

# RESPONSIBLE INVESTMENT STRATEGY 2019



REPORT PURSUANT TO ARTICLE 173 – VI  
of the French Act on Energy Transition for Green Growth



**BNP PARIBAS  
CARDIF**

The insurer  
for a changing  
world

# Executive summary



This report presents the Responsible Investment Strategy of BNP Paribas Cardif. This strategy is structured around three main commitments:

- 2
- including non-financial criteria in investment processes and shareholder engagement;
  - taking action to combat climate change; and
  - expanding our positive-impact investments.

The drafting of this report complies with Article 173 of the French Energy Transition Act (LTE). The LTE sets forth, institutional investors' reporting requirements regarding their accounting for environmental and social issues.

With **€3.7 billion in green investments at the end of 2019<sup>(1)</sup>**, BNP Paribas Cardif contributes more each year to the energy and environmental transition. That same year, the Company expanded the coverage of its **ESG filter<sup>(2)</sup>** and conducted an ESG analysis on **89% of the assets in the France General Fund**.

Reduction in coal use is a key factor in promoting the energy transition and combating climate change. In 2018, coal was behind 38% of the world's electricity production<sup>(3)</sup>. BNP Paribas Cardif is intensifying its commitment with a timetable for a **final exit from the thermal coal industry by 2030 for the OECD zone, and 2040 for the rest of the world**.

As a committed investor, BNP Paribas Cardif makes reference to **the TCFD's** recommendations in this report. The Company continues to commit to climate change-related initiatives such as **the PRI, the Montreal Carbon Pledge**, and the **Climate Target Fund**. The insurer's SRI policy is also implemented through its role as a shareholder. There has been an increase in dialogue with corporate clients and management company engagement, and voting participation has been stepped up. This outreach is guiding corporate clients through the energy transition.

BNP Paribas Cardif includes climate issues in its investment policy. A **carbon transition filter**, included in the non-financial analysis process, is used to **assess companies' energy transition strategy**. The investment universe excludes the lowest-scoring corporate clients. Through this work, BNP Paribas Cardif continues to reduce the **carbon intensity** of its directly-held securities portfolios (equities and corporate bonds). In its report, the insurer publishes the alignment of its equity and corporate bond portfolios with the 2°C target set in the **Paris Agreement**. The current temperatures of the portfolios in the General Fund are estimated using two methods, the **SB2A** and the **CIA<sup>(4)</sup>**. With these estimates, the insurer is contributing to the search for and assimilation of new, relevant methods. These indicators are used to fit climate targets into long-term investment decisions.



With €6.5 billion in 2019, BNP Paribas Cardif is growing its positive-impact investment volumes. To keep up the pace, the Company has made the commitment to increase its **positive-impact investments by €5 billion by the end of 2024**. Thanks to the new European taxonomy, the insurer has identified what **share<sup>(5)</sup>** of its funds is **green**. The first results show a significant green share: 31.6% for equities and 17.5% for corporate bonds.

To improve its understanding of the environmental impact of its investments, BNP Paribas Cardif also uses the **Net Environmental Contribution (NEC)** method. This indicator refines the non-financial analysis of the corporate clients in its portfolio. In addition, it helps ascertain the key environmental issues by economic use.

Moreover, BNP Paribas Cardif has analysed the **climate risk** exposure of its asset portfolio. It emerged that 79% of the corporate clients in its portfolio fit into the least-exposed decile.

Lastly, for the third consecutive year, BNP Paribas Cardif published the contribution of its “directly-held equity” portfolio to the United Nations’ **Sustainable Development Goals (SDG)**. The SDGs are a reference guide for identifying the impacts of investments contributing to a more sustainable and solidarity-based economy.

The insurer is aware of the crucial role the financial sector plays. As such, it supports the projects and corporate clients that provide solutions to sustainable development issues.



- (1) Excluding real estate investments.
- (2) ESG criteria: Environmental, Social and Governance criteria.
- (3) Per the International Energy Agency.
- (4) SB2A method: Science-Based 2°C Alignment. CIA method: Carbon Impact Analytics.
- (5) Analysing the green share consists of identifying the portion of corporate equity and bond portfolios related to activities contributing to the energy and environmental transition.



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# « 2019, A DECISIVE TIME FOR SUSTAINABLE FINANCE »



Introductory editorial from **Renaud Dumora**, *Chief Executive Officer*

**W**e are insurers and manage the savings entrusted by our customers with a long-term outlook. We want to guarantee effective management for our policy holders, who expect positive returns on their savings and a positive impact on society and the environment. For over the last 10 years, we have put Socially Responsible Investments (SRI) at the centre of our investment strategy. Our actions are fully consistent with the BNP Paribas Group strategy to be an accelerator for energy transition. I would like to highlight the fact that this 4th version of our Responsible Investment Strategy report has been prepared at a particular time. The Covid-19 crisis has severely affected our individual lives, our society and our economy. Faced with this unprecedented situation, we have been mobilised alongside our customers and partners worldwide to provide support and help through these difficult times. This crisis should also constitute a turning point to take climate issues into account on a global level. This event reminds us that protecting biodiversity and combatting global warming are essential to guaranteeing the sustainability of our ecosystems. SRI contributes in a decisive way to moving our society and economies towards a more sustainable and inclusive model. Sustainable

finance must be part of this movement and take part in the collective innovation momentum.

