomous model and the transfer of reserves to occupational benefits foundations.

2018 **Expected existing business contribution** was €4.4 billion, of which €3.3 billion from Life & Savings and €1.1 billion from other segments, reflecting the unwind at reference rates, the release of time value of options and guarantees, the release of Risk Margin and the financial over-performance (above reference rates) expected under management case assumptions at the end of 2018.

2018 **Value of new premiums** amounted to €2.0 billion, of which €1.7 billion from Life & Savings and €0.3 billion from Property & Casualty, which reflects adverse impacts in the US from Hurricane Michael, California wildfires and large losses in the fourth quarter.

2018 **Operating variance and assumption changes** had an impact of €1.9 billion, mainly driven by:

- **Europe (€+1.3 billion)** mainly from (I) more favorable best estimate claims reserves in P&C in Switzerland, (II) an update of assumptions for pensions in Switzerland and the United Kingdom and (III) a strong reduction of the risk margin in the United Kingdom following the cession of a P&C long-tail reserves portfolio; and

- **France (€+0.5 billion)** with more favorable best estimate claims reserves in P&C, partly offset by slightly higher projected expenses in L&S.
2018 operating return was 15% of opening Group EOF or €8.3 billion (15% or €8.5 billion in 2017), driven by a strong expected contribution of existing business and favorable operating variance and assumption changes.

2018 Economic variance was €-3.7 billion, mainly due to:
- €-2.6 billion from equity performance;
- €-0.8 billion from the decrease in interest rates;
- €-1.5 billion from the increase in corporate spreads;
- €-0.9 billion from the increase in government spreads;
- €1.8 billion from the increase in volatility adjuster following increase in spreads; and
- €0.4 billion from lower volatilities.

2018 total return was 8% or €4.6 billion (18% or Euro 10.3 billion in 2017) driven by a strong operating return partly offset by an unfavorable economic variance.

2018 changes in exchange rate had an impact of €0.8 billion, from the appreciation of main currencies versus the Euro.

2018 proposed dividend to be paid in 2019 amounts to €-3.2 billion.

2018 subordinated debts and others had an impact of €-0.1 billion as a result of (I) €+2.0 billion of Tier 2 subordinated debt issuance at AXA SA offset by (II) €-0.6 billion Restricted Tier 1 undated debt reimbursement at AXA SA and (III) €-1.2 billion of XL debt reimbursement in the last quarter.
Tiering analysis of capital

Repartition of capital by tier

Eligible Own Funds (EOF) under Solvency II correspond to financial resources available to the Company before the impact of any tiering eligibility restrictions and after consideration of the potential non-availability of certain elements of capital.

Eligible Own Funds (EOF) are split into three different tiers, based on the quality of each component, as defined under Solvency II Regulations. The classification depends upon the extent to which an own fund item is immediately available to absorb losses including in case of a winding-up (permanent availability) and subordinated to all other obligations including towards policyholders and beneficiaries. Capital elements of the highest quality are classified in Tier 1. Eligibility limits apply to these components to cover the SCR.

The following quantitative limits apply: (a) the eligible amount of Tier 1 items must be at least one half of the SCR; (b) the eligible amount of Tier 3 items must be less than 15% of the SCR; (c) the sum of the eligible amounts of Tier 2 and Tier 3 items must not exceed 50% of the SCR.

Hybrid debt instruments eligible for Tier 1 must not exceed 20% of the total amount of Tier 1 capital.

Information relating to the breakdown of capital by Tier of the Group is incorporated herein by reference to Section 2.4 “Liquidity and capital resources - Tiering analysis of capital” on page 94 of the Annual Report.
The structure of tiering is presented in the table below:

<table>
<thead>
<tr>
<th>(in EUR billion)</th>
<th>Total</th>
<th>Unrestricted Tier 1</th>
<th>Restricted Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOF (Eligible own funds) at December 31, 2018</td>
<td>58.2</td>
<td>38.5</td>
<td>6.9</td>
<td>11.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Of which insurance sector</td>
<td>55.0</td>
<td>35.3</td>
<td>6.9</td>
<td>11.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Of which ancillary</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Of which subject to transitional measures*</td>
<td>11.5</td>
<td>0.0</td>
<td>6.9</td>
<td>4.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Of which other financial sectors</td>
<td>3.2</td>
<td>3.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>EOF (Eligible own funds) at December 31, 2017</td>
<td>57.8</td>
<td>41.7</td>
<td>7.5</td>
<td>7.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Of which insurance sector</td>
<td>55.4</td>
<td>39.4</td>
<td>7.5</td>
<td>7.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Of which ancillary</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Of which subject to transitional measures*</td>
<td>12.1</td>
<td>0.0</td>
<td>7.5</td>
<td>4.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Of which other financial sectors</td>
<td>2.3</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

* Transitional measures on basic own funds apply on subordinated debts eligible under Solvency I regulation, these subordinated debts are also eligible under Solvency II until 2026.

