

SOLVENCY AND FINANCIAL CONDITION REPORT SFCR

Cardif Lux Vie

31 December 2021



CARDIF LUX VIE
GROUPE BNP PARIBAS

The insurer for
a changing
world

TABLE OF CONTENTS

Introduction	5
Value creation overview	6
A. Business and performance	8
A.1 Business and external environment	8
A.1.a High-quality shareholders	8
A.1.b Significant events during the period	9
A.1.c Events after year-end	9
A.1.d General information	10
A.2 Performance of the underwriting business	11
A.2.a Growth in revenue	11
A.2.b Growth in profit for the period	12
A.3 Performance of investment activities	13
A.3.a Composition of investments	13
A.3.b Financial performance	14
A.4 Performance of other activities	15
A.5 Other information	15
B. System of governance	16
B.1 General information about the system of governance	16
B.1.a Board of Directors	16
B.1.b Special committees of the Board of Directors	16
B.1.c Effective managers	17
B.1.d Operational governance bodies	18
B.1.e Key functions	18
B.1.f Remuneration policy	19
B.1.g Conflicts of interest	19
B.2 Fit and proper requirements	20
B.3 Risk management system	21
B.3.a Comprehensive risk management framework	21
B.3.b Roles, responsibilities and key risk management process	21
B.3.c Management of risk categories	23
B.4 Own Risk and Solvency Assessment	25
B.4.a Risk profiling	25
B.4.b ORSA report	25
B.5 Internal control system	26
B.5.a Organisation of internal control	26
B.5.b Key internal control procedures	29
B.6 Internal Audit function	30
B.7 Actuarial function	31
B.8 Outsourcing	32
B.8.a Outsourced activities	32
B.8.b Governance of outsourcing	32
B.8.c Monitoring system	33
B.9 Adequacy of the system of governance	34
B.10 Other information	34
C. Risk profile	35
C.1 Underwriting risk	36
C.1.a Definition	36
C.1.b Risk exposure	36
C.1.c Concentration	36
C.1.d Risk management and monitoring	37
C.1.e Stress tests and sensitivity analyses	37
C.2 Market risk	38
C.2.a Definition	38
C.2.b Cardiff Lux Vie investments	38

C.2.c	Risk exposure	39
C.2.d	Concentration	40
C.2.e	Risk management and monitoring	41
C.2.f	Stress tests and sensitivity analyses	41
C.3	Counterparty risk	42
C.3.a	Definition	42
C.3.b	Risk exposure	42
C.3.c	Concentration	42
C.3.d	Risk management and mitigation	42
C.4	Liquidity risk	43
C.4.a	Definition	43
C.4.b	Risk exposure	43
C.4.c	Risk management and mitigation	44
C.4.d	Sensitivity	45
C.5	Operational risk	46
C.5.a	Definition	46
C.5.b	Indicators of operational risk	46
C.5.c	Risk exposure	46
C.5.d	Main risk management or mitigation techniques	46
C.6	Other material risks	47
C.7	Other information	47
D.	Valuation for solvency purposes	48
D.1	Assets	48
D.2	Technical provisions	51
D.2.a	Summary of technical provisions by line of business under Solvency II	51
D.2.b	Reconciliation with the financial statements	51
D.2.c	Valuation principles for technical provisions	52
D.2.d	Valuation methods for technical provisions – General	52
D.2.e	Valuation methods for technical provisions – Savings and Protection	52
D.2.f	Level of uncertainty associated with the value of technical provisions	52
D.2.g	Interest rate term structure	52
D.3	Other liabilities	54
D.4	Alternative valuation methods	55
D.5	Other information	55
E.	Capital management	56
E.1	Own funds	56
E.1.a	Objectives and management policy of own funds to cover the SCR/MCR	56
E.1.b	Significant events in 2021	56
E.1.c	Structure, amount and quality of own funds	56
E.1.d	Fungibility and transferability of own funds	57
E.1.e	Classification of own funds excluding transitional measures	57
E.2	Regulatory capital requirements (SCR and MCR)	59
E.2.a	Amounts of SCR and MCR	59
E.2.b	Information on the data used to calculate the MCR	59
E.2.c	Amount of SCR per risk module	59
E.2.d	Coverage ratios	60
E.2.e	Information on simplified calculations	60
E.2.f	Use of undertaking-specific parameters (USP)	60
E.3	Calculation option used to calculate the SCR (Article 304)	60
E.4	Differences between the standard formula and the internal model	60
E.5	Amount of non-conformities with MCR and SCR	60
E.6	Other information	60
F.	Acronyms	61
G.	Appendix- Quantitative Reporting Templates	62
S.02.01.02	– Balance sheet	62
S.05.01.02	– Premiums, claims and expenses by line of business	64
S.05.02.01	– Premiums, claims and expenses by country	65

S.12.01.02 – Life technical provisions	66
S.22.01.01 – Impact of long-term guarantees and transitional measures.....	67
S.23.01.01 – Own funds	68
S.25.01.01 - Solvency capital requirement.....	70
S.28.01.01 – Minimum capital requirement (MCR)	71

Introduction

This Solvency and Financial Condition Report concerns the company Cardif Lux Vie. It is based on the results of the assessment under Solvency II standards for fiscal year 2021, as presented on 30 March 2022 by the Audit & Risks Committee to the Board of Directors. The report was approved by the Audit & Risks Committee at its meeting on 29 March 2022.

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.

Unless stated otherwise, all data presented in this report are in millions of euros.

WARNING

The figures in this report have not been audited.

The report may contain forecasts based on opinions and current assumptions about future events. The value of technical provisions is based on long-term cash flow projections and is based on the use of assumptions and models. This exercise also involves judgement and use of the information available on the calculation date. The value of technical provisions therefore involves a degree of uncertainty.

No guarantee can be given as to the realisation in practice of these forecasts, which are subject to inherent risks, uncertainties and assumptions with regard to Cardif Lux Vie and its investments, as well as to any changes in economic conditions and the general financial situation.



Christian Gibot

Chief Executive Officer

Value creation overview

Business and performance

Cardif Lux Vie is a Luxembourg insurance company positioned among the major players in the market. With strong links to its customers, partners and employees, the Company delivers high-quality solutions and services in the interests of sustainable, responsible growth.

Backed by a solid shareholding structure (BNP Paribas Cardif and BGL BNP Paribas), it successfully combines local know-how and international expertise to meet the specific needs of its clients and partners.

Cardif Lux Vie had a record year earning €3.4 billion in premiums (+ 92.9% compared with 2020) and net inflows of €1.6 billion, 82% of which was in Units of Account.

With regard to Wealth Management activity, Cardif Lux Vie posted turnover of €3.3 billion, 71% of which was in Units of Account. This represents year-on-year sales growth of 98%.

As well as the proposal of a new service offering, the year under review was marked by the resumption of commercial activity, supported by specific digitalisation measures with the delivery of entirely virtual pathways via the e-club platform. The development of our unit-linked vehicles also helped to drive business forward with the expanded distribution of the Specialised Insurance Fund and range of External Funds, the creation of thematic Internal Collective Funds and the greater accessibility of private equity. This forms the basis of what is a solid and ambitious development strategy for the years ahead.

Activity in terms of customers resident in Luxembourg totalled €169.6 million, with inflows for retail customers in Luxembourg and the Greater Luxembourg Region amounting to €74.3 million.

Protection business returned to its pre-crisis level (€15.3 million) and Programmed Savings remained stable (-3.6% compared with the previous year). In terms of distribution, business via the brokerage networks grew by 14% and collaboration with the BGL BNP Paribas network was strengthened during the year under review. The continued digitalisation of our platform and the full effect of a transformed, automated and integrated operating model should enable the Company to continue to gain market share and develop new partnership opportunities moving forward.

Cardif Lux Vie recorded net profit after tax of €50.0 million, representing a 27.7% increase compared with 2020 and underlining the sustained performance throughout the year and the solid nature of its model.

The rate of return on assets was 2.24% in 2021, 25 basis points higher than in 2020. The capital gains realised on equities and foreign exchange result helped push up the rate of return on the General Fund despite a fall in the return on the bond component.

System of governance

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

The Board of Directors of the Company has three special committees: the Audit & Risks Committee, the ALM and Investments Committee, and the Remuneration and Nomination Committee.

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

- Risk Management function;
- Compliance function;
- Audit function;
- Actuarial function.

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.

Risk profile

The Solvency Capital Requirement (SCR) has risen by 14.85% since 31 December 2020 due to increases in the SCR for market, underwriting and operational risk.

The SCR for market risk is €579 million, up 17% on 2020 before diversification. This accounts for 84% of the overall SCR. It consists of six risk modules, most notably equity and spread risk.

The SCR for underwriting risk stood at €236 million at 31 December 2021, an increase of 28% compared with 31 December 2020, due mainly to the rise in future profits in an economic environment with more favourable interest rates (increase in risk of large-scale redemptions associated with higher future profits).

Valuation for solvency purposes

Cardif Lux Vie's statutory financial statements are prepared in accordance with Luxembourg standards. Cardif Lux Vie prepares its balance sheet under Solvency II in accordance with Article 75 of the Solvency II Directive, i.e. principally at market value.

Capital management

The aim of Cardif Lux Vie's Capital Management Policy is to comply with regulatory solvency requirements, to cover at least 100% of the SCR defined within the framework of the own risk and solvency assessment (ORSA), and to structure own funds, seeking the best balance between share capital, subordinated debt and other own-fund items, in view of the regulatory limits and thresholds.

At 31 December 2021, the amount of own funds eligible for the SCR totalled €987 million. The amount of own funds eligible for the Minimum Capital Requirement (MCR) came to €807 million.

The SCR was €690 million and the MCR was €310 million at 31 December 2021.

The SCR and MCR coverage ratios were 143% and 260%, respectively.

A. Business and performance

A.1 Business and external environment

Cardif Lux Vie S.A. (the “Company”) is a public limited company constituted in accordance with Luxembourg law on 5 April 1994. The Company is involved in all insurance, co-insurance and re-insurance activities in the life assurance sector.

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

Cardif Lux Vie is a market-leading Luxembourg life insurance company. With strong links to its customers, partners and employees, the Company delivers high-quality solutions and services in the interests of sustainable, responsible growth.

- In Luxembourg and the Greater Luxembourg Region, Cardif Lux Vie provides bancassurance and brokerage networks with life insurance solutions for savings, pensions and protection that offer high added value for private individuals and professionals.
- For high net worth clients active internationally, the Company offers sustainable, bespoke insurance solutions distributed through an open architecture via an extensive network of first-class partners. Underpinned by a comprehensive range of wealth structuring tools, planning solutions from Cardif Lux Vie lend long-term support to the company’s clients and partners.

