

SOLVENCY AND FINANCIAL CONDITION REPORT SFCR

BNP PARIBAS CARDIF GROUP

December 31, 2022



**BNP PARIBAS
CARDIF**

The insurer
for a changing
world

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INTRODUCTION

This Solvency and Financial Condition Report concerns BNP Paribas Cardif group. It is based on the results of the assessment according to the Solvency II standard for the year 2022 submitted to the Board of Directors on 17 May 2023.

The requirements relating to the solvency and financial condition report are set forth in the delegated Acts, adopted by the European Commission on 10 October 2014. They provide details as to the contents, structure and methods for releasing reports:

- Art. 290 to 292: Definition of the structure, relative importance and digest
- Art. 293: Business and performance
- Art. 294: System of governance
- Art. 295: Risk profile
- Art. 296: Valuation for solvency purposes
- Art. 297: Capital management

The report contains both qualitative and quantitative descriptive information, supplemented if need be by quantitative reporting templates.

The data is usually presented in millions of euros. They can be disclosed in billions of euros whenever relevant.

Caution

The data disclosed in this report are not audited.

This report can include forward-looking statement based on current beliefs and expectations about future events. The value of the technical reserves thus relies on long-term cash-flow projections, and requires the formulation of assumptions and the use of models. This exercise implies also the appreciation and the use of information available at the date of computation. As such, technical reserves include a measure of uncertainty.

Consequently, no guarantee can be given regarding the outcome of these provisions which are subject to inherent risks, uncertainties and assumptions about BNP Paribas Cardif, its subsidiaries and its investments, as well as changes in economic conditions and general financial situation.

The information contained in this presentation as it does not originate from BNP Paribas Cardif or is derived from external sources has not been independently verified. No representation, warranty or engagement is given regarding their accuracy or completeness. The responsibility of BNP Paribas Cardif or one of its subsidiaries may not be engaged.

Summary

Business and performance

Gross written premiums of the BNP Paribas Cardif group amounted to €25.3 billion down 7% compared to 2021, with a distribution between Savings and Protection businesses, respectively 78% and 22% of the total amount.

In France, the policyholder participation reserve of the main general fund of Cardif Assurance Vie totaled €5,665 million as at 31 December 2022, ie. 6.78% of mathematical reserves.

As at 31 December 2022, in addition to the unit-linked investments that represent €82.7 billion, the BNP Paribas Cardif group manages €154.6 billion at market value mainly through its subsidiaries in France, mainly Cardif Assurance Vie and Cardif Retraite for €121.8 billion, its subsidiary in Italy, Cardif Vita, for €20.3 billion and its subsidiary in Luxemburg, Cardif Lux Vie, for €8.6 billion.

System of governance

BNP Paribas Cardif is a public limited company with a Board of Directors within which the functions of Chairman and Chief Executive Officer are separated.

The internal control framework is based on the BNP Paribas Group framework, supplemented with the requirements relating to Solvency II. The heads of the key functions report hierarchically to BNP Paribas Cardif Executive Management. The functions of control that are Compliance, Risk Management and Internal Audit are also integrated to the BNP Paribas Group.

Risk profile

As at 31 December 2022, the Solvency Capital Requirement (SCR) amounted to €9,717 million after diversification, down 10% compared to the SCR calculated as at 31 December 2021 mainly due to the evolution of the market risk.

The market solvency capital required stood at €7,628 million as at 31 December 2022, down 26% compared to 31 December 2021.

Valuation for Solvency purposes

The consolidated financial statements of BNP Paribas Cardif group are prepared under IFRS. BNP Paribas Cardif prepares its consolidated balance sheet under Solvency II pursuant to Article 75 of the Solvency II Directive, i.e. mainly in market value.

Capital management

The Capital Management Policy of BNP Paribas Cardif aims notably to ensure that the prudential solvency requirements are met, to cover at least at 100% the SCR – Solvency Capital Requirement – defined within the scope of the ORSA – Own Risk and Solvency Assessment - and to structure own funds so that to find the best balance between share capital, subordinated debt and other own funds elements, complying with the limits and levels laid down by regulations.

As at 31 December 2022, Eligible Own Funds to meet the SCR stood at €15,882 million (€19,967 million as at 31 December 2021). The coverage ratio is 163% (185% in 2021).

The amount of eligible own funds to meet the SCR Group Minimum, minimum capital required for groups, amounted to €12,329 million (€16,835 million in 2021). The SCR Group minimum was €3,611 million (€4,902 million in 2021) and the coverage ratio was 341% (343% in 2021).

A. Business and performance

A.1 Business and significant event of the period

A.1.a Business

BNP Paribas Cardif has designed, developed and marketed savings and protection products and services to insure people, their projects and their assets.

BNP Paribas Cardif provides saving solutions to build and develop capital and prepare for the future, through products tailored to clients' needs and projects.

BNP Paribas Cardif, a leader in credit protection insurance¹, provides offers in damage insurance, health insurance, budget insurance, income protection, and means of payment insurance, protection against unforeseeable events (unemployment, injury, death), and personal data protection, to meet consumers changing needs.

As a committed player, BNP Paribas Cardif seeks to have a positive impact on society and make insurance more accessible. Building on a unique business model, BNP Paribas Cardif co-creates its products and services with more than 500 of the BNP Paribas Group's internal and external distribution partners. This multi-sector partner network comprises banks, credit and financial institutions, car manufacturers, retailers, telecom operators, brokers and wealth management advisers.

Operating in 33 countries, BNP Paribas Cardif occupies strong positions in Europe, Asia and Latin America:

- France;
- Europe, France excluded, comprising Belgium, Germany, Italy, Spain, Luxembourg, the Netherlands, Portugal, the United-Kingdom, Northern Europe (Denmark, Norway and Sweden), Central Europe (Austria, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia);
- Latin America: Argentina, Brazil, Chile, Colombia, Mexico, and Peru;
- Asia: China, Japan, South Korea and Taiwan;
- Other countries: Algeria, Russia, Turkey and Ukraine.

¹ Source Finaccord

A.1.b Main events of the period

SBI Life

On February 22-23, 2022, BNP Paribas Cardif sold its entire stake (0.2%) in the Indian subsidiary SBI Life.

Pinnacle Pet Holdings

Following the agreement of the British regulator on 17 June 2022, a partnership between the JAB Group and BNP Paribas Cardif was concluded on 30 June 2022. A new company, Pinnacle Pet Holdings Ltd was created at the same time as BNP Paribas Cardif sold to JAB the entities Pinnacle Insurance Plc, Cardif Pinnacle Insurance Management Service Plc and Every paw Ltd. This new company is 70% owned by JAB and 30% by BNP Paribas Cardif through Cardif Pinnacle Holding, with the aim to develop the booming pan-European pet insurance market.

BNP Paribas Cardif General Insurance Co Ltd

On June 30, 2022, BNP Paribas Cardif sold its entire stake (94.5%) in Cardif General Insurance, a Korean subsidiary, to the minority shareholder Shinhan Financial Group Co. Ltd

Cardif Services SP. Z.O.O

On July 20, 2022, the Polish service entity Cardif Services Z.O.O. was liquidated.

Peugeot Citroën Argentina Compania de Seguros S.A.

On August 23, 2022, the entity Peugeot Citroën Argentina Compania de Seguros S.A was sold to Stellantis.

Siam Charoen Capital Services CO.

On November 7, 2022, the entity Siam Charoen Capital Services in Thailand was liquidated.

Cardif Servicios de Colombia S.A.S

On February 2022, Cardif Servicios de Colombia S.A.S, a service entity 100% owned by BNP Paribas Cardif, was created as part of the development of the Group in this area.

Cardif Retraite

The Pacte Law of 2019 created the requirement for insurers to segregate pension reserves before 31 December 2022, in order to better protect policyholders. The legislator proposed an alternative to segregation, with the creation of a Supplementary Occupational Retirement Fund (FRPS in French), a legal entity dedicated to supplementary retirement savings products such as individual or corporate PERs, Madelin contracts, "article 83", "article 82", "article 39" contracts, IFC contracts (end-of-career indemnity), pre-retirement contracts, or annuity contracts of former PERCOs. BNP Paribas Cardif opted for the creation of an FRPS under the corporate name "Cardif Retraite".

On 16 October 2022, following the publication of the ACPR's FRPS authorisation in the French "*Journal Officiel*", Cardif Assurance Vie made a partial contribution of assets to Cardif Retraite. Cardif Assurance Vie then transferred the securities of Cardif Retraite to BNP Paribas Cardif SA (the Holding company) at their carrying amount in exchange for its contribution. This transaction resulted in the allocation of 100% of the shares of Cardif Retraite to BNP Paribas Cardif SA, i.e. a capital of €260 million.

Application of IAS 29 «Financial reporting in hyperinflationary economies»

On 16 March 2022, the International Practices Task Force of the Center for Audit Quality listed Turkey as a hyperinflationary economy, with three-year cumulative inflation reaching 100.6% at the end of February 2022. Accordingly, the BNP Paribas Cardif Group applies IAS 29 "Financial reporting in hyperinflationary economies" when presenting the financial statements of its consolidated subsidiaries located in Turkey.

As at 1 January 2022, the first application of IAS 29 resulted in a non-significant increase of €1.9 million in shareholders' equity, of which €2.5 million in "Changes in assets and liabilities recognised directly in equity – exchange rates"

Creation of a VAT Group

In order to compensate for the abolition of the tax regime applicable to groups provided for in Article 261 B of the French General Tax Code, on 7 October 2022 BNP Paribas Cardif and several of its French subsidiaries, members of the GIE BNP PARIBAS CARDIF, opted for the creation of a VAT group (single taxable entity) in accordance with the provisions of Article 256 C of the French General Tax Code, which allows its constituent entities to benefit from the Value Added Tax (VAT) exemption on their intragroup transactions. It is composed of the following ten members: GIE BNP Paribas Cardif, BNP Paribas Cardif, Cardif Assurance Vie, Cardif-Assurances Risques Divers, Cardif Retraite, SCI Cardif Logements, Cardif IARD, Reumal Investissements, Natio Assurance and Karapass Courtage

The VAT Group (single taxable entity) came into force on 1 January 2023. GIE BNP Paribas Cardif was appointed by the members as the representative of the "BNP Paribas Cardif Taxable Entity".

Impacts of the crisis between Ukraine and Russia

The invasion of Ukraine at the end of February 2022 has led many governments around the world to impose economic sanctions against Russia. The impact on the financial markets and the business environment of these events was significantly negative and the long-term consequences on the world economy, and in particular the European economy, are still uncertain.

BNP Paribas Cardif has two entities in these countries: Insurance Company Cardif in Russia, a fully consolidated subsidiary, and Private Joint Stock Company Insurance Company Cardif in Ukraine, a controlled entity that is not consolidated for thresholds reasons.

The conflict has repercussions on the insurance activities and development prospects of these two entities. The presence of the BNP Paribas Cardif Group in Russia remains very limited, the equity of the subsidiary represented 1.31% of the consolidated equity of the BNP Paribas Cardif Group at the end of December 2022 and in the 2021 financial year, the BNP Paribas Cardif Group achieved approximately 0.46% of its net income before tax in this country. In Ukraine, BNP Paribas Cardif's exposure is very limited (€3 million of own funds).

BNP Paribas Cardif, in the context of international sanctions, significantly reduced its activity in Russia and a provision was recognized in the amount of €59 million.

IAS/IFRS norms

IFRS 17 «Insurance Contracts»

IFRS 17 "Insurance Contracts" published in May 2017 and amended in June 2020 will replace the current IFRS 4 standard. It was adopted by the European Union on 19 November 2021, accompanied by an optional exemption from the application of the grouping by annual cohort of contracts that are based on an intergenerational pooling of returns on the assets underlying the technical liabilities. It will be mandatory for financial years beginning on or after 1 January 2023. The date of transition to IFRS 17 will therefore be 1 January 2022 for the purposes of the opening balance sheet of the comparative period required by the standard.

As the Group has deferred the application of IFRS 9 for its insurance entities until the entry into force of IFRS 17, it will apply this standard from 1 January 2023.

The amendment to IFRS 17 relating to the presentation of the IFRS 9 and IFRS 17 comparative information, published by the IASB in December 2021, was adopted by the European Union on 8 September 2022 and will be applied by BNP Paribas Cardif.

Scope

IFRS 17 applies to insurance contracts issued, reinsurance contracts issued and held and investment contracts with discretionary participation features issued (if the entity also issues insurance contracts). The definition of an insurance contract is unchanged from IFRS 4, with the exception of the assessment of the risk of loss for the insurer which must be made on a present value basis.

² EU Regulation n°2022/1491 of 8 September 2022

Impacts estimated at 1 January 2022 of the transition to IFRS 17 and IFRS 9

Regarding insurance contracts, a full valuation exercise was realised during 2022 to establish the opening balance sheet at 1 January 2022 and prepare the 2022 comparative period.

Based on this work, at 1 January 2022, the estimated impact on BNP Paribas Cardif Group's shareholders' equity³ of the application of IFRS 17 and IFRS 9 and of the various amendments to other standards amounted to €-0.6 billion. This impact is not significant for the transition from IAS 39 to IFRS 9 and represents €-0.6 billion related to the transition from IFRS 4 to IFRS 17⁴.

At 1 January 2022, for controlled entities, liabilities related to insurance and investment contracts, net of insurance portfolios in assets, amounted to €238.9 billion, and consist of the following:

- €224.0 billion for the best estimate of future cash flows;
- €1.4 billion for the risk adjustment;
- €13.5 billion for the contractual service margin.

A.1.c Post-closing event

There are no significant post-closing events, known to date.

A.1.d General information

Since the general assembly that took place on 6 March 2012, BNP Paribas Cardif share capital amounts to €149,959,051.20 composed of 62,482,938 shares with a par value of €2.40 each. BNP Paribas Cardif capital is mainly held by BNP Paribas (62,482,937 shares). One share is held by Antin Participation 5.

BNP Paribas Cardif did not issue options giving right to subscribe shares.

2022 BNP Paribas Cardif financial statements were audited by the following audit firms:

HOLDER STATUTORY AUDITORS

PricewaterhouseCoopers Audit	63 rue de Villiers, 92208 Neuilly sur Seine Cedex
Deloitte & Associés	6 place de la Pyramide, 92908 Paris La Défense Cedex

BNP Paribas Cardif is supervised by the *Autorité de Contrôle Prudentiel et de Résolution* (ACPR), located 4 place de Budapest in Paris, France.

³ Including change in assets and liabilities recognised in changes in equity that may be reclassified to profit or loss.

⁴ Including amendments to other standards related to the application of IFRS 17, of which the impact of the EUR 1.5 billion in relation to the revaluation of buildings at fair value, offset by the corresponding revaluation of liabilities in direct participating contracts.

A.2 Summary of BNP Paribas Cardif results

The following figures are from the consolidated financial statements of BNP Paribas Cardif prepared according to the International Financial Reporting Standards.

<i>In millions of euros</i>	2022	2021
Gross written premiums	25 272	27 093
Change in unearned premiums	86	124
Gross earned premiums	25 358	27 217
Income from other activities	30	12
Investment income	4 684	4 279
Investment expense	-901	-794
Gains and losses on disposed invested assets, net of depreciation and amortisation reversals	-711	423
Share of earnings of equity-method investment entities	-	5
Net change in investments at fair-value through profit or loss	-12 248	10 555
Net change in investments impairment	-130	-29
Investment income excluding financing expense	-9 307	14 438
Technical charges related to contracts	-10 234	-35 984
Net result from ceded reinsurance	-200	-63
Expenses from other activities	-216	-251
Acquisition costs on contracts	-2 656	-2 536
Depreciation on acquired portfolio	-19	-30
Administration expenses	-1 575	-1 584
Other current operating income and expenses	29	32
Other current income and expenses	-14 872	-40 416
Other non-current operating income and expenses	-66	3
Pre-tax operating income	1 144	1 255
Financing expenses	-165	-128
Share of earnings of equity-method entities	9	-52
Corporate income tax	-320	-306
NET CONSOLIDATED INCOME	668	770
Net income attributable to minority interests	15	19
Net income attributable to equity shareholders	653	750

The pre-tax net income of BNP Paribas Cardif amounted to €988 million in 2022, compared to €1,075 million in 2021.

A.2.a Gross written premiums evolution

Unless otherwise stated, the variations presented below are at constant exchange rates and historical scope, whilst the year-end balances are presented at historical value.

Gross written premiums of the BNP Paribas Cardif group amounted to €25.3 billion, down 7% compared to 2021.

The distribution between the Savings and Protection businesses was respectively 78% and 22% of the total amount to be compared to 80% and 20% at the end of 2021.

Savings

Savings gross written premiums amounted to €19.7 billion, down 9% compared to 2020. The share of unit-linked contracts in gross written premiums is 40% compared to 43% in 2021.

Gross written premiums in **France**, totaling €13.1 billion, increased by 0.4% compared to 2021. After a high level in the first quarter as a continuation of 2021, inflows slowed down the rest of the year. The Unit-linked inflows at €4.5 billion represented 34% of the overall inflows (one percentage point decrease compared to 2021) supported by the good performance of all networks. Net unit-linked inflows are positive at €1.9 billion in 2022 for overall net inflows at €2.1 billion.

Italy recorded savings gross written premiums of €3.4 billion, down 24% compared to 2021 mainly on private banking. The general fund inflows were down 17% compared to 2021. Unit-linked inflows, down 35%, represented 33% of the savings inflows versus 39% in 2021.

Luxembourg's gross written premiums were down 21%, reaching €2.7 billion, due to the evolution of the financial markets in 2022 and a comparison base significantly high in 2021. Unit-linked represented 67% of the savings inflows (70% in 2021).

In **Asia**, the gross inflows amounted to €561 million in 2021 versus €713 million in 2021. **Taiwan** recorded gross written premiums of €403 million, down 20% compared to 2021. **South Korea's** gross written premiums decreased by 33% at €157 million due to market conditions affecting unit-linked inflows.