The various components that AXA Group considers as eligible capital are determined in accordance with Solvency II regulatory requirements. As at December 31st, 2018, eligible capital amounted to €58.2 billion (€57.8 billion at December 31st, 2017), of which:

- Unrestricted Tier 1 capital after dividend proposal: €38.5 billion (€41.7 billion at December 31, 2017), mainly composed of ordinary shares, reconciliation reserve, and excluding undated subordinated debt;
- Restricted Tier 1 capital: €6.9 billion of undated subordinated debt (€7.5 billion at December 31, 2017);
- Tier 2: €11.9 billion of dated subordinated debt and Tier 2 XL debts (€7.7 billion at December 31, 2017); and
- Tier 3: net deferred tax assets of €0.8 billion (€0.9 billion at December 31, 2017).

AXA US and XL entities are considered under local solvency requirements.

Analysis of movement in capital position by Tier

The change in Group Eligible Own Funds by tier in 2018 is driven by:

- €-3.2 billion decrease in unrestricted Tier 1, driven by XL unrestricted Tier 1 contribution, unfavorable economic variance and dividend payment. This was partly offset by a strong operating performance;
- €-0.6 billion decrease in restricted Tier 1 driven by the reimbursement of undated debt;
- €+4.2 billion increase in Tier 2 driven by (I) €+2.0 billion subordinated debt issuance and (II) €+2.2 billion XL Tier 2 contribution; and
- €-0.1 billion decrease in Tier 3.
**DATED AND UNDATED SUBORDINATED DEBT DESCRIPTION**

As at December 31, 2018 and December 31, 2017, subordinated debt recognized in eligible own funds can be broken down as follows:

<table>
<thead>
<tr>
<th>Value of the undated subordinated debt (in EUR million)</th>
<th>December 31, 2018</th>
<th>December 31, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXA SA</td>
<td>6,849</td>
<td>7,391</td>
</tr>
<tr>
<td>October 29, 2004 - 375 M€ 6.0%</td>
<td>375</td>
<td>375</td>
</tr>
<tr>
<td>December 22, 2004 - 250 M€ 6.0%</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>January 25, 2005 - 250 M€ 6.0%</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>July 6, 2006 - 350 M€ 6.7%</td>
<td>391</td>
<td>394</td>
</tr>
<tr>
<td>December 14, 2006 - 750 MUS$ 6.5%</td>
<td>-</td>
<td>623</td>
</tr>
<tr>
<td>December 14, 2006 - 750 MUS$ 6.4%</td>
<td>652</td>
<td>623</td>
</tr>
<tr>
<td>October 16, 2007 - 700 M€ 6.8%</td>
<td>243</td>
<td>245</td>
</tr>
<tr>
<td>November 7, 2014 - 984 M€ 3.941%</td>
<td>981</td>
<td>981</td>
</tr>
<tr>
<td>November 7, 2014 - 724 M€ 5.453%</td>
<td>806</td>
<td>813</td>
</tr>
<tr>
<td>May 20, 2014 - 1,000 M€ 3.9%</td>
<td>997</td>
<td>997</td>
</tr>
<tr>
<td>January 22, 2013 - 850 MUS$, 5.5%</td>
<td>737</td>
<td>703</td>
</tr>
<tr>
<td>Undated notes - 625 M€, variables rates</td>
<td>625</td>
<td>625</td>
</tr>
<tr>
<td>Undated notes - 27,000 MJPY, 3.3%</td>
<td>215</td>
<td>200</td>
</tr>
<tr>
<td>Undated notes - 375 MUS$, variables rates</td>
<td>328</td>
<td>313</td>
</tr>
<tr>
<td>Others*</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,916</strong></td>
<td><strong>7,457</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carrying value of the financing debt (in EUR million)</th>
<th>December 31, 2018</th>
<th>December 31, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXA SA</td>
<td>9,692</td>
<td>7,616</td>
</tr>
<tr>
<td>Subordinated notes, 5.25% due 2040 (€)</td>
<td>1,300</td>
<td>1,300</td>
</tr>
<tr>
<td>Subordinated notes, 5.125% due 2043 (€)</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>U.S. registered redeemable subordinated debt, 8.60% 2030 (US$)</td>
<td>1,064</td>
<td>1,052</td>
</tr>
<tr>
<td>U.S. registered redeemable subordinated debt, 7.125% 2020 (€)</td>
<td>363</td>
<td>366</td>
</tr>
<tr>
<td>Subordinated debt, 5.625% due 2054 (€)</td>
<td>838</td>
<td>845</td>
</tr>
<tr>
<td>Subordinated debt, 3.375% due 2047(€)</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Undated Subordinated notes, 850MUS$, 4.5%</td>
<td>742</td>
<td>709</td>
</tr>
<tr>
<td>Subordinated notes, 5.125%, due 2047 (US$)</td>
<td>873</td>
<td>834</td>
</tr>
<tr>
<td>Subordinated notes, 3.25%, due 2049 (€)</td>
<td>2,000</td>
<td>-</td>
</tr>
<tr>
<td>Others (under € 100 million)</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Others*</td>
<td>2,041</td>
<td>38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11,733</strong></td>
<td><strong>7,654</strong></td>
</tr>
</tbody>
</table>

*Figures include mainly XL Group, AXA-MPS, banks and other entities subordinated debts.