A.1.a High-quality shareholders

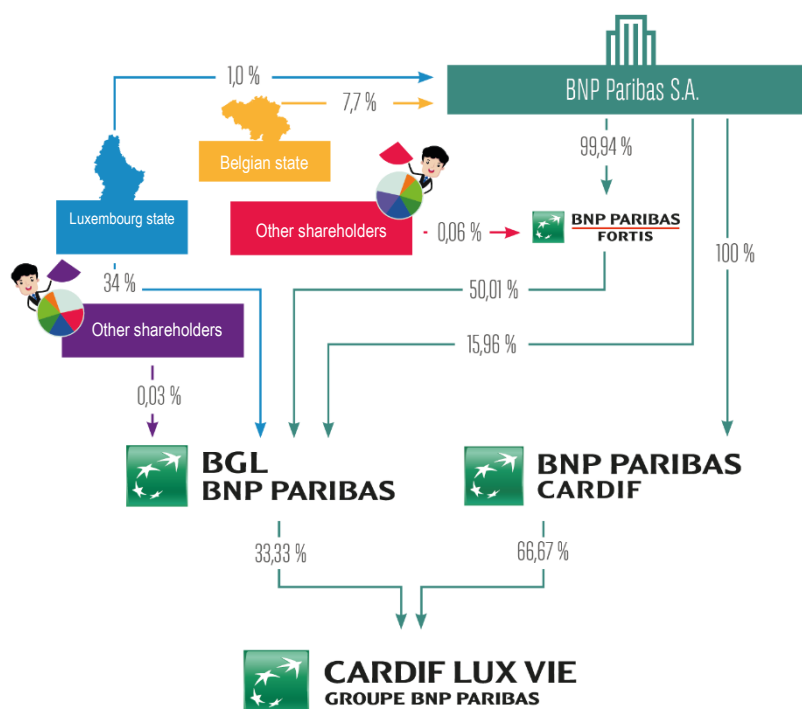
Cardif Lux Vie has a solid shareholder base with strong local and international links.

BNP Paribas Cardif is the majority shareholder in Cardif Lux Vie, with a shareholding of 66.67%. BGL BNP Paribas holds 33.33% of the shares in Cardif Lux Vie.

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. Operating in 35 countries and firmly positioned 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 and a major player in financing the economy.

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 an especially wide range of financial products and bancassurance solutions to individuals, professionals, private banking clients and businesses.

ENLARGED VISION OF THE SHAREHOLDER STRUCTURE



A.1.b Significant events during the period

COVID-19

The World Health Organisation classed the coronavirus epidemic as a pandemic on 11 March 2020. Governments in many countries across the world have introduced financial support measures for businesses and individuals in order to support their economies. However, the global supply chain and demand for goods and services have been impacted by the pandemic, and global growth has slowed down significantly.

In this context, the accounts as at 31 December 2021 have been prepared on a going concern basis and take account of the recommendations of the local regulator and the standards bodies with regard to Covid-19 and the consequences of the pandemic.

A.1.c Events after year-end

With regard to events after 31 December 2021, the invasion of Ukraine in late February 2022 has resulted in many governments imposing economic sanctions on Russia. There has been a significant negative impact on the financial markets and the business environment, and the long-term consequences for the global, and in particular the European, economy remain uncertain.

At the level of the General Fund, Cardif Lux Vie has no direct exposure to Russia, Ukraine or assets denominated in roubles, and any indirect exposure is negligible.

A.1.d General information

The Company's annual accounts are audited by Deloitte Audit, 20 Boulevard de Kockelscheuer, L-1821 Luxembourg, under the responsibility of Ronan Richard, Certified Auditor.

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

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	2021	2020	%
Premiums	3,386	1,754	93%
Investment income	578	515	12%
Unit-linked insurance adjustments (capital gains)	2,185	509	329%
Other technical income	22	28	-21%
Claims incurred	- 1,848	- 1,954	-5%
Cost of life insurance provisions and other technical provisions	- 3,840	- 70	5409%
Profit-sharing	- 43	- 55	-22%
Acquisition and administration costs	- 103	- 100	4%
Investment expenses	- 102	- 202	-50%
Unit-linked insurance adjustments (capital losses)	- 156	- 352	-56%
Other technical expenses	- 13	- 30	-56%
Income from transferred investments	- 14	- 8	76%
Technical result of life insurance operations	53	35	49%
Non-technical result (excluding taxes)	14	8	76%
Pre-tax profit for the period	66	43	54%
Taxes	- 16	- 4	317%
Profit for the period	50	39	28%

A.2.a Growth in revenue

Cardif Lux Vie had a record year, earning €3.4 billion in premiums, up 93% from 2020:

In millions of euros	2021	2020	%
Wealth Management – Unit-linked	2,339	1,031	126.8%
Wealth Management – General Fund	977	645	51.4%
Total Wealth Management	3,316	1,676	97.8%
Local Market, savings	59	63	-6.6%
Local Market, protection	15	18	-13.6%
Total Local Market	74	81	-8.2%
Total Inflows	3,390	1,757	92.9%

The €3.4 million difference in premiums for 2021 between the two tables above is due to ceded reinsurance premiums.

With regard to Wealth Management activity, Cardif Lux Vie posted turnover of €3.3 billion, 71% of which was in Units of Account. This represents year-on-year growth of 98%.

As well as the proposal of a new service offering, the year under review was marked by the resumption of commercial activity, supported by specific digitalisation measures with the delivery of entirely virtual pathways via the e-club platform. The development of our unit-linked vehicles also helped to drive business forward with the expanded distribution of the Specialised Insurance Fund and range of External Funds, the creation of thematic Internal Collective Funds and the greater accessibility of private equity. This forms the basis of what is a solid and ambitious development strategy for the years ahead.

Activity in terms of customers resident in Luxembourg totalled €169.6 million, with inflows for retail customers in Luxembourg and the Greater Luxembourg Region amounting to €74.3 million.

Protection business returned to its pre-crisis level (€15.3 million) and Programmed Savings remained stable (-3.6% compared with the previous year). In terms of distribution, business via the Brokerage networks grew by 14% and we strengthened our collaboration with the BGL BNP Paribas network during the year under review. The continued digitalisation of our platform and the full effect of a transformed, automated and integrated operating model should enable the Company to continue to gain market share and develop new partnership opportunities moving forward.

A.2.b Growth in profit for the period

Cardif Lux Vie recorded net profit after tax of €50.0 million, representing a 27.7% increase compared with 2020 and underlining the sustained performance throughout the year and the solid nature of its model.

Cardif Lux Vie recorded an increase in income from its insurance business thanks to growth in savings income driven by the increase in assets under management as well as the positive settlement of litigation and pre-litigation cases compared with 2020, a year dominated by the pandemic.

The Company's general expenses were up by 1.7% compared with 2020 in a context of work to improve customer and partner pathways and to adapt the product offering while at the same time continuing to implement the transformation plan.

Cardif Lux Vie ended the fiscal year with a technical result for its insurance business of €53 million, an increase of 49% compared with 2020.

The Company posted a non-technical result linked to the remuneration of its own funds of €14 million, 76% up on 2020, thanks to the growth in the rate of return on its assets and growth in the average equity invested.

Pre-tax profit stood at €66.3 million in 2021, an increase of 54% compared with 2020.

A.3 Performance of investment activities

A.3.a Composition of investments

Assets representing the liabilities of Cardif Lux Vie in Units of Account amounted to €23.5 billion at 31 December 2021 (2020: €19.8 billion). The breakdown is as follows:

<i>In millions of euros, at</i>	31 December 2021	31 December 2020
Internal funds	21,451	18,321
Specialised Insurance Fund	477	221
External funds	1,549	1,247
Total unit-linked investments	23,477	19,789

At 31 December 2021, the net carrying amount of **investments for which the investment risk is not borne by the policyholder** was €9.14 billion (2020: €8.86 billion) including accrued interest not yet due (€82.6 million; 2020: €82.3 million). These are reported as investments other than unit-linked investments.

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

<i>Market value in millions of euros*, at</i>	31 December 2021	31 December 2020
Equity holdings	155	146
Listed equities	327	261
Sovereign bonds	2,517	2,148
Corporate bonds	5,329	5,549
Structured bonds	156	226
Investment funds	1,602	1,534
Other investments	7	7
Derivatives	20	13
Deposits	6	7
Investments (excluding investments representing unit-linked liabilities)	10,119	9,892

The main part of these investments was carried by the General Fund in euros: a net carrying amount of €9.12 billion in 2021, including accrued coupons (2020: €8.83 billion) and €10.09 billion at market value, including accrued coupons (2020: €9.86 billion), of which the breakdown is given below.

<i>In millions of euros*, at</i>	31 December 2021		31 December 2020	
	Net carrying amount	Market value	Net carrying amount	Market value
Fixed-rate bonds	6,850	7,267	6,515	7,188
Floating-rate and inflation-linked bonds	704	726	693	727
Equity-linked bonds	-	-	-	-
Equities and similar	659	1,090	593	827
Real estate	289	323	262	292
Short term	287	287	447	447
Diversification assets (fixed income)	308	372	303	365
Derivatives	23	20	16	13
Total	9,119	10,085	8,829	9,859

* including accrued coupons

The market value of fixed-rate investments in Cardif Lux Vie's General Fund portfolio in euros declined slightly to 72.1% at the end of 2021, compared with 72.9% at the end of 2020. The proportion of the portfolio made up of floating-rate bonds dipped slightly to 7.2% at the end of 2021 compared with 7.4% at the end of 2020. The proportion of short-term investments decreased to 2.8% in 2021 compared with 4.5% in 2020.

Beta equity exposure (convertible, equity-linked, other equity-backed and diversified securities) rose to 10.8% at the end of 2021, compared with 8.4% a year earlier.

The real estate allocation remained stable in 2021, at 3%.

A.3.b Financial performance

The rate of return on unit-linked investments was 10.81% in 2021, progressing sharply from 2020 (1.68%). The change is due to the relative performance of the financial markets for each year.

The rate of return on the assets of the Cardif Lux Vie General Fund was 2.24% in 2021. Reinvestment rates, which remained below the purchase rates for the bonds in the portfolio, continued to be detrimental. However, the good performance of the equity markets and the dollar's increased strength against the euro helped to push up the portfolio's overall return. By way of illustration, in 2021 the 10-year risk-free rate (10-year swap rate) averaged around 20 basis points below its average level in 2020. However, the spreads of highly rated credit securities and those of the most indebted European countries narrowed by more than 30 bps on average over the year compared with 2020. There was therefore no real average improvement in terms of reinvestment in bonds in 2021.

The rate of return on the assets of the Cardif Lux Vie General Fund was 25 bps higher than in 2020. The extraordinary yield, which includes the results of sale of assets and foreign exchange, was the main contributory factor, rising by almost 40 bps. The recurring return from dividends, coupons and the amortisation of premiums/discounts was down by 15 bps.

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 invested with the greatest powers to complete or instruct any act of administration or disposal in the interests of the Company. It ensures that the business runs smoothly, debates and decides on matters that concern the Company. It is also responsible for strategic decision-making.

It draws up and approves the various mandatory reports. In addition, it approves the Company's written policies as referred to Article 71-3 of the Law of 7 December 2015 on insurance.

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

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

At the same time, each Board member may request all documents and information that they believe necessary to carry out their mandate.

The Chairman presides over the work of the Board and oversees the proper functioning of the Company's committees.

In 2021, the Board of Directors of Cardif Lux Vie met seven times.

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

The Board of Directors of the Company has three special committees: the Audit & Risks Committee, the ALM and Investments Committee, and the Remuneration and Nomination Committee.

Each Committee reports on its activity to the Board of Directors.

- **Audit & Risks Committee**

Responsibilities:

- Review of the financial reports and all financial and actuarial documentation, in particular documents submitted to any government or public authority,
- Review of the Company's internal control system with regard to finance, accounting, law, compliance and ethics as drawn up by the Board,
- Auditing of the Company's accounts and financial statements in general,
- Monitoring of risk management policies, procedures and systems.