Faced with the climate emergency, international regulators manage financial players' actions. The *Task Force on Climate-Related Financial Disclosures* (TCFD) and the European Union's initiatives (sustainable finance action plan, taxonomy) are just a few examples, and 2019 marked a decisive turning point.

At BNP Paribas Cardif, we considered important to contribute to research by experimenting new ways of measuring the potential impacts of global warming. We use several methodologies to measure the carbon intensity of our portfolios, and to check the alignment of their trajectories with the commitments made during the Paris Agreement.

We pay particular attention to climate change related risks as defined by the TCFD. For the first time this year, we analysed the physical risks related to global warming and the transition risks caused by the shift to a low-carbon economy.

At the centre of these changes, we have taken strong specific commitments, such as increasing our positive-impact investments to one billion euros per year by the end of 2024. We have prepared a strategy of total disengagement from investments linked to thermal coal by 2030 at the latest in the OECD zone and 2040 for the rest of the world.

This document testifies to our achievements in 2019 as well as our commitments for the coming years, crucial for climate issues. We hope you enjoy reading it!



# PURPOSE AND STRUCTURE OF THE REPORT



**BNP Paribas Cardif continues its corporate social responsibility (CSR) policy defined in 2016 around four main areas, namely:**

- responsible products and services;
- a company centred on people;
- a socially-responsible company;
- **responsible investments**.<sup>\*</sup>

The latter places **responsibility at the heart of an investment strategy** including three commitments:

- **Commitment I - Consolidating the ESG analysis<sup>(1)</sup> and shareholder engagement** throughout investment strategies and processes, and gradually deploying this approach in the main countries of operation;
- **Commitment II - Taking action against climate change**, by factoring in the carbon footprint of financial assets in order to encourage companies to implement the low-carbon transition in their business models;
- **Commitment III - Developing positive-impact investments**, according to their positive social and/or environmental contribution.

This report complies with Article 173 of the French Act on Energy Transition for Green Growth (LTECV<sup>(2)</sup>). It presents the results of BNP Paribas Cardif's responsible investment policy for its assets under management in France within the **General Fund**.<sup>\*</sup> It is also in line with the recommendations of the *Task Force on Climate-related Financial Disclosures* (TCFD). This indication signals the concerned sections and a cross-reference table can be found in the appendix (p.74). Unless otherwise indicated, all tables and illustrations in this report are based on information from BNP Paribas Cardif. As in our 2018 edition, this document focuses on these three commitments in order to highlight the progress made in their deployment.

<sup>\*</sup> READ GLOSSARY

(1) ESG criteria: Environmental, Social and Governance criteria.  
(2) Act of 17 August 2015, Decree no. 2015-185 of Article 173.



# **BNP Paribas Cardif**

a responsible investor,  
committed to  
the environment



## 01. COMMITTING

# CONTRIBUTING MORE TO THE ENERGY AND ECOLOGICAL TRANSITION

BNP Paribas Cardif's targets set in previous years:

**€3.5**  
billion in green  
investments  
for 2020

**- 30 %**  
in energy  
consumption  
for office buildings<sup>(3)</sup> by 2020  
compared to 2011

**+€3.7**  
billion  
by the end of 2019

**-24 %**  
in energy  
consumption  
in 2019

### New objectives

**+5**  
billion euros  
in positive-impact investments  
by 2024\*

**2040**  
thermal coal exit  
As early as 2030  
for OECD countries\*\*

(3) Buildings managed within the real estate assets portfolio.

\* More information on the scope in section III, p.58

\*\* More information in section I.1, p.26



## INTERVIEW **TCFD\***

**Olivier Héreil**

Chief Operating Officer, Asset Management at BNP Paribas Cardif



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*We have applied environmental, social and governance criteria to our investments for 12 years now. Year after year, we have undertaken to extend the scope of our responsible investment approach to cover our different assets and regions.*

*But there is still a great deal to be done: reassess the scopes of our exclusions, develop our ESG analysis, broaden our data fields and perfect our monitoring indicators.*