A description of the dated and undated subordinated debt recognized in shareholders’ equity of the Group is incorporated herein by reference to Section 2.4 “Liquidity and capital resources - Dated and undated subordinated debt description” on pages 94 to 95 of the Annual Report. Loss absorbency mechanism of subordinated debts is incorporated herein by reference to Section 2.4 “Liquidity and capital resources - Dated and undated subordinated debt description” on pages 94 to 95 of the Annual Report.
Fungibility of capital

Information relating to the fungibility of capital by tier is incorporated herein by reference to Section 2.4 “Liquidity and capital resources - Fungibility of capital” on page 95 of the Annual Report.

Reconciliation to IFRS shareholders’ equity

The following table presents the reconciliation between IFRS shareholders’ equity to Group EOF.

<table>
<thead>
<tr>
<th>Reconciliation IFRS shareholders’ equity to Group EOF (in Euro billion)</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFRS shareholders’ equity&lt;sup&gt;a&lt;/sup&gt;</td>
<td>62.4</td>
<td>69.6</td>
</tr>
<tr>
<td>Net URCG not included in shareholders’ equity</td>
<td>5.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Elimination TSS/TSDI</td>
<td>(6.8)</td>
<td>(7.4)</td>
</tr>
<tr>
<td>Elimination Intangibles</td>
<td>(35.5)</td>
<td>(31.2)</td>
</tr>
<tr>
<td>o/w Goodwill</td>
<td>(16.7)</td>
<td>(14.3)</td>
</tr>
<tr>
<td>o/w DAC</td>
<td>(13.4)</td>
<td>(13.3)</td>
</tr>
<tr>
<td>o/w VBI</td>
<td>(1.7)</td>
<td>(1.5)</td>
</tr>
<tr>
<td>o/w Others</td>
<td>(3.7)</td>
<td>(2.1)</td>
</tr>
<tr>
<td>IFRS tangible net asset value&lt;sup&gt;b&lt;/sup&gt;</td>
<td>25.3</td>
<td>35.8</td>
</tr>
<tr>
<td>Dividends to be paid</td>
<td>(3.2)</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Technical provision adjustments</td>
<td>12.0</td>
<td>9.4</td>
</tr>
<tr>
<td>o/w Risk Margin</td>
<td>(9.3)</td>
<td>(9.7)</td>
</tr>
<tr>
<td>o/w BEL</td>
<td>21.4</td>
<td>19.1</td>
</tr>
<tr>
<td>Other adjustments</td>
<td>4.2</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Unrestricted Tier 1</td>
<td>38.5</td>
<td>41.7</td>
</tr>
<tr>
<td>Restricted Tier 1 + Tier 2</td>
<td>18.8</td>
<td>15.1</td>
</tr>
<tr>
<td>Tier 3</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Group eligible own funds&lt;sup&gt;b&lt;/sup&gt;</td>
<td>58.2</td>
<td>57.8</td>
</tr>
</tbody>
</table>

(a) Group share.
(b) Including minority interests.

The main elements of the reconciliation from the €62.4 billion of IFRS shareholders’ equity to the €25.3 billion of IFRS tangible net asset value (“TNAV”) are as follows:

- Addition of €5.1 billion of net unrealized gains and losses on assets not reflected in IFRS shareholders’ equity;
- Deduction of €6.8 billion of undated deeply subordinated notes (TSS) and of undated subordinated notes (TSDI) included in IFRS shareholders’ equity; and
- Elimination of €35.5 billion of intangible assets net of unearned revenues and fee reserves, taxes and policyholder bonuses.

IFRS TNAV decreased by €10.5 billion mainly due to the fact that it excludes additional intangibles linked to the acquisition of XL Group. This metric however reflects the IFRS accounting value of liabilities and not their economic value which is better reflected within Solvency II EOF.

The main elements of the reconciliation between the IFRS TNAV and the Group EOF Unrestricted Tier 1 are as follows:

- Deduction of €3.2 billion of foreseeable dividends to be paid to shareholders in 2019;
- Addition of €12.0 billion reflecting the Solvency II technical provision adjustments corresponding to the adjustment from IFRS reserves to best estimate liabilities (€+21.4 billion) and the risk margin (€-9.3 billion); and
- Other adjustments between IFRS TNAV and Group EOF Unrestricted Tier 1 (€+4.2 billion), notably the treatment of XL insurance subsidiaries under the equivalence regime €4.4 billion.

Group EOF are then the sum of unrestricted Tier 1, restricted Tier 1, Tier 2 and Tier 3.
On November 17, 2015, the Group received approval from the ACPR and the College of supervisor to use its Internal Model to calculate its SCR under Solvency II. The Internal Model encompasses the use of AXA Group’s economic capital model on all material entities, except AXA US which is considered in equivalence, and entities that were previously part of the XL Group we acquired in 2018 (“XL entities”). The solvency capital requirement in respect of the entities that were part of the XL Group as at December 31, 2018 was calculated in accordance with the equivalence regime, based on the Bermudian Standard Formula SCR, plus a 5% add-on required by the Group’s lead supervisor (i.e. the ACPR), as a transitional measure. Furthermore, in compliance with the ACPR’s decision, XL entities will be fully consolidated for Solvency II purposes (as per the consolidation-based method set forth in the Solvency II Directive) and their contribution to the Group’s solvency capital requirement will be calculated using the Solvency II standard formula from March 31, 2019. Subject to the prior approval of the ACPR, the Group intends as soon as FY 2020 to extend its Internal Model to XL entities. The Internal Model is designed to allow AXA entities to choose local calibrations which better reflect the local risk profile and to capture all the material risks to which the Group is exposed. As a result, the Group believes the Internal Model reflects the overall SCR of the AXA Group more faithfully and better aligns the SCR metrics with the management’s decision-making.