Role:

- 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 prepare the Board of Directors' review of the ORSA report.
 - 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 matching,
 - 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 year,
 - To inform the Board of Directors of any significant event that might in particular have an effect on the portfolio,
- ***The responsibilities of the Remuneration and Nomination Committee are:***
 - To advise the Board of Directors and/or approve the Company's employee remuneration policy,
 - To decide on the remuneration of members of the Executive Committee.

B.1.c Effective managers

At 31 December 2021, the Executive Committee comprised seven managers, two of whom are effective managers.

Christian GIBOT and Bénédicte BURGUN are the two effective managers nominated by the Board of Directors. Christian GIBOT is CEO of Cardif Lux Vie.

The two effective managers work jointly on major decision-making regarding the day-to-day management, with Christian GIBOT being more particularly in charge of strategy and commercial activity. The CEO defines the organisational structure and decision-making processes. The CEO is responsible for implementing risk management and internal control mechanisms. The CEO reports regularly to the Board of Directors on his/her actions. Bénédicte BURGUN is responsible for financial aspects.

Each of the two effective managers has all of the powers to act with regard to third parties that the law and the articles of association confer on executive officers, in particular the power to act as sole signatory on matters of day-to-day management of the Company.

Christian GIBOT has exclusive power to delegate his day-to-day management powers as long as the delegation of powers is accompanied by rigorous procedures and suitable controls.

The Managers are responsible for the achievement of the targets set in the strategy. To this end, they organise, manage and supervise the transactions and teams for which they bear responsibility. They report to the CEO. They meet as the Executive Committee, which is responsible for preparing strategic decisions.

B.1.d Operational governance bodies

The managerial governance of Cardif Lux Vie is supported by operational governance bodies and a system of delegation of powers.

Cardif Lux Vie's Executive Committee is responsible for devising strategy and monitoring the results and financial equilibrium of the Company, as well as any action plans to be implemented, significant commercial transactions, development and transformation projects, and human resources.

With regard to risk management, the Executive Committee is assisted by tactical and supervisory committees. Tactical committees are decision-making bodies in which certain risks or sensitive issues are studied ex-ante. Supervisory committees supervise and coordinate the internal control and risk management systems.

The delegation of powers is organised principally around three panels of authorised persons (panels A, B and C). Each authorised person can bind Cardif Lux Vie with regard to third parties for ongoing transactions (i.e. usual transactions for the Company, concluded at normal market conditions) within the scope of their powers. A specific delegation of powers relates to transactions involving management of assets and human resources.

The list of members in each panel may be updated over time and according to requirements. The members of panels B and C are appointed by Christian GIBOT. The Company is bound by the individual signature of one of the effective managers or by the joint signature of two representatives acting within the scope of the powers delegated to them.

Before binding the Company, the authorised persons must ensure that the norms, standards, procedures, authorisations and governance of BNP Paribas and BNP Paribas Cardif have been upheld.

The authorised persons must avoid reaching a decision if they find themselves in a conflict of interest.

B.1.e Key functions

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

- The Risk Management function, provided by the Chief Risk Officer, 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.
- The general role of the Compliance function, provided by the head of the Compliance Department, is to give the effective manager 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 Chief Actuary, 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. It is also in charge of the calculations for producing regulatory solvency reports.

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

The Audit, Risk Management 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 linkages for each function: in the event of disagreement between the effective manager of Cardif Lux Vie and the head of the Group function concerned, the Board of Directors adjudicates.

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 Cardif Group.

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 Conflicts of interest

In 2021, 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 managers 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 managers are appointed not only on the basis of their skills founded on the experience gained during their career, but also according to the qualities deemed necessary. For example, they must have solid experience in insurance and financial markets, strategy, system of governance and risk analysis, actuarial and financial analysis, as well as a thorough understanding of the regulations applicable to insurance undertakings.

The skills and integrity of the effective managers and those responsible for key functions are re-examined each year as part of the professional evaluation process.

The effective managers 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 discharge 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.

The risk management framework relies on an integrated organisation based on:

- The Effective Managers;
- The four key functions (Risk management, Actuarial function, Compliance and Audit);
- Effective written documentation;
- A comprehensive set of committees in place allowing information and points of view to be aligned while taking account of the Risk, Solvency and Profitability aspects.

The Chief Risk Officer heads up the Risk Management key function. The risks department exercises permanent second-level control of credit risk, market risk, underwriting risk and operational risk.

The CRO is responsible for advising the Board of Directors and the effective managers on risk governance, policy and management strategy. The CRO sits on the risk approval committees and when necessary gives a second opinion on decisions having a significant impact on Cardif Lux Vie's risks. The CRO produces the internal and statutory risk and solvency reports. The CRO is an integral part of the internal control system (see B.5).

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

Risk strategy process

The Risk department advises the Executive Committee and the Board of Directors on strategy and proposes the allocation of risk appetite. It allocates risks according to tolerances in line with the risk preferences set by the Board of Directors. It ensures that the risk profile corresponds to the risk appetite. Every year it produces and presents to the Executive Committee and Audit & Risks Committee a mapping of the major risks to which Cardif Lux Vie is exposed.

Independent review

The Risk department is responsible for ensuring the consistency of governance with the risk management framework. It performs an independent review of the risk assessment and proposes any risk mitigation actions that might be required. This review also covers data, tools, methods and results.

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 the BNP Paribas Cardif level and shared using a common international platform.

The adaptation of products and strategic modelling choices in the projection models used at Cardif Lux Vie are the responsibility of the Actuarial department. The Risk department carries out an independent review of the projection model.

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 hypothetical 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 the various stages of the risk management cycle depending on needs and on the economic context in particular and when reporting risks.

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 a solid level and quality of capital in order to fulfil the prudential requirements and guarantee sufficient financial resilience.

Capital management is the joint responsibility of the Finance Department and Actuarial Department, working closely with the Risk 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 applied.

Solvency II reporting

Under the Solvency II Directive, Cardif Lux Vie submits this report annually to the Commissariat aux Assurances as well as submitting the regular supervisory report in accordance with CAA circular 17/11.

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 Risks Department and the Actuarial Division play a role in coordinating risk culture initiatives by raising awareness of operational risk (particularly fraud, incident detection and reporting, and risk mapping). The Permanent Control Department is integrated with the Actuarial Division.

The Actuarial Division also runs and maintains a training programme on solvency.

Other risk reporting processes

The risks department reports quarterly to the Executive Committee on the risks of Cardif Lux Vie. To do so, the department identifies the key monitoring indicators and puts in place a data gathering process.

In addition to the measures in place to tie in with risk-taking and monitoring activities, the prudential work carried out under the Solvency II rules has resulted in the implementation of specific controls that assess the quality of the data.

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 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.

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 actuarial teams throughout the life cycle of the contracts as well as the work to be carried out and reports to be prepared. It also specifies which practices are prohibited or accepted subject to conditions. Risk underwriting is consistent with the specific delegation rules, involving several levels 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.

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.

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 time frame.

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.

ALM risk or asset and liability management risk is the risk of financial losses or reduced solvency caused by an inconsistency between the investment policy on the one hand and the underwriting and reinsurance policies on the other. This risk may relate for example to asset allocation, duration gaps, the rates charged to insured parties or off-balance sheet commitments. It materialises in the form of differences between the expected financial flows and those actually observed (inflows or outflows) due to the uncertainty inherent in the modelling of the interactions between assets and liabilities.

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 cross-cutting 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 incurred, is in line with the risk appetite defined by the Board of Directors.

The investment policy provides for dedicated Asset Management committees.

The liquidity policy describes the rules for identifying, measuring, managing and controlling liquidity risk.

Operational risk management

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.

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:
 - o Cardif Lux Vie's reputation;
 - o the trust that its customers, partners and employees have in the Company;
 - o the quality of its products and services;
 - o the efficiency of the processes it manages;
- to put in place a system providing reasonable assurance of risk management to the effective manager, 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 more systematic and allows risks to be addressed through appropriate controls or action plans.

By its nature, operational risk covers multiple areas relating to the Group's day-to-day business and is linked to specific risks such as compliance and model risks.

Compliance risk is defined as the risk of sanctions (judicial, administrative or disciplinary) and the associated financial penalties resulting from non-compliance with the laws, regulations, code of conduct or standards of good practices applicable to insurance and financial activities.

This risk is covered by all the processes, tools and methods put in place by Cardif Lux Vie, and in particular by the work of the Compliance function.

Model risk results from:

- the uncertainty inherent in the model relative to the reality that it seeks to measure, which is called Model Uncertainty, or
- decisions based on models developed or deployed incorrectly, or on the inappropriate use of results of models, called Model Error.

Operational incidents linked to the use of models must be declared as operational risk incidents.

The governance bodies defines the specific committees for monitoring and validating developments and the documentation necessary for promoting understanding of the results produced by the models, identification of the limitations of the methodological options and their monitoring.

Strategic risk relates to the failure of strategic initiatives (acquisitions, mergers, new products, new markets etc.) resulting in losses. This risk is linked to:

- the external environment through the risk of losses associated with fluctuations in volumes, margins and costs due to external or sector-based factors or market factors more generally;
- poor implementation of the risk strategy for the development of activity.

Emerging risks are new or evolving risks that are difficult to quantify and with regard to which the nature, timing and extent of potential losses are particularly uncertain.

Reputational risk is defined as the risk of damage to the trust placed in the company by its customers, suppliers, counterparties, shareholders, employees, regulators or any other third parties whose trust, for whatever reason, is a necessary condition for the normal carrying on of the business.

This risk is contingent on all of the risks to which Cardif Lux Vie is exposed and is covered by all the processes, tools and methods put in place by Cardif Lux Vie, and by the work of the Compliance function in particular.

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 profiling

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

The risk profile is measured using a set of metrics assessed at least quarterly to ensure that it matches the risk appetite.

B.4.b ORSA report

The report prepared in 2021 was approved by the Board of Directors after being validated by the Audit & Risks Committee. It was sent to the Commissariat aux Assurances.

B.5 Internal control system

B.5.a Organisation of internal control

Definition and aim of internal control

Cardif Lux Vie has set up an internal control system, the main aim of which is to ensure overall control of risks and to provide reasonable assurance that the objectives set by the undertaking in this regard are actually achieved. This system is structured around the following pillars:

- the process of identifying, assessing and reporting risks;
- the implementation of controls;
- the setting up of an organisation;
- the procedures.

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 Cardif Group.

It constitutes the basic reference framework for internal control. It aims to contain operational risk within acceptable limits by reducing, transferring or avoiding risks while at the same time maintaining a balance between the risks taken and the cost of managing them. Firstly, it sets out the objectives of internal control, namely:

- the development of a risk culture among staff;
- the efficiency and quality of the company's internal operations;
- the reliability of internal and external information;
- the security of operations;
- compliance with laws and regulations and with internal policies.

It sets the rules in terms of organisation, responsibility and scope of action of the various parties involved in the internal control and enacts the principle whereby the control functions (Compliance, Legal & Tax, Finance, Risk Management and finally Internal Audit) operate independently.

Scope of internal control

One of the fundamental principles of internal control is the exhaustive nature of its scope: it applies to all risks regardless of type and to all of Cardif Lux Vie's activities. It also covers the provision of essential or important operational services or tasks that have been outsourced, subject to the regulatory conditions.