*We have set several commitments in 2019 and 2020. We have reached the end of those taken over the last few years, both in terms of our green investments and the reduction in the energy consumption of our buildings. We will take stock of our progress at the end of 2020. It is essential, as a long-term responsible investor, to define new high goals for the medium term. For this reason, on the one hand, we have set ourselves the target of investing €1 billion every year in positive-impact projects by 2024 end. On the other hand, we aim to decarbonise our assets by disengaging from coal by 2030 for the OECD zone and 2040 for the rest of the world.*

**We aim to decarbonise our assets by disengaging from coal by 2030 for the OECD<sup>(4)</sup>**

*The health crisis that we are experiencing in 2020 presents us with a catastrophe that transcends borders. It alerts us to the risks incurred by doing nothing or moving too slowly. Health is a major concern, alongside global warming, the decline in biodiversity and respect for human rights. These challenges cannot be addressed separately. They are interdependent. It is up to us, through our investments, to actively contribute to these major causes.*

(4) OECD: the Organisation for Economic Co-operation and Development is an intergovernmental economic organisation with 37 member countries.

\* TCFD (Task Force on Climate-related Financial Disclosures).

# PUTTING BNP PARIBAS CARDIF'S GOVERNANCE TO WORK FOR THE STRATEGIC AMBITION

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BNP Paribas Cardif's **governance bodies** participate in defining and deploying the CSR strategy. They monitor its responsible investment aspect. Their involvement is a crucial element for success.

BNP Paribas Cardif's ESG governance is built around the Board of Directors and various committees:

The **Board of Directors** of BNP Paribas Cardif ensures progress is achieved with regard to social and environmental responsibility and responsible investment;

The **Executive Committee** had committed to carrying out an initial analysis of the physical and transition risks for assets under direct management in 2019. It monitors the **gradual integration of these risks into BNP Paribas Cardif's overall risk management** and will prepare in 2020 a climate strategy that will be presented to the Board;

The **CSR-Investment Committee** has the role of monitoring and discussing responsible investment issues in-house. These issues include, among others, regulations, competition and green and solidarity savings. This committee also coordinates business line initiatives;

The **Compliance Committee** ensures compliance with regulations on reasonable vigilance measures, notably the Act on the duty of vigilance of 27 March 2017. It aims to identify and prevent the risks of non-compliance with human rights and fundamental freedoms, health and safety of individuals and environmental risks;

The **Asset Management Committees** monitor the correct application of the decisions taken. The work on climate risk is part of the alignment of BNP Paribas Cardif's investment strategy with the TCFD recommendations. coordinates business line initiatives;

# COMMITTING TO NATIONAL AND INTERNATIONAL INITIATIVES

BNP Paribas Cardif continues to be involved in major global initiatives, such as the launch of the Climate Target Fund (Fonds Objectif Climat) in 2019.

## Climate Target Fund

BNP Paribas Cardif takes part in the launch of innovative and ambitious “climate funds”. These funds spearhead the development of investment policies and practices that comply with the targets of the Paris Agreement. 12 institutional investors came together under the coordination of the Caisse des Dépôts. In 2019, they launched a call for tenders to select the future managers of the three new Climate Target funds:

- **Two funds comprising European equities (€230 million each);**
- **A European bond fund (€125 million).**

BNP Paribas Cardif committed to investing €40 million in the equity fund and €20 million in the bond fund. The funds will be launched in 2020. The asset management companies should develop innovative methods to factor the fight against global warming into financial products. In this way, investors want to support the development and implementation of promising approaches.

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## History



**2018:** BNP Paribas Group is a founding member of the **Tobacco-Free Finance Pledge**, thus demonstrating its commitment to disengage from the tobacco sector. In 2017, BNP Paribas Cardif joins the initiative definitively ending it had ending its financing and investment activities for the tobacco sector, including for manufacturers, wholesalers and traders whose revenue is mainly generated by tobacco.



**2017:** BNP Paribas Cardif adheres to the **Sustainable Real Estate Observatory** (Observatoire de l'Immobilier Durable - OID). The OID brings together French private and public-sector real estate professionals with the aim of promoting sustainable development and innovation in real estate.

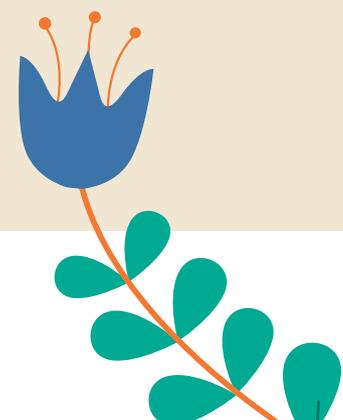


**2016:** BNP Paribas Cardif signs the **Montreal Carbon Pledge**. This approach aims to raise investor awareness on the global warming issue. BNP Paribas Cardif has undertaken to measure the carbon footprint of its portfolios, and to publish the results every year.

