SOLVENCY AND FINANCIAL CONDITION REPORT

SFCR

Cardif Lux Vie

31 December 2016

CARDIF LUX VIE
GROUPE BNP PARIBAS

L'assureur
d'un monde
qui change

Introduction

This Solvency and Financial Condition Report concerns the company Cardif Lux Vie. It is based on the results of the assessment under Solvency 2 standards for fiscal year 2016, as presented on 11 April 2017 by the Audit and Risks Committee to the Board of Directors. It was approved by the Board of Directors at its meeting on 16 May 2017.

The requirements for the Solvency and Financial Condition Report are laid down in Articles 51 to 56 of the Solvency II Directive and its Delegated Acts, adopted on 10 October 2014 by the European Commission. They provide details on the content, structure and disclosure of reports:

Articles 290 to 292:	Definition of the structure, materiality and summary
Article 293:	Business and performance
Article 294:	System of governance
Article 295:	Risk profile
Article 296:	Valuation for solvency purposes
Article 297:	Capital management

The report contains narrative information in quantitative and qualitative form, supplemented, where appropriate, with quantitative templates.

All data presented in this report are in millions of euros.

In the interests of simplification, where the market risk is borne by the policy holder, the activity is expressed as unit-linked.

Jacques Faveyrol

Chief Executive Officer

A. Business and performance

A.1 Business and external environment

Cardif Lux Vie (the “Company”) is a public limited company under Luxembourg law, formed from the merger on 30 December 2011 of FORTIS LUXEMBOURG VIE S.A., established on 31 March 1989, into Cardif Lux International, established on 5 April 1994.

The Company’s registered office is situated at 23-25, Avenue de la Porte Neuve, L-2227 Luxembourg.

The Company is registered in Section B of the Luxembourg Companies Register under the number 47.240.

The Company is involved in all insurance, co-insurance and re-insurance activities in the life assurance sector.

The Company’s annual financial statements are audited by Deloitte Audit, 560 Rue de Neudorf, L-2220 Luxembourg, under the responsibility of Jérôme Lecoq, Certified Auditor.

Cardif Lux Vie is supervised by the Commissariat aux Assurances, 7 Boulevard Joseph II, L-1840 Luxembourg.

A.1.a High-quality shareholders

Cardif Lux Vie has a solid shareholder base with strong local and international links.

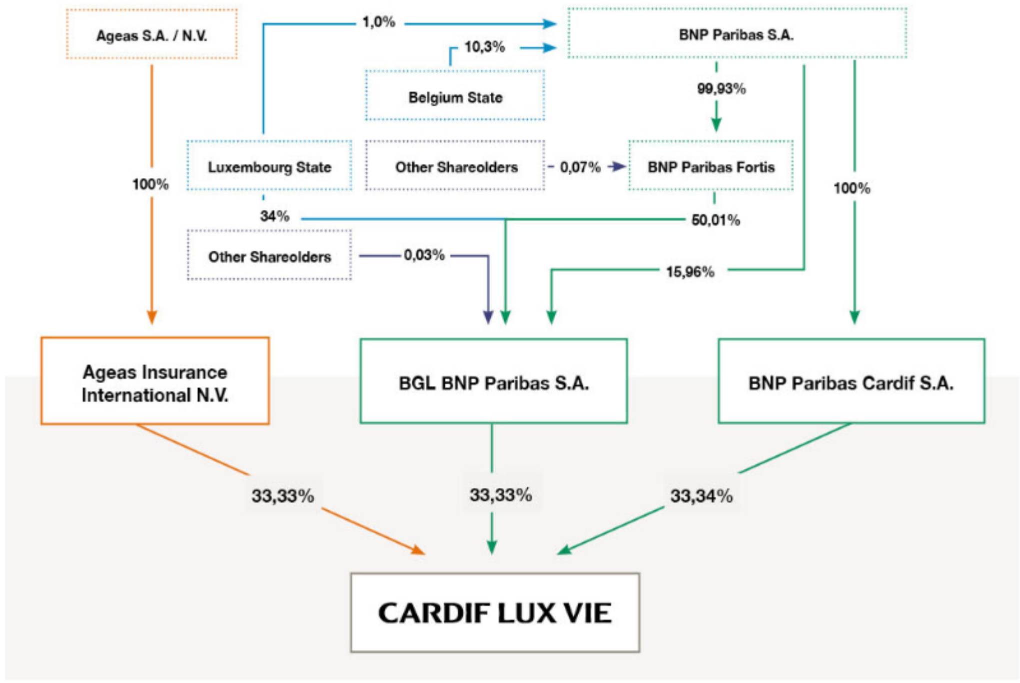
Cardif Lux Vie is 33.34% owned by BNP Paribas Cardif S.A., 33.33% by BGL BNP Paribas S.A. and 33.33% by Ageas Insurance International N.V.

BNP Paribas Cardif is the insurance subsidiary of the BNP Paribas Group, a European leader in banking and financial services and one of the strongest banks in the world. With a presence in 36 countries, and strong positions in three regions (Europe/Middle East/Africa, Asia and Latin America), with some 100 million customers, BNP Paribas Cardif has become a world specialist in personal insurance.

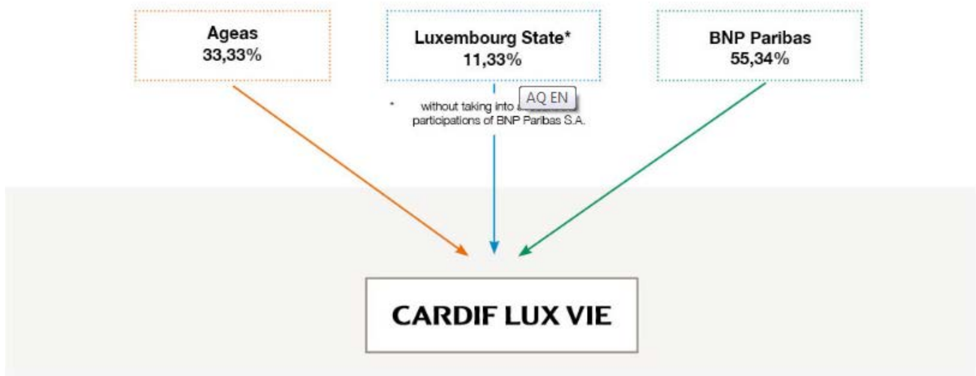
BGL BNP Paribas is one of the largest banks in the Grand Duchy of Luxembourg and is part of the BNP Paribas Group. It offers its personal, business, private banking and corporate customers a wide range of financial products and bancassurance products.

Ageas is a listed international insurance group with some 190 years of experience and know-how. As one of Europe’s largest insurance groups, Ageas concentrates its activities in Europe and Asia. It is a highly successful insurance provider operating in 16 countries through a combination of wholly owned subsidiaries and long-term partnerships with sound financial institutions and key distributors. Ageas ranks among the market leaders in the countries in which it operates.

ENLARGED VISION OF THE SHAREHOLDER



SCHEMATIC INDIRECT SHAREHOLDINGS



A.1.b Lines of business and geographical regions

Cardif Lux Vie relies on an extensive network of European partners to market its product range both locally and internationally through the following lines of business:

- **Wealth Management**: wealth insurance products for high net worth clients of private banks, mainly in Europe and particularly in France, Luxembourg, Belgium, Spain, Italy, Portugal and the United Kingdom;

- **Retail**: insurance products for individual consumers in Luxembourg (exclusively distributed through BGL BNP Paribas);

- **Employee Benefits**: wide range of savings and risk products for local and international business customers looking to protect their employees' future.

A.2 Performance of the underwriting business

The following figures are taken from the annual financial statements of Cardif Lux Vie. The income statement net of reinsurance and after tax is presented below:

In millions of euros	2016	2015	%
Premiums	2,307	2,204	5%
Investment income	250	296	-16%
Unrealised gains on investments	423	594	-29%
Other technical income	14	11	27%
Claims incurred	- 1,418	- 1,529	-7%
Cost of life insurance provisions and other technical provisions	- 1,196	- 1,204	-1%
Bonus and rebates	- 111	- 99	12%
Acquisition and administrative costs	- 73	- 73	0%
Investment charges	- 73	- 72	1%
Unrealised losses on investments	- 64	- 69	-7%
Other technical charges	- 5	- 6	-17%
Allocated investments return transferred	- 7	- 13	-46%
Technical result of life insurance operations	47	40	18%
Non-technical result (excluding taxes)	7	13	-46%
Pre-tax profit for the period	54	53	2%
Taxes	- 16	- 16	0%
Profit for the period	38	37	3%

A.2.a Growth in gross written premiums

In a complex economic and regulatory environment, Cardif Lux Vie wrote €2.3 billion in premiums, up 5% from 2015.

In millions of euros	2016	2015	%
Wealth Management – Unit-linked	1,292	1,365	-5.3%
Wealth Management – General Fund	839	667	25.8%
Total Wealth Management	2,132	2,032	4.9%
Total Retail	143	125	14.4%
Total Employee Benefit	39	53	-25.7%
Total Inflows	2,314	2,210	4.7%

The €7 million difference in premiums for 2016 between the two statements above is due to ceded reinsurance premiums.

For the Wealth Management business line, inflows rose by 4.9% from 2015, with unit-linked products accounting for 60.6%. This performance is due to strong growth in developing markets (United Kingdom, Spain and Portugal), business growth for our representative office in Switzerland, and international diversification of residential markets, distribution markets, partners and solutions proposed.

For the Retail business line, inflows increased by 14.4% from 2015 through strong growth in savings and a stable protection business.

For Employee Benefits, inflows were down on 2015 due to the transfer of mathematical reserves from a pension plan in 2015. Inflows are increasing for regular premiums in savings and protection.

The Company's net inflows totalled €899 million, up 3% from 2015. More than 84% of this growth is represented by unit-linked products.

A.2.b Growth in profit for the period

Cardif Lux Vie recorded net profit after tax of €38 million, up 3% from 2015. This reflects ongoing investments as part of its transformation plan (transaction security, improved customer experience and digitisation).