**General principles**

Solvency II provides for two separate levels of solvency capital requirements: (I) the Minimum Capital Requirement (MCR), which applies at company level and is the amount of own funds below which policyholders and beneficiaries are exposed to an unacceptable level of risk should the insurance and reinsurance companies be allowed to continue their operations, and (II) the Solvency Capital Requirement (SCR), which applies at both company and Group level and corresponds to the level of eligible own funds that enables insurance and reinsurance companies to absorb significant losses and that gives reasonable assurance to policyholders and beneficiaries that payments will be made when due.

Pursuant to Article 297–(2) of the Regulation, for all French SFCR filers, the ACPR has elected not to require disclosure of capital add-ons during a transitional period ending no later than December 31, 2020.

**Solvency Capital Requirement (SCR)**

The AXA Group Solvency II ratio as of December 31, 2018, published on February 21, 2019 was 193% compared to 205% as of December 31, 2017, and remains within AXA’s target range of 170%-220%. The Group maintained eligible own funds in excess of its SCR at all times during 2018.

The Group continues to review regularly the scope, underlying methodologies and assumptions of its Internal Model and will adjust its SCR accordingly. However, any major changes to the Internal Model would have to be approved by the ACPR which may require adjustments to the level of the SCR. In 2018, a major model change related to an update of the model change policy was submitted and approved by the ACPR. The perimeter of the Internal Model has been extended to the Life risks borne by AXA Global Re (following the merger with AXA Global Life in 2017) and subsequently introduced as of December 31, 2018 in the Internal Model after formal application and approval by supervisory authorities.

In addition, the Group monitors the work program of the European Insurance and Occupational Pensions Authority (EIOPA) which, through its objectives, is also expected to continue to carry out consistency reviews of European insurers’ models. Such review may lead to regulatory changes to increase convergence and to strengthen oversight of cross-border groups.

On December 31, 2018 the AXA Group SCR was €30.2 billion split as follows by different components: Internal Model scope (€19.9 billion), standard formula entities (€1.1 billion), business in equivalence (€7.4 billion), sectorial rules (pension business, banks, asset management) (€1.8 billion). For additional information on the AXA Group SCR, please refer to the QRT S.25.02.22 “Solvency Capital Requirement – for groups using the standard formula and a partial internal model”.
Compared to 2017, the AXA Group SCR increased from €28.2 billion to €30.2 billion. This evolution is mainly driven by:

- Economic factors with lower equity markets that reduced our equity exposure.
- Management actions initiated sales and hedges and combined with prior economic effect, this led to a significant decrease of equity exposure and therefore market risk.

The main impact remains the inclusion of XL in equivalence partially offset by the Initial Public Offering (“IPO”) the US subsidiary.

At December 31, 2018, the breakdown of the SCR(1) by risk categories was: 41% in Market, 26% in Life, 20% in Property & Casualty, 7% in Credit risk, and 6% in Operational risk.

**GROUP DIVERSIFICATION EFFECTS**

The diversification effects in the Internal Model are driven by the application of the aggregation methodology to either different risk/sub-risks or to different portfolios/entities. Thus, diversification can appear within a certain risk factor, between portfolios, across geographies or between different risk categories.

As an example, the duration gap can have a different sign for different portfolios, e.g. long duration for protection products and short duration for annuities. In such a case the interest rate risk is reduced when combining the two portfolios.

The level of granularity within the risk aggregation approach is a major factor that affects the measurement of diversification benefits. Typically, the more the aggregation approach differentiates portfolios or activities according to dimensions such as geography, business unit/legal entity level, risk type or product type, the more explicit diversification will be revealed.

In the Internal Model, a multi-level aggregation approach has been implemented, which considers the following main aggregation steps: aggregation across major risk categories (i.e. Market, Credit, Life, Property & Casualty, Operational Risk) and aggregation across geographies/entities.

The diversification benefits across major risks (Market, Credit, Life, Property & Casualty, Operational), as at December 31, 2018, stood at €10.3 billion.