**2016:** BNP Paribas Cardif signs the **Principles for Responsible Investment (PRI)**. An independent association supported by the United Nations, the PRI aim is to develop a shared structure for mainstreaming ESG issues for investors. They provide BNP Paribas Cardif with a framework to develop Socially Responsible Investment (SRI), both in-house and with its partners.



**2013:** BNP Paribas Cardif adheres to the French Charter for the Energy Efficiency of Public and Private Commercial Buildings, initiated by the **Sustainable Building Plan**.



## 02. IMPLEMENTING

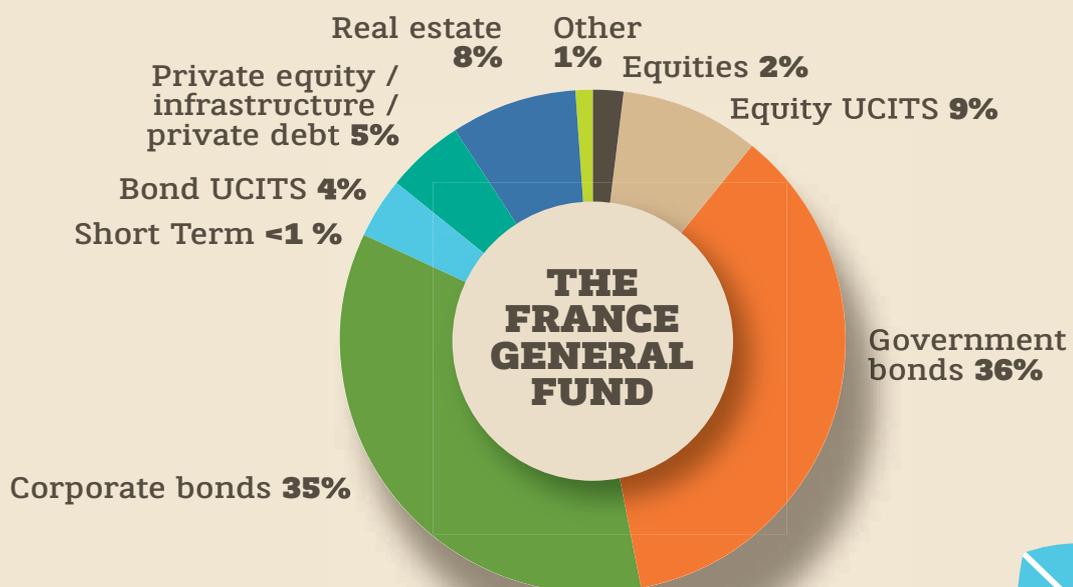
BNP Paribas Cardif continues to deploy its responsible investment policy across all assets under management.

As at 31 December 2019, €260 billion was held under management worldwide. The main General Funds are located in France, Italy and Luxembourg, representing €123 billion, €20 billion and €10 billion respectively.

BNP Paribas Cardif also offers its policy holders **unit-linked vehicles\*** representing around €40 billion in France (see p.16).

# THE FRANCE GENERAL FUND

### Allocation of the assets in the General Fund in France at 31 December 2019 (in market value)



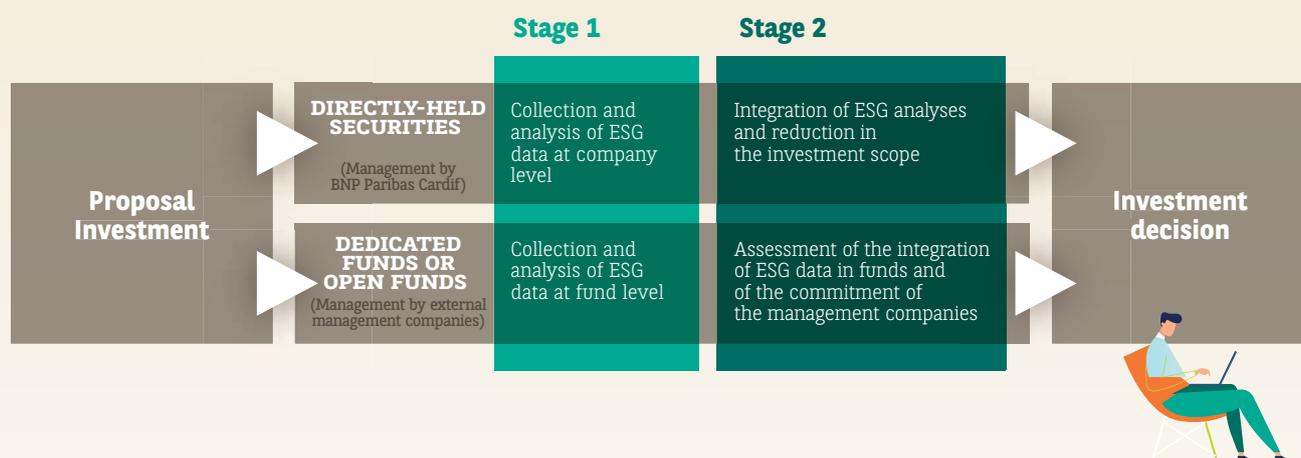
# INTEGRATION OF THE ESG CRITERIA ACCORDING TO THE MANAGEMENT MODES AND ASSET CLASSES

In the management of the France General Fund, BNP Paribas Cardif integrates its ESG policy into its investment processes. This policy is adjusted according to the type of assets, i.e. directly-held securities (equities and bonds) or funds, and consists of two main stages:

- data collection and ESG analysis;
- monitoring of the inclusion of ESG criteria.