Fundamental principles of internal control

The internal control system at Cardif Lux Vie is based on the values and Code of Conduct of BNP Paribas and on the following additional principles:

- clearly established responsibilities: internal control is the business of every employee, regardless of level in the hierarchy or responsibilities. The exercise of a management function brings the additional responsibility of ensuring that the internal control system is properly implemented in the area being managed;
- a structured risk identification, assessment and management system (involving, among other aspects, a decision-making and delegation system, organisational principles, controls, a reporting and warning system etc.);
- independent control and supervision of risks: those responsible for operational activities bear ultimate responsibility for the risks that their activities generate, which means primary responsibility for setting up and operating a risk identification, assessment and management system. The internal control

system provides for the compulsory involvement, at the earliest possible stage, of functions that have independent control in the form of a second level of control. This intervention takes the following forms:

- definition of overall normative framework for risk identification, assessment and management,
- definition of cases where a prior second opinion from a function exercising second-level control and shared with the operational entity is necessary in the decision-making process,
- independent controls, known as second-level controls, carried out by the aforementioned function on the system put in place by the managers responsible for operational activities and on its operation (result of the risk identification and assessment process, relevance and compliance of risk control systems and, in particular, compliance with defined limits).
- separation of tasks: this is one of the essential elements of the risk control system. This involves assigning certain operational tasks that contribute to the same process to participants who report to different hierarchies or separating such tasks by other means, in particular IT;
- proportionality to risks: the implementation of the internal control system must be based on a proportionate approach and level of intensity. This proportionality is assessed on the basis of one or more criteria, specifically:
 - risks intensity,
 - amount of allocated capital and/or solvency ratios,
 - complexity of the designed/marketed products and/or services provided.
- appropriate governance: the system is subject to governance involving the various players and covering the different aspects of internal control, both organisational and supervisory;
- a requirement for formalisation and traceability: internal control is based on written policies and procedures that have been validated by the effective managers. The related controls, their results, their use and the feedback from the entities to the higher levels of the group's governance are documented and traceable;
- a duty of transparency: all employees, whatever their position, have a duty to report the following transparently, i.e. spontaneously and without delay, to a higher level in their organisation:
 - any information required for proper analysis of the situation of the entity in which the employee works, and that may impact the risks or reputation of Cardif Lux Vie or the Group,
 - any issue that the employee cannot resolve alone when performing his/her role,
 - any abnormal situation that the employee observes. Employees also have a right to report information in confidence, as provided for in the BNP Paribas Group's Code of Conduct and exercised within the framework of the right of ethical alert ("Whistleblowing") organised by Compliance;
- continuous adaptation of the system to changes: the internal control system must be managed dynamically by the various parties involved.

Observance of these principles is regularly verified, particularly during actions by the periodic control team (Internal Audit).

Organisation of internal control

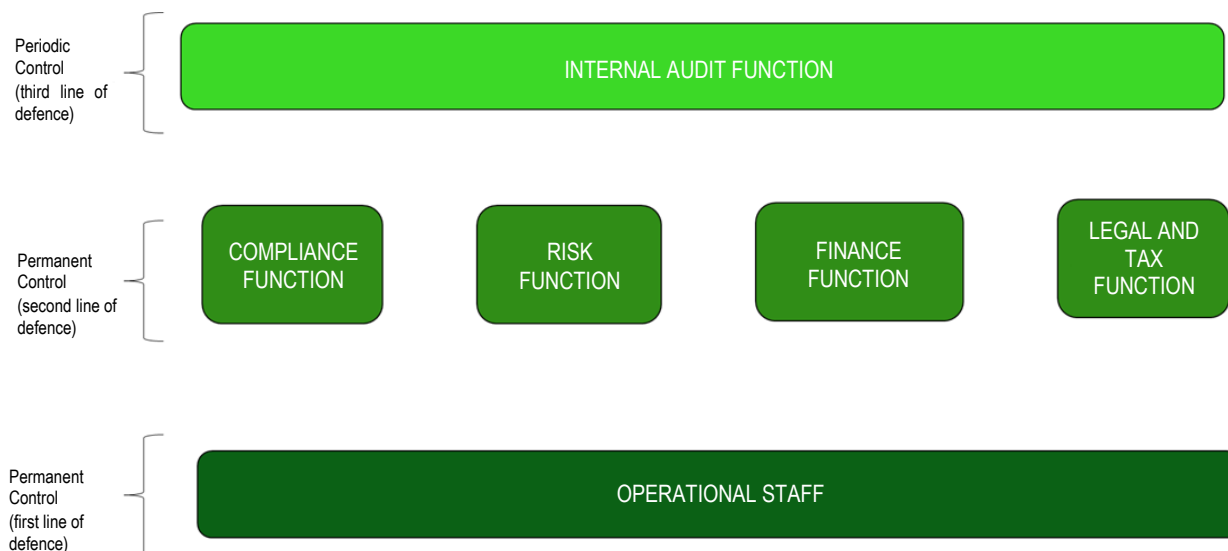
The effective managers, under the control of the Board of Directors, are responsible for the internal control system, which is organised around three lines of defence.

The overall system consists of a Permanent Control and a Periodic Control, which are distinct and independent of one another while at the same time being complementary and coordinated.

- Permanent Control involves ongoing efforts to manage risk and monitor the implementation of corrective actions. This is carried out by the first two lines of defence: firstly by operational staff and their management, and secondly by independent functions within Cardif Lux Vie.

- Periodic Control, carried out by the third line of defence, performs the “ex-post” verification of the functioning of Cardif Lux Vie, in particular the effectiveness and quality of the Permanent Control system. This is an audit process carried out by the Internal Audit function, which operates independently.

Main parties responsible for internal control



- Operational staff, regardless of their position within the Company, and particularly line managers, are primarily responsible for their own risk management and are key players in the permanent control process. Cardif Lux Vie also has a team of permanent controllers who do not operate the processes that they control. They are responsible for “level 1” checks;
- The independent functions of the permanent control perform second-level controls: the Risk Management, Compliance, Finance and Legal and Tax functions. The Risk Management, Compliance and Legal functions are integrated with the BNP Paribas Cardif Group. The functions performing second-level controls are responsible for the proper workings of the risk control system and its compliance with laws and regulations across a range of areas (themes and/or processes) under their responsibility. They define the general normative framework within which the risk for which they are responsible is to be managed. Vis-à-vis the operational entities, they keep a critical and independent eye on the identification and assessment of risks. They also contribute to dissemination a risk culture and an ethical culture within Cardif Lux Vie. These functions break down as follows:
 - o The **Compliance** function contributes to the permanent control of compliance with legislative and regulatory provisions, ethical and professional standards and guidance from the Board of Directors and effective managers,
 - o The **Risk Management** function reviews operational risks, 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 the second line of defence in managing the risks associated with accounting and financial information, including the processes and the appropriateness of the systems for managing accounting and financial information.
 - o The **Legal and Tax** function is an independent second-level control function charged with managing legal and tax risk.
- Periodic control (level 3) is carried out by the General Inspectorate of the BNP Paribas Group.

The governance of the internal control system of Cardif Lux Vie is carried out through the following committees:

- o The Audit & Risks Committee, which meets at least four times a year. It is responsible for monitoring the effectiveness of the risk management and permanent control mechanisms.

- The Internal Control Committee, which meets at least twice a year. It makes sure that all risks identified or suspected are reported and managed and that the actions taken to control them are monitored at all levels of the organisation.

The Board of Directors, at the proposal of the Audit & Risks Committee, 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 Management, Actuarial and Internal Audit Key functions also report to the effective managers and the Board of Directors or its special committees on the performance of their duties. They 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, alongside risk identification and evaluation, checks, reporting and management of the 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.

Cardif Lux vie documents the procedures to be applied, as well as the checks to be performed. These procedures constitute the basic reference framework for internal control.

Cardif Lux Vie is responsible for

- identifying the procedures that it needs in order to carry out the tasks for which it is responsible and exercising its responsibilities, in compliance with the applicable regulations and the group's instructions, expressed in particular through the higher-level procedures already in place;
- establishing, maintaining and preserving the set of procedures identified in this way;
- making the procedures accessible to those who need them, informing them of their existence or revision, training if applicable;
- ensuring that the procedures are duly applied.

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 manager 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 General Inspectorate – 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 General Inspectorate – 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 General Inspectorate of the BNP Paribas Group. The effective manager of Cardif Lux Vie, the Chairman of the Board of Directors of Cardif Lux Vie, the Chairman of the Audit & Risks Committee and the head of the General Inspectorate (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 General Inspectorate of the BNP Paribas Group.

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

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

B.7 Actuarial function

The Actuarial and Risk Management Department of Cardif Lux Vie assumes the Actuarial function. The head of this department reports directly to the effective manager 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. It organises its work in two units:

- *Product Actuarial unit*
- *Actuarial Risk Monitoring & ALM unit*

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). It not only ensures that the level of valuation methods and reserves are appropriate under local Luxembourg GAAP and IFRS, but also handles underwriting risk reporting. Finally, the unit provides an opinion on the adequacy of the level of risk transfer (reinsurance) as part of its underwriting activities.

The **Risk Monitoring & ALM Actuarial unit** is responsible for the calculation of Solvency II technical provisions, ensuring that the methods, underlying models and assumptions used are appropriate. It oversees the implementation and monitoring of behavioural rules (redemption rules) during prospective studies, monitors and quantifies underwriting and market risks as part of its prudential closing activities, and assesses the adequacy and quality of the data used to calculate technical provisions and in the implementation of behavioural rules. With regard to provisions in accordance with IFRS and accounting standards, it calculates the provisions for future management charges (PGG), liabilities adequacy test (LAT) and the provision for deferred profit-sharing bonuses. As part of its assets and liabilities risks monitoring (ALM) it is responsible for the implementation of the strategic asset allocation and work relating to liquidity risk. Finally, it is responsible for coordinating and writing the regulatory narrative reports (RSR: regular supervisory report, SFCR: solvency and financial conditions report, AFR: actuarial function report), and supplies information to the Actuarial function regarding the reliability and adequacy of the Solvency II calculation of technical provisions.

The Actuarial and Risk Management Department thus 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 strict and progressive system of governance at the BNP Paribas Cardif Group level. This technical and decision-making framework enables the owner of the actuarial function to manage situations previously 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 bodies 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. 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.

Pursuant to Solvency II, insurance undertakings must produce annual and quarterly quantitative reports (QRT: quantitative reporting templates), annual narrative reports (RSR: regular supervisory report) for the supervisor, SFCR (solvency and financial conditions report) for the public, and AFR (actuarial function report).

The Actuarial and Risk Management Department is the process owner for the coordination and production of these reports and statements. It directs the work and the Finance Department is one of the principal contributors.

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 Group and Cardif Lux Vie.

Approved by the Board of Directors and revised annually, Cardif Lux Vie's outsourcing policy defines the rules for the outsourcing of important or critical activities, with, in particular:

- a definition of the scope of activities that could be provided as an outsourced service;
- a definition of activities considered important or critical by nature and by risk, with their assessment criteria;
- the risk management arrangements relating to outsourcing;
- the requirements in terms of contractual security;
- the system for monitoring, control and management of outsourced activities during the production phase;
- relations with internal governance bodies and supervisory authorities, including the obligation to notify the CAA of outsourced activities deemed to be important and/or critical

Organisation of outsourcing

Defining the risk management framework for outsourcing is the responsibility of the risk management function, particularly with regard to the risk framework, while the ETO Office is responsible for the operational implementation.

The Chief Operating Officer (COO) is responsible for:

- 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 transferred 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 ETO Office endeavours to involve Cardif Lux Vie's Compliance, Risk Management 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 in the implementation phase in 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, Permanent, IT, etc.) and the Operational Risk Manager (ORM).