Protection

Gross written premiums from **protection activities** increased by 1% at €5.6 billion at the end of 2022.

Gross written premiums in **France** amounted to €1.9 billion, up 6%. Gross written premiums in creditor insurance are up 3%, compared to 2021, thanks to a rebound of Personal Finance activity and despite a slowdown in the real estate market at the end of the year. The other protection businesses, which represented 56% of the segment, grew by 8%, supported by the development of existing partnerships and the good level of activity through the affinity network.

Gross written premium in **Italy** totaled €447 million, down 24% compared to 2021. The decrease, at constant perimeter (excluding the effect of the sale of Cargeas Assicurazioni), was 15% compared to 2021 and affected all business segments.

Gross written premiums generated in the **other European countries** amounted to €1.3 billion, down 2% compared to 2021. The drop in activity in the protection business in **Spain** and particularly in **Russia** as well as the UK subsidiaries to Pinnacle Pet Holdings Ltd were partially offset by higher sales in the **Czech Republic** and **Germany**.

Gross written premiums in **Latin America** amounted to €1.1 billion, up 13% compared to 2021. The recovery of the activity and the development of partnerships allowed **Chile** and **Colombia** to record a significant growth in gross written premiums, respectively 21% at €414 million and 25% at €322 million. Conversely, in a complicated market, **Brazil** was down 3% compared to 2021 with €328 million.

Gross written premiums in **Asia** amounted to €778 million, a 10% growth compared to 2021. **Japan** is the most important contributor on this geographical area thanks to its creditor insurance activity. Japan gross written premiums were up 7% over the year and amounted to €635 million. Activity in Taiwan was up 28% to stand at €122 million.

A.2.b Evolution of the current operating income from insurance activities

Unless otherwise stated, the variations presented below are at constant exchange rates and historical scope, whilst the year-end balances are presented at historical value.

The consolidated current operating income from BNP Paribas Cardif's insurance business line is broken down as follows:

<i>In millions of euros</i>	2022	2021	Variation at constant rate
Technical margin	3 699	3 493	5 %
Financial margin	2 459	2 470	-1 %
Other margins	-70	-4	ns
Total margins from insurance activities	6 087	5 958	0 %
Acquisition expenses	-2 528	-2 385	4 %
Administration expenses	-1 561	-1 574	-2 %
Other expenses from insurance activities	-626	-597	-5 %
Total expenses from insurance activities	-4 714	-4 553	1 %
Current operating income from insurance activities	1 373	1 405	-2 %

The operating income amounted to €1,144 million at end 2022, down 9% compared to 2021.

The operating income from insurance activities amounted to €1,373 million compared to €1,405 in 2021, down 2%. The operating income from activities other than insurance totaled €-229 million compared to €-150 million in 2021. The non-operating income mainly composed of structure costs, decreased due to the sale of the shares held in the Italian entity Cargeas Assicurazioni in 2021.

The share of savings activity in the insurance operating income was down three percentage points compared to 2021 to reach 73%. Savings income showed a 6% decline. The operating income from protection activities amounted to €422 million compared €381 million in 2021.

Savings

The **current operating income** of the savings business amounted to €1,007 million as at 31 December 2022, down 6% compared to 2021. The savings business was mainly carried out in France, Italy, Luxembourg and Asia.

The current operating income from the insurance business in **France** amounted to €863 million, stable compared to 2021. The increase of the financial margin accompanied by a decrease in insurance expenses is offset by a decrease of the technical margin. The policyholder participation of the main general fund of Cardif Assurance Vie totalled €5,665 million at the end of 2022, ie. 6.78% of mathematical reserves.

Operating income from the savings activities in **Italy** amounted to €40 million, down 51% compared to 2021, mainly due to the decrease-of the financial margin on own funds.

Operating income from savings activities in **Luxembourg** amounted to €59 million in 2022, down €19 million compared to 2021 mainly due the evolution of the financial markets.

Operating income from the savings business in **Asia** amounted to €46 million, down €3 million compared to 2021. The decrease of the technical result in Taiwan due to the decline in activity was partly offset by the increase of the financial result.

Operating income from the savings business in the **other European countries** is nil in 2022 and 2021, the activity being not significant in this area.

Protection

In 2022, the income from the protection activities amounted to €422 million, up 12% compared to 2021. The protection activities represented 31% of BNP Paribas Cardif's current operating income from insurance activities. Combined ratio stood at 95% in 2022, compared to 97% in 2021.

The current operating income from the protection business in **France** amounted to €77 million in 2022, down 51% compared to 2021, mainly due by the decrease of the financial margin in line with the decline of the revaluation of financial assets at fair value partly offset by the positive effect of the business growth on the technical margin. The insurance expenses increased by 9% compared to 2021 mainly due to the growth of the acquisition costs.

Current operating income from the protection business in **Italy** reached €35 million, up by €73 million compared to 2021. Excluding the effect of the sale of Cargeas Assicurazioni during the second quarter of 2021, the increase of the operating income amounted to €92 million, mainly explained by the technical margin due to provisions for risks recognised in 2021.

The current operating income of the **other European countries** amounted to €107 million in 2022, down 19% compared to 2021 mainly explained by the disposal of the business in the United Kingdom. Excluding this effect, the technical margin increased reflecting the growth of the activity in particular in the Czech Republic with new generations of creditor insurance products and the decline in claims post-health crisis, partially offset by a lower financial margin, particularly in the Netherlands, due to the market context in 2022. The insurance expenses increased reflecting the recovery of the activity in the Czech Republic.

Latin America current operating income amounted to €123 million, up by €76 million compared to 2021 under the effect of lower post-health crisis claims combined to the recovery of the activity in this area. It was partially offset by the effect of the sale of a portfolio in 2021 in Chile and the increase of the insurance expenses in line with the recovery of the activity.

Operating income of the **Asia** zone amounted to €66 million, down 5% compared to 2021, due to lower capital gains in the financial income and despite an increase in the technical income, in particular due to the growth of the activity.

A.2.c Financial investment management

As at 31 December 2022, in addition to the unit-linked investments that represented €82.7 billion, the BNP Paribas Cardif group managed €154.6 billion at market value through its subsidiaries in France, mainly Cardif Assurance Vie and Cardif Retraite, for €121.8 billion, its subsidiary in Italy, Cardif Vita, for €20.3 billion and its subsidiary in Luxemburg, Cardif Lux Vie, for €8.6 billion.

exposure in millions of euros	December 31, 2022		December 31, 2021	
	Net book value	Market value	Net book value	Market value
Equities and variable-income securities (including UCI)	39 522	39 522	45 671	45 671
Real Estate	5 540	7 161	5 388	7 164
of which buildings	2 944	4 565	2 965	4 741
of which shares of real estate companies	2 596	2 596	2 423	2 423
Government bonds and similar	47 557	47 604	56 441	56 610
Other bonds	56 665	56 668	69 319	69 329
Derivatives and others	3 676	3 676	2 896	2 896
TOTAL	152 961	154 631	179 715	181 670

France

In France, the investments managed by BNP Paribas Cardif amounted to €121.8⁵ billion at market value distributed as follows:

exposure in millions of euros	December 31, 2022		December 31, 2021	
	Net book value	Market value	Net book value	Market value
Equities and variable-income securities (including UCI)	33 607	33 607	38 504	38 504
Real Estate	5 265	6 863	4 992	6 753
of which buildings	2 669	4 267	2 686	4 447
of which shares of real estate companies	2 596	2 596	2 306	2 306
Government bonds and similar	34 598	34 645	41 107	41 276
Other bonds	43 268	43 268	53 159	53 159
Derivatives and others	3 383	3 383	2 643	2 643
TOTAL	120 120	121 765	140 405	142 335

Due to the rise in market rates, bond investments were down compared to the end of 2021. Equities were also down slightly, to the benefit of real estate and derivatives and other.

With the start of the conflict between Russia and Ukraine at the end of February 2022, an underweighting on equities was engaged. The combination of uncertainties related to the conflict in Ukraine, increases in inflation and interest rates, combined with increasingly restrictive stance from central banks, led to an accentuation of the underweighting on equities in the months following the start of the conflict. At the end of the year, the underweighting was reduced with the anticipation of the end of the cycle of interest rate hikes.

⁵ Excluding unit-linked

In order to protect portfolios against adverse market movements, BNP Paribas Cardif started 2022 by adopting a cautious exposure to fixed income products. Bonds with short maturities were sold with low accounting yields in order to reposition the portfolio on longer bonds offering more attractive yields. Exposures on diversification assets in emerging debt or high-yield debt were reduced. From the summer, a rebalancing of fixed income products was initiated in order to extend the sensitivity of the portfolio and take advantage of the rise in interest rates. BNP Paribas Cardif has continuously sought to improve the credit quality of the portfolio by investing mainly in government bonds or supranational entities, generally very well rated and offering attractive returns.

As of 31 December 2022, securities rated AAA and AA represented 45% of the carrying amount of bonds issued by investments in France. Securities rated A represented 24%, securities rated BBB 27% and securities rated below BBB or unrated accounted for only 9% of the carrying amount of bond investments in France.

French government bonds represented 48% of the total carrying amount of government bonds in the French investment portfolio (compared to 55% in 2021). Italian government bonds represented 8%, Belgian government bonds 8% and Spanish government bonds 7%.

Government securities were favoured for their liquidity and duration contribution to the portfolio. Corporate securities were mainly invested in the industrial and financial sectors. At year-end, 45% of the bond portfolio comprised government securities.

The gross rate of return of Cardif Assurance Vie's main general fund was 2.75% in 2022, up 39 basis points compared to 2021, thanks in particular to the performance of certain underlying assets in the market environment specific to 2022.

Italy

In Italy, the BNP Paribas Cardif group managed €20.3⁶ billion at market value distributed as follows:

exposure in millions of euros	December 31, 2022		31 december 2021	
	Net book value	Market value	Net book value	Market value
Equities and variable-income securities (including UCI)	3 680	3 680	4 955	4 955
Real Estate	180	203	299	314
Government bonds and similar	9 960	9 960	11 279	11 279
Other bonds	6 493	6 496	8 106	8 117
Derivatives and others	6	6	0	0
TOTAL	20 319	20 345	24 639	24 665

Directly held government bonds and equivalent represented, in market value, 49% of total investments in Italy, up in percentage terms compared to 2021. The weight of Italian government securities remained at a level close to that of the previous year, while the weight of government bonds excluding Italy, especially the main countries of the euro zone, increased in order to improve the risk profile of the portfolio, while benefiting from attractive purchase rates. This strategy, in line with the management policy implemented in 2021, made it possible to improve the portfolio's average rating and increase its diversification. Given the economic uncertainties, the weight of private bonds as well as the diversification into high-yield bond and emerging debt funds were reduced.

The weight of shares held directly was reduced as well as the exposure to actively managed equity funds. The weight of Europe in the equity portfolio remained predominant.

The liquidity portfolio was increased to deal with redemption risks.

⁶ Excluding unit-linked investments

Securities rated BBB accounted for 64% (compared to 65% in 2021) of the carrying amount of bond investments in Italy due to the predominant weight of Italian government securities. These Italian government securities represented 80% of the carrying amount of government bonds. Spanish government bonds represented 10% and French government bonds 5%.

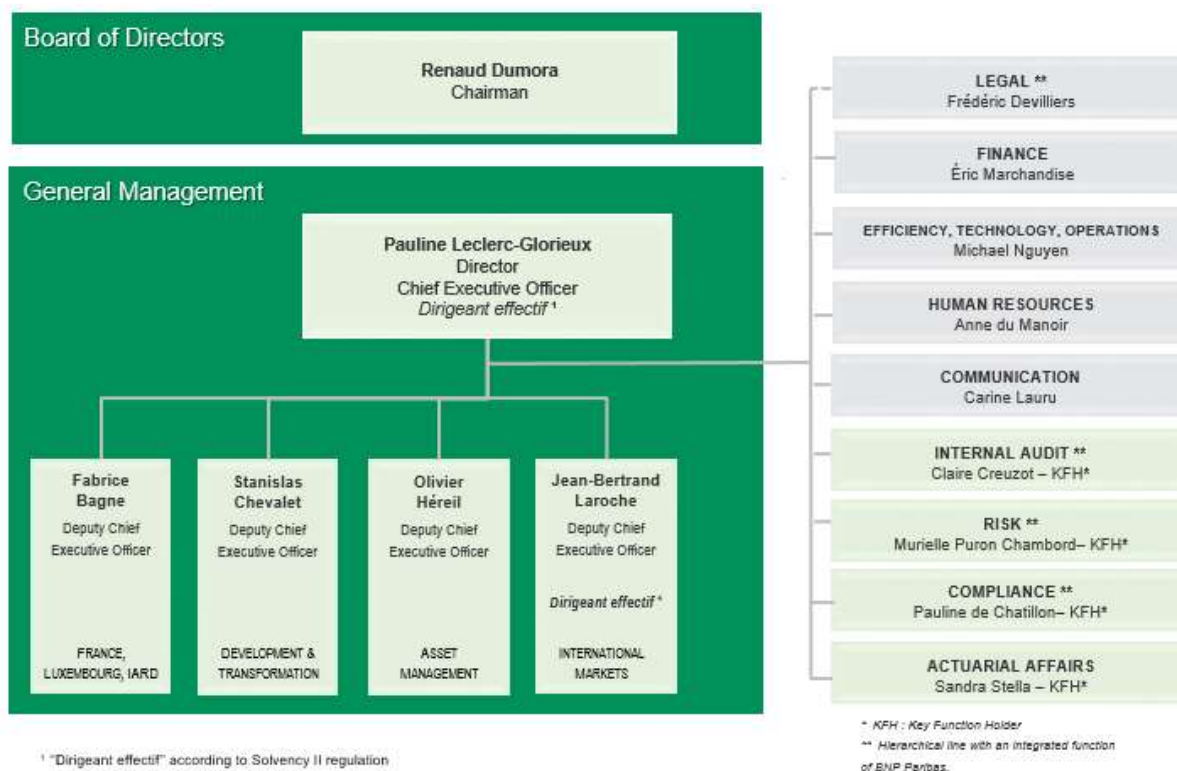
The gross rate of return of Capital Vita, Cardif Vita's main general fund, was 2.72% in 2022, up four basis points compared to 2021.

B. System of governance

B.1 General information on the system of governance

BNP Paribas Cardif is a public limited company with a Board of Directors, within which the functions of Chairman and Chief Executive Officer are separated. It relies, however, largely on the human, IT and operational shared resources of the Economic Interest Group (EIG) BNP Paribas Cardif.

The chart below introduces the organisation set up as of 1st January 2023:



B.1.a Board of Directors

The Board of Directors defines the strategic orientations and supervises their implementation. It plays a major part in the control and supervision of the management of the company. The Board of Directors closes the accounts and ensures the quality of the financial information delivered to the shareholders.

The Board of Directors is involved in the process of the internal assessment of risks and solvency definition. It approves the written policies mentioned in the Article R 354-1 of the French Insurance Code, and the various regulatory reports required.

The Board of Directors is responsible for appointing and removing executive Directors whose acts it supervises. It may carry out or have carried out audits of the governance system when deemed appropriate.

The decisions of the Board of Directors are implemented by the Executive Management or by any special delegate designated by the Board.

The Board meets at least three times a year and whenever the Company's circumstances or interest so require. Prior to Board meetings, the Directors are provided with all information enabling them to perform their duties under the appropriate conditions.

As at 31 December 2022, the Board comprises fourteen members, among which eight are women and six are men. During 2022, the Board of Directors of BNP Paribas Cardif met on four occasions (with an average attendance rate of 95%).

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

The Board of Directors of BNP Paribas Cardif is assisted by three special Committees: the ALM and Insurance Risk Management Committee, the Accounting and Audit Committee, and the Appointments and Compensation Committee.

These Committees have a role of guidance and supervision. They issue suggestions, recommendations or opinion on their area of expertise, to the Board of Directors of BNP Paribas Cardif and, as needed, to the Board of Directors of the insurance subsidiaries Cardif Assurance Vie, Cardif Retraite and Cardif Assurances Risques Divers.

Each Committee reports on its actions periodically to the Boards of Directors of the entities within its scope.

The task of the **ALM and Insurance Risk Management Committee** of BNP Paribas Cardif is to ensure the efficiency of the risk management system and the permanent control framework. It reviews the general risk policy and monitors all of the risks of the BNP Paribas Cardif group. It considers the assets allocation strategy of the main general funds and stays informed of the orientations set out for the asset management strategy. For financial management matters, the Committee examines each financing transaction project, which could significantly modify the financial structure of the BNP Paribas Cardif group and on a wider scale every matter impacting the solvency and the capital management.

The **Accounting and Audit Committee** of BNP Paribas Cardif main task is to follow the preparation process of the financial information and the completion by the Auditors of their statutory auditing assignment. The Committee also oversees their independence. In this respect, the Committee has adopted an independence policy in which the validation rules and the list of authorized and prohibited missions are defined. It monitors the activity of the Internal Audit and Compliance functions.

The **Appointments and Compensation Committee** is in charge of recommending candidates suitable for serving as Directors to the Board of Directors. The Committee is involved in the considerations on recruitment, promotion and non-renewal of senior executives and more widely on questions about the appointment of executive Directors and heads of key function. Its opinions are drawn up in accordance with the principles defined in the “Fit and Proper” policy and the director charter. Also falling within its remit are the study and approval of the remuneration policy (principles, scope, compensation components, conditions for allocation of variable compensation) and the study of its implementation.

B.1.c Chair of the Board of Directors and Executive Management

BNP Paribas Cardif has opted to separate the functions of Chairman and Chief Executive officer's. The non-executive Chairman oversees the proper functioning of the Board, the quality and the relevance of information communicated to the Directors.

The Executive Management comprises the Chief Executive Officer and four Deputy Chief Executives, one of whom are executive Directors as at 31 December 2022.