## Representation of the ESG policy applied to BNP Paribas Cardif's investment process

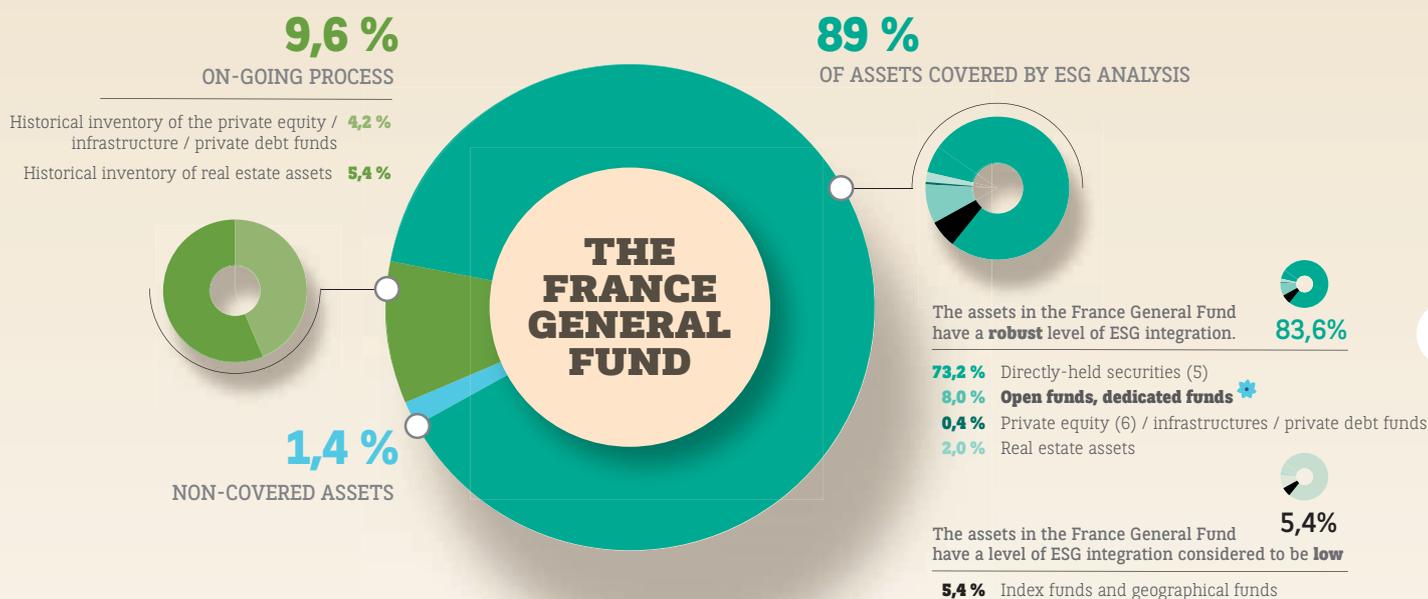
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The ESG integration of directly-held securities reaches 100%

For the non-financial analysis of its investments, BNP Paribas Cardif collects specific ESG data for each asset class. It then analyses this data and includes it in the filtering processes for the investment universe. (see commitment I, p.27).

### Level of ESG integration by asset class at 31 December 2019



Only 1.4% of the assets from the France General Fund are not covered by an ESG analysis. Data of this type is non-existent or the analysis is unsuited to the concerned assets: macro-hedging, derivative products, hedge funds, etc. BNP Paribas Cardif has also identified some Private Equity and real estate funds for which the ESG data and integration are considered to be insufficient. These funds represent 4.2% and 5.4% of the General Fund respectively. From 2020, they will be subject to the collection of ESG data and a more advanced dedicated analysis that will gradually enable better knowledge of the ESG integration in these funds to be obtained.

**For 89% of assets, the quality of the ESG data is considered satisfactory. 83.6% of these assets have a robust level of ESG integration.**

(5) Including management mandates  
 (6) Investment capital

# UNIT-LINKED VEHICLES

## Inclusion of ESG analysis in unit-linked vehicles

Before integrating a new vehicle within the unit-linked vehicle range, BNP Paribas Cardif questions the asset management company on ESG-Climate issues via a **due diligence** \* questionnaire.