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

A monitoring system is applied in the implementation phase of the service, notably as instructed by the Outsourcing Committee and allowing a review of the risks associated with the proposed outsourcing.

A campaign to assess the risks associated with important or critical activities already outsourced is carried out annually. A remediation plan is put in place if necessary depending on the results of this campaign.

At the end of 2021, the delegates (important or critical activities) operating on behalf of Cardif Lux Vie were as follows:

Name of delegate	Activities delegated	Registered office	Intra- or Extra-Group
EFA	Accounting – valuation of investments of Internal Collective Funds	Luxembourg	Extra-Group
Kneip	Provider of KIDs (PRIIPS) for investment supports	Luxembourg	Extra-Group
CTG	IT services (workstations, help desk)	Luxembourg	Extra-Group
BNP Paribas Securities Services Luxembourg	IT services (IT infrastructure, network, access rights, servers, etc.)	Luxembourg	Intra-Group
BNP Paribas Dealing Services	Trading desk service (receipt and transmission of orders)	France	Intra-Group
BNP Paribas Cardif - DGA	Reporting for managed funds, macro-economic review, follow-up of orders	France	Intra-Group
BGL BNP Paribas S.A.	Datacentre hosting (DRP site), telephony, Local Area Network, WiFi, CFT gateway (for exchanging reports with partners), FIRCOSOFT (AML screening of third party and SWIFT payments)	Luxembourg	Intra-Group
BGL BNP Paribas S.A.	Internal Audit functions	Luxembourg	Intra-Group
All Funds	Financial payment flows of rebates on UCITS securities	France	Extra-Group
BGL BNP Paribas S.A.	Human resources and other support functions	Luxembourg	Intra-Group
BNP Paribas Securities Services France	Accounting and valuation for General Fund	France	Intra-Group

B.9 Adequacy of the system of governance

The system of governance at Cardif Lux Vie is based on an organisational structure that is tailored to the nature, scale and complexity of the risks inherent in its business and on adequate supervision by the Board of Directors.

B.10 Other information

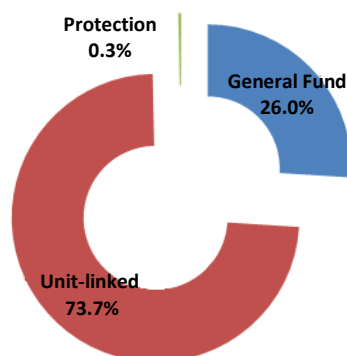
There is no other material information.

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 and the Audit & Risks Committee.

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

**Technical provisions
Luxembourg GAAP – 31/12/2021**



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 contracts.

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 changes 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

Cardif Lux Vie's underwriting SCR amounted to €236 million at 31 December 2021 (2020: €184 million). The increase in the SCR for Underwriting Life is mainly due to the increase in the SCR for large-scale redemptions as a result of the more favourable interest rate environment.

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

<i>In millions of euros, net amount, at</i>	31 December 2021	31 December 2020
SCR Life Underwriting	236	184
SCR Health Underwriting		
TOTAL UNDERWRITING RISK SCR	236	184

The **Life module**, like biometric risks, redemptions 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 **redemption risk** sub-module, which assesses the impact of a change in redemptions using the most sensitive of the following events:
 - o a permanent 50% rise or fall in redemption rates,
 - o a sizeable redemption of 40%.

Cardif Lux Vie is sensitive to the impact of sizeable redemptions 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 policyholders. 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 governance for underwriting large contracts.

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 an increase in costs 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 policyholders.

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

Periodic monitoring of the underwriting risks is carried out at several levels. On the one hand by means of campaigns to control compliance by the delegations in taking risks and the technical bases in force and also by analysing the technical results every quarter. Besides, the key underwriting risk monitoring indicators are included in Cardif Lux Vie’s quarterly report on risks (See B.3.b).

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.

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 (79%) and investment funds (16%), as shown below.

In millions of euros, at	31 December 2021		31 December 2020	
	Market value	%	Market value	%
Real estate	-	-	-	-
Equity holdings	155	1.53%	146	1.47%
Listed equities	327	3.23%	262	2.65%
Bonds	8,002	79.08%	7,924	80.10%
Government bonds	2,517	24.88%	2,148	21.72%
Corporate bonds	5,329	52.66%	5,549	56.10%
Structured bonds	156	1.54%	226	2.29%
Guaranteed securities	-	-	-	-
Collective funds	1,602	15.83%	1,534	15.51%
Equity funds	635	6.28%	506	5.12%
Bond funds	372	3.68%	365	3.69%
Money market funds	287	2.83%	447	4.52%
Asset allocation funds	-	-	-	-
Real estate funds	174	1.71%	146	1.47%
Hedge funds/Infrastructure/Private Equity	128	1.26%	60	0.61%
Other	7	0.07%	11	0.11%
Derivatives	20	0.20%	13	0.13%
Other investments	7	0.07%	6	0.06%
Deposits	6	0.06%	7	0.07%
TOTAL GENERAL FUND INVESTMENTS	10,119	100%	9,892	100%

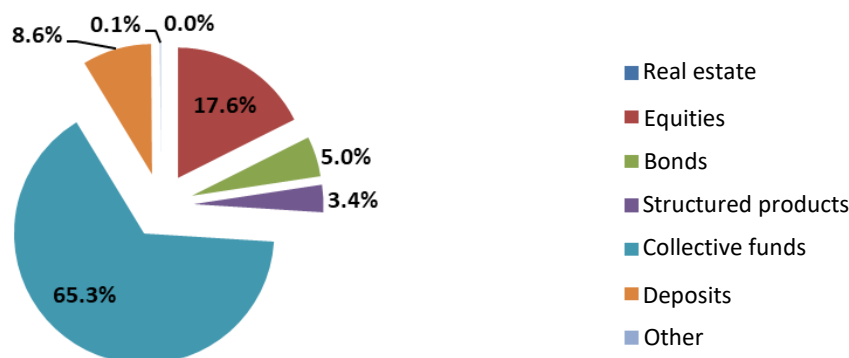
For this general asset, the market risk is mainly borne by Cardif Lux Vie, which guarantees the liability commitments for its policyholders. Through its prudent person policy, Cardif Lux Vie invests in asset classes enabling it to at least meet its obligations towards policyholders.

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 (65%), as illustrated below:

Breakdown of investments of contracts where the risk is borne by the policyholder



For this portfolio of unit-linked contracts, the prudent person policy also applies during the selection of investment assets by policyholders. Here, the market risk is mainly borne by policyholders; however, a fall in assets under management would 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 SCR totalled €579 million at 31 December 2021 (2020: €494 million).

<i>In millions of euros, net amount, at</i>	31 December 2021	31 December 2020
Interest rate risk	43	19
Equity risk	314	212
Real estate risk	23	41
Credit spread risk	214	248
Concentration risk	12	2
Exchange rate risk	117	70
Diversification effect	-143	-99
TOTAL MARKET SCR RISK	579	494

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 maximum 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 interest rates.

The capital charge for this sub-module is low in relation to the exposure to fixed-income instruments because of the current low interest rate environment.

The interest rate shocks applied to assets are largely absorbed by adjusting the liability discounting rate. As a result, the asset duration gap, shorter than for liabilities, generates most of the SCR of this sub-module. It originates from the prudence required when setting the asset investment horizon, given the option of surrendering liabilities at any time. It is essential therefore that any acceleration in liability cash flows can be met.

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 43% of the market SCR before diversification at 31 December 2021 (2020: 36%). This sub-module is 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 Economic Area 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. On 31 December 2021, the dampener was 6.88% (2020: - 0.48%), and the shocks applied were 45.88% or 55.88% depending on the type of share (2020: 38.52% and 48.52% respectively).

- **the real estate 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 credit spread risk sub-module**, which represents 30% of the market SCR before diversification at 31 December 2021 (2020: 42%).

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 composition 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 government system. These rules are integrated into the General Fund management agreements 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 adjustment 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 policyholders upon the sale of insurance contracts, while maximising the expected return on investment compared with the risk limit set.

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

The **asset-liability review** is 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 the profile of the different liabilities.

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

Market risk is monitored by controlling compliance with the management agreements on the one hand and by the asset management committees on the other.

Periodic monitoring of market risks is also carried out quarterly by means of a report submitted by the Risk Management function to the Local Risk Committee.

The asset management committees are involved in monitoring market risk.

C.2.f Stress tests and sensitivity analyses

Stress tests are regularly reviewed as part of the asset-liability review. 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 policyholder behaviour.

The main stress tests involve scenarios of prolonged low interest rates, hikes in interest rates, widening credit spreads, falling share prices and low returns on equities.

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

Since the beginning of 2021, upward and downward sensitivities to market risks have been carried out after each quarterly closing in accordance with Solvency II.

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 €13 million at 31 December 2021 (2020: €16 million). Of this, 92% relates to default risk exposures arising from reinsurance operations and cash deposits with credit institutions.

<i>In millions of euros, at</i>	31 December 2021	31 December 2020
TOTAL COUNTERPARTY RISK SCR	13	16

C.3.c Concentration

The **exposure to reinsurers** at 31 December 2021 mainly concerns two reinsurers. These are the most significant reinsurance treaties. The **counterparty** risk on these treaties is reduced by a cash deposit guarantee for the share of obligations in euros. This guarantee is not recognised as collateral in accordance with the provisions established by 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

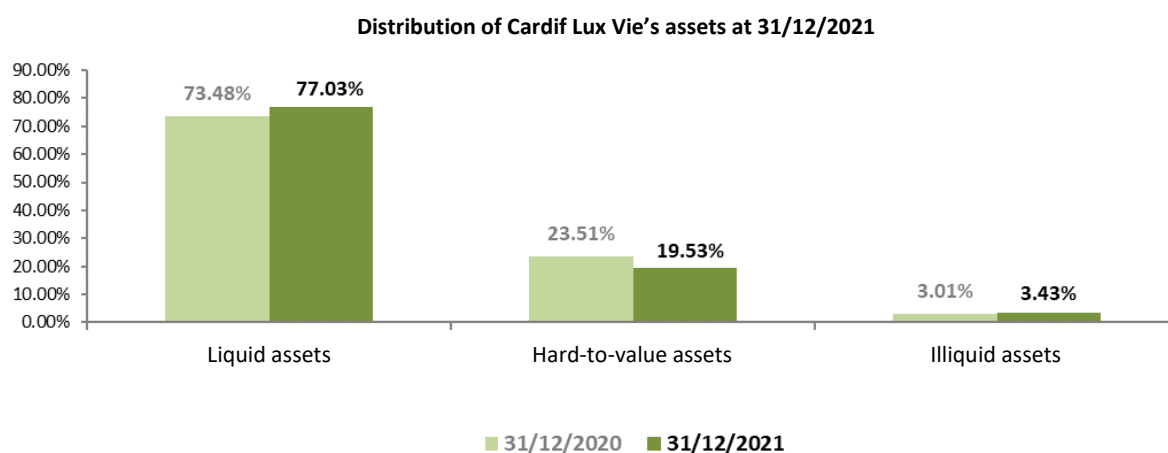
Liquidity risk is the risk of being unable to honour expected or unexpected future liquidity demands arising from insurance obligations towards policyholders, owing to the impossibility of selling the assets within a suitable time frame.

C.4.b Risk exposure

The liquidity policy describes the rules for identifying, measuring, managing and controlling liquidity risk.