The Chief Executive Officer outlines strategic orientations to the Board of Directors and implements the strategy to achieve those objectives. Among other things, he defines the organization and the decision-making processes and sets up the risk management and internal control system. He reports regularly to the Board of Directors.

The Deputy Chief Executives are responsible for achieving the goals set for the strategic orientations. To do so, they organize, manage and oversee teams and operations under their responsibility. The Deputy Chief Executives report to the Chief Executive Officer. They meet at the Executive Management Committee in charge of preparing strategic decisions.

B.1.d Operational governance bodies

The **Executive Committee** is involved in the elaboration of strategic orientations for the BNP Paribas group and in the decisions necessary to implement them. It allocates resources, manages and controls the deployment of decisions, oversees the company's results and financial balances, examines all major commercial operations, development and transformation projects, and matters relating to human resources. It pays particular attention to the monitoring of the internal control, internal audit and risk management systems efficiency, which are considered central to the company's smooth internal governance.

As at 31st December 2022, the Executive Committee comprises eighteen members, out of which nine are women and nine are men.

“Tactical” and “supervisory” committees are now part of the Executive Committee. **Tactical Committees** are decision-making bodies studying risks or sensitive topics ex-ante. **Supervisory Committees** monitor and coordinate internal control and risk management systems.

The system for delegating general powers is structured around delegate bodies that can make third-party commitments on behalf of BNP Paribas Cardif for day-to-day operations, in other words, normal operations for the Company, entered into under normal market conditions. These delegations of powers do not encompass operations falling within the management of assets or personnel that are governed by dedicated powers.

B.1.e Key functions

The Solvency II regulations as applied within the BNP Paribas Cardif group define the four key functions as follows:

- the **Risk Management Function**, carried out by the Head of RISK, assists the Executive Management and other functions in the definition of the risk management system. It monitors and controls the adequation between risk profile and risk appetite as determined by the Board of Directors. It reports on exposures to risks and assists the Board of Directors in taking of strategic decisions by shedding light on issues related to risk management.
- the **Compliance Function**, carried out by the Global Officer Compliance Officer, has the global responsibility to provide the Executive Directors and the Board of Directors with reasonable assurance that the risks of non-compliance, the risks of regulatory and reputation are duly identified, monitored, controlled and mitigated;
- the **Audit Function**, carried out by the Head of the Internal Audit Division, is responsible for assessing the suitability and effectiveness of the internal control system as well as the other components of governance. It is responsible for periodic control of all subsidiaries, branches and activities controlled by the BNP Paribas Cardif group. Its aim is to give Executive Management and the Board of Directors an independent assessment of the quality and effectiveness of the governance and internal control system. It issues recommendations to improve quality and compliance;
- the **Actuarial Function**, carried out by the Head of the Actuarial Finance, Capital and Modelling Department within the Finance, Actuarial & Capital Department, is responsible to coordinate the calculation of technical provisions, guarantee the appropriate nature of methodologies, the underlying models and assumptions used to calculate prudential technical provisions, assess the suitability and the quality of the data used, supervise this calculation and compare the best estimates with empirical observations.

The Actuarial Function reports to the Board of Directors on the relevance and the adequacy of the technical provisions computation, expresses an opinion on the underwriting and reinsurance policies, and contributes to the risk management framework.

As with executive Directors, each of the officers heading these key functions conforms to a review of his or her integrity, experience and competence and is notified to the French Prudential Supervision and Resolution Authority ("ACPR") when appointed or renewed.

Pursuant to Solvency II regulations, the heads of key functions are entitled to direct access to the Board of Directors in the event of a major risk or a serious malfunction of such nature as to jeopardise the directors' liability or the proper running of the Company.

The Board of Directors or one of its specialised committee meets the Heads of key function at least once a year. This meeting shall proceed without the presence of the Chief Executive Officer if the members of the Board or of the special committee consider it necessary.

The heads of the RISK and Compliance functions of BNP Paribas Cardif report hierarchically to the Executive Management of the BNP Paribas Cardif group and to the heads of the corresponding functions of the Investment & Protection Services (IPS) operational division. The head of the Audit function of BNP Paribas Cardif reports hierarchically to the Chief Executive Officer of BNP Paribas Cardif group and to the head of the corresponding BNP Paribas Group function. This organisation helps to strengthen the independence of these functions and the homogeneity of the organization of the BNP Paribas Group.

Should a disagreement arise between the Executive Management of BNP Paribas Cardif and the head of the Group function concerned, the Board of Directors of BNP Paribas Cardif is called upon to arbitrate.

At least once a year, the heads of key functions are also invited to attend a meeting of the Board of Directors, or any of its special committees.

B.1.f Remuneration policy

The remuneration policy is based on the principles of fairness and non-discrimination and on an annual review process for fixed and variable compensation. It is in line with the BNP Paribas Group remuneration policy.

The method used to determine individual variable compensation includes a quantitative and qualitative review of each individual performance. It is set according to achievement of objectives, contribution to risk management and appraisal of one's professional conduct in view of the Code of Conduct, team spirit and compliance rules.

The compensations of the Chief Executive Officer are based on proposals made by BNP Paribas Cardif Appointments and Compensation Committee.

The compensation of the Chief Executive Officer comprises:

- a fixed component;
- an annual variable component;
- and a long-term compensation component which forms a multi-annual variable component.

The levels of these different elements are determined using market benchmarks based on surveys of executive remuneration established by specialised firms.

The Chief Executive Officer is entitled to the common healthcare benefit scheme, benefits from the defined contribution supplemental retirement plan, the flexible welfare benefits (death and disability cover) and the Work, Accident, Death and Disability insurance plan provided for the benefit of all EIG BNP Paribas Cardif employees. The Chief Executive Officer is also entitled to the supplemental retirement mechanism set up for members of the BNP Paribas Group's Executive Committee.

B.1.g Director charter

The Director charter defines the principles and rules applicable to BNP Paribas Cardif Directors. It refers to the Code of Conduct of the BNP Paribas Group.

The Directors have committed to sign annually a statement of compliance with the charter.

No situation of conflict of interest was reported by the Directors in 2022.

B.2 Competency and integrity requirements

The Board of Directors appoints the executive Directors and proposes to the General Assembly the names of candidates for the director function. It conducts deliberations on the basis of the advices communicated by the Appointment and Compensation Committee.

The Chief Executive Officer appoints the heads of key functions. He takes into account the advice of the Appointment and Compensation Committee and informs the Board of Directors. In case of disagreement with the Head of the integrated function of BNP Paribas Group (RISK, Compliance, Audit), the decision is taken as a last resort by the Board of Directors of the insurance organization.

The competency and integrity of executive Directors and heads of key functions are subsequently reviewed on an annual basis as part of the professional valuation process.

Executive Directors and heads of key functions are appointed in consideration of their qualities and skills, assessed on the basis of their diplomas and professional qualifications, their knowledge and their relevant experience in the insurance sector or in other financial or corporate sectors.

Over and above competencies in their own field of expertise, the heads of key functions have the managerial skills required for overseeing their function. In particular, they are able to adapt their communication to their interlocutors in order to pass on understandable and relevant information.

The executive directors and heads of BNP Paribas Cardif key functions possess, both individually and collectively and in terms of professionalism and integrity, the expertise, experience, skills, understanding and personal qualities necessary to perform their duties in an efficient manner for each of the major activities of BNP Paribas Cardif by ensuring effective governance and supervision.

B.3 Risk management system

B.3.a Risk management global framework

Risk management is a process that allows identifying, gauging, monitoring, managing and reporting the risks arising from both outside BNP Paribas Cardif and intrinsically from within. The objective is to guarantee the solvency, the continuity of business and the development of BNP Paribas Cardif under satisfactory conditions of risk and profitability.

The risk management framework is organised by the Risk Manager and his or her division (RISK).

The Risk Director is responsible for advising Executive Management and the Board of Directors over governance, policies and risk management strategy. The RISK Director is a member of the main tactical committees and gives a prior opinion on decisions that have a significant impact on risks for BNP Paribas Cardif, applying the "second pair of eyes" principle.

RISK continuously performs a second line of control over the credit, market, underwriting and operational risks⁷. As part of this role, it must ascertain the soundness and sustainability of the business developments and their overall alignment with the risk profile target set by the Board of Directors. RISK's remit includes formulating advices on BNP Paribas Cardif's risk policies, analysing the risk portfolio with a forward-looking perspective, guaranteeing the quality and efficacy of monitoring procedures, and determining or validating risk measurement methods. RISK is also responsible for ensuring that all the risk implications of new businesses or products have been adequately assessed. RISK also assumes these functions for risks related to Information and Communication Technologies (ICT) as well as for the protection of personal data. In line with the requirements of the General Data Protection Regulation (missions and responsibilities defined in articles 37-39) a Data Protection Officer has been appointed for the BNP Paribas Cardif group and operates under hierarchical responsibility of RISK.

RISK has also a role of second line of defense on risks related to transverse risks such as sustainability and model risks.

RISK is responsible for second-level control over models through a dedicated team: it defines and leads the governance relating to model risk management, that it assesses through, notably, independent reviews.

The risk management framework revolves around key processes for the RISK Division and around risk categories that may be operationally managed by other Divisions but for which RISK provides a second pair of eyes.

B.3.b Key risk management processes

Risk strategy process

RISK advises the *Dirigeants Effectifs* and the Board of Directors on risk management strategy, including notably the risk appetite framework. RISK monitors and reports regularly on the risk profile to ensure its adequacy with the approved risk appetite metrics.

Risk identification

The **Risk Identification process** is the assessment of the risks conducted annually by RISK. It identifies all significant risks to which BNP Paribas Cardif is exposed, whoever is managing these risks. The output from this assessment is the Risk Map that is used to design stress scenarios to be tested through the ORSA process. The Risk Map is maintained on an ongoing basis and any new risk or significant change to an existing risk is reported to the Board of Directors.

The **Risk and Control Self Assessment (RCSA)** is a structured approach for identifying and assessing operational risks. It is an exercise in risk management performed by operational managers with the assistance of Operational Permanent Controllers, and challenged by RISK Operational Risk Officers and Compliance. The outcome of the RCSA fuels the Risk Identification process.

⁷ Operational risk is supervised in the second line by RISK, RISK being in charge of the global framework but also by the Compliance function, Legal and Finance on their perimeter.

Independent review

RISK checks the consistency of the main risk policies within the risk management framework. It provides an independent review of the assessment of risks and, if need be, proposes actions to lower risk exposure. This second pair of eyes is scrutinized whenever necessary for data, tools and models, methods and results.

Stress tests

To ensure dynamic risk supervision and management, the BNP Paribas Cardif group has developed a stress test mechanism.

The stress test framework is an integral part of the risk management system. It aims at identifying the evolution of solvency and the value indicators in more or less favourable hypothetical contexts, at gaining a better understanding of the nature of the risks to which the BNP Paribas Cardif group is exposed, and at improving anticipation of critical situations.

Stress tests are mainly carried out during the Own Risk Self-Assessment process and specifically in the case of a significant change in the risk profile.

Further to stress tests, action plans are drawn up in order to realign, if need be, risk exposure with risk strategy.

Capital management

BNP Paribas Cardif group's capital management policy aims to ensure an optimised and sufficient capital structure, to satisfy prudential requirements and to guarantee adequate financial resilience.

Capital management is under the responsibility of the Financial Actuary, Capital and Modelling Division, with a strong interaction with RISK. To ensure it has sufficient capital, BNP Paribas Cardif applies the following principles:

- maintaining capital at an appropriate level geared to the Company's activity, its risk profile, growth, strategic initiatives and regulatory requirements;
- shaping an optimal prudential capital according to the different types of capitals, while abiding by the limits and levels laid down by regulations;
- forecasting capital requirements and ascertaining their allocation.

Own Risk and Solvency Assessment, ORSA

Every year BNP Paribas Cardif conducts a forward-looking assessment of its solvency and risks, particularly:

- the ascertaining and evaluation of capital requirement specific to its risk profile;
- the level of capital that BNP Paribas Cardif wishes to hold to cover this specific capital requirement;
- the forward-looking solvency ratios within the framework of the medium-term plan;
- the resilience of these ratios in the event of stress tests.

Depending on the solvency ratio levels observed and the forecasts made under ORSA, remedial actions may be undertaken.

Through the ORSA process, BNP Paribas Cardif makes sure that its budget and its mid-term plan are elaborated in accordance with, and tested against, the Risk Appetite Metrics thresholds for those that can be predictive such as solvency ratio, Pure Technical Loss Ratio or Net investment.

Solvency II reporting

Every year the BNP Paribas Cardif group sends to the Supervisor the ORSA report, the regular controller's report and the Solvency and Financial Condition report, which includes all risk assessments.

Risk culture

Robust risk management is an integral part of the BNP Paribas Group's makeup. A culture of risk management and risk control has always been one of its top priorities

Within BNP Paribas Cardif, RISK thus fills a role of coordinating risk culture initiatives.

At local level, training courses are run by permanent operational controllers to increase awareness of operational risks (in particular fraud, detection and declaration of incidents, and for risk mapping tools).

Pre-emptive Recovery Planning

Under the French insurance regulation, large companies are required to produce a Preemptive Recovery Plan. This plan presents the activities and geographical organization of BNP Paribas Cardif with a view to highlight external and internal connections within the insurance group. It documents three very severe stress scenarios that would potentially put BNP Paribas Cardif close to a bankruptcy situation and provides an impact analysis of such scenarios in terms of solvency, profitability and liquidity. The Pre-emptive Recovery Plan identifies various recovery options and their impact in case of activation.

Compensation process

The annual general guidelines of the Compensation Review Process specify that, during the annual individual performance assessment, a particular attention must be paid by the manager to the employee's respect of professional behavior with regard to respect for values, rules, Code of Conduct, Group procedures and contributing to risk management and respect for compliance rules.

B.3.c Management of risk categories

Management of insurance underwriting risk

Underwriting Risk is the risk of a financial loss caused by a sudden, unexpected increase in insurance claims that may result from inadequate pricing and provisioning assumptions due to internal or external factors, including sustainability risks. Depending on the type of insurance business (life, non-life), this risk may be statistical, macroeconomic or behavioral, or may be related to public health issues or disasters.

The governance set up to prevent and control insurance underwriting risks in France and internationally is based on the guidelines and tools that describe the principles, rules, methodologies and best practices to be followed by teams of actuaries throughout a policy's life cycle, together with the tasks to be performed and reports to be produced. It also states the practices that are proscribed or allowed only under certain conditions.

The risk underwriting process must comply with delegation limits set at various local and central levels, estimated maximum acceptable losses, estimated Solvency II capital requirements and estimated margins on the policies concerned. The experience acquired in managing geographically diversified portfolios is used to regularly update risk pricing databases comprising a wide range of criteria (such as the type of loan for creditor insurance, the type of guarantee, the population insured, etc.). Each contract is priced in reference to the level of returns, the capital cost and in line with the positioning of the offer and customer expectations.

Reinsurance is an additional component of the underwriting risk management system, particularly by limiting individual exposure and the outsourcing of risks that fall neither within the field of preferred risk for BNP Paribas Cardif, nor within its risk appetite.

Risk exposures are monitored regularly by BNP Paribas Cardif's Executive Committee in Underwriting Risk Monitoring Committee, based on a two-prong approach: quarterly monitoring of loss ratios at each accounts closing; and, in addition, the monitoring of the characteristics of the insured portfolio at intervals appropriate to the type of product (monthly, quarterly and yearly).

Management of market risk, credit and liquidity risk

Market risk is the risk of a financial loss arising from adverse movements of financial markets. These adverse movements are notably reflected in prices (foreign exchange rates, bond prices, equity and commodity prices, derivatives prices, real estate prices...) and derived from fluctuations in interest rates, credit spreads, volatility and correlation.

Liquidity risk is the risk of being unable to fulfil current or future foreseen or unforeseen cash requirements coming from insurance commitments to policyholders, because of an inability to sell assets in a timely manner and at an acceptable cost without significantly impacting market prices and/or get access in a timely manner to alternative financing tools. The liquidity policy, validated by the Committee of Written Policies, sets down the rules that enable to identify, measure, manage and control the liquidity risk so that it remains in line with the risk appetite.

Asset Liability Management (ALM) risk is the risk of financial loss or of solvency issues resulting from incoherent investment policy on the one hand and underwriting and reinsurance policies on the other hand. This can concern for example, asset allocation, duration gaps, rates credited to policyholders, or off-balance sheet commitments. It materializes in differences between observed and expected cash flows (inflows and outflows) due to the inherent uncertainty of the modelling of interdependences between assets and liabilities. ALM risk can lead to strategic mistakes, reputation degradation, liquidity issues or insolvency. This risk is managed through studies to define a strategic allocation, subsequently validated by committees at various levels in order to ensure the adequacy with the risk appetite. This strategic allocation is then used to manage investments. The investment policy, validated by the Committee of Written Policies, dictates the framework applicable to asset management in accordance with the prudent person principle set in Article 132 of the directive and L 354-1 of the French Insurance Code. The implementation of the investment policy is entrusted to the Asset Management Department and is framed, for each portfolio, by a management agreement. This one sets out the investment limits according to the asset classes. The defined flexibility takes into account regulatory constraints, ALM recommendations and the strategic allocation selected.

Investment policy provides for dedicated committees under the responsibility of the Asset Management Division (DGA). The Asset Management Director is a member of the Company's Executive Committee and is Chief Operating Officer.

The Investment and Asset Management governance defines the key processes for asset management to be implemented at the local level in order to control major risks.

Credit risk is the risk of loss or of adverse change in the financial situation, resulting from fluctuations in the credit standing of issuers of securities, counterparties and any debtors to which insurance and reinsurance undertakings are exposed, in the form of counterparty default risk, or spread risk, or market risk concentrations. Among the debtors, risks related to financial instruments (including banks into which the group holds deposits)

and risks related to receivables generated by the underwriting activities (premium collection, reinsurance recovering...) are distinguished into two categories: asset credit risk and liabilities credit risk.