## Labelled unit-linked vehicles

At the end of 2019, BNP Paribas Cardif held over **€6,690 million in responsible unit-linked vehicles**, including €4,281 million in labelled vehicles. Independent organisations, managed in several European countries, grant these labels and regularly revise their award.

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## Main responsible investment labels



**LABEL ISR** - This label benefits from the support of the French Economy and Finance Ministry. It aims to make socially responsible investment products more visible for savers in France and Europe. The ISR label requires that the non-financial analysis, i.e. the way in which ESG criteria are taken into account, be integrated in a systematic and measurable way into investment decisions.



**FINANSOL** - Awarded for the first time in 1997, the Finansol label distinguishes solidarity savings products.



**LUXFLAG** - European ESG label, launched by the Luxembourg Luxflag agency that guarantees compliance with ESG criteria throughout the investment chain.



**GREENFIN LABEL** - Launched by the Ministry for the Environment in June 2019, to replace the TEEC label, it guarantees the green quality of investment funds, notably their transparent and sustainable practices. This label excludes funds that invest in the nuclear and fossil energy sectors.



**TOWARDS SUSTAINABILITY** - This label was created by FebelFin, the Belgian financial sector federation, in February 2019. It aims to guarantee transparency and clarity for sustainable investments. It combines three requirements: transparency, ESG analysis for all portfolios and exclusions with low thresholds for conventional and unconventional fossil energies.



**FNG SIEGEL** - This sustainable label is mainly present in Germany, Austria, Switzerland and Liechtenstein.

## PACT ACT

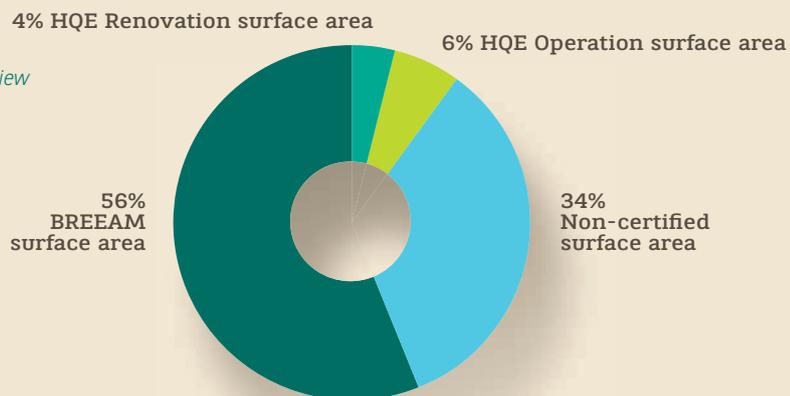
Pursuant to the PACT Act, from 1 January 2020, life insurance contracts must offer a SRI, solidarity or green unit-linked vehicle. BNP Paribas Cardif already proposed such vehicles as part of its existing contract offerings before the Act entry into force.. New vehicles are being studied to extend the range. On this topic, BNP Paribas Cardif provided training on the different implications of the act to its sales teams and distributors.

## Real Estate Investments

To date, the real estate investment sector does not have any SRI labels, however, asset management companies have been working with the public authorities to create such a label over the last two years. The main real estate unit-linked vehicles marketed by BNP Paribas Cardif follow a CSR approach. These are SCI **Cardimmo**, managed in-house, and the **OPCI Diversipierre**, managed by BNP Paribas Real Estate Investment Management (REIM).

### Cardimmo

*HQE and BREEAM  
certification overview  
at 31/12/2019  
(in surface area)*



66% of the surface areas in SCI **Cardimmo's** portfolio are subject to environmental certification and/or labelling.

**Diversipierre** is the leading unit-linked vehicle in volume marketed by Cardif Assurance Vie. It provides for a rating grid to be followed for each new asset. This grid enables assets to be allocated a score out of 100 for the three ESG themes and to define their improvement potential.

Based on this improvement potential, the teams define a list of actions over three years. In order to assess the fund's progress, the grid is updated in-house each year and every three years by an external partner.