Cardif Lux Vie posted significant growth in technical result across all three lines of business.

The Company's technical result has increased by comparison with 2015, boosted by the 7% growth in assets under management for the savings business and growth in protection income. It has also benefited from the favourable outcome to disputes and the extraordinary provision recorded in 2015 on behalf of third parties.

Goodwill amortised over five years generated €3.6 million in administrative fees for the last year, in 2015.

Overheads expenses have risen in line with the investment needed to support the Company's development plans. This includes work related to the change of policy management systems and reinforcement of the compliance framework to meet regulatory requirements, alongside efforts to improve operational efficiency and customer quality.

Cardif Lux Vie ended the financial year with a technical result for its insurance business of €47 million, up 17% from 2015.

The Company recorded a fall in its non-technical result linked to its return on own funds. This was mainly due to extraordinary items realised in 2015, on which significant capital gains were recorded, and the decrease in the rate of return on its assets in 2016.

Pre-tax profit stood at €54 million in 2016, up 1% from 2015.

A.3 Performance of investment activities

A.3.a Breakdown of investments

Assets representing the unit-linked liabilities of Cardif Lux Vie amounted to €13.5 billion at 31 December 2016. These break down as follows:

In millions of euros, at	*31 December 2016*	*31 December 2015*
Internal funds	12,510	11,858
External funds	1,058	1,011
Total unit-linked investments	13,568	12,869

At 31 December 2016, the net book value of **investments for which the investment risk is not borne by the policy holder** was €6.894 billion including accrued interest (€98.3 million). These are reported as **investments other than unit-linked investments.**

At 31 December 2016, Cardif Lux Vie's asset allocation, excluding assets covering unit-linked liabilities, was as follows:

Market value in millions of euros*, at	31 December 2016	31 December 2015
Participations	56	45
Governement bonds	2,173	2,236
Corporate bonds	4,172	3,469
Structured notes	148	
Collective Investment Undertakings	1,086	942
Other investments	3	3
Investments (excluding investments representing unit-linked liabilities)	7,637	6,695

*including accrued interest

Most of these investments are held by the General Fund in euros (€6.87 billion in net book value, including accrued interest and €7.62 billion in market value, including accrued interest). Details of these are given below.

In millions of euros*, at	31 December 2016		31 December 2015	
	Net book value	Market value	Net book value	Market value
Fixed-rate bonds	5,349	5,906	4,757	5,252
Floating-rate and inflation-linked bonds	500	527	388	415
Equity-linked bonds	48	49	28	29
Equities and similar	500	612	505	613
Real estate	130	147	107	107
Short term	66	67	45	46
Diversification assets	280	308	192	197
Total	6,873	7,615	6,022	6,658

*including accrued interest

The market value of fixed-rate investments in Cardif Lux Vie's General Fund portfolio in euros remains virtually unchanged at 81.6% at the end of 2016, versus 81.8% at the end of 2015. The proportion of the portfolio made up of floating-rate bonds rose from 6.2% at the end of 2015 to 7% at the end of 2016. Short-term investments, which accounted for 0.7% of the portfolio at the end of 2015, climbed to 0.9% at the end of 2016.

Beta equity exposure (convertible, equity-linked, other equity-backed securities and diversified) fell to 8.7% at the end of 2016, as against 9.2% a year earlier.

The real estate allocation was relatively unchanged, from 1.6% at the end of 2015 to 1.9% at the end of 2016. However, additional liabilities on pan-European office real estate funds will increase exposure to above 2% from the beginning of 2017.

A.3.b Financial performance

The **rate of return on unit-linked investments** was 2.9% in 2016, down from 2015 (4.3%). The change is due to the relative performance of the financial markets for each year.

The **rate of return on assets** in Cardif Lux Vie's **General Fund** was 2.9% in 2016, down from 2015, reflecting the fall in bond yields recorded in the markets. By way of illustration, in 2016 the 10-year risk-free rate (10-year swap rate) averaged around 0.4% below its average level in 2015.

The difference between the rate of return on the General Fund assets and the gross rate used for customers is allocated to the profit-sharing reserve.

A.4 Performance of other activities

There are no other activities to review.

A.5 Other information

There is no other specific information.

B. System of governance

B.1 General information about the system of governance

Cardif Lux Vie is a public limited company with a Board of Directors and General Management.

B.1.a Board of Directors

The Board of Directors is a collegiate body which represents all of the shareholders and acts in the Company's interest at all times.

The Board of Directors ensures that the business runs smoothly and debates and decides on matters that concern the Company. It is also responsible for strategic decision-making. It approves the various mandatory reports and written policies, in accordance with Article 71-3 of the Law of 7 December 2015.

The Board of Directors may perform or commission audits and inspections as it sees fit and monitors the quality of information given to shareholders.

Functioning of the Board of Directors

The Board of Directors meets at least four times a year, and whenever it is in the Company's interests to do so or the circumstances so require.

Prior to Board meetings, directors receive information enabling them to fulfil their duties in the appropriate manner. They may also be sent important and urgent information at any time, particularly between Board meetings.

In 2016, the Board of Directors of Cardif Lux Vie met five times.

B.1.b Special committees of the Board of Directors

The Board of Directors of the Company has three specialised committees: the Audit and Risks Committee; the ALM and Investments Committee; the Remuneration Committee.

These committees have an advisory and supervisory role. They advise the Board of Directors so that it can adopt general policies.

Each committee reports regularly and at least once a year to the Board of Directors on its work.

The committees are composed of three directors appointed by the Board of Directors and the Chief Executive Officer.

- The responsibilities of the Audit and Risks Committee are:
    - to monitor risk, particularly by analysing the quarterly Risk Dashboard,
    - to oversee the Company's financial reporting process and internal control system independently and objectively,
    - to obtain a written statement from the Company's independent auditor at least once a year declaring that its independence has not been compromised,
    - to analyse and evaluate the performance of the independent auditor and internal audit,
    - to prepare the review relating to subjects to be audited at the Company, to be carried out by the Board of Directors,
    - to approve the Compliance activity report.

- The responsibilities of the ALM and Investments Committee are:
    - to monitor the credit, market and liquidity risk of the Company's portfolio,

  - to verify the Company's asset/liability management,
  - to perform checks and ensure that investment limits are adhered to,
  - to conduct an annual review of the results and performance of the Company's portfolio,
  - to review and update the investment criteria at least once every two years.

- The responsibilities of the Remuneration Committee are:
  - to approve the Company's employee remuneration policy,
  - to decide on the remuneration of members of the Executive Committee.

B.1.c Effective executive

The effective executive of the Company is the Chief Executive Officer. He or she is responsible for conducting operations in accordance with the Company's strategic guidelines. To that end, the Chief Executive Officer is fully empowered to act for the Company in any circumstances, subject to the limits of its corporate purpose and the powers specifically granted by law to shareholders' meetings and the Board of Directors.

B.1.d Operational governance bodies

The effective executive is responsible for organising the managerial governance of Cardif Lux Vie, supported by operational governance bodies and a system of delegation of general powers.

Cardif Lux Vie's Executive Committee is responsible for authorising strategic decisions and monitoring the results and financial position of the Company, as well as any action plans to be implemented. It examines major commercial transactions, development and transformation plans, and human resources issues. It pays special attention to monitoring the efficiency of internal control systems, internal audit and risk management, considered essential for the Company's good governance.

In 2016, the Executive Committee was composed of eight members, including three women.

For risk management, the Executive Committee is assisted by operational committees.

The system of delegation of general powers involves panels of authority holders, who, like the effective executive, can in certain conditions assume obligations on behalf of Cardif Lux Vie towards third parties. These are confined to day-to-day transactions concluded in the normal course of business of the Company on standard market terms.

B.1.e Key functions

The Solvency II regulations, as applied within Cardif Lux Vie, define the following four key functions:

- The Risk Management function, provided by the Actuarial & Risk Management Department, assists the Board of Directors and other functions with implementing the risk management system. It monitors and ensures that the risk profile matches the risk appetite defined by the Board of Directors. It reports on risk exposure and advises the Board of Directors on any questions in relation to risk management. It is also in charge of producing regulatory solvency reports.
- The general role of the Compliance function, provided by the head of the Compliance Department, is to give the effective executive and the Board of Directors reasonable assurance that non-compliance, regulatory and reputational risks are duly monitored, controlled and mitigated.
- The Audit function, provided by the Chairman of the Audit and Risks Committee, is in charge of assessing the adequacy and effectiveness of the internal control system, as well as other elements of the system of governance.

- The Actuarial function, provided by the Actuarial & Risk Management Department, is responsible for coordinating the calculation of technical provisions, ensuring the appropriateness of methodologies, the underlying models and the assumptions used to determine them, and assessing the adequacy and quality of the data used.

Like the effective executive, each person responsible for these key functions must be declared to the Commissariat aux Assurances (CAA) upon his or her appointment.

The Audit and Compliance functions are vertically integrated with the corresponding functions of the BNP Paribas Group. This organisational structure helps to reinforce the independence of these functions.

A governance system sets out the operating procedures of these double links for each function: in the event of disagreement between the effective executive of Cardif Lux Vie and the head of the Group function concerned, the Board of Directors decides.

The independence of key functions is guaranteed by a right of access to Board members for the heads of key functions in the event of a major risk or serious malfunction likely to compromise the accountability of directors or the sound management of the Company.

B.1.f Remuneration policy

Cardif Lux Vie's remuneration policy is based on the remuneration policy of the BNP Paribas Group and complies with the European Solvency II Directive.

This is based on the principles of fairness and non-discrimination and involves an annual review of fixed and variable remuneration.

The method of determining individual variable remuneration includes an evaluation of the long-term quantitative and qualitative performance measured against the targets set, and an assessment of the professional conduct of each individual in terms of upholding values, teamwork and following compliance rules, the Code of Conduct and procedures.

The Board of Directors of Cardif Lux Vie is responsible for the remuneration of Executive Committee members.

B.1.g Material transactions

In 2016, no conflict of interest was reported by Cardif Lux Vie's directors.