Liquidity risk exposure is reviewed at least annually. It is assessed on the one hand by monitoring the portfolio composition, and on the other hand 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.

- **General Fund:** The distribution of assets based on the liquidity of the financial instruments (liquid assets, hard to value assets and illiquid assets) was as follows, over the past two years:



The classification of assets depends on their type and rating.

The General Fund includes 3.43% of assets classed as illiquid assets. These are assets linked to real estate and 20% of private equity and infrastructure funds.

The share of liquid assets is predominant. This level of liquidity can accommodate a significant change in the payment rate of the mathematical provisions.

- **Unit-linked assets:** Exposure to alternative assets as a percentage of the unit-linked assets outstanding is as follows, over the past two years. By “alternative” assets we mean complex or illiquid products such as hedge funds, structured products, private equity funds, real estate funds, derivative products and historically and marginally direct private equity lines.

	31 December 2021	31 December 2020
Alternative assets	18.86%	18.78%
including Private Equity Funds	1.88%	1.57%

Exposure to alternative assets has risen slightly over the past two years and is below the warning thresholds and maximum limits set by the Cardif Lux Vie Board of Directors. These are limits for acceptance of liquidity risk on unit-linked investments.

C.4.c Risk management and mitigation

- **Management and mitigation of liquidity risk at asset level**

Approval of assets and surveillance of composition of the General Fund

- **Approval of assets:** Firstly, depending on the type of financial instrument, investment limits are set in the asset management agreement for the General Fund. Secondly, when choosing the investment vehicles, Cardif Lux Vie takes into account elements of legal security, taxation if necessary, market risk, counterparties and liquidity. Each of these aspects is considered as part of a global approach to diversification and adaptation of the investment supports based on the commitments to be covered. Particular attention is paid to less liquid assets, taking into account their specific risks.
- **Surveillance of the composition of the General Fund:** Monitoring of the distribution of assets in the General Fund based on their liquidity (liquid assets, hard to value assets and illiquid assets) and compliance with the investment limits set in the management agreement is carried out quarterly by means of a report submitted by the Risk Management function to the Executive Committee.
- **Liquidity studies in the context of ALM studies:** These are stress tests, the purpose of which is to measure the liquidity of the General Fund in a highly adverse scenario.

Approval of illiquid assets and surveillance of composition of the internal funds

The objective is to limit the proportion of assets invested in complex or illiquid assets.

- **Approval:** Management of liquidity risk for internal funds involves a rigorous approval process with the involvement of the Finance and Legal departments and the Commitments Committee.
- **Surveillance:** Quarterly monitoring of the exposure of the unit-linked investments is carried out by means of a report submitted by the Risk Management function to the Local Risk Committee. This is done on the basis of the acceptance limits, mentioned above.

- **Management and mitigation of liquidity risk at liability level**

Monitoring of redemption rates

The regular monitoring of changes in redemption rates is intended to anticipate the policyholders' behaviour and thus optimise the allocation of assets and the management of liquidity. The contracts include an option to redeem at any time, backed by a capital guarantee for contracts invested in the General Fund. The rate of redemption is monitored quarterly via a report issued by the Risk Management function to the Local Risk Committee.

The redemption risk is however mitigated by the implementation of exit penalties for contracts that have more than 5 million euros invested in the General Fund.

Monitoring of the concentration of General Fund liabilities

The aim is to limit the concentration of liabilities on a small number of policyholders who may generate a liquidity risk in the case of large-scale redemptions. The concentration of insurance liabilities is monitored quarterly by means of a report submitted by the Risk Management function to the Local Risk Committee.

C.4.d Sensitivity

Asset-liability matching studies are carried out in order to measure the liquidity spreads on the General Fund. The liquidity gaps were analysed with (central scenario) or without new business premiums over a 40-year projection horizon. The studies carried out show that Cardif Lux Vie is not subject to a risk of illiquidity of the assets in a central scenario.

Under new business assumptions, surplus liquidity is maintained throughout the projection due to the volume of inflows.

C.5 Operational risk

C.5.a Definition

Operational risk is the risk of loss resulting from the inadequacy or failure of internal processes or external events, whether deliberate, accidental or natural.

External events do not include counterparty defaults, apart from counterparty fraud, nor changes in the financial markets which are events linked to market and liquidity risks.

Incidents attributed to credit and market risk are not included in the operational risks, in the same way as the consequences of these risks on reputation.

Operational risk covers fraud, HR risks, legal risks, risks of non-compliance, tax risks, risks associated with information systems, 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 Indicators of operational risk

Operational risk indicators are monitored on a monthly basis via a report submitted by the risks department to the Local Risk Committee.

There is a focus on the major indicators: number of incidents declared, amount of loss (in relation to operational risk), client complaints, number of recommendations of the Internal Audit pending, etc.

C.5.c Risk exposure

The amount of SCR linked to operational risk totalled €64 million at 31 December 2021 (2020: €47 million).

<i>In millions of euros, at</i>	31 December 2021	31 December 2020
SCR linked to operational risk calculated on the basis of mathematical provisions	56	47
SCR linked to operational risk calculated on the basis of earned premiums	64	39
TOTAL OPERATIONAL RISK SCR	64	47

The increase in the operational risk SCR between the two years is mainly attributable to the following change in methodology: from 31/12/2021 onwards, the recurring commissions paid in respect of unit-linked contracts are included in the costs relating to these contracts (amount contributing to 25% of the operational risk SCR).

C.5.d 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

There are no other material risks.

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 are composed as follows:

In millions of euros, at 31 December	Reference	2021 Solvency II balance sheet	2021 Financial statements	2020 Solvency II balance sheet	2020 Financial statements
Deferred acquisition costs		-	-	-	-
Other intangible assets	A	-	4	-	8
Deferred tax assets	B	-	-	-	-
Installations and equipment held for own use		2	2	2	2
Investments (excluding investments representing unit-linked liabilities)	C	10,119	9,143	9,892	8,858
Investments representing unit-linked liabilities	C	23,477	23,477	19,790	19,790
Loans and mortgages		-	-	-	-
Policy advances		0	0	1	1
Share of assignees and retrocessionaires in technical provisions	D	6	6	7	7
Deposits with ceding undertakings		-	-	-	-
Receivables arising from insurance operations		17	17	16	16
Receivables arising from reinsurance operations		5	5	3	3
Other receivables (excluding insurance)	E	184	184	170	169
Cash and cash equivalents		270	270	295	295
Other assets		1	1	8	8
ASSETS		34,081	33,109	30,184	29,157

Letters A to E 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 accordance with Article 75 a) 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.

In millions of euros, at 31 December	Reference	2021 amounts	2020 amounts
Recognition at fair value of goodwill and intangible assets	A	-	4
Tax effect on restatements	B	-	-
Recognition at fair value of financial assets	C	976	1,034
Valuation of the reinsurers' share in technical provisions	D	-	0
Recognition at fair value of other receivables	E	1	1
TOTAL RESTATEMENTS		973	1,028

A. Other intangible assets

Intangible assets are initially recognised at zero value. Providing they are identifiable and there is an active market for similar assets, they are subsequently 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.

- **Equities 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 holdings¹), **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”.

The distribution of investments by valuation method was as follows:

In millions of euros, at	31 December 2021				31 December 2020			
	Total	Quoted price (identical or similar assets)	Alternative valuation method	Adjusted equity method	Total	Quoted price (identical or similar assets)	Alternative valuation method	Adjusted equity method
Equity holdings	155	-	-	155	147	-	-	147
Listed equities	327	327	-	-	261	261	-	-
Sovereign bonds	2,517	2,517	-	-	2,148	2,148	-	-
Corporate bonds	5,329	5,329	-	-	5,549	5,549	-	-
Structured bonds	156	156	-	-	226	226	-	-
Investment funds	1,602	1,271	332	-	1,534	1,310	224	-
Derivatives	20	-	20	-	13	-	13	-
Deposits with credit institutions	6	6	-	-	7	7	-	-
Other investments	7	7	-	-	6	6	-	-
Investments (excluding investments representing unit-linked liabilities)	10,119	9,612	352	155	9,892	9,507	237	147
Investments representing unit-linked liabilities	23,477	20,500	2,977	-	19,790	17,310	2,480	-

D. Share of assignees and retrocessionaires in 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 2021, ceded technical provisions amounted to €5.9 million (2020: €7.8 million).

E. Other receivables

The receivable relating to advance taxes paid by Cardif Lux Vie for clients resident in Italy for tax purposes is valued at fair value by discounting recoverable financial flows expected from the Italian tax authorities at the risk-free rate plus the original issue spread on the valuation date.

D.2 Technical provisions

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

In millions of euros, at	31 December 2021			31 December 2020		
	BEL– Best estimate of liabilities	Risk margin	Total	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)	9,200	46	9,246	9,091	41	9,132
Index-linked and unit-linked contracts	23,184	137	23,321	19,648	100	19,748
Life (non-health)	32,384	183	32,567	28,739	141	28,880
TOTAL TECHNICAL PROVISIONS	32,384	183	32,567	28,739	141	28,880

The change in the Best Estimate of Liabilities (BEL) is explained by the increase in liabilities in the financial statements (mainly in units of account).

D.2.b Reconciliation with the financial statements

In millions of euros, at 31 December	2021 Solvency II balance sheet	2021 Financial statements	2020 Solvency II balance sheet	2020 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)	9,246	8,395	9,132	8,192
Best estimate	9,200	-	9,091	-
Risk margin	46	-	41	-
Gross technical provision – UL or index-linked	23,321	23,477	19,748	19,790
Best estimate	23,184	-	19,648	-
Risk margin	137	-	100	-
SUBTOTAL TECHNICAL PROVISIONS INCLUDING BEST ESTIMATE OF LIABILITIES	32,567	31,871	28,880	27,983

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 2021, 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 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, redemptions, 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. The BNP Paribas Cardif Group also carries out checks on the calculations of Cardif Lux Vie.

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 Volatility Adjustment (VA) is 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 for the euro interest rate published by EIOPA and used for calculations at 31 December 2021 is a maximum of 0.03% (2020: 0.07%).

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	Reference	2021 Solvency II balance sheet	2021 Financial statements	2020 Solvency II balance sheet	2020 Financial statements
Provisions other than technical provisions	A	46	45	51	50
Liabilities for reinsurers' cash deposits		4	4	6	6
Deferred tax liabilities	B	55	-	20	-
Liabilities to credit institutions	C	32	32	46	45
Liabilities arising from insurance operations		255	255	170	170
Liabilities arising from reinsurance operations		4	4	3	3
Other liabilities (not linked to insurance operations)		97	97	65	65
Subordinated debt included in basic own funds	D	364	311	359	311
Other liabilities not mentioned above		0	0	0	0
LIABILITIES		857	748	720	650

Notes A to D 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	Reference	2021 amounts	2020 amounts
Revaluation of employee benefit obligations	A	1	1
Tax effect on restatements	B	55	20
Revaluation of liabilities to credit institutions	C	0	1
Revaluation of subordinated debts	D	53	48
TOTAL RESTATEMENTS		109	70

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 consist 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 based on 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. Liabilities to credit institutions

This item is measured at fair value by discounting future financial flows at the risk-free rate plus the issuer spread on the issue date.

D. Subordinated debt

This item is measured at fair value by discounting future financial flows at the risk-free rate plus the issuer spread on the valuation date.