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(1) Insurance only based on the Internal Model - excluding entities in equivalence regime, and before diversification amongst risks.
### SCOPE AND CALCULATION METHODS

The table below lists the entities which are in the scope of the Internal Model used to calculate the Group SCR:

<table>
<thead>
<tr>
<th>Country</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>AXA Belgium SA</td>
</tr>
<tr>
<td></td>
<td>Touring-Assurances, TATV</td>
</tr>
<tr>
<td>France</td>
<td>AXA Global Re</td>
</tr>
<tr>
<td></td>
<td>AXA Corporate Solutions Assurance</td>
</tr>
<tr>
<td></td>
<td>AXA France IARD SA</td>
</tr>
<tr>
<td></td>
<td>AXA France Vie SA</td>
</tr>
<tr>
<td></td>
<td>Avanssur</td>
</tr>
<tr>
<td>Germany</td>
<td>AXA Easy Versicherung</td>
</tr>
<tr>
<td></td>
<td>AXA Krankenversicherung AG</td>
</tr>
<tr>
<td></td>
<td>AXA Lebensversicherung AG</td>
</tr>
<tr>
<td></td>
<td>AXA Versicherung AG</td>
</tr>
<tr>
<td></td>
<td>Deutsche Ärzteversicherung AG</td>
</tr>
<tr>
<td></td>
<td>AXA Art Versicherung, AG Subgroup</td>
</tr>
<tr>
<td>Ireland</td>
<td>AXA Insurance Dac</td>
</tr>
<tr>
<td></td>
<td>AXA Life Europe Ltd</td>
</tr>
<tr>
<td></td>
<td>AXA MPS Financial</td>
</tr>
<tr>
<td>Italy</td>
<td>AXA Assicurazioni</td>
</tr>
<tr>
<td></td>
<td>AXA MPS Vita</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>AXA Insurance UK Plc</td>
</tr>
<tr>
<td></td>
<td>AXA PPP Healthcare Limited</td>
</tr>
<tr>
<td>Spain</td>
<td>AXA Aurora Vida, S.A. de Seguros</td>
</tr>
<tr>
<td></td>
<td>AXA Seguros Generales SA</td>
</tr>
<tr>
<td></td>
<td>AXA Global Direct Seguros</td>
</tr>
<tr>
<td>Switzerland</td>
<td>AXA Versicherung AG</td>
</tr>
<tr>
<td></td>
<td>AXA ARAG Rechtsschutzversicherungs-Gesellschaft</td>
</tr>
<tr>
<td></td>
<td>AXA Leben AG</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>AXA China Region Insurance Company Ltd</td>
</tr>
<tr>
<td></td>
<td>AXA Wealth Management (Hong Kong) Ltd</td>
</tr>
<tr>
<td></td>
<td>AXA China Region Insurance Company (Bermuda) Ltd</td>
</tr>
<tr>
<td>Japan</td>
<td>AXA Life Japan</td>
</tr>
<tr>
<td></td>
<td>AXA Direct Japan</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>AXA General Insurance Company Ltd</td>
</tr>
<tr>
<td>Mexico</td>
<td>AXA Salud SA de CV</td>
</tr>
<tr>
<td></td>
<td>AXA Seguros SA de CV</td>
</tr>
</tbody>
</table>
Within the Group, a combination of Method 1 (Default Method) and Method 2 (Deduction and Aggregation), as referred to in Articles 230 and 233 of Directive 2009/138/EC, is used to calculate the Group Solvency. Undertakings using method 2 are related to other financial sectors than insurance, which are mainly banks, asset managers and pension funds, as well as to US or Bermudian subsidiaries, where the solvency regime has been deemed to be equivalent. The main entities concerned thereof are summarized in the table below:

<table>
<thead>
<tr>
<th>Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXA Banque (France)</td>
</tr>
<tr>
<td>AXA Banque Financement (France)</td>
</tr>
<tr>
<td>AXA Bank AG (Germany)</td>
</tr>
<tr>
<td>AXA Bank Belgium (Belgium)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Asset managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXA Investment Managers AB</td>
</tr>
<tr>
<td>Pro Bav Pensionskasse (Germany)</td>
</tr>
<tr>
<td>AXA Czech Republic Pension Funds</td>
</tr>
<tr>
<td>AXA Poland Pension Funds</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pension funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL Group (Bermuda)</td>
</tr>
<tr>
<td>AXA Equitable Life Insurance Company (United States)</td>
</tr>
<tr>
<td>AXA Re Arizona Company (United States)</td>
</tr>
<tr>
<td>AXA Corporate Solutions Life Reinsurance Company (United States)</td>
</tr>
<tr>
<td>AXA Financial, Inc. (United States)</td>
</tr>
<tr>
<td>AXA America Holding Inc. (United States)</td>
</tr>
</tbody>
</table>

Main differences between any internal model used at individual undertaking level and the Internal Model used to calculate the Group’s Solvency Capital Requirement

For AXA Insurance UK plc two main differences exist between the Internal Model used for Group consolidation and the internal model used locally, both resulting from requirements of the Prudential Regulation Authority (PRA), the UK supervisory authority, thus leading most UK companies to favor the use of matching adjustment over VA:

- the Internal Model on market risks also includes the modelling of a “dynamic volatility adjustment”, which anticipates the future changes in the volatility adjustment in the calculation of the SCR for both the solo SCR and local contribution to the Group SCR. However, the position of the PRA is that UK firms should not assume any change to the level of volatility adjustment in the calculation of the SCR. Consequently, the market risks modelling for AXA Insurance UK plc includes an adjustment to remove the benefit of the dynamic volatility adjustment in the calculation of the solo SCR;

- the PRA required a more prudent modelling of pension fund liabilities in stressed financial conditions. According to IAS 19, pension liabilities are discounted with a corporate spread curve. For prudential reasons, a 50% haircut is applied to the corporate spread movements for the solo SCR calculation for AXA Insurance UK plc and AXA PPP healthcare Ltd (instead of 25% for the UK contribution to Group SCR). Furthermore, the SCR from the pension business is allocated differently to the remaining business in the computation of solo SCR.