B.2 Fit and proper requirements

The Board of Directors appoints the effective executive and the heads of key functions in view of their expertise and experience, evaluated according to their professional qualifications, know-how and experience in the insurance industry or other financial sectors.

The effective executive is appointed not only on the basis of his/her expertise and experience gained during his/her career, but also according to the qualities deemed necessary. For example, the effective executive must have solid experience in insurance and financial markets, strategy, system of governance and risk analysis, and actuarial and financial analysis, as well as a thorough understanding of the regulations applicable to insurance undertakings.

The effective executive and the heads of the key functions of Cardif Lux Vie possess – both individually and collectively – the necessary expertise, experience, skills, understanding and personal qualities, particularly in terms of professionalism and integrity, to fulfil their duties in relation to each of Cardif Lux Vie's core businesses and ensure effective governance and supervision.

B.3 Risk management system

B.3.a Comprehensive risk management framework

Risk management is a process used to identify, measure, monitor, manage and account for risks originating from the external environment and those intrinsic to the Company. The aim is to guarantee the solvency, business continuity and development of the Company while maintaining satisfactory levels of risk and profitability.

Cardif Lux Vie's risk management is organised around its Chief Risk Officer (CRO) and Actuarial & Risk Management Department, with:

- a comprehensive risk and risk-taking strategy,
- risk governance organised around the four key functions under Solvency II,
- risk management processes and tools that are available even at the operational level.

The main duties of the CRO are as follows:

- to advise the Board of Directors and effective executive on risk governance, policy and management strategy,
- to sit on risk or approval committees and if necessary review risk management decisions, tools and processes which are not directly within his/her remit,
- to produce the internal and statutory risk and solvency reports,
- to be responsible for Solvency II models and tools,
- to act as an integral part of the internal control system (see B.4).

B.3.b Roles, responsibilities and key risk management process

Risk strategy process

The Actuarial and Risk Management Department advises the Executive Committee and the Board of Directors on strategy and proposes the allocation of risk appetite. It defines risk tolerances according to the risk preferences set by the Board of Directors. It ensures that the risk profile corresponds to the risk appetite. Each year it maps the major risks to which Cardif Lux Vie is exposed.

Independent review

The Actuarial & Risk Management Department is responsible for advising all levels of management on decisions involving risk, while:

- ensuring the consistency of governance with the risk management framework;
- performing an independent review of the risk assessment;
- proposing any risk mitigation actions required.

Risk modelling

Cardif Lux Vie uses projections to assess risk and solvency ratios under Solvency II regulations, prepare its economic balance sheet, review asset/liability management and perform stress tests. These key models and tools are integrated into the overall technical architecture at BNP Paribas Cardif level and shared using a common international platform.

The modelling of products and strategic modelling choices in the projection models used at Cardif Lux Vie are the responsibility of the Actuarial S2 & Risk Management unit within the Actuarial & Risk Management Department.

Specific committees are set up to monitor developments, while detailed process documentation is used to explain the results generated by the models, to identify the limitations of the methodological choices made, and to follow up on these.

Stress tests

In order to benefit from dynamic risk management and monitoring, Cardif Lux Vie has developed a system of stress tests.

Stress tests are an integral part of risk management. They seek to identify the performance of statutory results, solvency and value indicators in different environments, so as to better understand the nature of the risks to which the Company is exposed and to better anticipate critical situations.

Appropriate stress tests are carried out at different stages of the risk management cycle: when implementing the risk appetite; when taking, assessing, mitigating and monitoring risk; lastly, when reporting risk.

Following the stress tests, action plans are defined to realign the risk exposure with risk appetite, if necessary.

Capital management

Cardif Lux Vie monitors its capital to ensure an optimised and sufficient capital structure able to fulfil the prudential requirements and provide sufficient financial resilience.

Capital management is the joint responsibility of the Finance Department and Actuarial & Risk Management Department. To ensure that it has a sufficient level of capital, the Company applies the following principles:

- Maintaining the capital at an appropriate level taking into account the business, risk profile, growth, strategic initiatives and regulatory requirements;
- Optimising the prudential capital structure according to the different types of capital in accordance with the regulatory limits;
- Forecasting capital requirements and defining their allocation.

Own Risk and Solvency Assessment (ORSA)

Under the Solvency II Directive, Cardif Lux Vie conducts an annual forward-looking assessment of its solvency and risks, with:

- The definition and evaluation of a capital requirement specific to the risk profile;
- The level of capital that the Company wishes to hold to cover this specific requirement, beyond the regulatory capital requirement;
- The prospective solvency ratios in the context of the medium-term plan;
- The resilience of these ratios in the case of stress tests.

According to the levels of solvency ratios observed and the projections made during the ORSA, capital adjustments may be made.

Solvency II reporting

Under the Solvency II Directive, Cardif Lux Vie must allow the Commissariat aux Assurances access both to this report and the regulatory supervisory report.

Risk culture

Sound risk management is one of the principles of the BNP Paribas Group, which has always prioritised a culture of risk control and management.

The Actuarial and Risk Management Department is involved in coordinating risk culture initiatives by developing and maintaining a solvency training programme and raising awareness of operational risk (particularly fraud, incident detection and reporting, and risk mapping).

B.3.c Management of risk categories

Management of underwriting risk

Underwriting risk is the risk of loss associated with sudden and unforeseen fluctuations in claims. Depending on the type of activity, this risk is the result of statistical, macroeconomic or behavioural changes, as well as phenomena linked to public health or disasters.

The system of governance put in place to prevent and monitor underwriting risks is based on documents and tools that define the principles, methodologies and best practices to be followed by the Product Actuarial Department. Premiums are calculated in view of the target profitability and cost of capital set by the Board of Directors.

Reinsurance is an additional element of the underwriting risk management policy, especially in limiting individual exposure and outsourcing risks that do not feature among Cardif Lux Vie’s risk preferences or as part of its risk appetite.

Periodic monitoring of these risks is carried out by the Local Risk Committee.

Market, liquidity and credit risk management

Market risk is the risk of loss associated with adverse movements in the financial markets. These adverse movements are mainly reflected in price variations (exchange rates, bonds, equities and commodities, derivatives, real estate, etc.) and are the result of fluctuations in interest rates, spreads, volatility or correlation.

Liquidity risk is the risk of being unable to honour expected or unexpected future liquidity demands arising from insurance obligations, owing to the impossibility of selling the assets within a suitable timeframe.

Credit risk is the risk of loss associated with the credit quality of issuers, counterparties or any other debtor to whom the Company is exposed.

Market and credit risks factor in concentration risk, which corresponds to all exposures for which the risk of loss would be significant.

The investment policy guides the investments of Cardif Lux Vie in accordance with the prudent person principle defined in Article 132 of the Solvency II Directive, Article 114 of the Law of 7 December 2015 on the insurance sector, and Article 53 of Commissariat aux Assurances Regulation No. 15/03 of 7 December 2015. The system of governance covers all key asset management and risk monitoring processes, thus ensuring respect for global requirements. The investment rules are formalised in the management agreements.

Investments are made according to the strategic asset allocation defined in the context of asset-liability management (ALM). This allocation, determined by the liabilities to which the company is exposed, is in line with the risk appetite defined by the Board of Directors.

Operational risk management

Operational risk is the risk of loss resulting from the inadequacy or failure of internal processes, IT malfunctions or external, accidental or natural events. These external events may be human or natural in origin.

This risk must be managed, in the sense that it must be kept within acceptable limits through avoidance, mitigation or transfer measures.

The aims of Cardif Lux Vie's operational risk management are:

- to reduce the likelihood of occurrence of an operational risk event jeopardising:
    - Cardif Lux Vie's reputation;
    - the trust that its customers, partners and employees have in the Company;
    - the quality of its products and services;
    - the efficiency of the processes it manages;
- to put in place a system providing reasonable assurance of risk management to the effective executive, the Board of Directors and the regulator.

These processes rely in particular on the incident reporting framework and risk mapping approach. This makes risk identification systematic and allows risks to be addressed through appropriate controls or action plans.

B.4 Own Risk and Solvency Assessment

The Own Risk and Solvency Assessment (ORSA) is an ongoing risk management process coordinating and consolidating all processes relating to the identification, quantification, management and oversight of risks and how these are reported. An annual ORSA report has been produced since 2015.

B.4.a Risk profile

At Cardif Lux Vie, the risk profile is based on the risk appetite statement which sets limits on the nature, quantity and quality of the long-term risks that the Company is ready to take as part of its strategy.

Risk appetite defines the volatility threshold of performance indicators that the Company's shareholders do not want to exceed.

The risk profile is the level of risk of the Company's obligations according to predefined metrics. It is measured at least annually and must be updated following major events (e.g. deterioration in market conditions, acquisition of portfolio, etc.) to ensure that it matches the risk appetite.

The risk metrics used are:

- the maximum deviation accepted in 90% of cases of actual pre-tax profit compared with the budget;
- monitoring of the target solvency ratio in the current prudential environment.

B.4.b ORSA report

The report prepared in 2016 was approved by the Board of Directors after being signed off by the Local Risk Committee. It was sent to the Commissariat aux Assurances.