Market risk and credit risk takes into account **concentration risk**, which corresponds to all risk exposures with a loss potential which is significant.

Managing operational risk

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

Operational risk covers notably the following categories: execution, delivery and process management, internal and external fraud, cybersecurity, business and IT disruptions, third party risk management, personal data protection, employment practices, safety of the work places and physical assets.

Operational risk includes also legal, tax and non-compliance risks but excludes risks arising from strategic decisions as well as reputational risks. Operational risk excludes risks arising from strategic decisions as well as reputation risks. Operational risk includes legal, tax and non-compliance risks. Non-compliance risk is the risk of legal, administrative or disciplinary sanctions and the risk of associated financial penalties as a result of failure to comply with laws and regulations, codes of conduct and standards of good practice applicable to insurance and financial activities (including instructions given by the Executive Management, particularly in application those derived from a recommendation or guidance issued by a supervisory body). This risk is covered by the set of processes, tools and methods put in place by BNP Paribas Cardif, and in particular by the work of the compliance function.

Operational risk must be managed in order to be contained within acceptable limits through action of avoidance, reduction or transfer. The objectives of operational risk management within BNP Paribas Cardif are:

- the reduction of the likelihood of the occurrence of operational risk events harming:
 - the faith its customers, partners and employees have in BNP Paribas Cardif,
 - the quality of the services and products it markets,
 - the rate of return of its activities,
 - the efficiency of the processes it manages;
- the establishment of a standardised system throughout BNP Paribas Cardif provides reasonable assurance of risk control for Executive Management, the Board of Directors and regulators.

Managing strategic risk

Strategic risk includes reputational risk and emerging risk. It is under the responsibility of the Board of Directors.

Strategic risk arises from the failure of strategic initiatives (including acquisition, mergers, new products, markets, etc.) leading to losses. Strategic risk is linked to:

- the external business environment: it is the risk of a financial loss due to fluctuations in volumes, margins and costs because of external, industry, or wider market factors;
- the improper implementation of the risk strategy on the business development.

Emerging risks are new or evolutionary risks which are difficult to quantify and for which the timing, the nature and the extent of the potential losses are particularly uncertain. Emerging risks are monitored and managed specifically by the RISK committee.

Reputational risk is the risk of financial loss arising from a damage of the trust placed in BNP Paribas Cardif by its customers, counterparties, suppliers, employees, shareholders, supervisors and any other stakeholder whose trust is an essential condition to carry out the day-to-day operations. This risk is primarily contingent on all the group risks; they are covered by all the procedures, tools and methods put in place and in particular by the work of the compliance function.

Transverse risk drivers

Transverse risk drivers are underlying risks that can affect several of the risk categories defined above.

Model risk

The use of models can affect each risk category depending on the models' purpose, use, and the effectiveness of any relevant model risk management.

Model risk is the adverse consequence arising from:

- decisions based on incorrectly developed and/or implemented Models, or from misused model outputs and reports, which is referred to as **model error**. In this case, it refers to an operational risk;
- the uncertainty inherent to the model itself and/or to the reality it tries to measure, which is referred to as **model uncertainty**. In this case, it refers to the main risk intended to be captured by the model (for example market risk for an Economic Scenario Generator, underwriting risk for a pricing model)

Sustainability risk

The sustainability risks are Environmental, Social, or Governance (ESG) events or conditions, the occurrence of which could cause an actual or a potential material negative impact on the value of the investment or the liability of the insurance contract.

More specifically, BNP Paribas Cardif is exposed to risks related to climate change, either directly through its own operations or indirectly through its investment and insurance activities. There are two main types of risks related to climate change: (i) transition risks, which result from changes in the behaviour of economic and financial actors in response to the implementation of energy policies or technological changes; (ii) physical risks, which result from the direct impact of climate change on people and property through extreme weather events or long-term risks such as rising water levels or increasing temperatures. In addition, liability risks may arise from both categories of risk. They correspond to the damages that a legal entity would have to pay if it were found to be responsible for global warming.

The monitoring of ESG risks linked to investments is framed by dedicated risk management tools. BNP Paribas Cardif defines and applies its investment policies while managing the restriction lists according to the observed level of ESG risks. BNP Paribas Cardif can thus ban any investment relationship, or put in place a dedicated monitoring process. Controls are implemented in the pre-investment phase by the Risk Management team within the Investment department.

BNP Paribas Cardif also considers the environmental, social and quality of governance (ESG) risks in its **Underwriting policy and processes** as they could have an actual or potential negative impact on the value of the liability or reserves in case of occurrence.

Conduct risk

Conduct risk is the risk that the conduct, acts or omissions of the Company, or individuals within the Company, will deliver poor or unfair outcomes for the customers, the employees or the business partners, or adversely affect market integrity.

B.3.d Highlights of year 2022

BNP Paribas Cardif formalised and strengthened its commitment to sustainability by joining the Net Zero Asset Owner Alliance and the Climate 100+ Initiative in 2021, in order to align its investment portfolio with a carbon neutral trajectory by 2050. The objective is to contribute to limiting global warming to 1.5°C above pre-industrial temperatures, in accordance with the Paris Agreement.

In order to bring the Company's organisation into line with this priority, an Impact and Innovation Department was created in early 2022 within the Transformation and Development Department, with the Head of this department joining the BNP Paribas Cardif Executive Committee. This department is responsible for defining and implementing BNP Paribas Cardif's Impact strategy, in line with the framework set by the BNP Paribas Group and the ambition of BNP Paribas Cardif's 2025 strategic plan in terms of environmental and societal commitment. This department also coordinates the production of the various CSR reports (regulatory and Group).

RISK has adapted its organisation to sustainability issues and has appointed a RISK CSR Officer in charge of implementing Management's roadmap. This is based on five main areas: adaptation of the risk management framework, risk mapping and assessment, the organisation of regulatory reporting, and finally the implementation of regulatory requirements in the ORSA.

B.4 Internal assessment of risks and solvency

The ORSA process (Own Risk and Solvency Assessment) is a continuous risk management process coordinating and consolidating all the processes for the identification, quantification, management and steering of risks, and all related information.

B.4.a Process for determining the risk profile

Ascertaining the BNP Paribas Cardif risk profile is based on the declaration of the risk appetite that lays down the limits as to the nature, quantity and quality of the risks that the Group is prepared to accept in the long-term as part of its strategy.

In order to ensure the proper fit with risk appetite, the risk profile is measured using a set of metrics assessed at least quarterly.

B.4.b ORSA report

The report prepared in 2022 was approved by the Board of Directors on September 22nd 2022 after being validated by the ALM and Insurance Risk Management Committee.

B.5 Internal Control System

B.5.a Organisation of internal control

Internal control definition, objectives and standards

BNP Paribas Cardif group has set up an internal control system and operational risk management, whose main aim is to ensure the overall control of risks and provide reasonable assurance that the Company's goals in this area are being achieved.

The implementation of this control system is based on three lines of defense:

- operational staff constitute the first line of defense and deploy the risk control system on the activities placed under their responsibility.
- the functions of the second line of defense define the normative framework in which the risk management for which they are responsible is exercised and ensure the supervision of its proper implementation.
- the third line of defense notably ensures the verification of the effectiveness and quality of the Permanent Control system.

The BNP Paribas Cardif's Internal Control and Operational risk management policy, used on the basis of the BNP Paribas Group's internal control charter, specifies the scope of this system and is the reference base for internal control. It aims to contain operational risk within acceptable limits through actions to reduce, transfer or avoid risks while maintaining a balance between the risks taken and the cost of its management system. It is the deployment for BNP Paribas Cardif of the internal control policy of the BNP Paribas Group, and first of all recalls the objectives of internal control which aims to ensure:

- the development of a risk culture among employees;
- the effectiveness and quality of the company's internal operations;
- the reliability of internal and external information;
- the security of transactions;
- compliance with applicable laws, regulations and internal policies.

The policy then lays down the rules relating to the organisation, lines of responsibility and remit of the various players involved in internal control, and establishes the principle that the different control functions (primarily Internal Audit, Compliance, Legal, Actuarial and Risk Management) must operate independently.

Scope of internal control

One of the fundamental principles of internal control is that it must be exhaustive in scope: it applies to risks of all kinds, to all activities and to all entities for which BNP Paribas Cardif ensures the operational management. It also extends to core services or essential operational activities that have been outsourced, in accordance with regulatory requirements.

Fundamental Principles of internal control

BNP Paribas Cardif's internal control system is based on the values and the Code of conduct of BNP Paribas as well as the following additional principles of actions:

- clearly identified responsibilities: internal control is the responsibility of every employee, irrespective of their seniority or responsibilities. The exercise of a managerial function carries the additional responsibility of ensuring the proper implementation of the internal control system within the scope subject to regulation ;
- a structured risk identification, assessment and management system (involving, among others, a decision-making system, delegation, organisational principles, controls, reporting and alert mechanism, etc.);
- control and oversight that is independent of risk: the heads of the operational activities have the ultimate responsibility for those risks created by their activities, and as such, the foremost responsibility of implementing and operating a system that identifies, assesses and manages risk. The internal control system provides for mandatory intervention, and as early as possible, of functions exercising independent control under a second level of control. This intervention takes the following forms:
 - defining the overall normative framework for risk identification, assessment and management,
 - defining cases where a second prior review by a function exercising a second-level control shared with the operational entity is necessary for decision-making,
 - independent controls, called second-level controls, carried out by said Function on the system implemented by the heads of the operational activities and on their operation (result of the risk identification and assessment process, relevance and conformity of the risk control systems and in particular, compliance with the limits set);
- separation of duties: It is a key element of the risk control system. It consists of assigning certain operational tasks that contribute to the performance of a single process to stakeholders at various hierarchical levels or to separate these tasks by other means, in particular by electronic means;
- proportionality of risks: the internal control system must be implemented under an approach and with an intensity that is proportionate to the risks involved. This proportionality is determined based on one or more criteria, in particular:
 - risk intensity,
 - amount of allocated capital and/or ratios in terms of solvency,
 - complexity of the products designed or marketed and/or services provided,
- appropriate governance: the internal control system is subject to governance involving the different stakeholders and covering the various aspects of internal control, both organisational and monitoring and oversight;
- requirement for formalisation and traceability: Internal Control relies on written policies and procedures validated by the Executive Officers. The related controls, their results, their implementation and the feedback from the entities to the higher levels of the group's governance are documented and traceable;
- duty of transparency: all employees, irrespective of their position, have a duty to communicate, in a transparent manner, that is, spontaneously and promptly, to a higher level within the organisation to which they belong:
 - any information required for a proper analysis of the situation of the entity in which the employee operates, and which may impact the risks or the reputation of the entity or the group,
 - any question that the employee could not resolve independently in the exercise of his duties,
 - any anomaly of which he becomes aware.

In addition, he or she has a duty to alert, under the protection of confidentiality, as provided for by the BNP Paribas Group code of conduct and exercised within the framework of the whistleblowing system established by Compliance.

- continuous adaptation of the system in response to changes: the internal control system must be actively managed by its various stakeholders. This adjustment in response to changes of any kind that the BNP Paribas Cardif group must face, must be done according to a periodic cycle defined in advance but also continuously as soon as events so justify.

Compliance with these principles is verified on a regular basis, in particular through assignments carried out by the periodic control teams (Internal Audit).

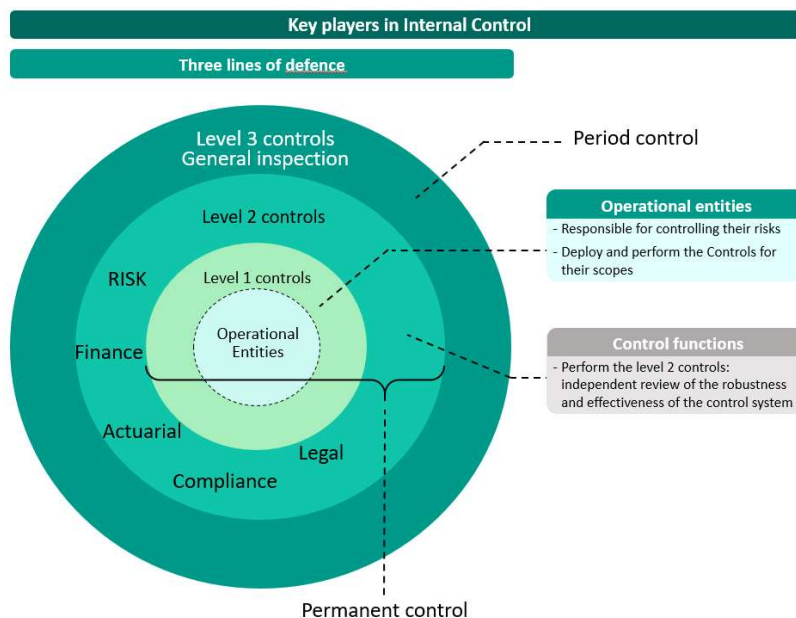
Organisation of internal control

BNP Paribas Cardif internal control system is organised around three lines of defense, under the responsibility of Executive Officers and under the oversight of the Board of Directors.

Permanent control is the ongoing implementation of the risk management system and is provided by the first two lines of defense. Periodic control, provided by the third line of defense, is an audit and assessment function that is performed according to a clean audit cycle.

The functions exercising the second and third lines of defense are so-called Functions exercising independent control. Compliance, Risk, Actuarial and Internal Audit functions report on the performance of their duties to the Board of Directors or to its specialized committees.

Exchanges between permanent control and periodic control regularly takes place to enhance the flow of information, to coordinate each action and to improve the efficiency of internal oversight in full compliance with the independence of periodic control.



Main parties involved in internal control

The operational entities are the first line of defence: the operational employees are primarily responsible for managing their risks and are the front-line in permanent control. They act within the framework defined by the BNP Paribas Cardif's Executive Officers and reviewed by its Board of Directors, transcribed in the form of policies and procedures.

The risk control system operated by the first line of defence forms what is called the first-level control system. It is implemented by employees and/or their reporting line and/or control teams that do not operate the processes under their control.

Functions exercise second-level control (second line of defence).

Functions exercising second-level control are responsible for the functioning of the risk control system and its compliance with laws and regulations on a range of areas (subjects and/or processes), as defined in their responsibility charter.

As such, in their field of expertise and, where appropriate, after having consulted the operational entities, they define the general normative framework in which the risk management under their responsibility is to be carried out, the methods of their intervention (thresholds, delegations, escalation, etc.), implement this system in those aspects that concern them and for which they are responsible, in their area of expertise, for second-level permanent control. They challenge and provide an independent view of risk identification and assessment vis-a-vis operational entities. They also contribute to spreading a culture of risk and ethics within the BNP Paribas Cardif group.

People responsible for these functions provide the Executive Officers and Board of Directors with a reasoned opinion on the level of risk control, current or potential, in particular regarding the Risk Appetite as defined and propose any actions for improvement that they deem necessary.

The Functions exercising second-level control are Risk Management, Compliance, Actuarial, Legal and Finance functions. The Risk Management, Compliance and Legal functions are integrated to the BNP Paribas Group. These functions are outlined as follows:

- the **Compliance Function**, responsible for organising and overseeing the non-compliance risk control system. With RISK, the Human Resources and the Legal Function, the Compliance Function is in charge of the second line of defense on risks related to rules of conduct. As such, it contributes to the permanent control of compliance with laws and regulations, professional and ethical standards and the guidelines of the Board of Directors and the instructions of the Executive Management. Its Head reports to the Chief Executive Officer of BNP Paribas Cardif and the Investment & Protection Services Compliance Officer;
- the **Risk Management Function** that contributes with its "second set of controls" on risks related to underwriting, credit and the market, operational and also on sustainability and model risks ensuring that they are compliant and compatible with internal policies and rate-of-return objectives. The function's duties are exercised independently of operational functions, a factor that further enhances the objectivity of the "second set of controls" process. Its head reports directly to the Chief Executive Officer of BNP Paribas Cardif and to the Investment & Protection Services Risk Officer;
- the **Legal Function**, responsible for organising and overseeing the legal risk control system, exercises its responsibility to prevent and manage legal risks through its advisory and control roles. It exercises this control by monitoring the implementation of legal opinions issued for the purpose of avoiding or mitigating the effects of a major legal risk and control exerted on the legal processes;

- the **Finance Function** also performs a second level of control as part of its responsibilities in defining and implementing the risk control system related to accounting and financial information. Its head reports hierarchically to the Chief Executive Officer of BNP Paribas Cardif and functionally to the Chief Financial Officer of BNP Paribas.

The third line of defence is performed by the **Internal Audit function**, independent and specialised, that insures the audit of the efficiency and the quality of permanent control process. This periodic control process is implemented through assignments, identified as third level controls that are performed in an independent way. They are carried out by the BNP Paribas Cardif internal audit Division, which has a team specialised in insurance activities, and by BNP Paribas General Inspection. Its Head reports to the Chief Executive Officer of BNP Paribas Cardif and the Deputy Head of BNP Paribas General Inspection.

Executive Management, under the supervision of the Board of Directors, is responsible for the Company's overall internal control system.

The Board of Directors, on the proposal of the ALM and Insurance Risk Management Committee, reviews and approves strategies and policies for taking, managing, monitoring and reducing risks.

B.5.b Key Internal Control procedures

Procedures are one of the key components of the permanent control system, alongside identifying and assessing risks, running controls, verifying reporting processes and overseeing the monitoring system.

BNP Paribas Cardif relies on the system implemented by the BNP Paribas Group, adapted if necessary to the specific nature of insurance business.

BNP Paribas Cardif formalizes the procedures to be applied by the entities as well as the controls to be exercised. These procedures constitute the basic framework for internal control. Each entity is responsible for:

- identifying the procedures it needs to carry out the missions for which it is responsible and exercise its responsibilities, in compliance with applicable regulations and instructions from their superiors, expressed in particular via the already existing higher-level procedures;
- constituting, keeping up to date and keeping the set of procedures thus identified;
- making the procedures accessible to those who need to know them, inform them of their existence or evolution, train them if necessary;
- ensuring the proper application of these procedures.