No other differences exist between any internal model used at individual undertaking level and the Internal Model used to calculate the AXA Group’s SCR.
Minimum Capital Requirement

According to article 230 (2) of the Directive and EIOPA Q&A 383 in the guidelines on Group Solvency, the minimum consolidated group solvency capital requirement (Group MCR) is equal to the sum of the standalone MCR of the undertakings that composed the Group. As at December 31, 2018, the Group MCR stood at €13.9 billion (€14.3 billion in 2017). The €0.4 billion decrease from 2017 (-3%) is mainly driven by the decrease of the MCR reported by France and Belgium.
E.3 USE OF THE DURATION-BASED EQUITY RISK SUB-MODULE IN THE CALCULATION OF THE SOLVENCY CAPITAL REQUIREMENT

Not applicable.

E.4 DIFFERENCE BETWEEN THE STANDARD FORMULA AND ANY INTERNAL MODEL USED

General information

General information regarding AXA Group’s Internal Model is incorporated herein by reference to Section 4.2 "Internal Control and Risk management", paragraph "Internal Model" on pages 190 to 192 of the Annual Report.

Main differences between the Standard Formula and the Internal Model

The Internal Model is a centralized model which is based on Group methodologies. This ensures a full consistency in the modelling of similar risks across the Group while still allowing for local specificities when they exist, in particular via the calibration of underwriting risks at local levels. These local calibrations are being updated and presented by local teams and validated by Group Risk Management. Validation encompasses both quantitative and qualitative aspects of the Internal Model, amongst which, in particular data quality. The Group’s data quality policy requires data used as input in the Internal Model to be complete, accurate and appropriate. For more information on the scope of the Internal Model please refer to Section E.2 of this Report.

The general architecture of the Internal Model consists of five main modules: Market, Credit, Life, Property & Casualty and Operational risks. The standard formula follows a similar modular approach but has separate modules for health risks. Instead, in the Internal Model the health risk is included either in the Life risks or in the Property & Casualty risks following the substance over form principle.
In general in the five risks categories, the Internal Model provides models for sub-risks that are not adequately captured in the standard formula but are material to the Group.

- **Market risks:** interest rate implied volatility, equity implied volatility, government spreads and inflation are explicitly modelled in the Internal Model. In particular, this means that, unlike in the standard formula, the Internal Model considers spread risk on all sovereign bonds (i.e., including EU countries) in the calculation of the SCR. Concentration risk in portfolios is included in the corporate default calculation (Credit risk).

The Internal Model on market risks includes the modelling of a "dynamic volatility adjustment" which anticipates the future changes in the volatility adjustment. This reflects an economic approach to take into account that losses on the asset side due to spread widening are partially offset by movements on the liability side due to changes in the volatility adjustment. In the Internal Model, the level of volatility adjustment is assessed depending on the corporate and/or government spread movements, and its impact on liabilities is assessed. The modelling of a dynamic volatility adjustment partially offsets the spread risks stemming from invested assets. For the modelling of the dynamic volatility adjustment, the parameters provided by EIOPA (weights, reference portfolios, fundamental spreads) are used. To add some conservatism and reflect potential limitations in the modelling, a 25% haircut is applied on the variation of corporate spread levels (i.e. if corporate spread moves + x bps in any given scenario, only 75% of x will be considered to derive the new volatility adjustment for this scenario). Due to the higher numbers of sub-risks and risk factors used in the Internal Model, the risks of the different asset classes and the diversification among them can be captured more precisely than in the standard formula. For instance the shocks depend on the economy, which means that for volatile markets higher shocks are assumed.

- **Credit risk:** The Internal Model addressed separately the default risk of corporate bonds whereas it is included in the calibration of spreads in the standard formula.

- **Life risks:** Other customer behavior and medical expense are explicitly modelled in the Internal Model. Revision risk (i.e., the risk due to changes in the state of health of the policyholder) is not material for the Group and therefore is not modelled by default in the Internal Model, but it can be taken into account at local level (embedded in disability risk). Lapse risk is divided in three components (lapse up, lapse down, and mass lapse) both in Internal model and standard formula, but the aggregation is different (aggregation matrix in the Internal model, versus the maximum of the three components in the standard formula).

- **Property & Casualty risks:** while the standard formula relies on industry-wide parameters to quantify risk volatility, the Internal Model relies on company-specific volatility parameters, therefore consistent with the risk embedded in our portfolio, and is generally more granular. The Internal Model splits premium and reserve risks for a more accurate modelling, and takes into account the diversification between them. Finally, lapse risk is captured through the premium risk.