B.5 Internal control system

B.5.a Organisation of internal control

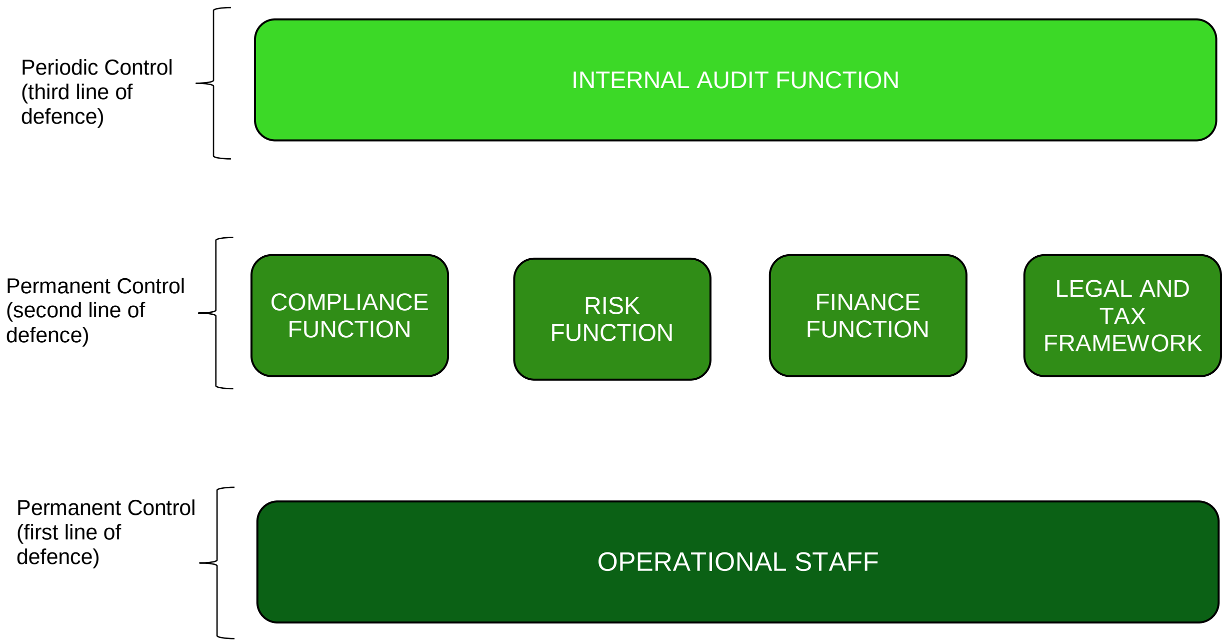
Cardif Lux Vie's internal control and operational risk management policy is established in accordance with the regulatory provisions and standards of the BNP Paribas Group, which apply to it given the nature of its activities.

Cardif Lux Vie has set up an internal control and operational risk management system and framework which are designed to be consistent with best practice in this area, especially as regards the prudential regime established by the Solvency II Directive.

The internal control system is based on the rules, framework, processes and controls implemented by the management and all employees.

It consists of Permanent Control and Periodic Control, two different and coordinated systems which are separate and independent from each other.

- Permanent Control involves ongoing efforts to manage risk and monitor the implementation of corrective actions. This is carried out firstly by operational staff and their management, and secondly by independent functions within BNP Paribas Cardif.
- Periodic Control is responsible for the "ex-post" verification of the functioning of Cardif Lux Vie, including the effectiveness and quality of the Permanent Control system. This audit process is carried out by the Internal Audit function, which operates independently.



Main stakeholders responsible for internal control

- The effective executive, under the supervision of the Board of Directors, is responsible for the Company's entire internal control system;
- Operational staff, regardless of their position within the Company, and particularly line managers, are primarily responsible for their own risk management and key players in the permanent control process. They are responsible for "level 1" checks;
- The independent permanent control functions carry out "second-level" checks:

  - o compliance with legislative and regulatory provisions, ethical and professional standards and guidance from the Board of Directors and effective executive is permanently monitored by the Compliance function;
  - o the Risk function reviews underwriting, credit and market risk to ensure that these are consistent and compatible with internal policies and profitability targets, as well as permanently monitoring operational risk;
  - o the Finance function is responsible for producing and checking accounting statements and for quality control;
  - o other functions are key players in permanent control in their specific areas of responsibility (Legal & Tax Department, Actuarial Department, etc.).
- Periodic control (level 3) is carried out by the Inspection Générale of the BNP Paribas Group;
- Lastly, the Board of Directors supervises internal audits.

The Board of Directors reviews and approves the strategies and policies for risk taking, management, monitoring and mitigation and examines the system of governance. The heads of the Compliance, Risk, Actuarial and Internal Audit functions report to the effective executive and the Board of Directors on the performance of their duties.

The heads of key functions have a direct right of access to the Board of Directors in the event of major risk or serious malfunction likely to compromise the accountability of directors or sound business management.

B.5.b Key internal control procedures

Procedures are one of the key elements of the permanent control system.

Cardif Lux Vie follows the system deployed by the BNP Paribas Group, adapted if necessary to the specific needs of the insurance business.

The written guidelines of the BNP Paribas Group document the organisations and procedures to be applied, as well as the checks to be performed. These procedures constitute the basic reference framework for internal control.

B.6 Internal Audit function

The Internal Audit function is in charge of periodically monitoring the activities of Cardif Lux Vie. It aims to give the effective executive and the Board of Directors an independent assessment of the quality and effectiveness of the system of governance and internal control. It makes recommendations to improve its quality and compliance.

Internal Audit is outsourced to the Inspection Générale – Luxembourg Hub. The outsourcing relationship is documented in a framework agreement between Cardif Lux Vie and BGL BNP Paribas.

The typical assignments carried out by the Internal Audit function follow a multi-year audit plan designed to cover the entire scope according to an audit cycle. The audit plan is based on a Risk Assessment conducted each year by the Inspection Générale – Luxembourg Hub. Special audits can be carried out if necessary. These assignments are carried out in accordance with the specific arrangements defined in the reference texts published by the Inspection Générale of the BNP Paribas Group. The effective executive of Cardif Lux Vie, the Chairman of the Board of Directors of Cardif Lux Vie, the Chairman of the Audit and Risks Committee and the head of the Inspection Générale (Cardif, Group or Luxembourg Hub) can initiate the audit and define its scope.

The Internal Auditors work independently across the entire auditable scope of Cardif Lux Vie. They can examine any topic and have free access to all documents, assets and personnel working directly or indirectly for Cardif Lux Vie. Similarly, they are free to issue their conclusions independently. They must remain independent, objective and impartial in their investigations and cannot be directly involved in operational management. They rely on a set of internal audit procedures maintained by the Inspection Générale of the BNP Paribas Group.

The head of Internal Audit is the chairman of the Cardif Lux Vie Audit & Risks Committee. He/she ensures the independence of this key function.

The head of Internal Audit regularly reports to the Board of Directors of Cardif Lux Vie on its work.

B.7 Actuarial function

The Actuarial function is assumed by the Actuarial and Risk Management Department of Cardif Lux Vie. The head of this department reports directly to the effective executive of Cardif Lux Vie and thus represents the Actuarial key function.

For each of the product lines marketed by Cardif Lux Vie, the Actuarial and Risk Management Department is in charge of identifying, monitoring, quantifying and rationalising the underwriting and asset/liability management (ALM) risks. To ensure that the key functions remain independent, its work is organised as follows:

- the *Product Actuarial unit* is in charge of the introduction of new products. It guarantees the quality of the business written (product approval, pricing and monitoring of the new business plan, approval of the technical bases), ensures that the methods and the level of reserves are appropriate under local Luxembourg GAAP, handles underwriting risk reporting and provides an opinion on the adequacy of the level of risk (reinsurance) as part of its underwriting activities.
- the *Actuarial S2 & Risk Management unit* is responsible for the calculation of Solvency II technical provisions, ensuring that the methods, underlying models and assumptions used are appropriate. It monitors and quantifies the underwriting and market risks as part of its prudential closing activities, assesses the adequacy and quality of the data used to calculate technical provisions, prepares the actuarial report, and provides the actuarial function with information on the reliability and adequacy of the calculation of the Solvency II technical provisions.
- the *ALM unit* is in charge of implementing the strategic asset allocation as part of its asset/liability risk monitoring. It oversees the implementation and monitoring of behavioural assumptions (lapse rules) during prospective studies, assesses the adequacy and quality of the data used in the implementation of behavioural rules and SAA-ALM studies, and values the provisions in accordance with IFRS.

The Actuarial and Risk Management Department has an overview of underwriting and ALM risks throughout the product life cycle.

To perform its functions, the Actuarial and Risk Management Department adheres to a strong and regularly adapted system of governance at the BNP Paribas Cardif Group level. This technical and decision-making framework enables the owner of the actuarial function to independently manage situations pre-approved by the Group Actuarial function.

For any underwriting business not covered by this framework, the system of governance requires formal approval from the Group Actuarial function at the appropriate level and – depending on the issue – from the other departments involved. It identifies the cases in which this approval must be obtained, and imposes a consensus among the managers involved in order to obtain approval. Regarding the prudential and statutory closing processes and risk monitoring, the system of governance determines the methods and models to be used depending on the nature and materiality of the risks, defines the relevant indicators, and establishes the Group reporting requirements.

The Actuarial and Risk Management Department coordinates the work and consolidates the results. It reports on the consolidated results and its own analysis to the Local Risk Committee. The reporting frequency is stipulated in the system of governance. According to the results of its analyses or in case of new events (increase in claims, natural disaster, deterioration in the economic and financial environment, etc.), the Actuarial and Risk Management Department is expected to conduct, via one of its three units, specific studies which it submits to the Local Risk Committee.

Cardif Lux Vie's compliance with the system of governance is audited annually or semi-annually, depending on the relevant points. It includes completeness checks and random checks.

The Actuarial and Risk Management Department drafts the actuarial report according to the requirements of the Solvency II Directive.

B.8 Outsourcing

B.8.a Outsourced activities

Cardif Lux Vie outsources certain key activities, particularly in relation to IT infrastructure and fund accounting.

B.8.b Governance of outsourcing

The outsourcing framework is governed by a specific governance system within the BNP Paribas Cardif and Cardif Lux Vie Group.

Approved by the Board of Directors, Cardif Lux Vie's outsourcing policy defines the rules for the outsourcing of any critical and important functions or activities, including:

- a definition of critical and important functions or activities;
- an explanation of the importance of risk management and the control framework;
- guidelines for monitoring, control and management of outsourced activities during the production phase.

Organisation of subcontracting

Outsourcing at Cardif Lux Vie is overseen by the Chief Operating Officer (COO). The COO is in charge of:

- drafting the outsourcing policy,
- drafting the governance systems and procedures relating to outsourcing,
- permanently monitoring the outsourcing process and overseeing monitoring campaigns,
- compliance advice for the outsourcing of critical or important functions or activities,
- implementing a reversibility scenario with an escalation procedure so that the process can be referred back to Cardif Lux Vie,
- enforcing compliance by implementing the documented security requirements, including aspects such as the business continuity plan (BCP) and disaster recovery plan (DRP), regardless of the different levels of delegation or outsourcing,
- the contribution to regulatory reports.