The practical rules and procedures are detailed in the Group procedure relating to procedures at BNP Paribas, available at BNP Paribas Cardif via the procedure of management procedure.

B.6 Internal Audit Function

The Internal Audit Function is responsible for periodic control of all subsidiaries, branches and activities controlled by the BNP Paribas Cardif group. Its aim is to give Executive Management and the Board of Directors an independent assessment of the quality and effectiveness of the governance and internal control system. It issues recommendations to improve quality and compliance.

Organisation

Internal Auditing assignments at BNP Paribas Cardif are carried out by:

- the BNP Paribas Cardif Internal Audit Division, also called Hub Cardif, that covers the activities of BNP Paribas Cardif in France. This team is composed of internal auditors who are employed by the EIG BNP Paribas Cardif in general and report to the head of the Internal Audit key function at BNP Paribas Cardif;
- mobile inspectors in the BNP Paribas Group's General Inspection, also called Central Inspection, that carry out assignments on all BNP Paribas Cardif activities, either at the request of the local audit teams, or on their own initiative mandated by BNP Paribas as the sole shareholder of BNP Paribas Cardif;
- local internal auditors (outside France) of the BNP Paribas Group's General Inspection, also called BNP Paribas Group's General Inspection Geographic Hubs, that cover BNP Paribas Cardif's subsidiaries and activities outside France. If needed, they can benefit from the support of the Internal Audit division of BNP Paribas Cardif to carry out their missions.

Internal auditors and Inspectors work independently across the whole BNP Paribas Cardif scope up for auditing. They may deal with any subject and have free access to all documents, property and personnel working directly or indirectly for BNP Paribas Cardif. Similarly, they are free to submit their own conclusions independently of Executive Management. They must remain independent, objective and impartial in their investigations, and cannot directly take any operational management action. They use a body of internal procedures maintained by the General Inspection of the BNP Paribas Group.

The internal audit manager reports both to the Chief Executive Officer of BNP Paribas Cardif and to the General Inspector of the BNP Paribas Group (or to one of his/her direct deputies). This dual reporting system guarantees the independence of the key function and imposes joint decision-making by the Executive Management of BNP Paribas Cardif and the General Inspection Division of the BNP Paribas Group for all major issues concerning the Internal Auditing function. In addition, the head of the Internal Audit key function has right of access to the BNP Paribas Cardif Board of Directors that arbitrates on any dispute between BNP Paribas Cardif Executive Management and the BNP Paribas General Inspection Division.

The head of the Internal Audit key function regularly reports to the Board of Directors of BNP Paribas Cardif (or to the specific Committee which represents it) with the results of the key function's work concerning the whole Group. Furthermore, each year he or she submits for approval a proposed audit plan, which covers a full audit course, with details of internal audit assignments to be conducted during the following calendar year. This draft audit plan is drawn up together with the Executive Management notably on the basis of an assessment of the risks carried by the various activities, ensuring that all the material activities are periodically reviewed.

The mandate of the Internal Audit key function is determined by an audit policy dedicated to the BNP Paribas Cardif insurance group, approved and reviewed annually by the Board of Directors of BNP Paribas Cardif.

B.7 Actuarial Function

The missions of the actuarial Function is carried out by the Head of the Actuarial Finance, Capital and Modelling department, leaning on:

- Its own teams for the subjects related to savings products,
- Actuarial Business teams for subjects related to protection products and reinsurance apart from the Solvency II topics carried by the Financial Actuary teams.

Within the framework of Cardif Governance, the Actuarial Function holder as a key function, belongs to the permanent members of Underwriting Committees, Underwriting Risk Monitoring Committees and ALM Committees. The same applies for the Head of Risk.

Therefore, these two key functions participate to the approval of underwriting decisions, and access to all risk studies (underwriting risk, and assets and liabilities management risk) carried out by Actuarial Finance and Actuarial Business teams. This collaboration allows the Actuarial Function to contribute to the effective implementation of the risk management framework as defined in its missions, and to give visibility to the Risk Management Function on the methods and risk evaluation models as well as on the risk limits. As such, the Actuarial Function contributes to give to the Risk Management Function a prospective and global vision of risks.

The actuarial function, for each of the product lines marketed by BNP Paribas Cardif local entities is responsible for identifying, monitoring, quantifying and streamlining underwriting risks and asset and liability management risks. These tasks are carried out within the framework of underwriting, prudential and account closing, and portfolio management activities, for direct, accepted and ceded business. Consequently, the Actuarial Function, as part of its responsibilities, has an overview of both underwriting risks and asset and liability management risks throughout a product's full life cycle.

The missions of the actuarial function are detailed through a governance that enables to locate the work of risk assessment and decision-making as closely as possible to local risk-takers in a precisely formalised technical and decisional framework, all done under the control of local actuarial services. These actuarial services are themselves organised around an actuarial head, whose responsibilities are governed by the said governance. This technical and decision-making framework allows local actuarial services to independently manage scenarios over which the Actuarial Finance and Actuarial Business departments have in principle forms a favorable opinion.

For any insurance underwriting case-file (including direct business, ceded and accepted insurance) outside this scope, formal approval respectively from Actuarial Finance for Savings and Actuarial Business for Protection, is imposed by governance at the appropriate level, and from the other divisions involved, depending on the issue. It decides which bodies should issue the approvals, and stipulates that the heads involved reach a consensus to obtain approval. Depending on the nature of concerned product, Actuarial Finance or Actuarial Business Department, co-ordinates the compilation of the case-file and ensures the successful execution of the process.

With regard to the accounting closing process together with risk monitoring, governance oversees the way in which the methods and models are to be used depending on the nature and extent of the risks, determines the relevant indicators, and sets the Actuarial Finance and Actuarial Business's requirements for reporting by local entities. The Actuarial Finance and Actuarial Business departments co-ordinate analysis work and consolidate results and inform the ALM and Insurance Risk Management Committee according to the frequency laid down by governance. Depending on the results of their analysis or on economic factors

(fluctuation of loss ratios, natural disaster, deterioration of the economic and financial environment, etc.), the Actuarial Finance and Actuarial Business departments may have to carry out or organize specific studies that they submit to the Underwriting Risk Monitoring Committee.

It is the same for the prudential closing process, under the unique responsibility of the Actuarial Finance Department.

The governance is updated either in accordance with the decisions taken by the Actuarial Finance and Actuarial Business departments as part of the underwriting process, or in accordance with the analyses conducted as part of the closing and risk monitoring processes. Changes in corporate governance are formally published at regular intervals, at least annually. Depending on the extent and the issues involved with these changes, the reasons behind them are the subject of specific communications, as defined in the governance framework. The compliance of local actuarial services with governance is checked every year on 4 specific points. It includes controls for exhaustiveness and random controls.

Any change in the actuarial governance is submitted to the Actuarial Function and to the Risk Director for approval prior to publication.

B.8 Sub-contracting

B.8.a Sub-contracted activities

The BNP Paribas Cardif group has outsourced some of its activities that have been identified as important and/or critical, and that are part of key operational processes. Those Critical Outsourcing Arrangements (COA) are mainly related to administration and management services of insurance contract processing systems and IT System management, asset management and archiving processes.

B.8.b Sub-contracting governance

In accordance with the Solvency II Directive requirements, BNP Paribas Cardif has an outsourcing policy, annually revised and applied by all the entities of the BNP Paribas Cardif group.

This outsourcing policy defines the general principles for evaluation, implementation and management of the outsourced activities that are important and/or critical (COA), particularly with:

- a definition of the scope of activities that could be outsourced;
- a definition of important and/or critical activities by type and by risk and their assessment criteria;
- the risk management process for sub-contracting;
- the requirements as to the contractual securitisation of COA;
- the process for monitoring, control and command over outsourced activities during the production phase;
- the relations with internal governance bodies and control authorities including the obligation to notify activities that are important and/or critical to ACPR.

Organisation of the sub-contracting function

The definition of the risk management framework related sub-contracting function is under the responsibility of the Risk Management function, particularly for the risk framework, and under the responsibility of the Outsourcing department for the operational implementation.

The Outsourcing department is more specifically in charge of:

- advising on outsourcing of activities or functions that are important or critical (more precisely on outsourcing criteria and on assessment of COA classification);
- the instruction and management of the sub-contracting governance at Corporate level;
- the consolidation of reference data on outsourced activities (including COA) of the BNP Paribas Cardif group;
- the permanent control of the outsourcing process and supervision of control campaigns;
- the contribution to internal and regulatory reports.

A risk indicator ($KRI_{Outsourcing}$) is calculated and contributes to the management of business risks. Depending on the result, it can trigger an alert to the business Executive Committee or to the Board of Directors. In 2022, the level of this risk indicator remained below the information threshold.

As the scope is cross-departmental and international, BNP Paribas Cardif opted to rely on a network of regional and/or local outsourcing correspondents along with expert functional correspondents for the BNP Paribas Cardif corporate functions to deploy, implement and monitor the outsourcing process.

Supervisory body

The Outsourcing Committee is a committee tasked with managing risks in connection with the outsourced activities, critical or important, both at local and corporate levels.

The Compliance, ORC-Risk, Legal and Tax, Finance, Global Security, Human Resources, Procurement and IT Functions are notably involved.

At the corporate level, the Outsourcing Committee is chaired by the Deputy Chief Executive Officer, in charge of IT and Operations. The head of the Outsourcing division acts as General Secretary to the committee.

Delegation principles

Production launch, significant changes made to policies in force and terminations, transfers and "re-insourcing" of outsourced business, important or critical, must comply with the Outsourcing Policy rules.

The appraisal of those projects respects the principle of delegation at local, regional or corporate level depending on the risk identified for this activity.

B.8.c Control system

During the implementation of the Provision of External Services, a control framework is implemented, notably through the Outsourcing Committee that performs a risk review of the important and critical outsourced activities. In parallel, a campaign is conducted to assess the risks connected with the important or critical outsourced activities already settled. It is carried out each year at all entity level and is based on a common control plan.

The results of this campaign and the actions plans associated are sent to the entities to set up a remediation plan related to the oversight criteria if need be.

B.9 Suitability of the governance system

The governance system of BNP Paribas Cardif is based on an organisation adapted to the nature, scale and complexity of the risks involved in its business, and on an appropriate oversight of the Board of Directors.

C. Risk profile

The SCR (Solvency Capital Requirement) is the level of own funds required to absorb a full series of bicentenary impacts after accounting for the correlation between risks. It is calibrated to cover such an event with a return period of 200 years within a one-year timescale (Value at Risk at 99.5%).

The BNP Paribas Cardif SCR is evaluated by means of the standard formula. It corresponds to the sum of the net BSCR (Basic SCR), of the operational SCR, and the tax adjustment. The BSCR is based on a bottom-up approach, in other words its calculation is divided into risk modules, themselves divided into sub-modules. The capital requirements for each of the various risks are aggregated by means of a correlation matrix.

The information presented in this chapter deals with the nature of the risks to which BNP Paribas Cardif may be exposed, the evaluation techniques used, main risk exposure as well as the mitigation techniques set up, and the procedures for monitoring their effectiveness.

The risk typology adopted by BNP Paribas Cardif and its subsidiaries is presented according to the main categories as follows:

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

The creation of the FRPS and its transition to equity method impact all the figures presented below.

C.1 Underwriting risk

C.1.a Definition

Underwriting risk is the risk of a financial loss caused by a sudden, unexpected increase in insurance claims that may result from inadequate pricing and provisioning assumptions due to internal or external factors, including sustainability risks. Depending on the type of insurance business (life, non-life), this risk may be statistical, macroeconomic or behavioral, or may be related to public health issues or disasters.

C.1.b Risk exposure

The **underwriting SCR** for BNP Paribas Cardif group stood at €4,650 million as at 31 December 2022, up 47% compared to 31 December 2021.

The underwriting SCR is composed of life, health and non-life modules and is broken down as follows:

<i>In millions of euros, at</i>	December 31, 2022	December 31, 2021
Life underwriting SCR	4 417	2 823
Health underwriting SCR	608	720
Non-Life underwriting SCR	631	685
Diversification	-1 006	-1 070
UNDERWRITING SCR AFTER DIVERSIFICATION	4 650	3 157

The **life module** is the most significant. It is the aggregation of several risk sub-modules as determined by Solvency II such as, mainly, redemptions risks, operating expenses and biometric for savings and death policies.

The life module, amounting to €4,417 million, increased by €1,594 million compared to 31 December 2021.

The risk sub-modules outlining the increase of the life module are:

- the redemptions risk that evaluates the most significant between a 50% permanent increase or decrease of the lapse rate and a 40% mass lapse. As in 2021, BNP Paribas Cardif group is exposed to mass lapses as of December 31, 2022.
- the increase of this sub-module mainly concerns the savings activity in France.
- the expenses risk that evaluates the impact of a 10% increase in costs and a 1% increase in inflation rate, is down mainly due to the rise in interest rates
- the disaster risk which assesses the increase in mortality in the first year of projection.

These three risk sub-modules account for 91% of the sum of the life sub-modules before diversification. The proportions of the redemptions risk, the expenses risk and the disaster risk amount respectively to 59%, 22% and 9%.

The **healthcare module** is carried by protection insurance. It amounts to €608 million, down €111 million, due to the decrease in the life-like redemption risk SCR and the decrease of the disability risk SCR.

This module is composed by:

- the disability/invalidity risk which aims to quantify the capital need after a growth of 35% of the disability/invalidity risk in the first year, then 25% the following years for contrats similar to life (incapacity of work).
- the premiums and reserves risk calculated according to a factor method which quantifies the impact of the premium or provisioning deficiency for policies similar to non-life policies (accidental death, hospitalisation, etc.).

The **non-life module** mainly stems of the following sub-modules: the premium and reserving risk for non-life contracts and the catastrophe risk.

The Non-life module amounts to €631 million, down €54 million compared to 31 December 2021, mainly due to the effect of the restructuring of the UK entities (see section A.1.b Main events of the period) resulting in the exit of the UK entity Pinnacle Insurance from the consolidated scope of BNP Paribas Cardif in the premium and reserving risk SCR and the catastrophe risk.

C.1.c Concentration

From a geographic point of view, the insurance underwriting risk is concentrated in three countries, France, Japan and Italy, which respectively contributed to 63%, 10% and 9% of the sum of individual underwriting SCR before diversification as at 31 December 2022.

The insurance underwriting risk shows **very little individual concentration** due to the nature of BNP Paribas Cardif's activity, the major part of which covers private people and their assets and to a policy of reinsurance which limits the so-called "peak" risks (high individual exposures).

C.1.d Risk management and monitoring

Risk management and reduction

The mechanism for monitoring and managing the underwriting risk is based on **governance and documented processes**. Risks underwriting must comply with specific delegation limits set at several local and central levels. The delegation level based on the estimated maximum acceptable losses, estimated Solvency II capital requirements, and estimated margins on the policies concerned. The experience acquired in managing geographically diversified portfolios is used to regularly update risk pricing databases comprising a wide range of criteria (such as the type of loan for creditor insurance, the type of guarantee, the insured population, etc.). Each contract is priced in reference to the measurement and monitoring for rate of as well as return-on-own funds set by the Executive Management of BNP Paribas Cardif.

Regulatory and commercial framework permitting, **contractual clauses** help keep the lid on this risk, clauses such as medical selection for products offering high insured amounts, or repricing clauses provided in the policy in the event of change in taxation or a fluctuation in the number of claims, and a limit to the length of the cover period.

Partners are interested in the quality of the risks brought in to encourage observance of the good underwriting practices as defined by BNP Paribas Cardif.

Reinsurance is an additional element of the underwriting risk management system. Its objective is to protect BNP Paribas Cardif from the main risks below, provided there is adequate market depth and pricing:

- the so-called “peak” risk linked to exposure to an individual risk exceeding a certain threshold. As at 31 december 2022, this threshold is set at €2 million maximum per person for life and health insurance and is restricted to €1 million per risk for the property and casualty risk;
- the so-called “claim accumulation” risk mainly the disaster risk associated with exposure to a single low occurrence event, but with a very strong financial impact;
- the risk on new products, linked to insufficient mutualization, wrong definition of the technical basis or to uncertainty over the insured portfolio data;
- the table risk, linked to future guarantee commitments on annuities;
- the financial risk, linked to financial guarantees related to insurance products such as the guaranteed minimum benefit, which states the capital paid to the beneficiaries in the event of the policyholder's death.

In savings, the underwriting risk is managed by monitoring and managing the offer adapted to the market context.

BNP Paribas Cardif limits the risk exposure that stems from an insufficient performance of the investments made in view of the contractual return payable to policyholders. Thus, 98% of Cardif Assurance Vie liabilities on savings contracts provide no minimum guaranteed rate, or no minimum guaranteed rate for more than one year, during the accumulation phase, and in France, the average guaranteed rate is less than 0.1%. In Italy, Cardif Vita offers an average minimum guaranteed rate less than 0.1% on average on Capital Vita, its primary general funds. In Italy, 3 segregated run-off funds, whose total outstanding represents less than 2% of the subsidiary's outstanding, have an average guaranteed minimum rate of 2.20%.

Risk monitoring

Underwriting risks are periodically monitored within the scope of the Monitoring Committees, based on a dual mechanism:

- quarterly monitoring of exposure, technical provisions and claims rate at each accounting quarter end for protection;
- supplemented by monitoring of the insured portfolio characteristics according to a schedule based on the type of product (monthly, quarterly and annually) and defined during the technical approval of the product.

C.1.e Stress tests and sensitivity analyses

At the time of pricing, approval of a product requires systematic analysis of negative (stress test) or very negative (crash tests) scenarios even if the probability of occurrence is low. The stress tests and crash tests are carried out over the same period as the baseline scenario.