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 defined as part of the ORSA valuation (Pillar II).
- Optimise the structure of own funds by searching for the best balance between share capital, subordinated debt 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 2021

Cardif Lux Vie distributed dividends of €87 million during the fourth quarter of 2021. A distribution of €30 million is planned subject to approval by the Board of Directors.

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

Available own funds totalled €987 million at 31 December 2021 (2020: €943 million) and consisted of the following elements:

In millions of euros, at	31 December 2021	31 December 2020
Share capital	319	319
Issue premium	2	2
Reconciliation reserve	301	262
Subordinated debt	364	359
Total equity	987	943

The reconciliation reserve of 301 million euros (2020: 262 million euros), eligible for classification as Tier 1, breaks down as follows:

In millions of euros, at	31 December 2021	31 December 2020
Balance sheet results and reserves	135	202
Restatements under Solvency II	166	60
Impact on future profits net of taxes	210	102
Other restatements	-	44 -
Expected distribution	30	-
TOTAL RECONCILIATION RESERVE	301	262

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 three tiers, depending on their availability, their subordination level in covering obligations to policyholders, and their duration.

The composition of each tier is based on transitional measures and is as follows for 2021 and 2020:

In millions of euros, at	31 December 2021	Unrestricted tier 1 capital	Restricted tier 1 capital	Tier 2 capital	Tier 3 capital
Share capital	319	319			
Issue premium	2	2			
Reconciliation reserve	301	301			
Subordinated debt	364		122	192	50
Total equity	987	623	122	192	50

In millions of euros, at	31 December 2020	Unrestricted tier 1 capital	Restricted tier 1 capital	Tier 2 capital	Tier 3 capital
Share capital	319	319			
Issue premium	2	2			
Reconciliation reserve	262	262			
Subordinated debt	359		116	193	50
Total equity	943	584	116	193	50

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 2021	Tier 1 capital	Tier 2 capital	Tier 3 capital
Share capital	319	319		
Issue premium	2	2		
Reconciliation reserve	301	301		
Subordinated debt	242		192	50
Total equity	865	623	192	50

In millions of euros, at	31 December 2020	Tier 1 capital	Tier 2 capital	Tier 3 capital
Share capital	319	319		
Issue premium	2	2		
Reconciliation reserve	262	262		
Subordinated debt	243		193	50
Total equity	827	584	194	50

Subordinated debt 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 debt at any time, subject to approval from the regulator, following regulatory changes or accounting events.

All these securities not eligible outside transitional measures totalled €122 million at 31 December 2021 (2020: €116 million).

E.2 Regulatory capital requirements (SCR and MCR)

E.2.a Amounts of SCR and MCR

At 31 December 2021, the SCR and MCR were, respectively, €690 million (2020: €600 million) and €310 million (2020: €270 million). The MCR was capped at 45% of the SCR.

<i>In millions of euros, at</i>	31 December 2021	31 December 2020
Linear minimum capital requirement	415	407
Solvency capital requirement (SCR)	690	600
Minimum capital requirement – floor	310	270
Minimum capital requirement – cap	172	150
Minimum capital requirement – combined	310	270
Absolute floor of the Minimum Capital Requirement	4	4
MINIMUM CAPITAL REQUIREMENT (MCR)	310	270

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 the fiscal year;
- the capital at risk.

E.2.c Amount of SCR per risk module

The SCR at 31 December 2021 was €690 million (2020: €600 million). This is mainly due to the preponderance 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.

<i>In millions of euros, at</i>	31 December 2021		31 December 2020	
	Net amount	Gross amount	Net amount	Gross amount
Market risk	579	1,286	494	1,063
Default risk	13	13	16	16
Life underwriting risk	236	236	184	184
Health underwriting risk	-	-	-	-
Non-life underwriting risk	-	-	-	-
Diversification	- 146	- 167	- 121	- 136
Risk linked to intangible assets	-	-	-	-
BASIC SOLVENCY CAPITAL REQUIREMENT	681	1,367	574	1,127
Operational risk	64	-	47	-
Absorption capacity of technical provisions	- 686	-	- 554	-
Absorption capacity of deferred tax	- 55	-	- 20	-
SOLVENCY CAPITAL REQUIREMENT (SCR)	690	-	600	-

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

E.2.d Coverage ratios

The SCR and MCR coverage ratios were 143% and 260% respectively at 31 December 2021 (2020: 157% and 279%).

In millions of euros, at	31 December 2021					31 December 2020
	Total	Unrestricted tier 1 capital	Restricted tier 1 capital	Tier 2 capital	Tier 3 capital	Total
Own funds eligible for the solvency capital requirement	987	623	122	192	50	943
Own funds eligible for the minimum capital requirement	807	623	122	62	-	753
Solvency capital requirement (SCR)	690					600
Minimum capital requirement	310					270
Eligible own funds as a ratio of the solvency capital requirement	143%					157%
Eligible own funds as a ratio of the minimum capital requirement	260%					279%

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
AUM	Assets under 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
RFR	Risk Free Rate
S2	Solvency II
SAA	Strategic Asset Allocation
SCR	Solvency Capital Requirement
UC	Units of account
VA	Volatility Adjustment

G. Appendix - Quantitative Reporting Templates

S.02.01.02 – Balance sheet

		Value under Solvency II
		C0010
Assets		
Goodwill	R0010	
Deferred acquisition costs	R0020	
Intangible assets	R0030	0
Deferred tax assets	R0040	0
Pension scheme surplus	R0050	0
Tangible assets held for own use	R0060	1,527,227
Investments (excluding assets representing unit-linked and indexed contracts)	R0070	10,119,482,070
Real estate assets (excluding assets held for own use)	R0080	0
Holdings in related undertakings, including shareholdings	R0090	155,254,313
Equities	R0100	327,018,260
Listed equities	R0110	327,018,260
Non-listed equities	R0120	0
Bonds	R0130	8,002,010,524
Government bonds	R0140	2,517,463,111
Corporate bonds	R0150	5,328,506,552
Structured securities	R0160	156,040,862
Guaranteed securities	R0170	0
Undertakings for collective investment	R0180	1,602,148,092
Derivative products	R0190	20,173,219
Deposits (other than cash equivalents)	R0200	6,019,486
Other investments	R0210	6,858,175
Assets representing unit-linked and indexed contracts	R0220	23,476,643,586
Loans and mortgages	R0230	198,669
Policy advances	R0240	198,669
Loans and mortgages to individuals	R0250	0
Other loans and mortgages	R0260	0
Recoverables from reinsurance contracts	R0270	5,856,688
Non-life and health similar to non-life	R0280	0
Non-life excluding health	R0290	0
Health similar to non-life	R0300	0
Life and health similar to life, excluding health, unit-linked and indexed	R0310	5,856,688
Health similar to life	R0320	0
Life excluding health, unit-linked and indexed	R0330	5,856,688
Life, unit-linked and indexed	R0340	0
Deposits with ceding undertakings	R0350	0
Receivables arising from insurance operations and amounts receivable from intermediaries	R0360	16,843,910
Receivables arising from reinsurance operations	R0370	4,801,828
Other receivables (excluding insurance)	R0380	184,057,716
Own shares held (directly)	R0390	0
Own fund or called initial fund item(s) not yet paid	R0400	0
Cash and cash equivalents	R0410	269,760,800
Other assets not mentioned above	R0420	1,407,398
Total assets	R0500	34,080,579,893

		Value under Solvency II
		C0010
Liabilities		
Technical provisions non-life	R0510	0
Technical provisions non-life (excluding health)	R0520	0
Technical provisions calculated as a whole	R0530	0
Best estimate	R0540	0
Risk margin	R0550	0
Technical provisions health (similar to non-life)	R0560	0
Technical provisions calculated as a whole	R0570	0
Best estimate	R0580	0
Risk margin	R0590	0
Technical provisions life (excluding unit-linked and indexed)	R0600	9,246,215,214
Technical provisions health (similar to life)	R0610	0
Technical provisions calculated as a whole	R0620	0
Best estimate	R0630	0
Risk margin	R0640	0
Technical provisions life (excluding health, unit-linked and indexed)	R0650	9,246,215,214
Technical provisions calculated as a whole	R0660	0
Best estimate	R0670	9,200,039,444
Risk margin	R0680	46,175,770
Technical provisions unit-linked and indexed	R0690	23,321,192,499
Technical provisions calculated as a whole	R0700	0
Best estimate	R0710	23,184,011,815
Risk margin	R0720	137,180,685
Other technical provisions	R0730	
Contingent liabilities	R0740	0
Provisions other than technical provisions	R0750	46,390,367
Pension benefit obligations	R0760	239,878
Reinsurers' deposits	R0770	4,154,623
Deferred tax liabilities	R0780	55,277,267
Derivative products	R0790	0
Liabilities to credit institutions	R0800	32,367,316
Financial liabilities excluding those to credit institutions	R0810	0
Liabilities arising from insurance operations and amounts due to intermediaries	R0820	255,492,537
Liabilities arising from reinsurance operations	R0830	4,437,029
Other liabilities (excluding insurance)	R0840	97,116,406
Subordinated liabilities	R0850	364,435,947
Subordinated liabilities not included in Basic Own Funds	R0860	0
Subordinated liabilities included in Basic Own Funds	R0870	364,435,947
Other liabilities not mentioned above	R0880	399,161
Total liabilities	R0900	33,427,718,244
Excess of assets over liabilities	R1000	652,861,649

S.05.01.02 – Premiums, claims and expenses by line of business

		Line of business for: life insurance obligations						Life reinsurance obligations		Total
		Health insurance	Insurance with profit participation	Index-linked and unit-linked insurance	Other life insurance	Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations	Health reinsurance	Life reinsurance	
		C0210	C0220	C0230	C0240	C0250	C0260	C0270	C0280	C0300
Premiums written										
Gross	R1410	0	981,501,460	2,347,555,842	60,835,817	0	0	0	0	3,389,893,120
Reinsurers' share	R1420	0	0	0	3,444,244	0	0	0	0	3,444,244
Net	R1500	0	981,501,460	2,347,555,842	57,391,573	0	0	0	0	3,386,448,876
Premiums earned										
Gross	R1510	0	981,501,460	2,347,555,842	60,835,817	0	0	0	0	3,389,893,120
Reinsurers' share	R1520	0	0	0	3,444,244	0	0	0	0	3,444,244
Net	R1600	0	981,501,460	2,347,555,842	57,391,573	0	0	0	0	3,386,448,876
Claims incurred										
Gross	R1610	0	674,991,946	1,066,853,712	100,667,929	0	0	0	0	1,842,513,588
Reinsurers' share	R1620	0	0	0	1,813,966	0	0	0	0	1,813,966
Net	R1700	0	674,991,946	1,066,853,712	98,853,963	0	0	0	0	1,840,699,622
Change in other technical provisions										
Gross	R1710	0	307,754,656	3,686,157,917	110,596,450	0	0	0	0	4,104,509,023
Reinsurers' share	R1720	0	0	0	1,728	0	0	0	0	1,728
Net	R1800	0	307,754,656	3,686,157,917	110,594,721	0	0	0	0	4,104,507,295
Expenses incurred	R1900	0	32,420,420	77,382,454	7,321,241	0	0	0	0	117,124,115
Other expenses	R2500									0
Total expenses	R2600									117,124,115