The COO Office endeavours to involve Cardif Lux Vie's Compliance and Permanent Control functions as soon as possible to ensure that the regulatory, operational risk and business continuity aspects are fully taken into account in the outsourcing project.

Supervisory body

The Outsourcing Committee (or Outsourcing Local Committee) monitors and oversees the risks associated with outsourcing at Cardif Lux Vie. It reviews the risk analysis prepared at each major milestone for each outsourcing project.

The Outsourcing Committee is composed of managers from the various functions involved in outsourcing (Legal & Tax, Compliance, Finance, Risk, Actuarial, Global Security, Operational Risk/Permanent Control, IT, etc.).

Delegation principles

Since Cardif Lux Vie is a subsidiary of the BNP Paribas Cardif Group, it must apply the delegation principles defined in the Group's Outsourcing operating procedure. These principles define the required level of approval for risk analyses performed on outsourcing projects or existing services, as well as the reporting requirements.

The criteria taken into account are:

- the criticality of the service,
- the operational risk associated with the delegated activity.

B.8.c Monitoring system

An annual risk assessment is conducted on risks associated with additional services.

Additional services are also periodically reviewed and documented in a due diligence report prepared by the Permanent Control unit.

Major events in 2016

There were no new outsourcing projects in 2016.

B.9 Adequacy of the system of governance

In light of the above, the system of governance of Cardif Lux Vie is considered adequate given the nature, scale and complexity of its inherent business risks.

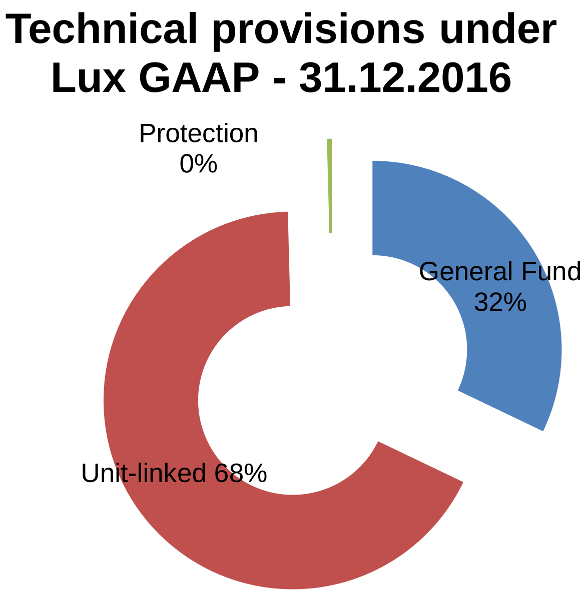
B.10 Other information

There is no other material information.

C. Risk profile

As an insurer, Cardif Lux Vie accepts risks in accordance with its risk preferences and overall strategic framework. Risks are accepted according to the system of governance and related policies and are monitored by the Local Risk Committee.

Cardif Lux Vie's portfolio mainly consists of savings (invested in unit-linked products or euro funds) and protection insurance. The breakdown of technical provisions under Lux GAAP is shown below:



This entails the management of several risk categories, both in terms of underwriting and in terms of investment and day-to-day management of these policies.

Cardif Lux Vie's Solvency Capital Requirement (SCR) is calculated using the standard formula proposed by the European Insurance and Occupational Pensions Authority (EIOPA). It corresponds to the sum of the net BSCR (Basic Solvency Capital Requirement), the operational SCR and the tax adjustment. The BSCR is based on a bottom-up approach, i.e. its calculation is divided into risk modules, which in turn are divided into sub-modules. The capital requirements for each of the different risks are aggregated via a correlation matrix.

The information contained in this chapter covers the nature of the risks to which Cardif Lux Vie may be exposed, the valuation techniques applied, significant risk concentrations, the mitigation techniques used and the procedures for monitoring their effectiveness.

The risk classification applied by the BNP Paribas Cardif Group is in line with the regulatory requirements and methods. It is based on the following main categories:

- underwriting risk,
- market risk,
- counterparty risk,
- liquidity risk,
- operational risk,
- other risks.

C.1 Underwriting risk

C.1.a Definition

Underwriting risk is the risk of loss associated with sudden and unforeseen fluctuations in benefits. Depending on the type of activity, this risk is the result of statistical, macroeconomic or behavioural changes, as well as phenomena linked to public health or disasters.

C.1.b Risk exposure

The underwriting Solvency Capital Requirement (SCR) of Cardif Lux Vie amounted to €165 million at 31 December 2016.

The underwriting SCR is composed of the Life and Health modules and breaks down as follows:

In millions of euros, net amount, at	31 December 2016
SCR Life Underwriting	165
SCR Health Underwriting	-
SCR UNDERWRITING	165

The **Life module**, like biometric risks, lapses and management fees for savings and protection contracts, aggregates several risk sub-modules as defined by Solvency II.

Cardif Lux Vie's main risk sub-modules are:

- The **expense risk** sub-module, which assesses the impact of a 10% increase in costs and a 1% rise in inflation.

Cardif Lux Vie's expense risk could result from a miscalculation, higher cost inflation than expected, lower management fees on assets under management due to a contraction in business, spending overruns, regulatory developments and company-wide changes.

- The **lapse risk** sub-module, which assesses the impact of a change in lapses using the most sensitive of the following events:

  - a permanent 50% rise or fall in lapse rates,
  - a mass lapse of 40%.

Cardif Lux Vie is sensitive to the impact of mass lapse mainly originating from unit-linked contracts where the future profits largely depend on the duration of the liabilities in the portfolio.

-The biometric risk sub-modules (**mortality risk, longevity risk and disability risk**) assess the impact of a deterioration or improvement in the life expectancy of policy holders. Since the portfolio is mainly composed of savings contracts, these biometric risks have a low impact on the Life Underwriting SCR.

C.1.c Concentration

Given Cardif Lux Vie's Wealth Management business, the underwriting risk exhibits a **significant degree of concentration**. To limit this risk, Cardif Lux Vie has introduced a policy for the selection and management of material policies.

In protection insurance, the reinsurance policy limits "peak" risks (high individual exposures).

C.1.d Risk management and monitoring

Risk management and mitigation

The risk monitoring and management system for underwriting risk is based on a system of governance and documented processes. Risk underwriting is consistent with the specific delegation rules, involving several levels – both within Cardif Lux Vie and at the BNP Paribas Cardif Group level – depending on the assessment of the maximum acceptable loss, the estimated capital requirement under Solvency II, and the estimated return on the contracts in question.

Past experience and market analysis are used to regularly update the databases used for risk pricing, taking into account various parameters (type of credit for borrower insurance, coverage, insured population, etc.). Premiums are calculated in view of the target profitability and return on equity set by the Board of Directors of Cardif Lux Vie.

This risk is managed via contractual clauses, where permitted by the regulatory and commercial framework. These include medical screening for high-value policies, or repricing clauses in the event of changes in taxation or an increase in claims, and limitations on the duration of coverage.

Reinsurance is an additional element of the underwriting risk management system. Its objective is to protect Cardif Lux Vie against three main risks:

- “peak” risk, associated with exposure to an individual risk exceeding a predefined threshold, referred to as the “retention amount”,
- catastrophe risk, associated with risk exposure for a single rare event with a severe financial impact (concentration risk),
- new product risk, associated with insufficient pooling, lack of control over technical bases, or uncertainty regarding the data of policy holders.

In savings, underwriting risk is managed by monitoring and managing inflows to the general fund so as to limit dilution effects on the rate of return on the assets.

In addition, Cardif Lux Vie limits its exposure to the risk associated with the existence of a minimum guaranteed rate in its contracts.

Risk monitoring

The periodic monitoring of underwriting risk is carried out by the Local Risk Committee as part of its ALM and actuarial governance.

C.1.e Stress tests and sensitivity analyses

During pricing, product approval requires a systematic analysis of adverse scenarios (stress tests) or extremely adverse scenarios (crash tests). These analyses are carried out over the same time horizon as the central scenario.

During the internal risk assessment of Cardif Lux Vie (ORSA process), no stress test was carried out for underwriting risk given its lower impact on the Company’s solvency.

C.2 Market risk

C.2.a Definition

Market risk is the risk of loss associated with adverse movements in the financial markets. These adverse movements are mainly reflected in price variations (exchange rates, bonds, equities and commodities, derivatives, real estate, etc.) and are the result of fluctuations in interest rates, spreads, volatility or correlation.

C.2.b Cardif Lux Vie investments

The composition of the Cardif Lux Vie investment portfolio and its sensitivity to market risk are as follows for each major category of insurance liability:

Investment portfolio covering the liabilities of the General Fund, protection business and own funds

The investment portfolio of the general assets (General Fund, protection business and own funds) is mainly composed of bonds (85%) and investment funds (14%), as shown below.