C.2 Market risk

C.2.a Definition

Market risk is the risk of a financial loss arising from adverse movements of financial markets. These adverse movements are notably reflected in prices (foreign exchange rates, bond prices, equity and commodity prices, derivatives prices, real estate prices...) and derived from fluctuations in interest rates, credit spreads, volatility and correlation.

C.2.b BNP Paribas Cardif group financial investments

The financial environment directly affects the financial investment valuation.

The year 2022 was mainly characterised by the rise in interest rates (+292 bp on 10-year EIOPA rates), the spread widening on all ratings, and the drop in equity markets (Eurostoxx 50: -12%).

In this context, the market value of general funds investments is down €36 billion due the creation of Cardif Retraite for €10 billion (now consolidated by the equity method), the decrease of the unrealized capital gains including €18 billion on Cardif Assurance Vie, €4 billion on Cardif Vita and €2 billion on Cardif Lux Vie.

In millions of euros, at	December 31, 2022		December 31, 2021	
	Market value	%	Market value	%
Property funds	4 546	3 %	4 985	3 %
Equity inc. Participations	6 151	4 %	7 567	4 %
Bonds	97 543	68 %	125 372	70 %
Government bonds	47 388	33 %	57 625	32 %
Corporate bonds	43 785	30 %	58 646	33 %
Structured notes	6 371	4 %	9 101	5 %
Collateralised securities	-	0 %	-	0 %
Collective funds	33 832	23 %	40 912	23 %
Derivatives	1 691	1 %	799	0 %
Deposits	462	0 %	540	0 %
TOTAL INVESTMENTS GENERAL FUND	144 226	100 %	180 174	100 %

* Excluding scope differences (mainly due to the inclusion of policy loans and equity method investments), the reclassifications between assets and liabilities and the valuation differences, the market values of investments as shown on the accounting balance sheet of BNP Paribas Cardif amount to €178 billion (details in A.2).

The subsidiaries Cardif Assurance Vie, Cardif Vita S.p.A (Italy) and Cardif Lux Vie (Luxembourg) stood for 72%, 14% and 6% of the general fund investments respectively.

The interest rate risk management for the general funds leads to investment in bonds, of which government bonds, notably those issued by countries from the euro zone. The asset diversification policy aims to invest in property funds and equities.

Regarding government bonds by country, the exposures are as follows:

<i>In millions of euros, market value by country of issuer group, at</i>	December 31, 2022	December 31, 2021
France	17 609	24 023
Italy	11 009	12 942
Belgium	4 222	3 836
Spain	3 250	4 974
Germany	1 951	1 056
Luxembourg	1 697	1 620
Austria	850	1 197
Netherlands	811	1 316
Slovakia	312	481
Ireland	273	699
Finland	40	31
Sweden	5	6
TOTAL OF THE EURO ZONE EXPOSITION	42 028	52 242
Other zones	5 360	5 382
TOTAL GOVERNMENT BONDS	47 388	57 625

The unit-linked investments stood at €79,701 million as at 31 December 2022 down €11.4 billion (-13%) mainly due to the financial market evolution and the transfer of the retirement activities to Cardif Retraite.

C.2.c Risk exposure

The market risk SCR stood at €7,628million as at 31 December 2022, down 26% compared to 31 December 2021, driven mainly by the assets transferred to Cardif Retraite, entity consolidated by equity method, and changes in the economic context.

The market risk SCR includes six modules.

BNP Paribas Cardif's predominant risks are equity risk and credit spread risk, accounting for 38% and 27% respectively of the SCR of market risk before diversification as of December 31, 2022.

It should be noted that the exit of the scope associated to Cardif Retraite outside of the scope of Cardif Assurance Vie led to a significant decrease in the volume of assets submitted to the sub-modules of equity, credit spread, currency, property and rate risks, contributing to the decrease of the SCR of the corresponding risks presented below.

The SCR of the **equity risk** reflects the risk of a decrease in the value of the equities. It totaled €3,854 million, a 26% decrease compared to 31 December 2021. The **equity risk** module is significant because of the magnitude of the shock applied at 39% for equities listed in an EU or OECD member state and at 49% for other equities.

To avoid pro-cyclical behaviour, the shock is corrected by a so-called "dampener" or symmetrical adjustment mechanism. It allows to soften the equity shock when markets are at the bottom of the cycle, and to increase it when they are at the top of the cycle and when the likelihood of a fall is high. As at 31 December 2022, the symmetrical adjustment was -3.02% (vs +6.88% in 2021), and the shocks applied were then respectively at 35.98% (i.e. 39% -3.02%) or 45.98% (i.e. 49% -3.02%).

The decrease of the equity risk SCR is mainly explained by the decrease in the exposure related to the drop in unrealized gains and losses, a lower equity shock given the increase of the symmetrical adjustment (so-called "dampener")

The **credit spread risk** module aims to quantify the capital requirement corresponding to the risk of an upward trend in credit spreads (difference in actuarial rate between a bond and the rate of an equivalent risk-free government bond). The spread shock depends on the duration and the rating of the interest rate products and only concerns corporate bonds and bonds issued by non-European states, considering that the bonds issued by European states are not subjected to the spread risk. As with the rate risk, its evolution is linked to the breakdown of the bond portfolio.

The SCR of the **credit spread risk** amounted to €2,669million, down 28% compared to 31 December 2021 because of the drop in the market value of bonds following the rise in rates.

The **currency risk** module aims to quantify the capital requirement of a 25% impairment of foreign currencies against the euro. The exposure of BNP Paribas Cardif stems on the one hand from securities denominated in foreign currencies and held by the general fund and, on the other, by the own funds of non-European branches and subsidiaries. The amount of SCR for **currency risk** was €1,572 million, down 17% compared to 31 December 2021.

The **property risk** module measures the impact of a slump in property markets on the value of assets. It consists of instantaneously reducing the market value of property assets by 25%. The SCR amounted to €1,147 million as at 31 December 2022, down 17% compared to 31 December 2021.

The **rate risk** module aims at quantifying the capital requirement needed to cope with the impact on the balance sheet value of an upward or downward change in the yield curve. The capital requirement is equal to the most adverse impact between the impact of the increase in the yield curve and the impact of the decrease in the yield curve. For each maturity, the shocks caused by the increase or decrease are expressed in proportion to the rates by duration. The SCR of the **rate risk** amounted to €797 million, down 13% compared to 31 December 2021. Unlike 31 December 2021, BNP Paribas Cardif is sensitive to the rise in interest rates at 31 December 2022 given the new economic environment.

The **concentration risk module** is explained below.

C.2.d Concentration

The concentration risk SCR reflects the drop in own funds following exposure beyond a threshold defined by the standard formula on one or more issuers. As at 31 December 2020, there is no identified exposure to concentration risk for BNP Paribas Cardif.

The rules for the dispersion of assets are laid down in the management agreements of the general funds. They specify the dispersion ratios per issuer on fixed income instruments and rating category. The credit doctrine formalized through the Credit Risk Policy also specifies the dispersion rules at the consolidated level for the general funds of entities based within the euro zone, which are the most important.

Furthermore, the main general funds within the euro zone are specifically monitored through a statistical analysis of the composing assets.

C.2.e Risk management and monitoring

Risk management and reduction

BNP Paribas Cardif has the necessary management tools to calibrate its allocation of strategic assets and to measure its risks with the adjustment of assets - liabilities.

The **investment policy** dictates the scope applicable to asset management. It defines the principles along which the structure of asset portfolios can be matched with the undertakings made to policyholders when they are sold insurance contracts, while optimising the expected return on investment in relation to the set risk limit.

The implementation of the investment policy, assigned to the Asset Management Division, is regulated for each portfolio by a **management agreement** that specifies the investment limits geared to different classes of asset.

Studies on assets and liabilities help provide a projection of the expected flows of both the assets and the liabilities of general funds. In particular, they provide the possibility to adjust the duration of assets in keeping with the profile of different liabilities.

Exposure to market risk is also monitored through **specific targeted studies** such as the review of securities in an unrealised loss position.

Furthermore, BNP Paribas Cardif is exposed to **currency risk** linked to its investments in foreign currencies. The currency position stems primarily from branch capital allocations and equity interests denominated in foreign currencies, financed by purchasing the investment currency. When a currency hedge is implemented, it is financed by borrowings amounts in the same currency as the foreign equity investment.

Risk monitoring

Market risk is monitored notably by way of dashboards created for asset class and geographical area, and by controlling compliance with management agreements. Assets management committees participate in the market risk monitoring.

C.2.f Stress tests and sensitivity analyses

Stress tests are studied on a regular basis within the scope of ALM studies. These stress tests make it possible to check the ability of BNP Paribas Cardif to honour its commitments in negative financial market situations, by taking account of the impact of these situations on the behaviour of policyholders. Specific stress test can also be performed at the request of the regulator. Finally, sensitivity analyses are regularly performed on the market risk SCR, and more globally on the solvency ratio.

C.3 Counterparty risk

C.3.a Definition

Counterparty risk is the risk of loss or of adverse change in the financial situation, resulting from fluctuations in the credit standing of issuers of securities, counterparties and any debtors to which the company is exposed. Among the debtors, risks related to financial instruments (including banks in which the company holds deposits) and risks related to receivables generated by the underwriting activities (premium collection, reinsurance recovering...) are distinguished into two categories: asset credit risk and liabilities credit risk.

C.3.b Risk exposure

The counterparty risk SCR stood at €273 million as at 31 December 2022, down 26% compared to 31 December 2021.

It concerns mainly default risk exposures on receivables arising from reinsurance operations, deposit in banking institutions and receivables from intermediaries or from policyholders.

C.3.c Concentration

Exposure on reinsurers as at 31 December 2022 mainly concerned one reinsurer in run-off. The risk of default on this contract is reduced by a pledge on the portion of the unit-linked undertakings ceded and by a guarantee in the form of a cash deposit for the share of the commitments in euros. This last guarantee is not recognised as a collateral under the rules established by Solvency II.

C.3.d Risk management and reduction

The counterparty risk on **reinsurers** is managed through a stringent selection of counterparties, the negotiation of the guarantees provided, and regular monitoring of the main exposures. The Risk Transfer and the Credit Risk departments are responsible for this monitoring.

The guarantees required may be actual guarantees, such as deposits in the form of a financial guarantee and pledged securities, or as sureties and letters of guarantee.

Partner counterparty risk comes under the credit governance for Partners and Reinsurers. The governance determines the delegated powers granted to local entities and provides for an agreement with the Credit Risk Department, if this latter is outside the framework of the local delegation.

As with the credit risk management system with issuers, the Credit Risk Department relies on the analyses, ratings and tools of BNP Paribas for counterparty risks shared between BNP Paribas and BNP Paribas Cardif, and on its own expertise for non-shared counterparty risks.

In addition, similarly to a reinsurer, exposure on a partner may be the subject of a collateral or a personal guarantee. Depending on the quality of the counterparty, the following techniques may be used: parent company endorsements, bank guarantees payable at first demand, an account segregated from all other assets in the event of bankruptcy, etc.

C.4 Liquidity risk

C.4.a Definition

Liquidity risk is the risk of being unable to fulfil current or future foreseen or unforeseen cash requirements coming from insurance commitments to policyholders, because of an inability to sell assets in a timely manner and at an acceptable cost without significantly impacting market prices; and /or get access in a timely manner to alternative financing tools.

C.4.b Risk exposure

Exposure to liquidity risk is appraised, over a one-year horizon, mainly through the liquidity policy of the Asset Management Department, and in the medium term through studies carried out by the Actuarial Department on forecasted expected cash flows on the assets and liabilities of BNP Paribas Cardif general funds.

C.4.c Risk management and reduction

The liquidity risk is centrally managed through reviews realised with a frequency adequate to the risk exposure.

C.4.d Sensitivity

Stress tests are regularly carried out as part of asset and liability management studies. These stress tests make it possible to check the ability of BNP Paribas Cardif to honour its undertakings in negative financial market situations, by taking account of the impact of these situations on the behaviour of policyholders

The latest sensitivity reviews show that the main general funds of BNP Paribas Cardif hold sufficiently liquid assets to face the cyclical increase of lapses that was observed further to the increase of rates in 2022, without hampering the performance of the funds.

C.5 Operational risk

C.5.a Definition

Operational risk is the risk of loss resulting from the inadequacy or failure of internal processes, IT failures or deliberate external events, whether accidental or natural. The external events mentioned in this definition include those of human or natural origin.

Internal processes are specifically those that involve employees and IT systems. External events include, but are not limited to floods, fire, earthquakes and terrorist attacks. Credit or market events such as default or fluctuations in value do not fall within the scope of operational risk.

Operational risk encompasses fraud, human resources risks, legal risks, non-compliance risks, tax risks, information system risks. This risk is particularly impacted by transverse risk drivers, which are model risk, the Environmental, Social, or Governance risk (ESG) and conduct risk.

C.5.b Risk exposure

The amount of the SCR linked to the operational risk stood at €802 million at 31 December 2022, down 13% compared to 31 December 2021. The SCR linked to the operational risk is measured based on technical provisions and earned premiums. As at 31 December 2022, the valuation of risk based on premiums predominated unlike on December 31, 2021.

<i>In millions of euros, at</i>	December 31, 2022	December 31, 2021
Capital requirement for operational risk based on technical provisions	559	710
Capital requirement for operational risk based on earned premiums	616	676
Incurred expenses for unit-linked activities (during the last 12 months)	742	831
TOTAL AMOUNT OF OPERATIONAL RISK SOLVENCY CAPITAL REQUIREMENT	802	917

C.5.c Risk management and reduction

To manage operational, non-compliance and reputation risks, BNP Paribas Cardif relies on its general internal control and operational risk monitoring system, a twin-dimension system providing both periodic and permanent control.

Governance of the internal control system at BNP Paribas Cardif is backed by the following committees:

- the ALM and Insurance Risk Management Committee (CAGRA) convenes at least three times a year. It monitors the efficiency of the permanent control and operational risk management framework. It reviews the regulatory report presented to the Board of Directors;
- the Internal Control Committee (CCI) convenes at least twice a year both at entity and BNP Paribas Cardif level. It will report on and monitor identified or feared risks, and also track related control actions at every level;
- the "Operational Risk" Committee (CoRO) convenes at least twice a year. Its purpose is to present an overall view of all major operational risks to the BNP Paribas Cardif Executive Committee, and the action plans implemented to contain them.

D. Valuation for Solvency purposes

BNP Paribas Cardif prepares its consolidated balance sheet under Solvency II pursuant to Article 75 of the Solvency II directive, i.e. mainly in market value. The consolidated financial statements of BNP Paribas Cardif group are prepared under IFRS.

D.1 Balance Sheet at 31 December 2022

<i>In millions of euros, at December 31, 2021</i>	Reference	Annual Financial report	Restatements and reclassification	Solvency II Balance sheet 31 December 2022	Solvency II Balance sheet 31 December 2021
Goodwill		126	-126	-	-
Deferred acquisition costs	A	946	-946	-	-
Other intangible assets	B	446	-446	-	-
Deferred tax assets	C	635	-177	459	522
Property held for own use	D	447	27	474	496
Investments in associates - Equity method		1 284	332	1 616	1 243
Investments (other than assets held for index-linked and unit-linked contracts)	E	143 625	601	144 226	180 174
Assets held for unit-linked contracts		79 646	56	79 701	91 118
Loans and mortgages		285	-196	88	100
Loans on policies		834	-	834	887
Share of reinsurers and retrocessionnaires in the technical reserves	F	2 436	-656	1 780	2 243
Deposits to cedants		0	5	5	7
Insurance and intermediaries receivables	G	1 274	-	1 274	1 168
Reinsurance receivables	G	102	-	102	97
Receivables (trade, not insurance)		1 715	-116	1 598	1 807
Cash and cash equivalents		1 500	724	2 224	2 208
Other assets		481	1	481	840
TOTAL ASSETS		235 782	-919	234 863	282 910
Technical provisions incl. Best estimate of liabilities (BEL)		205 652	-9 204	196 448	239 610
Provisions other than technical provisions		425	-150	275	324
Provisions for pensions	H	69	-	69	83
Liabilities for cash deposits of reinsurers	I	1 172	-42	1 129	1 353
Deferred tax liabilities	J	1	1 055	1 055	1 609
Derivatives		1 968	-438	1 530	695
Debts owed to credit institutions	K	12 849	65	12 913	13 686
Financial liabilities other than debts owed to credit institutions		55	-18	37	14
Insurance & intermediaries payables	L	1 801	-90	1 712	1 443
Reinsurance payables	L	122	-	122	93
Other debts (Not linked to insurance)		2 339	-52	2 287	2 347
Subordinated liabilities excluded from Basic Own Funds		-	12	12	12
Subordinated liabilities in Basic Own Funds	M	5 051	-178	4 873	5 304
Any other debts, not elsewhere shown		759	-90	669	677
Other liabilities		26 611	73	26 684	27 640
Ordinary share capital, Premiums		2 239	-	2 239	2 738
Reconciliation reserve		979	7 097	8 076	11 464
Amount equal to the value of net deferred tax assets		-	459	459	523
Minority interests		339	254	592	565
Dividends		-	-	367	136
Own funds		3 556	8 177	11 733	15 661
TOTAL LIABILITIES		235 782	-920	234 863	282 910

Letters A to G refer to the assets assessment methods described at part D.3. Letters H to M refer to the other liabilities assessment methods described at part D.4. The other items do not call for any particular comments on the valuation methods used to prepare the financial statements.

D.2 Scope of consolidation

As at 31 December 2022, the regulatory scope of consolidation is based on the accounting scope of consolidation used for the annual consolidated financial statements of the BNP Paribas Cardif group.

The **rules and consolidation methods** applied by BNP Paribas Cardif group depend on the type of control exercised over the entities that may be consolidated.