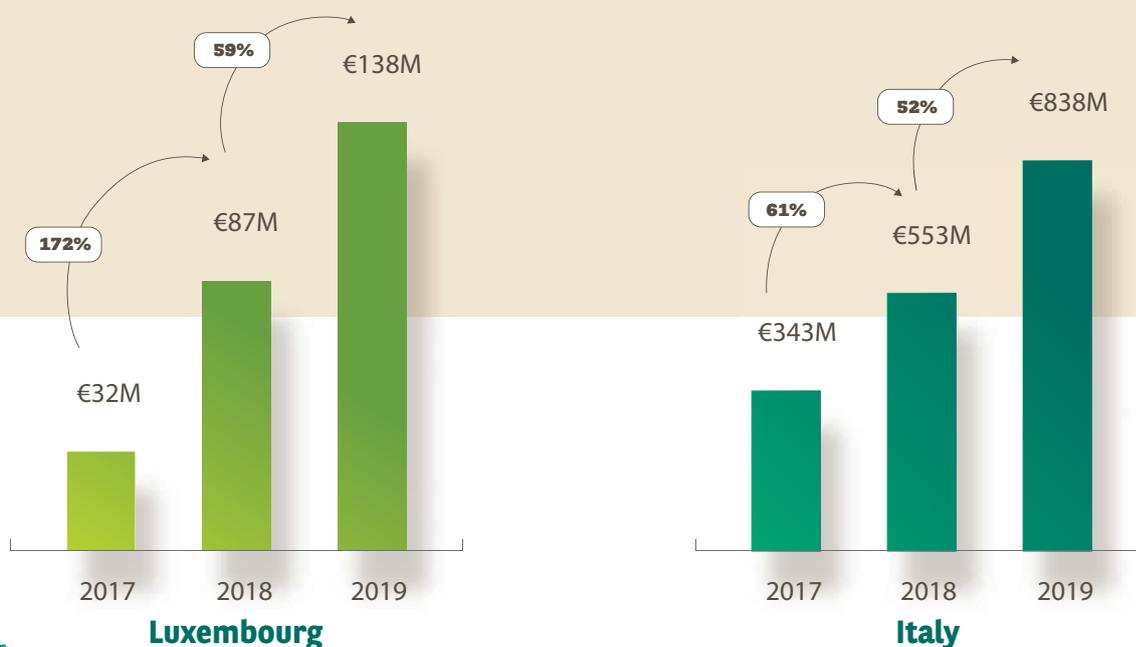


## SRI STRATEGY IN LUXEMBOURG AND ITALY

After France, Luxembourg and Italy are the main countries in which BNP Paribas Cardif operates. The teams follow a similar ESG analysis approach to the one developed in France. This analysis covers the directly-held securities and funds. The two countries also make positive-impact investments covering environmental or social aspects on their own initiative.

**In 2019, BNP Paribas Cardif's outstandings for green bonds in Luxembourg and Italy significantly increased compared to 2018, by 59% and 52% respectively.**

### Change in BNP Paribas Cardif's outstandings for green bonds in market value, in €M





For example, in 2019, BNP Paribas Cardif Luxembourg invested in a bond issued by the Dutch electricity distribution company, **Tennet**. This bond finances the distribution infrastructure for energy produced by offshore wind turbines to the electricity grid. According to estimates, this bond would avoid the emission of 782 tonnes of CO2 equivalent per million euros invested over the investment's lifetime (Source: Trucost. See methodology for avoided emissions p.65).

**The Luxembourg subsidiary of BNP Paribas Cardif carried out other types of green investments through environmentally themed funds.** It also invested in the **BNP Paribas Aqua fund**, which targets companies specialising in water management (infrastructure and treatment).



**In Italy, BNP Paribas Cardif develops its green investments and for example certified real estate funds.** This guarantees that social and environmental criteria are factored into the management phase. The Italian subsidiary invested in the Fundamenta and Concepto funds that obtained Three Stars from GRESB and GRESB<sup>(7)</sup> Green Star status. These funds are managed by BNP Paribas REIM.

**In terms of social investments, BNP Paribas Cardif favours social bonds.** It notably invested in a bond issued by **Cassa Depositi e Prestiti**. This Italian institution promotes the country's growth by contributing to the sustainable development of the economy. The selected bond targets the construction, renovation and security of Italian public schools and urban infrastructure, in compliance with anti-seismic standards.

(7) The Global Real Estate Sustainability Benchmark (GRESB) is an environmental labelling organisation created in 2009 and dedicated to real estate assets.

## 03. REPORTING AND MOBILISING

# REPORTING ALIGNED WITH REGULATORY REQUIREMENTS

TCFD

Financial institutions must now report on the strategy carried out, its implementation and results. The past year confirmed several structural changes:

- The TCFD recommendations are organised around four pillars: Governance, Strategy, Risk Management, Metrics & Targets. They constitute the benchmark methodological framework for reporting on how climate issues are factored in by the different financial intermediaries. In June 2019, the TCFD's<sup>(8)</sup> secretariat presented an international report highlighting the progress made and looking at what

remains to be done. A cross-reference table of the TCFD recommendations can be found in an appendix;

- A study<sup>(9)</sup> carried out by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) in June 2019 revealed that the financial supervisors also use this methodological framework. This study concerned the application of Article 173 of the French Act on Energy Transition by credit institutions and insurance companies. It notably targeted the analysis and management of climate risks by the different categories of financial players;

(8) TCFD Status Report 2019 (June 2019)..