	31 December 2016	
In millions of euros at	Market value	%
Real estate	0	0%
Equities (including equity investments)	56	1%
Bonds	6,494	85%
Government bonds	2,173	28%
Corporate bonds	4,172	55%
Structured bonds	149	2%
Guaranteed securities	0	0%
Collective funds	1,087	14%
Equity funds	588	8%
Bond funds	308	4%
Money market funds	67	1%
Asset allocation funds	2	0%
Real estate funds	91	1%
Hedge funds/Infrastructure/Private Equity	31	0%
Other	0	0%
Derivatives	0	0%
TOTAL GENERAL FUND INVESTMENTS	7,637	100%

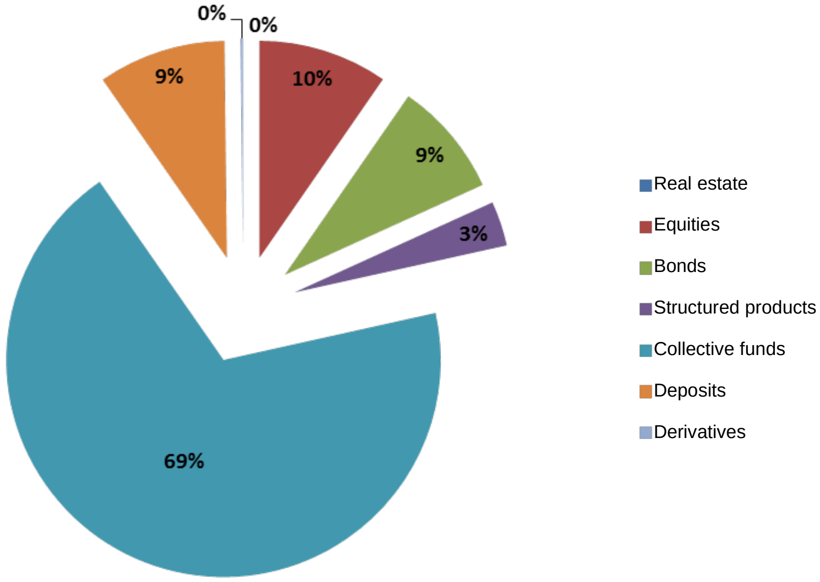
For this general fund, the market risk is mainly borne by Cardif Lux Vie, which guarantees the liability commitments for its policy holders. Through its prudent person policy, Cardif Lux Vie invests in asset classes enabling it to at least meet its obligations towards policy holders.

The general asset investment portfolio is exposed to the following risks: interest rate risk, equity risk, credit risk, issuer concentration risk, exchange rate risk and real estate risk. These risk exposures are described below.

Investment portfolio covering unit-linked liabilities

The investment portfolio representing unit-linked contracts is mainly composed of collective investment funds (69%), as illustrated below:

Breakdown of investments of contracts where the risk is borne by the policy holder



For this portfolio of unit-linked contracts, the prudent person policy also applies during the selection of investment assets by policy holders. Here, the market risk is mainly borne by policy holders; however, a drop in value of the assets under management will have an impact on Cardif Lux Vie's revenue.

The unit-linked investment portfolio is exposed to the following risks: interest rate risk, equity risk, bond risk, foreign exchange risk and real estate risk. These risk exposures are described below.

C.2.c Risk exposure

The market Solvency Capital Requirement (SCR) amounted to €299 million at 31 December 2016.

Net Solvency Capital Requirement, in millions of euros at	31 December 2016
Interest rate risk	33
Equity risk	166
Property risk	10
Spread risk	113
Concentration risk	3
Currency risk	37
Diversification effect	-61
TOTAL MARKET SCR RISK	299

The six risk sub-modules comprising the market SCR are:

- the interest rate risk sub-module, which seeks to quantify the capital requirement necessary to absorb the impact on the balance sheet of a rise or fall in the interest rate term structure. The capital requirement is equal to the impact of a rise or fall in the interest rate term structure. For each maturity, upward or downward shocks are expressed in proportion to the rates by duration.

The capital charge for this sub-module is low compared with the exposure to fixed-income instruments. This is due to the asset-liability management implemented on the general assets and to the unit-linked investment policy.

The interest rate shocks applied to assets are largely absorbed by the adjustment to the liability discounting rate. As a result, the gap in asset and liability duration generates most of the SCR of this sub-module. It originates from the prudence required when setting the asset investment horizon, in light of potential lapses and the need to meet any acceleration in liability cash flows.

In addition, guaranteed minimum rate exposure is minor and only has a limited impact on the SCR of the interest rate risk sub-module.

The absorption capacity of liabilities with regard to other shocks (equities, real estate, credit spread) is solely derived from the adjustment of profit-sharing. It is therefore proportionally lower than in the case of interest rate shocks.

- the equity risk sub-module, which represents 46% of the market SCR before diversification at 31 December 2016. This sub-module is the most significant, taking into account the unit-linked investment portfolio which is mainly invested in investment funds and the shock level applied of 39% for equities listed in a European Union or OECD member state and 49% for other equities.

To avoid pro-cyclical behaviour, this shock is corrected by a symmetrical adjustment mechanism or dampener: it attenuates equity shock when the markets are at their lowest, and increases it when the markets reach a peak, i.e. when a fall is highly probable. At 31 December 2016, the dampener was -1.4%, and the applied shocks were 37.6% or 47.6%.

- the property risk sub-module, which measures the impact of a fall in real estate markets on asset value. It consists of an immediate 25% reduction in the market value of real estate assets. The capital charge is consistent with Cardif Lux Vie's exposure.

- the spread risk sub-module, which represents 31% of the market SCR before diversification at 31 December 2016. This sub-module is intended to quantify the capital requirement corresponding to the risk of widening credit spreads (actuarial difference between a bond rate and the equivalent risk-free government bond rate). The spread shock depends on the duration and rating of fixed income products. It only covers corporate bonds and bonds issued by non-European States, considering that bonds issued by European States are not subject to spread risk. Like interest rate risk, it varies according to the breakdown of the fixed income portfolio.

- the currency risk sub-module, which quantifies the capital cost of a 25% fall in foreign currencies against the euro. Cardif Lux Vie's exposure is due to securities denominated in foreign currencies and held by the General Fund, and unit-linked investments.

- the concentration risk sub-module, which is covered in the next section.

C.2.d Concentration

The asset dispersion rules are laid down by the asset management governance. These rules are integrated into the General Fund management mandates and specify the dispersion ratios by issuer for each fixed income instrument and rating category.

C.2.e Risk management and monitoring

Risk management and mitigation

Cardif Lux Vie has the management tools necessary to calibrate its strategic asset allocation and to measure its asset-liability risks.

The **investment policy** dictates the framework applicable to asset management. It defines the principles used to match the structure of the asset portfolios with obligations towards policy holders upon the sale of insurance policies, while maximising the expected return on investment compared with the risk limit set.

For each portfolio, the investment policy is governed by a **management mandate** which specifies the investment limits for each asset class.

The **asset-liability management studies are** used to project the expected cash flows for the assets and liabilities of the general fund. They can be used to adjust the asset duration based on liabilities profile.

Exposure to market risk is also monitored through **specific and targeted studies**, such as the quarterly review of bond issuers, or the review of securities with an unrealised capital loss.

Furthermore, Cardif Lux Vie is exposed to **exchange rate risk** on its foreign currency investments. The foreign exchange position essentially consists of securities denominated in foreign currency financed by the purchase of the investment currency. The Cardif Lux Vie policy consists of hedging exposures to liquid currencies while maintaining a limited sensitivity of the solvency ratio to exchange rate movements.

Risk monitoring

Periodic monitoring of market risks is carried out by the Local Risk Committee as part of its Actuarial and ALM governance and its Asset Management governance.

C.2.f Stress tests and sensitivity analyses

Stress tests are regularly reviewed as part of the asset-liability management studies. These test the ability of Cardif Lux Vie to honour its commitments in adverse market situations, taking into account the impact of such situations on policy holder behaviour.

In addition, specific stress tests can be performed at the request of the regulators.

Lastly, a sensitivity analysis is regularly carried out on the market SCR and solvency ratio in general.

C.3 Counterparty risk

C.3.a Definition

Counterparty risk is the risk of loss due to the effects of a change in credit quality of issuers, counterparties or any other debtor to whom the Company is exposed. Among the debtors, the risks associated with financial instruments (including banks in which the Company holds deposits) and the risks associated with insurance receivables (collection of premiums, reinsurance balances, etc.) are divided into two categories: asset credit risk and liability credit risk.

C.3.b Risk exposure

The counterparty SCR totalled €21 million at 31 December 2016. Of this, 97% relates to default risk exposures arising from reinsurance operations and cash deposits with credit institutions.

In millions of euros, at	31 December 2016
TOTAL COUNTERPARTY RISK	21

C.3.c Concentration

The **exposure to reinsurers** at 31 December 2016 mainly concerns two reinsurers. These are the most significant reinsurance treaties. The risk of default on these treaties is reduced by a cash deposit guarantee for the share of obligations in euros. This guarantee is recognised as collateral under Solvency II.

C.3.d Risk management and mitigation

Counterparty risk on **reinsurers** is managed through careful counterparty selection, the negotiation of guarantees and regular monitoring of the main exposures.

C.4 Liquidity risk

C.4.a Definition

Liquidity risk is the risk of being unable to honour expected or unexpected future liquidity demands arising from insurance obligations towards policy holders, owing to the impossibility of selling the assets within a suitable timeframe.

C.4.b Risk exposure

Liquidity risk exposure is reviewed at least annually. It is assessed through the Actuarial & Risk Management Department's review of the cash flow projections for the assets and liabilities of Cardif Lux Vie's General Fund.

The asset disposals necessary to cover the cash outflows due in one year are examined in different scenarios. In addition to the central scenario, stressed market scenarios are analysed.

The studies carried out show that Cardif Lux Vie is not subject to a risk of illiquidity of the assets in a central scenario. In normal lapse situations, it is clear that even in the absence of new production, cash flows from the portfolio of financial assets is sufficient to cover cash outflows.

C.4.c Risk management and mitigation

Liquidity risk is managed centrally by the Actuarial & Risk Management Department and Asset Management Department at Cardif Lux Vie. Asset-liability matching is carried out regularly to measure and control the financial risks involved. These are based on a medium and/or long-term projection of the income statement and balance sheet in different economic scenarios. By analysing the results, asset adjustment measures (strategic allocation, diversification, derivatives, etc.) can be taken to mitigate the risks associated with fluctuations in interest rates and asset value.

C.4.d Sensitivity

Stress tests are regularly carried out as part of asset-liability management. These test the ability of Cardif Lux Vie to honour its commitments in adverse market situations, taking into account the impact of such situations on policy holder behaviour.

C.5 Operational risk

C.5.a Definition

Operational risk is the risk of loss resulting from the inadequacy or failure of internal processes, computer malfunctions or external, accidental or natural events. These external events may be human or natural in origin.

Internal events mainly involve personnel and IT systems. External events include flooding, fires, earthquakes and terrorist attacks. Credit or market events such as defaults or changes in value are not classified as operational risk.