- **Operational risk:** The Internal Model for Operational risk follows a forward-looking and Scenario-Based Approach (SBA). It relies on the identification and assessment of the most critical operational risks of each entity complemented by a set of transversal Group scenarios. The main goal of using the Internal Model as opposed to the standard formula is to better reflect the Group’s risk profile in the SCR. This is particularly relevant for Operational risk, as the standard formula for Operational Risk is purely factor-based, with no risk factors related to any operational risk criteria.

- **Modelling techniques:** in the standard formula simple models are used for most risk categories in order to derive the SCR. In most cases an extreme scenario is defined, which represents the 99.5% quantile. In the Internal Model extreme scenarios are used only for the calculation of the Life SCR. For the other risk categories sophisticated models are applied. In particular for Market, Credit Fixed Income and Reinsurance, Property & Casualty and Operational risks, the loss distributions are derived from simulations.

- **Diversification:** in the standard formula, no geographical diversification is explicitly recognized. The Internal Model aggregation approach considers geographical diversification as the AXA Group is operating globally.
The Solvency II framework requires the provision of a Probability Distribution Forecast (PDF) underlying the Internal Model that assigns probabilities to changes in the amount of the Group’s own funds. While the simulation-based modelling approach allows for a full probability distribution forecast, shock-based modelling relies on the calculation of specific percentiles only (from which additional percentiles and a full distribution can be derived). For methodological reasons, the following orientations have been chosen for the Internal Model:

- the Property & Casualty, Market, and Operational risk modules’ modelling, using simulation-based approaches, allow exhibiting a full Probability Distribution Forecast;
- as for the Life risks, Internal Model calculations, which are 0.5% or 99.5% percentile-based, are complemented by the derivation of additional percentiles;
- the modelling of the Credit risk leans on both simulation-based techniques and shock-approaches depending on the considered sub-risk. For the first techniques, full Probability Distribution Forecasts are available. Regarding shock-approaches (only used for credit risk stemming from receivables), several percentiles, similarly to the approach performed for the life risks, are calculated.

The overall aggregation methodology is based on an elliptical aggregation of the Market, Credit, Life, Property & Casualty and Operational requirements. This modular approach allows for the ranking of the main risks or sub-risks and provides a good understanding of the risks (sub-risks) and their impacts.

The AXA Group also performs reverse stress scenarios. The aim of such scenarios is to exhibit combinations of Market, Credit, Life, Property & Casualty and Operational events (the shocks defined in the scenario are occurring simultaneously) that would yield the same amount of SCR for a chosen valuation date. They allow assessing several impacts inherent to the internal model:

- they consist in a back-testing for the interactions between the different risks. Indeed, performing such scenarios permits highlighting potential cross and non-linearity effects;
- contrary to a full-simulation based approach in which all risk factors are simulated jointly, the elliptical aggregation may, in theory, cause an overestimation of policyholder absorption capacity. The test ensures, when applying a 1/200 year stress, that some future discretionary benefits remain, thus indicating that no excess above existing policyholder absorption capacity has been accounted for.
E.5  **NON-COMPLIANCE WITH THE MINIMUM CAPITAL REQUIREMENT AND NON-COMPLIANCE WITH THE SOLVENCY CAPITAL REQUIREMENT**

Not applicable.

E.6  **ANY OTHER INFORMATION**

Not applicable.
APPENDICES

APPENDIX I  REPORTING TEMPLATES (QRTS)  66

APPENDIX II  REPORT OF THE STATUTORY AUDITORS ON THE SOLVENCY AND FINANCIAL CONDITION REPORT AT DECEMBER 31, 2018  67
APPENDIX I REPORTING TEMPLATES (QRTS)

Solvency II annual quantitative reporting templates (QRTs) are templates for quantitative analysis that form part of the Group’s Solvency and Financial Condition Report (SFCR) and have been prepared in compliance with the Solvency II Regulations. The annual QRTs supplement the information presented in the SFCR and consist of tables setting forth balance sheet items, premiums, claims and expenses by country and by line of business, technical provisions, own funds and Solvency Capital Requirement amounts. As described in the Group’s SFCR, the Solvency II valuation figures differ in many respects from IFRS principles and, therefore, cannot be considered in isolation from, or as a substitute for, the Group’s Consolidated Financial Statements included in Part 5 – “Consolidated Financial Statements” of the Annual Report.

The following Quantitative Reporting Templates (QRTs) are available on AXA Group website www.axa.com:

- **Template S.32.01.22** specifying information on the undertakings in the scope of the group
- **Template S.02.01.02** specifying balance sheet information
- **Template S.05.01.02** specifying information on premiums, claims and expenses by line of business
- **Template S.05.02.01** specifying information on premiums, claims and expenses by country
- **Template S.22.01.22** specifying information on the impact of the long term guarantee and transitional measures
- **Template S.23.01.22** specifying information on own funds, including basic own funds and ancillary own funds
- **Template S.25.02.22** specifying information on the Solvency Capital Requirement, calculated using the standard formula and a partial internal model.
Report of the Statutory auditors on the Solvency and Financial Condition Report at December 31, 2018

To the AXA Board of Directors and the AXA Management Committee

As statutory auditors of AXA Group (‘AXA’ or ‘the Group’) and in accordance with your request, we have examined the Group Solvency and Financial Condition Report at December 31, 2018 including the Quantitative Reporting Templates (‘QRTs’) referred to below (the ‘Group SFCR’) prepared in accordance with the Directive 2009/138/EC on the taking-up and pursuit of the business of Insurance and Reinsurance, as amended by the Omnibus II Directive 2014/51/EU, and the Delegated Regulation 2015/35, as amended by the Delegated Regulation 2016/467 (hereafter the “Solvency II Measures”).