Companies controlled by the BNP Paribas Cardif group are fully consolidated. The group controls a subsidiary when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Whenever the BNP Paribas Cardif group carries out an activity with one or more partners sharing control by virtue of a contractual agreement which requires unanimous consent on relevant activities (those that significantly affect the entity's return) be taken unanimously, the BNP Paribas Cardif group exercises joint control over the activity. The companies under joint control are accounted for by the equity method.

Companies over which the group exercises significant influence (associates) are accounted for by the equity method. Significant influence is the power to participate in the financial and operating policy decisions of a company without exercising control. Significant influence is presumed to exist when the BNP Paribas Cardif group holds, directly or indirectly, 20% or more of the voting rights of a company.

For the purposes of their financial management activity, insurance companies are required to invest in entities that correspond economically to investment entities such as mutual funds and other vehicles for collective investments in securities and real estate companies or funds. As provided for in ANC Recommendation No 2013-05, real estate investment property companies (SCIs) and mutual funds (OPCVM) consolidated under the equity method are reclassified as insurance activity investments.

Entities under significant influence or under joint control assessed at market value are recognised on the balance sheet under "Financial investments at fair value through profit or loss".

Controlled companies that are not significant based on their contribution to the consolidated financial statements are consolidated under the equity method, which is seen as a simplified consolidation method.

The consolidated financial statements are prepared in euros. The financial statements of companies whose functional currency is not the euro are translated using the closing rate method. Under this method, all assets and liabilities, both monetary and non-monetary, are translated using the spot exchange rate at the closing date.

Foreign exchange difference are recognised in "reconciliation reserve" for the group's share, and in "minority interest" for the third party's share.

The regulatory scope of consolidation is composed of the following entities:

Consolidated subsidiaries and equity-accounted associates	Country	% of interest 31 december 2022	% of control 31 december 2022	Consolidation method
INSURANCE				
Life Insurance				
. Cardiff LivForsakring AB	Sweden			
. Cardiff Lux Vie	Luxembourg	66,67	66,67	Fully consolidated
. Cardiff Mexico Seguros de Vida SA	Mexico	100	100	Equity*
. BNPP Cardiff Seguros de Vida SA	Chile	100,0	100,0	Fully consolidated
. Cardiff Vita S.p.A.	Italy	100	100	Fully consolidated
. Cardiff Polska	Poland	100	100	Equity*
. Cardiff Retraite	France	100	100	Fully consolidated
. Cardiff Life Insurance Japan	Japan	75	75	Fully consolidated
Non-life Insurance				
. Cardiff Assurances Risques Divers SA	France	100	100	Fully consolidated
. Cardiff Colombia Seguros Generales SA	Colombia	100	100	Fully consolidated
. Cardiff Forsakring	Sweden	100	100	Fully consolidated
. LLC Insurance Company Cardiff	Russia	100	100	Fully consolidated
. Cardiff Mexico Seguros Generales SA	Mexico	100	100	Equity*
. Cardiff do Brasil Seguros e Garantias SA	Brazil			
. BNPP Cardiff Seguros Generales	Chile	100	100	Fully consolidated
. Luizaseg	Brazil	50	50	Equity
. Natio Assurance	France	100	100	Fully consolidated
. Icare Assurance SA	France	99,9935	99,9935	Fully consolidated
. BNPP Cardiff General Insurance Co Ltd	Korea	0	0	
. Cardiff EL Djazair	Algeria	100,0	100,0	Equity*
. Cardiff IARD	France			
. BNP Paribas Cardiff Sigorta Anonim Sirketi	Turkey	100	100	Equity*
. Cardiff Bizisito Magyarorszag Zartkoruen	Hungary	100	100	Equity*
. Cardiff Non Life Insurance Japan	Japan	75	100	Fully consolidated
Mixed Insurance (Life and Non-life)				
. BNPPA Cardiff TCB Life Insurance Company Ltd	Taiwan	49	49	Equity
. Cardiff Seguros	Argentina	100	100	Equity*
. Cardiff Assurance Vie SA	France	100	100	Fully consolidated
. Cardiff Do Brasil Vida e Previdencia S.A	Brazil	100	100	Fully consolidated
. BNPP Cardiff Pojistovna AS	Czech Republic	100	100	Fully consolidated
. BNPP Cardiff Emekliik A.S	Turkey	100	100	Fully consolidated
. Pinnacle Insurance PLC	United Kingdom	0	0	
. Poistovna Cardiff Slovakia	Slovakia	100	100	Equity*
. BNPP Cardiff Life Insurance Co.	Korea	85	85	Fully consolidated
. BoB Cardiff Life Insurance Company	China	50	50	Equity
. Cardiff hayat Sigorta Anonim Sirketi Vie	Turkey	100	100	Equity*
. Cardiff Compania de Seguros	Peru	100	100	Equity*
OTHER ACTIVITIES				
. BNP Paribas Cardiff Servicios y Asistencia Limitada	Chile	100	100	Equity*
. GIE BNP Paribas Cardiff	France	99,4	99,4	Fully consolidated
. Cardiff Pinnacle Insurance Management Services	United Kingdom	0	0	
. Cardiff services AEIE	Portugal	100	100	Fully consolidated
. Cardiff Limitada	Brazil	100	100	Equity*
. Paris Management Consultant Company Ltd	Taiwan	100	100	Equity*
. Karapass courtage	France	100	100	Equity*
. BNPP Cardiff Sevices SRO	Czech Republic	100	100	Equity*
. Cardiff Servicios S.A.C	Peru	100	100	Equity*
HOLDINGS				
. BNP Paribas Cardiff SA	France	100	100	Consolidating company
. BNP Paribas Cardiff BV	Netherlands	100	100	Fully consolidated
. Cardiff Nordic AB	Sweden	100	100	Fully consolidated
. NCVP Participacoes SA	Brazil	100	100	Fully consolidated
. Cardiff Pinnacle Insurance Holdings PLC	United Kingdom	100	100	Fully consolidated
. Icare Holding SA	France	100	100	Fully consolidated

The percentage of voting indicates the Group's direct and indirect holding in the company concerned

(1) Incoming entities : Cardiff thresholds

(2) Changes in consolidation method (equity to fully consolidated)

(3) Changes in consolidation method (fully consolidated to equity)

(4) Activities transferred from BNP Paribas Cardiff to Cardiff Assurance Vie and Cardiff Assurances Risques Divers branches

(5) Outcoming entities

(*) Fully controlled companies consolidated through simplified consolidation by the equity method

Consolidated subsidiaries and equity-accounted associates	Country	% of interest 31 december 2022	% of control 31 december 2022	Consolidation method
INSURANCE INVESTMENTS				
SCI Carma Grand Horizon SARL	France	100	100	Fully consolidated
SCI Reumal Investissements	France	100	100	Fully consolidated
SCI Corosa	France	100	100	Fully consolidated
SCI Cardif Logement	France	100	100	Fully consolidated
SCI Nanterre Guillaeraies	France	100	100	Fully consolidated
SCI Panfin les Moulins	France	100	100	Fully consolidated
SCI Odyssee	France	99,99	99,99	Fully consolidated
Opéra Rendement	France	99,76	99,76	Fully consolidated
Capital France Hôtel	France	98,475	98,475	Fully consolidated
Fundamenta	Italy	100	100	Fully consolidated
Assuvie	France	50	50	Equity
SCI SCOO	France	46	46,36	Equity
SCI Porte de Claves	France	45	45	Equity
C-Santé OPPCI	France	100	100	Fully consolidated
Société Immobilière du Royal Building SA	Luxembourg	66,67	100	Fully consolidated
Harewood Helena 2 Ltd	United Kingdom	100	100	Fully consolidated
SCI PARIS GRANDE ARMEE	France	100	100	Fully consolidated
FDI Poncelet SAS	France	100	100	Fully consolidated
CFH Berlin HoldCo SARL	Luxembourg	98,475	100	Fully consolidated
STRUCTURED ENTITIES				
BNPP CP Cardif Alternative	France	-	-	
BNPP CP Cardif Private Debt	France	100	100	Fully consolidated
BNPP France Crédit	France	100	100	Fully consolidated
Camgestion Obliflexible	France	100	100	Fully consolidated
CARDIF ALTERNATIVES PART I	France	100	100	Fully consolidated
Cardif BNPP IP Convertibles World	France	0	0	
Cardif BNPP IP Signatures	France	100	100	Fully consolidated
Cardif BNPP IP Smid Cap Euro	France	100	100	Fully consolidated
CARDIF CPR BASE CREDIT	France	100	100	Fully consolidated
CARDIF EDRAM SIGNATURES	France	100	100	Fully consolidated
CARDIF VITA CONVEX FUND EUR	France	100	100	Fully consolidated
CEDRUS CARBON INITIATIVE TRENDS	France	100	100	Fully consolidated
FP CARDIF CONVEX FUND USD	France	100	100	Fully consolidated
G C THEMATIC OPPORTUNITIES II (IRELAND)	France	100	100	Fully consolidated
Natio Fonds Athenes Investissement N 5	France	94	100	Fully consolidated
Natio Fonds Colline International	France	100	100	Fully consolidated
Natio Fonds Collines Investissement N 3	France	100	100	Fully consolidated
NATIO FONDS COLLINES INVESTISSEMENT N1	France	100	100	Fully consolidated
NEWALPHA CARDIF INCUBATOR FUND	France	100	100	Fully consolidated
PERMAL CARDIF CO-INVESTMENT FUND	France	100	100	Fully consolidated
TIKEHAU CARDIF LOAN EUROPE	France	100	100	Fully consolidated
VALTITRES FCP	France	100	100	Fully consolidated
BNPP Monétaire Assurance	France	100	100	Fully consolidated
Cardif BNPP AM Emerging Bond	France	100	100	Fully consolidated
Cardif BNPP IP Global Senior Corporate Loans	France	100	100	Fully consolidated
Natio-Fonds Ampère 1	France	100	100	Fully consolidated
BNPP Moderate Focus Italia	France	100	100	Fully consolidated
Elegia septembre 2028	France	0	0	
BNPP Diversiflex	France	100	100	Fully consolidated

D.3 Assets valuation methods

Pursuant to 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".

Letters A to G refer to the lines of BNP Paribas Cardif balance sheet presented at part D.1.

D.3.a Valuation methods for assets other than financial investments

A. Deferred Acquisition Costs

The share of expenses incurred when acquiring insurance contracts that do not relate to the current period are recorded as an asset on the face of the group's balance sheet. These acquisition costs are not deferred under Solvency II.

B. Other intangible assets

Intangible assets are recognised at nil value unless there is an active market for similar identifiable assets. They are then assessed at market value.

C. Deferred tax assets

Deferred taxes are determined by the method described in paragraph D.6 (Other information). Deferred tax assets are recognised for all deductible temporary differences and tax-losses carry-forwards only to the extent that the entity in question will in all probability generate future taxable profits against which these temporary differences and tax losses can be offset.

D. Property held for own use

Buildings for own use are assessed at their economic value, which is based on the value determined by an independent assessor.

F. Share of reinsurers and retrocessionnaires in the technical reserves

The method for assessing the ceded technical provisions follows the same principles as those of the technical provisions described in paragraph D.4. At 31 December 2022, the ceded technical provisions amounted to €1,780 million.

G. Receivables from insurance and reinsurance transactions

These receivables have a contractual maturity of less than one year. They are assessed at their notional value, possibly corrected by a provision to take into account the credit quality specific to each counterparty.

At 31 December 2022, the receivables from reinsurance transactions mainly correspond to the current accounts of reinsurers.

D.3.b Financial investments valuation methods

E. Financial investments

Financial assets are listed on the asset side of the balance sheet in accordance with the Complementary Identification Codes (CIC) determined by EIOPA.

The fair value of the financial assets is determined by using either the prices directly obtained from market data, or from prices stemming from valuation techniques. These valuation techniques are primarily market and income approaches encompassing generally accepted models (e.g. discounted future cash flows, Black-Scholes model, and interpolation techniques). They maximise the use of observable inputs and minimise the use of unobservable inputs. These techniques are calibrated to reflect current market conditions.

- **Equities (other than investments⁸), bonds and collective funds** are primarily valued using prices on active markets, for identical assets "Quoted Markets Price (QMP)" or for similar assets "Quoted Markets Price for similar assets (QMPS)". Characteristics of an active market include the existence of a sufficient frequency and volume of activity and of readily available prices.
- **Equities issued by investments** are primarily unlisted equities, which are valued at the share of the net adjusted situation (in accordance with the method "IFRS own funds methods (IEM)").
- **Deposits** (other than those similar to cash) are valued at a notional value.

Breakdown of investments by the valuation method is as follows as at 31 December 2022 (excluding investments representing unit-linked undertakings):

In millions of euros, at December 31, 2022	Securities with a quoted market price	Other securities, Quoted Market Price of comparable securities	Adjusted equity method	Share of the net adjusted situation	Alternative Valuation Methods (AVM)				Total
					Nominal value	Expertise value	Adjusted value	Other methods	
Property						4 546			4 546
Participations	797		89	13				580	1 479
Equities	4 529		29	1 248				482	6 289
Government Bonds	46 451	794						142	47 388
Corporate Bonds	37 642	5 991					101	50	43 785
Structured notes	156	6 215							6 371
Collateralised securities									-
Collective funds	15 541	5 501				12 790			33 832
Derivatives								1 691	1 691
Deposits					462				462
INVESTMENTS OF GENERAL FUNDS	105 117	18 502	118	1 261	462	17 335	101	2 946	145 842

Real estate investments are mainly investment property as well as shares in unlisted real investment funds.

Derivatives relate to foreign exchange forward transactions, interest rate swap contracts or futures.

⁸ i.e. "other than the equities issued by companies that are shareholdings in the meaning of the Solvency II Directive"

D.4 Valuation methods for liabilities

D.4.a Valuation methods for technical provisions

At end 2022, the BEL, gross of reinsurance, was €192,881 million, down 19% compared to 31 December 2021.

In millions of euros, at	December 31, 2022			December 31, 2021		
	BEL - Best estimate of liabilities	Risk margin	Total	BEL - Best estimate of liabilities	Risk margin	Total
Non-Life (excluding health)	820	98	918	884	110	994
Health (similar to non-life)	811	193	1 004	906	208	1 113
Health (similar to life)	511	99	610	508	124	632
Health	1 322	293	1 615	1 414	331	1 745
Life (excluding health and index-linked and unit-linked)	113 458	2 267	115 725	145 869	1 906	147 775
Index-linked and unit-linked insurance	77 281	909	78 190	88 586	509	89 095
Life (excluding health)	190 739	3 176	193 915	234 455	2 415	236 870
TOTAL TECHNICAL PROVISIONS	192 881	3 567	196 448	236 753	2 856	239 610

The BEL evolution is mainly due to the assets transferred to Cardif Retraite, entity accounted by equity method, the changes in the economic environment mainly marked by higher interest rates and the effect of the bad market performance on the valuation of unit-linked products.

The risk margin amounted to €3,567 million at December 31, 2022, increasing by €711 million or 25% compared to December 31, 2021, in line with the increase of the life underwriting risks, moderated by higher discount rates.

Reconciliation with the financial statements

In millions of euros, at December 31, 2022	Annual financial reports	Balance sheet solvency II
Gross technical provisions – non-life excluding health	3 668	918
Gross Technical provisions - health similar to non-life		1 004
<i>Best Estimate</i>		811
<i>Risk margin</i>		193
Gross technical provisions - health similar to life		610
<i>Best Estimate</i>		511
<i>Risk margin</i>		99
Gross technical provisions – life excluding health, index-linked and unit-linked	123 030	115 725
<i>Best Estimate</i>		113 458
<i>Risk margin</i>		2 267
Gross technical provisions – index-linked and unit-linked	78 954	78 190
<i>Best Estimate</i>		77 281
<i>Risk margin</i>		909
SUBTOTAL OF TECHNICAL PROVISIONS INC. BEST ESTIMATE OF LIABILITIES	205 652	196 448

The difference between the IFRS accounting technical provisions (€205,652 million) and provisions valued according to Solvency II (€196,448 million) is primarily explained by the economic revaluation of guarantees resulting in an additional discounted future profits, the reclassification of the economic value of the deferred participating benefit to surplus own funds on the French perimeter and the integration of the risk margin.

Valuation principles for technical provisions

Pursuant to Article 75 b) of the Directive, the liabilities are valued "at the amount for which they could be transferred, or settled, between knowledgeable willing parties in an arm's length transaction."

Technical provisions represent the sum of the Best Estimate of the Liabilities ("BEL"), and the Risk Margin ("RM").

The BEL corresponds to the expected value of portfolio cash-flows as at 31 December 2021, discounted with the risk free curve without any risk reduced by the credit risk and increased by volatility adjustment.

The risk margin is calculated using the "Method 1" of the simplifications proposed in guideline 61 of the Guidelines for the valuation of technical provisions (EIOPA-BoS-14/166). This methodology is based on the sub-modules' risk forecast in proportion to certain indicators called "drivers".

Valuation method for technical provisions

Projection models

Cash-flows are projected for a period of up to 40 years based on deterministic or stochastic models, either at group or at local level. The governance of data, hypothesis and models that underlies the solvency valuation of BNP Paribas Cardif aims to improve its methods and practices in order to comply with the indicators and regulatory changes.

Contract boundaries

The contract boundary is defined as the date at which the insurer has the unilateral right to terminate the contract, to refuse premiums or to modify premiums in order to reflect the risk. In Protection, to determine the boundary of each risk and contract generation, an analysis must be performed of the general terms and conditions of contracts, agreements with the partner, and local regulations.

Level of uncertainty related to the value of technical provisions

The valuation of technical provisions relies on cash-flows being projected on a long-term horizon, which requires assumptions and the use of projection models and methods that are inherently uncertain as to their realization. Consequently, the value of technical reserves is subject to uncertainty.

Yield curve

BNP Paribas Cardif uses the risk-free yield curve obtained from EIOPA, to which the Volatility Adjustment (VA) is added.

However, the group has opted not to adopt the following transitional metrics:

- matching adjustment;
- transitional measure on the risk free interest rates;
- transitional measure on deductions.