Operational risk covers fraud, HR risks, legal risks, risks of non-compliance, tax risks, risks associated with information systems and the provision of inappropriate financial services (conduct risk), the risk of failure of operational processes, including the underwriting process, model risk, and the possible financial consequences associated with reputational risk management.

C.5.b Risk exposure

The amount of SCR exposed to operational risk totalled €47 million at 31 December 2016.

In millions of euros, at	31 December 2016
SCR linked to operational risk calculated on the basis of technical provisions	37
SCR linked to operational risk calculated on the basis of earned premiums	47
TOTAL AMOUNT OF SOLVENCY CAPITAL REQUIRED IN RELATION TO OPERATIONAL RISK	47

C.5.c Main risk management or mitigation techniques

To manage operational, compliance and reputational risk, Cardif Lux Vie relies on both aspects of its general internal control system: permanent control and periodic control.

C.6 Other material risks

Stress tests have been carried out on the main residual risk considered material for Cardif Lux Vie (liquidity risk). These are described in the section on liquidity risk.

C.7 Other information

There is no other specific information.

D. Valuation for solvency purposes

Cardif Lux Vie prepares its balance sheet under Solvency II in accordance with Article 75 of the Solvency II Directive.

D.1 Assets

The balance sheet assets of Cardif Lux Vie at 31 December 2016 were as follows:

In millions of euros, at 31 December 2016	*Reference*	Solvency II balance sheet	Financial statements
Deferred acquisition costs		-	0
Other intangible assets	A	-	9
Deferred tax assets	B	-	-
Property, plant and equipment held for own use		1	1
Investments (other than assets held for unit-linked contracts)	C	7,637	6,894
Assets held for unit-linked contracts	C	13,568	13,568
Other loans and mortgages		-	-
Loans on policies		1	1
Reinsurer's share of technical provisions	D	3	3
Deposits with ceding undertakings		-	-
Receivables arising from insurance operations		21	21
Receivables arising from reinsurance operations		2	2
Other receivables (excluding insurance)		92	92
Cash and cash equivalents		176	176
Other assets		9	9
ASSETS		21,510	20,777

Letters A to D refer to the valuation methods described below. No specific comment is required for the other items as regards the valuation methods used to prepare the financial statements.

Reconciliation with the financial statements and asset valuation methods

In millions of euros, at 31 December 2016	*Reference*	Amounts
Recognition at fair value of financial assets	C	742
Recognition at fair value of intangible assets	A	- 9
Valuation of insurance liabilities under Solvency II	D	- 0
Tax effect on restatements	B	-
TOTAL RESTATEMENTS		733

In accordance with Article 75 of the Directive, assets are valued “at the amount for which they could be exchanged between knowledgeable willing parties in an arm’s length transaction”.

Investments representing unit-linked liabilities are valued at the market price in the financial statements according to the same valuation methods as those adopted for Solvency II.

A. Other intangible assets

Intangible assets have a zero carrying amount. As long as they are identifiable and there is an active market for similar assets, they are measured at their market value.

B. Deferred tax assets

Deferred taxes are determined according to the method described in paragraph D.5 (Other information). Deferred tax assets are recognised for all deductible temporary differences and tax losses that can be carried forward, to the extent that it is probable that taxable profit will be available against which the deductible temporary difference and tax losses can be utilised.

C. Financial investments

Financial assets are classified in the balance sheet according to the Complementary Identification Codes (CIC) defined by EIOPA.

Financial investments are valued at the market price in order to determine their current value. The market price reflects the last known listed value for the period or the value at which an investment may be disposed of, estimated prudently and in good faith.

The market value of financial assets is determined either using prices obtained directly from market data, or prices resulting from valuation techniques calibrated to reflect the current market conditions.

- **Shares issued by holdings** are unlisted and valued according to the share of adjusted net equity (according to the adjusted equity method – AEM).
- **Equities** (other than from holdings[1]), **bonds, investment funds and other investments** are mainly valued using quoted prices in an active market, at the “Quoted Market Price (QMP)” for identical assets, or at the “Quoted Market Price for Similar Assets (QMPS)”, for similar assets. The characteristics of an active market include the existence of transactions that take place with sufficient frequency and volume to provide pricing information on an ongoing basis. In the absence of prices quoted in an active market, the Company uses valuation techniques (see paragraph D.4).
- Investments representing **unit-linked** liabilities are primarily valued using prices quoted in an active market for identical assets (“Quoted Market Price (QMP)”). In the absence of prices quoted in an active market, the Company uses valuation techniques (see paragraph D.4).

[1] i.e. “other than shares issued by companies which are holdings within the meaning of the Solvency II Directive”.

At 31 December 2016, the distribution of investments by valuation method was as follows:

In millions of euros, at 31 December 2016	*Quoted price (identical or similar assets)*	*Alternative valuation method*	*Adjusted equity method*	Total
Participations	-	-	56	56
Government bonds	2,173	-	-	2,173
Corporate bonds	4,172	-	-	4,172
Structured notes	148	-	-	148
Collective Investments Undertakings	999	87	-	1,086
Other investments	3	-	-	3
Investments (excluding investments representing unit-linked liabilities)	7,494	87	56	7,637
Investments	12,442	1,126		13,568
Investments representing unit-linked liabilities	12,442	1,126	-	13,568

D. Reinsurer's share of technical provisions

The valuation method of ceded technical provisions follows the same principles as the technical provisions described in paragraph D.2. At 31 December 2016, ceded technical provisions amounted to €3.1 million.

D.2 Technical provisions

D.2.a Summary of technical provisions by line of business (LoB) under Solvency II

In millions of euros, at 31 December 2016	BEL – Best estimate of liabilities	Risk margin	Total
Health similar to non-life	-	-	-
Health similar to life	-	-	-
Health	-	-	-
Life (excluding health, index-linked and unit-linked)	7,058	52	7,109
Index-linked and unit-linked contracts	13,452	54	13,506
Life (non-health)	20,510	106	20,616
TOTAL TECHNICAL PROVISIONS	20,510	106	20,616

The best estimate of liabilities (BEL) changes to reflect growth in the portfolio through net cash inflows.

D.2.b Reconciliation with the financial statements

In millions of euros, at 31 December 2016	Solvency II balance sheet	Financial statements
Gross technical provision – Non-life excluding health	-	-
Gross technical provision – Health similar to non-life	-	-
Best estimate	-	-
Risk margin	-	-
Gross technical provision – Health similar to life	-	-
Best estimate	-	-
Risk margin	-	-
Gross technical provision – Life (excluding health, unit-linked or index-linked)	7,109	6,541
Best estimate	7,058	-
Risk margin	52	-
Gross technical provision – UL or index-linked	13,506	13,568
Best estimate	13,452	-
Risk margin	54	-
TOTAL TECHNICAL PROVISIONS INCLUDING BEST ESTIMATE OF LIABILITIES	20,616	20,109

The main reason for the difference between the accounting technical provisions and Solvency II provisions is because the calculations include the following items:

- unrealised capital gains,
- future profit-sharing,
- risk margin.

D.2.c Valuation principles for technical provisions

In accordance with Article 101 of the Law of 7 December 2015 on the insurance sector, developed by the CAA, and Article 75 b of the Solvency II Directive, “the value of technical provisions shall correspond to the current amount insurance and reinsurance undertakings would have to pay if they were to transfer their insurance and reinsurance obligations immediately to another insurance or reinsurance undertaking”.

The technical provisions are equal to the sum of the best estimate of liabilities (BEL) and risk margin (RM).

The BEL corresponds to the probable value of cash inflows and outflows of the portfolio at 31 December 2016, discounted with the risk-free interest rate term structure, minus the credit risk and plus the volatility adjustment.

The risk margin is calculated using “method 2” of the simplifications proposed in Guideline 61 of the Guidelines on the Valuation of Technical Provisions (EIOPA-BoS-14/166). This methodology is based on the projection of risk sub-modules in proportion to certain indicators known as “drivers” to calculate the future reference SCR.

D.2.d Valuation methods for technical provisions - General

Projection models

Cash flows are projected over a time horizon of 40 years using Group or local deterministic and stochastic models. The projected cash flows are estimated using the best estimate of assumptions, particularly with regard to the rules on mortality, lapses, disability claims, inflation, fees and claims expense. Where financial guarantees and options exist, including profit-sharing, stochastic calculations are made to assess these in accordance with the structure of risk-neutral economic scenarios.

D.2.e Valuation methods for technical provisions - Savings and Protection

Contract boundaries

The contract boundary is defined as the date on which the insurer has the unilateral right to terminate the contract, to reject premiums or to amend the premiums in such a way as to reflect risk. An analysis is required of the general terms and conditions of contracts, partner agreements and local regulations to define the frontier of each risk and generation of contracts.

D.2.f Level of uncertainty associated with the value of technical provisions

The main factors of uncertainty identified for technical provisions originate from two sources: process risks and model risks.

Process risks

Process risks are mitigated through checks carried out at each stage of the Solvency II calculation process. The system of governance identifies specific checks regarding data quality, which have been implemented throughout the process. In addition to these checks, the BNP Paribas Cardif Group verifies the calculations of Cardif Lux Vie to ensure that the checks have effectively been carried out.

Model risks

The value of technical provisions is based on long-term cash flow projections and requires the formulation of assumptions and the use of models. This requires judgement to be exercised and the use of information available at the calculation date. The value of technical provisions therefore involves a degree of uncertainty.

D.2.g Interest rate term structure

Cardif Lux Vie uses the risk-free interest rate term structure published by EIOPA, to which a Volatility Adjustment (VA) was added.

However, the Company has elected not to apply the following transitional measures:

- matching adjustment,
- transitional measure on interest rates,
- transitional deduction measure.

The EUR Volatility Adjustment published by EIOPA and used for calculations at 31 December 2016 is a maximum of 0.13%.