S.05.02.01 – Premiums, claims and expenses by country

		Home country	Top 5 countries (by amount of gross premiums written) – life obligations					Total for top 5 countries and home country
		C0220	BE C0230	FR C0230	GB C0230	IT C0230	MC C0230	C0280
Premiums written								
Gross	R1410	168,832,381	71,263,837	2,089,535,980	106,148,749	756,382,022	87,409,183	3,279,572,151
Reinsurers' share	R1420	3,444,244	0	0	0	0	0	3,444,244
Net	R1500	165,388,136	71,263,837	2,089,535,980	106,148,749	756,382,022	87,409,183	3,276,127,907
Premiums earned								
Gross	R1510	168,832,381	71,263,837	2,089,535,980	106,148,749	756,382,022	87,409,183	3,279,572,151
Reinsurers' share	R1520	3,444,244	0	0	0	0	0	3,444,244
Net	R1600	165,388,136	71,263,837	2,089,535,980	106,148,749	756,382,022	87,409,183	3,276,127,907
Claims incurred								
Gross	R1610	147,314,818	237,751,343	463,890,852	62,165,274	567,280,573	117,273,494	1,595,676,356
Reinsurers' share	R1620	1,813,966	0	0	0	0	0	1,813,966
Net	R1700	145,500,852	237,751,343	463,890,852	62,165,274	567,280,573	117,273,494	1,593,862,389
Change in other technical provisions								
Gross	R1710	52,437,885	78,775,743	2,819,691,886	200,329,178	565,270,807	13,507,405	3,730,012,903
Reinsurers' share	R1720	1,728	0	0	0	0	0	1,728
Net	R1800	52,436,156	78,775,743	2,819,691,886	200,329,178	565,270,807	13,507,405	3,730,011,174
Expenses incurred	R1900	16,579,762	13,598,587	54,814,086	3,226,850	14,241,247	1,862,586	104,323,117
Other expenses	R2500							0
Total expenses	R2600							104,323,117

S.12.01.02 – Life technical provisions

		Insurance with profit participation	Index-linked and unit-linked insurance				Other life insurance		Total (Life other than health insurance, incl. Unit-Linked)
				Contracts without options and guarantees	Contracts with options and guarantees		Contracts without options and guarantees	Contracts with options and guarantees	
		C0020	C0030	C0040	C0050	C0060	C0070	C0080	C0150
Technical provisions calculated as a whole	R0010	0	0			0			0
Total recoverables from reinsurance/securitisation vehicles and finite reinsurance, after adjustment for expected losses due to counterparty default associated with technical provisions calculated as a whole	R0020	0	0			0			0
Technical provisions calculated as a sum of best estimate and risk margin									
Best estimate									
Gross best estimate	R0030	8,955,883,036		23,184,011,815	0		244,156,408	0	32,384,051,259
Total recoverables from reinsurance/securitisation vehicles and finite reinsurance, after adjustment for expected losses due to counterparty default	R0080	0		0	0		5,856,688	0	5,856,688
Best estimate minus recoverables from reinsurance/securitisation vehicles and finite reinsurance	R0090	8,955,883,036		23,184,011,815	0		238,299,720	0	32,378,194,571
Risk margin	R0100	33,658,760	137,180,685			12,517,010			183,356,454
Amount of the transitional deduction on technical provisions									
Technical provisions calculated as a whole	R0110	0	0			0			0
Best estimate	R0120								
Risk margin	R0130								
Technical provisions – total	R0200	8,989,541,796	23,321,192,499			256,673,418			32,567,407,713

S.22.01.01 – Impact of long-term guarantees and transitional measures

		Amount with long-term guarantees and transitional measures	Impact of transitional measures on technical provisions	Impact of transitional measures on interest rate	Impact of volatility adjustment set to zero	Impact of matching adjustment set to zero
		C0010	C0030	C0050	C0070	C0090
Technical provisions	R0010	32,567,407,713	0	0	10,744,254	0
Basic own funds	R0020	986,956,885	0	0	-8,064,637	0
Excess of assets over liabilities	R0030	652,861,649	0	0	-8,064,637	0
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	R0040		0	0	0	0
Eligible own funds to meet SCR	R0050	986,956,885	0	0	-8,064,637	0
Tier 1	R0060	744,919,700	0	0	-8,064,637	0
Tier 2	R0070	192,278,201	0	0	0	0
Tier 3	R0080	49,758,983	0	0	0	0
SCR	R0090	689,642,795	0	0	6,295,897	0
Eligible own funds to meet MCR	R0100	806,987,552	0	0	-7,498,006	0
Minimum capital requirement	R0110	310,339,258	0	0	2,833,154	0

S.23.01.01 – Own funds

		Total	Tier 1 – unrestricted	Tier 1 – restricted	Tier 2	Tier 3
		C0010	C0020	C0030	C0040	C0050
Basic own funds before deduction for participations in other financial sectors, as provided for in Article 68 of Delegated Regulation 2015/35						
Ordinary share capital (gross of own shares)	R0010	318,704,950	318,704,950		0	
Share premium account related to ordinary share capital	R0030	2,461,035	2,461,035		0	
Initial funds, members' contributions or the equivalent basic own-fund item for mutual and mutual-type undertakings	R0040	0	0		0	
Subordinated mutual member accounts	R0050	0		0	0	0
Surplus funds	R0070	0	0			
Preference shares	R0090	0		0	0	0
Share premium account related to preference shares	R0110	0		0	0	0
Reconciliation reserve	R0130	301,354,953	301,354,953			
Subordinated liabilities	R0140	364,435,947		122,398,763	192,278,201	49,758,983
Amount equal to the value of net deferred tax assets	R0160	0				0
Other items approved by supervisory authority as basic own funds not specified above	R0180	0	0	0	0	0
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II own funds						
Own funds from the financial statements that should not be represented by the reconciliation reserve and do not meet the criteria to be classified as Solvency II own funds	R0220	0				
Deductions						
Deductions for participations in other financial undertakings	R0230	0				
Total basic own funds after deductions	R0290	986,956,885	622,520,937	122,398,763	192,278,201	49,758,983
Ancillary own funds						
Unpaid and uncalled ordinary share capital callable on demand	R0300	0				
Unpaid and uncalled initial funds, members' contributions or the equivalent basic own-fund item for mutual and mutual-type undertakings, callable on demand	R0310	0			0	
Unpaid and uncalled preference shares callable on demand	R0320	0				
Legally binding commitment to subscribe and pay for subordinated liabilities on demand	R0330	0				
Letters of credit and guarantees under Article 96(2) of Directive 2009/138/EC	R0340	0				
Letters of credit and guarantees other than under Article 96(2) of Directive 2009/138/EC	R0350	0				
Supplementary members calls under Article 96(3) of Directive 2009/138/EC	R0360	0			0	
Supplementary members calls other than under Article 96(3) of Directive 2009/138/EC	R0370	0			0	0
Other ancillary own funds	R0390	0				
Total ancillary own funds	R0400	0			0	0
Available and eligible own funds						
Total available own funds to meet the SCR	R0500	986,956,885	622,520,937	122,398,763	192,278,201	49,758,983
Total available own funds to meet the MCR	R0510	937,197,902	622,520,937	122,398,763	192,278,201	
Total eligible own funds to meet the SCR	R0540	986,956,885	622,520,937	122,398,763	192,278,201	49,758,983
Total eligible own funds to meet the MCR	R0550	806,987,552	622,520,937	122,398,763	62,067,852	
SCR	R0580	689,642,795				
MCR	R0600	310,339,258				
Ratio of eligible own funds to SCR	R0620	143%				
Ratio of eligible own funds to MCR	R0640	260%				

		C0060
Reconciliation reserve		
Excess of assets over liabilities	R0700	652,861,649
Own shares (held directly and indirectly)	R0710	0
Foreseeable dividends, distributions and charges	R0720	30,340,711
Other basic own-fund items	R0730	321,165,985
Adjustment for restricted own fund items in respect of matching adjustment portfolios and ring fenced funds	R0740	0
Reconciliation reserve	R0760	301,354,953
Expected profits		
Expected profits included in future premiums (EPIFP) – Life business	R0770	10,091,979
Expected profits included in future premiums (EPIFP) – Non-life business	R0780	0
Total EPIFP	R0790	10,091,979

S.25.01.01 - Solvency capital requirement

		Net solvency capital requirement	Gross solvency capital requirement	Allocation of adjustments due to matching adjustment portfolios and ring fenced funds
		C0030	C0040	C0050
Market risk	R0010	578,508,071	1,285,573,675	
Counterparty default risk	R0020	13,314,415	13,314,415	
Life underwriting risk	R0030	235,552,695	235,685,134	
Health underwriting risk	R0040	0	0	
Non-life underwriting risk	R0050	0	0	
Diversification	R0060	-146,282,035	-167,076,581	
Intangible asset risk	R0070	0	0	
Basic solvency capital requirement	R0100	681,093,145	1,367,496,643	

		Value
		C0100
Adjustment due to the aggregation of the nSCR of matching adjustment portfolios/ring fenced funds	R0120	0
Operational risk	R0130	63,826,916
Loss-absorbing capacity of technical provisions	R0140	-686,403,497
Loss-absorbing capacity of deferred taxes	R0150	-55,277,267
Capital requirement for business operated in accordance with Article 4 of Directive 2003/41/EC	R0160	0
Solvency capital requirement, excluding capital add-on	R0200	689,642,795
Capital add-on requirements already defined	R0210	0
SCR	R0220	689,642,795

S.28.01.01 – Minimum capital requirement (MCR)

Linear formula component for non-life insurance and reinsurance obligations		C0010
MCR _{NL} result	R0010	0

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance) written premiums in the last 12 months
		C0020	C0030
General liability insurance and proportional reinsurance	R0020	0	0
Income protection insurance and proportional reinsurance	R0030	0	0
Workers' compensation insurance and proportional reinsurance	R0040	0	0
Motor vehicle liability insurance and proportional reinsurance	R0050	0	0
Other motor insurance and proportional reinsurance	R0060	0	0
Marine, aviation and transport insurance and proportional reinsurance	R0070	0	0
Medical expenses and proportional reinsurance	R0080	0	0
General liability insurance and proportional reinsurance	R0090	0	0
Credit and suretyship insurance and proportional reinsurance	R0100	0	0
Legal expenses insurance and proportional reinsurance	R0110	0	0
Assistance and proportional reinsurance	R0120	0	0
Miscellaneous financial loss insurance and proportional reinsurance	R0130	0	0
Non-proportional health reinsurance	R0140	0	0
Non-proportional casualty reinsurance	R0150	0	0
Non-proportional marine, aviation and transport reinsurance	R0160	0	0
Non-proportional property reinsurance	R0170	0	0

Linear formula component for life insurance and reinsurance obligations		C0040
MCR _L result	R0200	415,313,774

		Net (of reinsurance/SPV) best estimate and TP calculated as a whole	Net (of reinsurance/SPV) total capital at risk
		C0050	C0060
Obligations with profit participation – guaranteed benefits	R0210	7,999,318,043	
Obligations with profit participation – future discretionary benefits	R0220	956,081,724	
Index-linked and unit-linked insurance obligations	R0230	23,184,011,815	
Other life (re)insurance and health (re)insurance obligations	R0240	238,299,720	
Total capital at risk for all life (re)insurance obligations	R0250		2,518,399,408

Overall MCR calculation		C0070
Linear MCR	R0300	415,313,774
SCR	R0310	689,642,795
MCR cap	R0320	310,339,258
MCR floor	R0330	172,410,699
Combined MCR	R0340	310,339,258
Absolute floor of the MCR	R0350	3,700,000
Minimum capital requirement	R0400	310,339,258