Other economic assumptions

The table below shows the underlying economic assumptions as at December 31:

- tax rates used for the computation of deferred tax relating to the Solvency II balance sheet restatements and the SCR deferred tax adjustment. Those rates are based on the rates used for the current year accounting closing and the rates subsequently voted. The tax rates are then assumed to remain constant over the projection horizon;
- exchange rates against euro.

<i>Tax rate and exchange rate in percentage on the year</i>	Tax rate 2022	Tax rate 2021	Exchange rate 2022	Exchange rate 2021
Austria	25,00 %	25,00 %	n.a	n.a
Belgium	25,00 %	25,00 %	n.a	n.a
Brazil	40,01 %	40,01 %	5,7	6,3
Bulgaria	10,00 %	10,00 %	2,0	1,96
Chile	27,00 %	27,00 %	911,2	969,9
Czech Republic	19,00 %	19,00 %	24,2	24,9
France	25,83 %	25,83 %	n.a	n.a
Germany	30,53 %	30,53 %	n.a	n.a
Italy	30,82 %	30,82 %	n.a	n.a
Japan	28,00 %	28,00 %	140,4	130,9
Luxembourg	24,94 %	24,94 %	n.a	n.a
Netherlands	25,80 %	25,00 %	n.a	n.a
Poland	19,00 %	19,00 %	4,7	4,6
South Korea	22,00 %	22,00 %	1 352,6	1 351,7
Spain	25,00 %	25,00 %	n.a	n.a
Sweden	20,60 %	20,60 %	11,2	10,3
Taiwan	20,00 %	20,00 %	32,8	31,4
United Kingdom	25,00 %	25,00 %	0,9	0,8

D.4.b Valuation methods for other liabilities

Pursuant to Article 75 of the Directive, the other liabilities are valued "at the amount for which they could be exchanged between knowledgeable and willing parties in an arms-length transaction".

Letters H to M refer to the lines of BNP Paribas Cardif balance sheet presented at part D.1.

H. Provision for pensions

Employee benefit obligations are made up of post-employment benefits (retirement benefits and pension plans) and other long-term benefits (annual leave, bonuses relating to long service, etc.) Pension liabilities are evaluated based on the present value of the benefit with respect to future services rendered, lowered by the fair value of plan assets.

I. Liabilities for re-insurers' cash deposits

As at 31 December 2022, the line item "Liabilities for cash deposits received from re-insurers" for an amount of €1,129 million mainly corresponds to the cash deposits set up within the scope of Cardif Assurance Vie reinsurance.

J. Deferred tax liabilities

Deferred tax liabilities are tax liabilities. They are determined in accordance with the method described in paragraph D.6., Other information.

K. Financial liabilities owed to credit institutions

Securities with repurchase agreement are kept as assets in BNP Paribas Cardif balance sheet. The sum received from the reinsurer in return for security lending operations is entered as a financial liability in BNP Paribas Cardif balance sheet.

At 31 December 2022, financial liabilities with credit institutions were €12,913million, primarily made up of repurchase agreement for Cardif Assurance Vie.

L. Liabilities from insurance and reinsurance transactions

These liabilities have a contractual maturity of less than one year. In principle, they are valued at notional value.

M. Subordinated liabilities in basic own funds

Subordinated debts are assessed at their fair value by discounting their future financial cash-flows at risk-free rate increased by the original issuer's spread.

The subordinated securities issued by BNP Paribas Cardif are presented in E.1.c.

D.5 Alternative valuation methods

The following are the valuation methods applied to investments:

- **property assets (other than for own use)** are re-evaluated at the market value of the buildings determined on the basis of a five-year assessment carried out by an independent assessor approved by the ACPR. This five-year assessment is reviewed yearly and certified by an assessor;
- **the hedge funds** are assessed on the basis of the last net asset value published by the management company, possibly adjusted for significant movements occurring since its calculation date;
- **deposits** (other than those similar to cash) are assessed at a notional value, which corresponds to the fair value for this type of asset.

D.6 Other information

Deferred taxes are calculated on the basis of the temporary differences between the carrying amount of assets and liabilities in the Solvency II balance sheet and their tax base.

Tax credits and tax loss carry-forwards are recognised and assessed in compliance with IFRS.

Deferred tax assets and liabilities are measured using the liability method, using the tax rate which is expected to apply to the period when the asset is realised or the liability is settled, based on tax rates and tax laws that have been or will have been enacted before the balance sheet closing date of that period. They are not discounted.

Deferred tax assets and deferred tax liabilities may be offset if, and only if:

- they relate to the taxes collected by the same tax authority and from the same taxable entity;
- there is a legally enforceable right to offset the payable tax assets with the payable tax liability.

Each BNP Paribas Cardif branch and subsidiary calculates its deferred tax on the basis of the local tax required and according to the principles described above. The position of deferred tax in the Solvency II balance sheet is offset by each entity.

Deferred tax balances as shown on the Solvency II balance sheet amounted to €459 million on the asset side and €1,055 million on the liability side.

E. Capital management

E.1 Own funds

E.1.a Objectives and policy for own funds management to cover the SCR and the SCR Group Minimum

BNP Paribas Cardif capital management aims to ensure an optimised and sufficient capital structure, to satisfy prudential requirements and to guarantee adequate financial resilience.

BNP Paribas Cardif adopts the transitional arrangements with regard to the qualification of own funds.

The **Capital Management Policy** of BNP Paribas Cardif aims notably to ensure the prudential solvency requirement are met, to cover at least at 100% the SCR defined within the scope of the ORSA assessment and to structure own funds so that the best balance can be found between the share capital, subordinated debt and other own funds elements, complying with the limits and levels laid down by regulations. Depending on the levels of solvency ratios observed and the forecasts made in particular under ORSA, actions to adjust the capital may be initiated.

E.1.b Highlights of financial year 2022

Issuance of subordinated debts

On March 28, 2022, BNP Paribas Cardif issued a redeemable subordinated note category 2 with a nominal of €850 million with a maturity of 20 years, subscribed by BNP Paribas.

On December 15, 2022, Cardif Lux Vie issued a redeemable subordinated note category 2 with a nominal of €130 million category 2 (redeemable from December 15, 2027) with a maturity of 10 years subscribed by BNP Paribas Cardif and BGL, up to their share in the entity, respectively 66% and 34%.

Transfer of Cardif Retraite shares

On November 22, 2022, Cardif Assurance Vie transferred to BNP Paribas Cardif the totality of the shares held in Cardif Retraite, ie 25 999 999 shares with a nominal of €10.

Share premiums distribution

On December 2022, as part of its solvency projection and within the quantum set by the Solvency II Regulation, BNP Paribas Cardif reduced by €500 million its share premiums.

Issuance and refund of subordinated debts

On March 28, 2022, Cardif Assurances Risques Divers refunded a redeemable subordinated note with a nominal value of €200 million and a maturity of 10 years subscribed by BNP Paribas on June 28, 2016 and issued a redeemable subordinated note with a nominal of €200 million with a maturity of 10 years, subscribed by BNP Paribas Cardif.

On March 28, 2022, Cardif Assurance Vie refunded a redeemable subordinated note with a nominal value of €650 million and a maturity of 10 years subscribed by BNP Paribas on September 27, 2016 and issued a redeemable subordinated note with a nominal of €650 million with a maturity of 10 years, subscribed by BNP Paribas Cardif.

On March 28, 2022, BNP Paribas Cardif issued a redeemable subordinated note with a nominal of €850 million with a maturity of 20 years, subscribed by BNP Paribas.

On March 15, 2022 Cardif Lux Vie issued a redeemable subordinated note with a nominal value of €130 million and a maturity of 10 years, subscribed by BNP Paribas Cardif and BGL up to their share in the entity, respectively 67% and 33%.

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

Available own funds stood at €15,822 million as at 31 December 2022 and comprised the following elements:

<i>In millions of euros, at</i>	December 31, 2022
Ordinary share capital	150
Share premiums	2 089
Surplus own funds	4 358
Reconciliation reserve	3 718
Subordinated liabilities	4 873
An amount equal to the value of net deferred tax assets	459
Minority interests	592
Participations for other financial sectors - Occupational retirement institutions	421
Deduction	-29
Deduction not included in the reconciliation reserve	-809
TOTAL	15 822

The ordinary share capital and the share premiums totalled €2,238 million as at December 31, 2022, i.e. after the reduction by €500 million of the share premiums.

The reconciliation reserve was comprised primarily of the IFRS result, IFRS accounting reserves and the revaluation of assets and liabilities under Solvency II.

The subordinated debts amounted to €4,873 million at market value, of which €5,042 million at nominal value. BNP Paribas Cardif does not have any ancillary own funds.

Own funds from the Solvency II balance sheet stood at €16,660 million, of which €838 million are trimmed including €388 million related to minority interests exceeding their quota share in the contributory SCR of companies not held at 100% and €421 million corresponding to the deduction of the own funds from the retirement activity transferred to Cardif Retraite. Own funds from subsidiaries that are not transferable by nature are also deducted.

Sixteen subordinated securities are currently accepted as own funds⁹:

In millions of euros, at	Issuer	Subscriber	Issue date	Maturity	Nominal value	Market value at December 31, 2022	Category in transitional measures
TSDI	BNP Paribas Cardif	Tiers	25/11/2014	Indéterminée	1 000	964	Tier 1
TSDI	Cardif Lux Vie	BGL	17/12/2014	Indéterminée	16	16	Tier 1
TSSDI	BNP Paribas Cardif	BNP Paribas	27/06/2019	Indéterminée	450	437	Tier 1
TSR	Cardif Assurances Risques Divers	BNP Paribas	28/06/2016	28/03/2022	-	-	Tier 2
TSR	Cardif Assurance Vie	BNP Paribas	27/09/2016	28/03/2022	-	-	Tier 2
TSR	BNP Paribas Cardif	BNP Paribas	26/09/2017	26/09/2047	760	753	Tier 2
TSR	BNP Paribas Cardif	BNP Paribas	29/09/2017	29/09/2047	710	704	Tier 2
TSR	BNP Paribas Cardif	BNP Paribas	14/12/2017	14/12/2047	170	162	Tier 2
TSR	BNP Paribas Cardif	BNP Paribas	27/06/2019	27/06/2029	200	196	Tier 2
TSR	Cardif Lux Vie	BGL	21/12/2018	21/12/2028	29	28	Tier 2
TSR	Cardif Lux Vie	BGL	26/11/2019	25/11/2026	35	32	Tier 2
TSR	Cardif IARD	Matmut	24/03/2020	24/03/2030	3	3	Tier 2
TSR	Cardif IARD	Matmut	08/12/2020	08/12/2030	5	4	Tier 2
TSR	Cardif IARD	Matmut	10/12/2021	10/12/2031	4	4	Tier 2
TSR	Cardif Lux Vie	BGL	15/12/2022	15/12/2032	43	44	Tier 2
TSR	BNP Paribas Cardif	BNP Paribas	28/03/2022	28/03/2042	850	801	Tier 2
TSR	Cardif Lux Vie	BGL	26/11/2019	25/11/2026	17	15	Tier 3
TSR	BNP Paribas Cardif	Tiers	29/11/2017	29/11/2024	750	708	Tier 3
Total					5 042	4 873	

Own-fund items are ranked in three tiers with a graduation in quality, according to their availability, priority subordination for policyholder undertakings coverage, and duration.

Tier 1 own funds represent 76% of the available own funds.

In millions of euros, at	December 31, 2022	December 31, 2021	2022/2021	
Tier 1	12 028	15 855	-3 827	-24 %
Tier 2	2 627	2 824	-197	-7 %
Tier 3	1 167	1 288	-121	-9 %
Total available own funds with transitional measures	15 822	19 967	-4 145	-21 %

The composition by Tier based on the transitional measures, is as follows:

In millions of euros, at	December 31, 2022					December 31, 2021
	Total	Tier 1 - unrestricted	Tier 1 - restricted	Tier 2	Tier 3	
Basic own funds before deduction for participations in other financial sector as foreseen in article 68 of Delegated Regulation 2015/35						
Ordinary share capital (gross of own shares)	150	150	-	-	-	150
Share premium account related to ordinary share capital	2 089	2 089	-	-	-	2 588
Surplus own funds	4 358	4 358	-	-	-	6 321
Surplus own funds not available at Group level	-	-	-	-	-	226
Reconciliation reserve	3 718	3 718	-	-	-	5 143
Subordinated liabilities	4 873	-	1 418	2 732	723	5 304
An amount equal to the value of net deferred tax assets	459	-	-	-	459	523
Minority interests (if not reported as part of a specific own fund item)	592	592	-	-	-	565
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	-29	-29	-	-	-	-91
Deductions not included in the reconciliation reserve	-809	-672	-16	-105	-15	-537
TOTAL BASIC OWN FUNDS AFTER DEDUCTIONS yc Cardif Retraite	15 822	10 626	1 401	2 627	1 167	19 967

The table below introduces the reconciliation of book equity, assets surplus compared to liabilities under Solvency II and eligible own funds of the BNP Paribas Cardif group

⁹ The two Tier 1 undated subordinated notes (TSDI) with a €1,000 million nominal value and a €16 million nominal value are not accepted for the SCR coverage in target measures

<i>In millions of euros, at</i>	December 31, 2022	December 31, 2021
Ordinary share capital, Premiums	2 239	2 738
Other reserves, retained earnings and income of the year	979	2 522
Minority interests	339	360
Consolidated shareholders' equity	3 556	5 620
Goodwill elimination, value of business in force and intangible assets	-446	-423
Recognition at fair value of financial assets and liabilities	1 652	1 865
Recognition at economic fair value of technical liabilities	6 971	8 599
Excess over assets over Solvency II liabilities	11 733	15 661
Subordinated liabilities	4 873	5 304
Dividends to be paid	-367	-371
Unavailable minority interests	-388	-311
Other adjustments	-29	-317
Group Solvency II Available Own funds	15 822	19 967
Restricted Tier 1 + Tier 2	0	0
Tier 3	0	0
Group Eligible Own funds	15 822	19 967

Eligible own funds amounted to €15,822 million and were identical to the available own funds as at 31 December 2022.

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

Without transitional measures, some subordinated debts will no longer be admitted as coverage for the SCR. The total debts not admitted excluding transitional measures amounted to €981 million as at 31 December 2022 at market value. Excluding transitional measures, the available own funds amounted to €14,841 million as at 31 December 2022.

E.2 Regulatory capital requirements (SCR and SCR Group Minimum)

E.2.a Amounts of SCR and SCR Group Minimum

The amount of SCR was €9,717 million as at 31 December 2022.

The amount of SCR Group Minimum was €3,611 million as at 31 December 2022 compared to €4,902 million in 2021, a decrease mainly due to the transfer of the retirement activity to Cardif Retraite and the evolution of the economic environment.

E.2.b Information on the data used for calculating the SCR Group Minimum

In 2022, the SCR Group Minimum is the sum of entity MCR, after application of the percentage of interest.

The data used for calculating these MCR are:

- technical reserves, described in paragraph D.4;
- written premiums, net of reinsurance, issued for financial year 2022;
- capital at risk.

E.2.c Amount of SCR per risk module

The SCR amounted to €9,717 million at 31 December 2022, with a diversification effect of -€3,391 million and a loss-absorbing capacity of deferred taxes of -€2,229 million. The SCR was down to 10% compared to 31 December 2021, driven by the reduction of the market risk partially offset by the rise of the underwriting life risk.

The loss-absorbing capacity of deferred taxes reflect the specific situation of each jurisdictions:

- for insurance entities of the French tax group BNP Paribas, the loss-absorbing capacity is maximum and reflects the tax credit recovery (25.83%) generated by the losses in the bicentenary scenario (SCR) thanks to the tax integration agreement;
- for entities outside France, the loss-absorbing capacity is limited to the amount of net deferred tax of the subsidiary's balance sheet taking account of the territoriality of the tax.

The SCR is broken down as follows:

<i>In millions of euros, at</i>	December 31, 2022	December 31, 2021
Market risk	7 628	10 285
Counterparty default risk	273	369
Life underwriting risk	4 417	2 823
Health underwriting risk	608	720
Non-life underwriting risk	631	685
Diversification	-3 391	-3 031
BASIC SOLVENCY CAPITAL REQUIREMENT	10 166	11 850
Operational risk	802	917
Adjustment on loss-absorbing capacity by technical provisions	-	166
Loss-absorbing capacity of deferred taxes	-2 229	-2 755
Additional capital requirements already defined	-	-
Capital requirement for other financial sectors (Capital requirement excluding insurance) - Occupational retirement institutions	374	-
Capital requirement for non-controlled participations	605	643
SOLVENCY CAPITAL REQUIREMENT	9 717	10 822

The change per risk module is described in Part C - Risk profile.

E.2.d Coverage ratios

<i>In millions of euros, at</i>	December 31, 2022					December 31, 2021
	Total	Tier 1 - unrestricted	Tier 1 - restricted	Tier 2	Tier 3	Total
Eligible own funds to meet the solvency capital requirement	15 822	10 626	1 401	2 627	1 167	19 967
Eligible own funds to meet the minimum capital requirement	12 329	10 205	1 401	722	-	16 835
Solvency capital requirement (SCR)	9 717					10 822
Group minimum capital requirement	3 611					4 902
Ratio of Eligible own funds to the solvency capital requirement	163 %					185 %
Ratio of Eligible own funds to the minimum capital requirement	341 %					343 %

The SCR and SCR Group Minimum coverage ratios are 163% and 341% respectively, as compared to 185% and 343% respectively in 2021.

E.2.e Use of Undertaking Specific Parameter (USP)

Not applicable.

E.3 Calculation option taken for calculating the SCR (article 305b)

Duration in the assessment of the equities risk, in accordance with Article 304 of Directive 2009/138/EC, was not used.

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

Not applicable.

E.5 Non-compliance with SCR and SCR Group Minimum

Not applicable.