The Group SFCR has been prepared under the responsibility of Management. It includes qualitative and quantitative information regarding ‘Business and performance’ (Section A), ‘System of governance’ (Section B), ‘Risk profile’ (Section C), ‘Valuation for solvency purposes’ (Section D) and ‘Capital management’ (Section E).

The sections D ‘Valuation for solvency purposes’ and E ‘Capital management’ include the following detailed information (hereafter referred to as “the Group Solvency II Results”) : Group Solvency II Assets and Liabilities, Group Eligible Own Funds (‘EOF’), Group Solvency Capital Requirement (‘SCR’), Group Solvency II ratio, Roll-forward of EOF, the reconciliation of EOF to the IFRS shareholders’ equity and the following QRTs S.02.01.02, S.05.01.02, S.05.02.01, S.22.01.22, S.23.01.22, S.25.02.22 and S.32.01.22.

It is our responsibility:

i. to attest that the Group SFCR sets out the information required by the Solvency II Measures;

ii. to report to you on:

a. any observations on the information contained in the Group SFCR sections A ‘Business and Performance’, B ‘System of Governance’ and C ‘Risk Profile’;


Further with respect to the Group SFCR sections D ‘Valuation for solvency purposes’ and E ‘Capital management’ it is our responsibility to express a conclusion on:

iii. the compliance of the Group principles, methodology and assumptions as described in those sections with the requirements of the Solvency II Measures;

iv. whether the Group principles, methodology and assumptions have been properly reflected and applied in the process developed by AXA to determine the Group Solvency II Results; and

v. the compliance of the Group Solvency II Results with the Group principles, methodologies and assumptions.

Our work, which does not constitute an audit nor a review, has been performed in accordance with the professional standards applicable in France and the professional guidance issued by the French Institute of statutory auditors, and aims at forming a conclusion based on appropriate procedures.
Our work included the following procedures:

- Checking that all the information required by the Solvency II Measures is disclosed in the Group SFCR;
- Reading the information contained in the Group SFCR sections A ‘Business and performance’, B ‘System of governance’ and C ‘Risk profile’ for consistency with our understanding and knowledge of AXA Group;
- Examining the principles, methodologies and assumption-setting processes, including expert judgements, used in determining the Group Solvency II Results as summarized in the Group SFCR sections D ‘Valuation for Solvency purposes’ and E ‘Capital Management’ for compliance with the Solvency II Measures;
- Obtaining an understanding of the procedures used to apply the principles and methodologies and to establish assumptions, including the application of expert judgements, in determining the Group Solvency II Results for consistency with the descriptions in the Group SFCR;
- Checking, on a test basis, the application of these procedures;
- Checking, on a test basis, the calculations supporting the Group Solvency II Results;
- Comparing the accounting information and other relevant underlying data used in preparing the Group Solvency II Results with the annual financial statements and underlying accounting records at December 31, 2018;
- Examining the variation analyses of the Group Solvency II Results between December 31, 2017 and December 31, 2018, prepared under the responsibility of Management, through the analysis of the documentation provided, interviews with the persons in charge of the Group Solvency II Results calculation process and other testing procedures as deemed necessary; and
- Obtaining the information and explanations as deemed necessary.

We draw your attention to the information within the Group SFCR setting out the key uncertainties including areas of expert judgments, some of which are based on estimates or forward-looking information, and the inherent uncertainty of modelling future extreme scenarios in calculating the Solvency Capital Requirement. Our conclusions, as set forth below, are made as of the date of this Report. Projecting these conclusions, and the information on which they are based, to future periods would be inappropriate.

We believe that the procedures we have performed, including evidence we have obtained, are sufficient and appropriate to provide a basis for our conclusions.

Based on the work performed:

i. We attest that the Group SFCR sets out the information required by the Solvency II Measures;

ii. We have no matters to report on:

a. the information contained in the Group SFCR sections A ‘Business and performance’, B ‘System of governance’ and C ‘Risk profile’, and


Further with respect to the Group SFCR sections D ‘Valuation for solvency purposes’ and E ‘Capital management’ we express the following conclusions:

iii. The Group principles, methodology and assumptions as disclosed in those sections, are compliant, in all material respects, with the requirements of the Solvency II Measures;

iv. These Group principles, methodology and assumptions are properly reflected and applied in the process developed by AXA to determine the Group Solvency II Results; and

v. The Group Solvency II Results are compliant, in all material respects, with the Group principles, methodologies and assumptions.

Neuilly-sur-Seine and Paris La Défense, May 23, 2019

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This solvency and financial condition report is also available on the company’s website at www.axa.com on which you will find the aggregate regulated information published by our Company.