D.3 Other liabilities

The valuation of other liabilities in the Cardif Lux Vie balance sheet is explained below:

In millions of euros, at 31 December 2016	*Reference*	Solvency II balance sheet	Financial statements
Provisions other than technical provisions	A	48	47
Deposits from reinsurers		1	1
Deferred tax liabilities	B	54	-
Liabilities to credit institutions		39	39
Liabilities arising from insurance operations		143	143
Liabilities arising from reinsurance operations		2	2
Other liabilities (not linked to insurance operations)		37	37
Subordinated liabilities included in basic own funds	C	142	124
Other liabilities not elsewhere shown		2	2
LIABILITIES		468	395

Notes A to C refer to the valuation methods of other liabilities described below.

Reconciliation with the financial statements and valuation methods of other liabilities:

In millions of euros, at 31 December 2016	*Reference*	Amounts
Revaluation of employee benefit obligations	A	1
Revaluation of subordinated liabilities	C	18
Tax effect on restatements	B	54
TOTAL RESTATEMENTS		73

In accordance with Article 75 of the Directive, other liabilities are valued “at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm’s length transaction”.

A. Provisions other than technical provisions

These provisions mainly consists of provisions for income taxes, as well as provisions for other risks and charges related to litigation and provisions for employee benefit obligations.

The restatement between the local balance sheet and Solvency II amounts relates to the revaluation of provisions for employee benefit obligations. Employee benefit obligations consist of post-employment benefits (pensions and other retirement benefits) and other long-term benefits (long-service awards). These pension liabilities are valued on the basis of the present value of the future benefits obligation, and reduced by the fair value of the plan assets.

B. Deferred tax liabilities

Deferred tax liabilities are tax liabilities. They are determined according to the method described in paragraph D.5 under “Other information”.

C. Subordinated liabilities

Subordinated liabilities are measured at fair value by discounting future financial flows at the risk-free rate plus the original issue spread.

D.4 Alternative valuation methods

In the absence of a price quoted in an active market, the Company relies on the information available, including the financial statements, custodian statements and other sources considered relevant in order to estimate the current value of the investments.

The valuation methods generally used are as follows:

- **Hedge funds (real estate funds, commodities, hedge funds**, etc.) are generally valued on the basis of the net asset values published by the registrars of the funds concerned.
- **Private equity funds** are usually valued on the basis of the net asset values published by the management company, if necessary adjusted for calls for funds/distributions made since the calculation date.
- Direct investments in equities, bonds, certificates, etc. issued by unlisted companies (**Pure Private Equity**) are usually valued on the basis of the information available, mainly taken from the financial statements or expert reports.
- **Structured products** are generally valued on the basis of the valuations provided by the structurer.
- **Deposits** (other than cash equivalents) are valued at their nominal value, which corresponds to their fair value.
- Negotiated OTC **derivatives** are usually valued on the basis of the valuations provided by banking counterparties.

D.5 Other information

Deferred tax is calculated on the basis of temporary differences between the carrying amounts of assets and liabilities on the Solvency II balance sheet and their tax base.

Tax credits and tax losses that can be carried forward are recognised and valued in accordance with IFRS.

Deferred tax assets and liabilities are measured using the liability method at the tax rate assumed to apply in the period in which the asset will be realised or the liability settled, on the basis of the tax rate and tax regulations that have been or will be adopted prior to the balance sheet date. They are not discounted.

Deferred tax assets are recorded in the balance sheet if it can be demonstrated that future taxable profits will be available within a reasonable time in order to absorb them.

Deferred tax assets and deferred tax liabilities are offset against each other if, and only if:

- they relate to taxes levied by the same tax authority and on the same taxable entity,
- there is a legally enforceable right to set off current tax assets against current tax liabilities.

E. Capital management

E.1 Own funds

E.1.a Objectives and management policy of own funds to cover the SCR/MCR

Cardif Lux Vie monitors its capital to ensure an optimised and sufficient capital structure able to fulfil the prudential requirements and provide sufficient financial resilience.

Cardif Lux Vie applies grandfathering measures relating to the classification of own funds, but has chosen target measures for the SCR calculation.

Cardif Lux Vie bases its **Capital Management Policy** on the following principles:

- Ensure a level of own funds such that following a 1 in 200 year event and absorption of 90% of the SCR, it would still be sufficient to allow Cardif Lux Vie to continue trading.
- Cover at least 100% of the SCR calculated within the ORSA (Pillar II).
- Optimise the structure of own funds by searching for the best balance between share capital, subordinated liabilities and other components of equity, in accordance with the limits and levels defined by the regulations.

Capital adjustments may be initiated depending on the observed levels of solvency ratio and projections made during the ORSA.

E.1.b Significant events in 2016

There were no significant events to report for 2016.

E.1.c Structure, amount and quality of own funds

Available own funds totalled €544 million at 31 December 2016 and consist of the following:

In millions of euros, at	*31 December 2016*
Share capital	172
Reconciliation reserve	230
Subordinated liabilities	142
Total equity	544

The reconciliation reserve of €230 million, eligible for classification as Tier 1, breaks down as follows:

In millions of euros, at	31 December 2016
Balance sheet results and reserves	102
Restatements under Solvency II	154
Impact on future profits net of taxes	*168*
Other restatements	*- 14*
Expected distribution	- 26
TOTAL RECONCILIATION RESERVE	**230**

The impact on future profits net of taxes reflects the revaluation differences of assets and liabilities under Solvency II standards.

Own funds are classified into two tiers, depending on their availability, their subordination level in covering obligations to policy holders, and their duration.

The composition of each tier is based on transitional measures and is as follows:

In millions of euros, at	*31 December 2016*	*Unrestricted tier 1 capital*	*Restricted tier 1 capital*	*Tier 2 capital*
Share capital	172	172		
Reconciliation reserve	230	230		
Subordinated liabilities	142		90	52
Total basic own funds	544	402	90	52

E.1.d Fungibility and transferability of own funds

Not applicable

E.1.e Classification of own funds excluding transitional measures

In millions of euros, at	*31 December 2016*	*Tier 1 capital*	*Tier 2 capital*
Share capital	172	172	-
Reconciliation reserve	230	230	-
Subordinated liabilities	52	-	52
Total basic own funds	454	402	52

Subordinated liabilities classified as tier 1 under the transitional measures would no longer be eligible to cover the SCR and MCR under the target measures. These securities contain a clause allowing the contractual redemption of the subordinated liabilities at any time, subject to approval from the regulator, following regulatory changes or accounting events.

The securities not eligible outside transitional measures totalled €90 million at 31 December 2016.

E.2 Regulatory capital requirements (SCR and MCR)

E.2.a Amounts of SCR and MCR

The SCR and MCR amounted to €376 million and €169 million respectively at 31 December 2016.

At 31 December 2016, the MCR was capped at 45% of the SCR.

In millions of euros, at	31 December 2016
Linear minimum capital requirement	291
Solvency capital requirement (SCR)	376
Minimum capital requirement – floor	169
Minimum capital requirement – cap	94
Minimum capital requirement – combined	169
Absolute floor of the Minimum Capital Requirement	4
MINIMUM CAPITAL REQUIREMENT (MCR)	169

E.2.b Information on the data used to calculate the MCR

The following data were used in the MCR calculation:

- the technical provisions described in paragraph D.2
- the amounts of net premiums written for fiscal year 2016 (excluding reinsurance)
- capital at risk.

E.2.c Amount of SCR per risk module

The SCR at 31 December 2016 was €376 million. This is mainly due to the weight of the market SCR and the life underwriting SCR (see Section C on Risk Profile).

Deferred taxes reflect the share of future taxes on future profits from Solvency II adjustments. The loss-absorption capacity of technical provisions represents the revaluation adjustment by profit-sharing in stress scenarios.

	31 December 2016	
In millions of euros, at	Net amount	Gross amount
Market risk	299	778
Default risk	21	21
Life underwriting risk	165	212
Health underwriting risk	-	-
Non-life underwriting risk	-	-
Diversification	- 102	- 148
Risk linked to intangible assets	-	-
BASIC SOLVENCY CAPITAL REQUIREMENT	383	862
Operational risk	47	
Absorption capacity of technical provisions	- 479	
Absorption capacity of deferred tax	- 54	
SOLVENCY CAPITAL REQUIREMENT	376	

The evolution by risk module is described in Section C on Risk Profile.

E.2.d Coverage ratios

The SCR and MCR coverage ratios were 145% and 310% respectively at 31 December 2016.

In millions of euros, at	31 December 2016					31 December 2015
	Total	Unrestricted tier 1 capital	Restricted tier 1 capital	Tier 2 capital	Tier 3 capital	Total
Own funds eligible for the solvency capital requirement	544	402	90	52	-	538
Own funds eligible for the minimum capital requirement	525	402	90	33	-	538
Solvency capital requirement (SCR)	376					349
Minimum capital requirement	169					157
Eligible own funds as a ratio of the solvency capital requirement	145%					154%
Eligible own funds as a ratio of the minimum capital requirement	310%					330%

The SCR coverage level is consistent with Cardif Lux Vie’s capital management policy.

E.2.e Information on simplified calculations

No simplified calculation has been applied.

E.2.f Use of undertaking-specific parameters (USP)

Not applicable.

E.3 Calculation option used to calculate the SCR (Article 304)

The duration was not taken into account in the assessment of equity risk, in accordance with Article 304 of Directive 2009/138/EC.

E.4 Differences between the standard formula and the internal model

Not applicable

E.5 Amount of non-conformities with MCR and SCR

Not applicable

E.6 Other information

There is no other specific information.

F. Acronyms

AEM	Adjusted Equity Method
ALM	Asset and Liability Management
BEL	Best Estimate of Liabilities
BSCR	Basic Solvency Capital Requirement
CAA	Commissariat aux Assurances
COO	Chief Operating Officer
CRO	Chief Risk Officer
EIOPA	European Insurance and Occupational Pensions Authority
GAAP	Generally Accepted Accounting Principles
MCR	Minimum Capital Requirement
OECD	Organisation for Economic Co-operation and Development
ORSA	Own Risk and Solvency Assessment
QMP	Quoted Market Price
QMPS	Quoted Market Price for Similar Assets
RM	Risk Margin
S2	Solvency II
SAA	Strategic Asset Allocation
SCR	Solvency Capital Requirement
UL	Unit-linked
VA	Volatility Adjustment