(9) Report on the application of the provisions of Article 173 of the LTE (Energy Transition Act) and summary of good practices, ACPR-AMF (June 2019)..

### ACPR recommendations on climate-related risk management

- Precise definition of the climate related risk management strategy
- Governance: definition and formalisation of the role and responsibility of the governance bodies in risk monitoring
- Development and appropriation of the metrics used to assess risks

- The European Union (EU) has set climate targets for 2030 and aims for “carbon neutrality” by 2050. For this purpose, the European Commission adopted an ambitious action plan for sustainable finance in 2018. This plan aims to channel investments towards green transition. It defines the EU’s strategy to integrate ESG considerations in its financial policy framework and mobilise funding for sustainable growth

Since 2017, the EU institutions have worked to set up a political and regulatory framework enabling the financial system to direct investments towards green transition. The public sector and capital markets must invest together to achieve this target.

As part of this EU strategy, the regulation on sustainable investments and sustainability-related risks disclosures was adopted in December 2019. It will be applicable from

March 2021. It provides ambitious principles on transparency, which will be clarified in 2020 in the form of execution measures. In France, this regulation will supplement the provisions of Article 173 of the LTECV. The provisions of this regulation aim to promote the integration of sustainable development risks in the investment processes and the disclosure of these risks to investors. They introduce new transparency obligations for financial players specifically:

- the integration of sustainability risks<sup>(10)</sup> in investment strategies;
- the consideration of the negative impacts of investment decisions on environmental and social issues, respect for human rights and the fight against corruption;
- specific reporting on sustainable financial products<sup>(11)</sup>. Consumer information and prevention of greenwashing are at the heart of these measures.

(10) Event or situation in the environmental, social or governance areas that, if it occurs, may have a real or potential significant adverse impact on the value of the investment.

(11) Product with environmental and social characteristics and/or goals.



(12) More information on the PRIs can be found at [www.unpri.org](http://www.unpri.org)

## Reporting of the Principles for Responsible Investments (PRI)

BBNP Paribas Cardif signed the Principles for Responsible Investment (PRI)<sup>(12)</sup> in 2016. Adherence to the PRI requires the completion of a questionnaire including different assessment modules every year. The rating grid is A, B, C, D and E.

In 2018, BNP Paribas Cardif completed 14 modules, compared to 9 in 2017, by extending its reporting scope to securities not held directly. It retains the maximum ratings in the Strategy & Governance, Infrastructure and Real Estate modules. The results of the 2019 questionnaire will be available from July 2020.



## A SHARED COMMITMENT

BNP Paribas Cardif's strategy for the different ESG issues is supported by the strong commitment of all its employees. The insurer encourages and supports this mobilisation through events, internal communications and public statements.

The internal training offering on environmental issues has increased. Employees have access to programmes on sector policies. They may also consult dedicated resources on specific environmental and social subjects: carbon neutrality, direct impacts, social impact contracts, etc. Certain BNP Paribas Cardif employees were also able to benefit from a full course proposed and certified by Cambridge University (Institute for Leadership). Communication and events are organised on a regular basis. For the 2019 Responsible Finance Week, BNP

Paribas Cardif invited its employees to watch the award-winning film, *A Plastic Ocean*. On this occasion, the Company took the opportunity to present its positive-impact investments to promote ocean conservation <sup>(13)</sup>.

The Real Estate Department regularly participates in working groups organised by the Sustainable Real Estate Observatory (Observatoire de l'Immobilier Durable - OID). These sessions aim to contribute to developing knowledge and feedback.

BNP Paribas Cardif also aims to attract new employees interested by the responsible finance sector. Among other initiatives, the Company diffused a video on LinkedIn entitled "Oh My Job! - Energy transition and BNP Paribas Cardif: a winning duo for the planet!", presenting the changes in the equity investment manager's job.



(13) More information on this subject can be found in commitment III p.71.

2019 annual newsletter sent to the customers of BNP Paribas Cardif's private banking network

The communications directed to customers explain the responsible investment approaches implemented by BNP Paribas Cardif. The annual newsletters present the Company's SRI offering, among other items. In 2019, BNP Paribas Cardif launched an SRI campaign for unit-linked vehicles. This campaign aims to encourage savers to invest part of their unit-linked vehicles in SRI unit-linked products<sup>(14)</sup>.

(14) [www.cardif.fr/partenaires/actualites/isr](http://www.cardif.fr/partenaires/actualites/isr)



# GREATER COMMITMENT AND TRANSPARENCY WITH EXTERNAL STAKEHOLDERS

BNP Paribas Cardif's commitment is also reflected in its desire for dialogue and transparency with the external stakeholders. The aim is clear: move institutional investment towards the environmental transition.

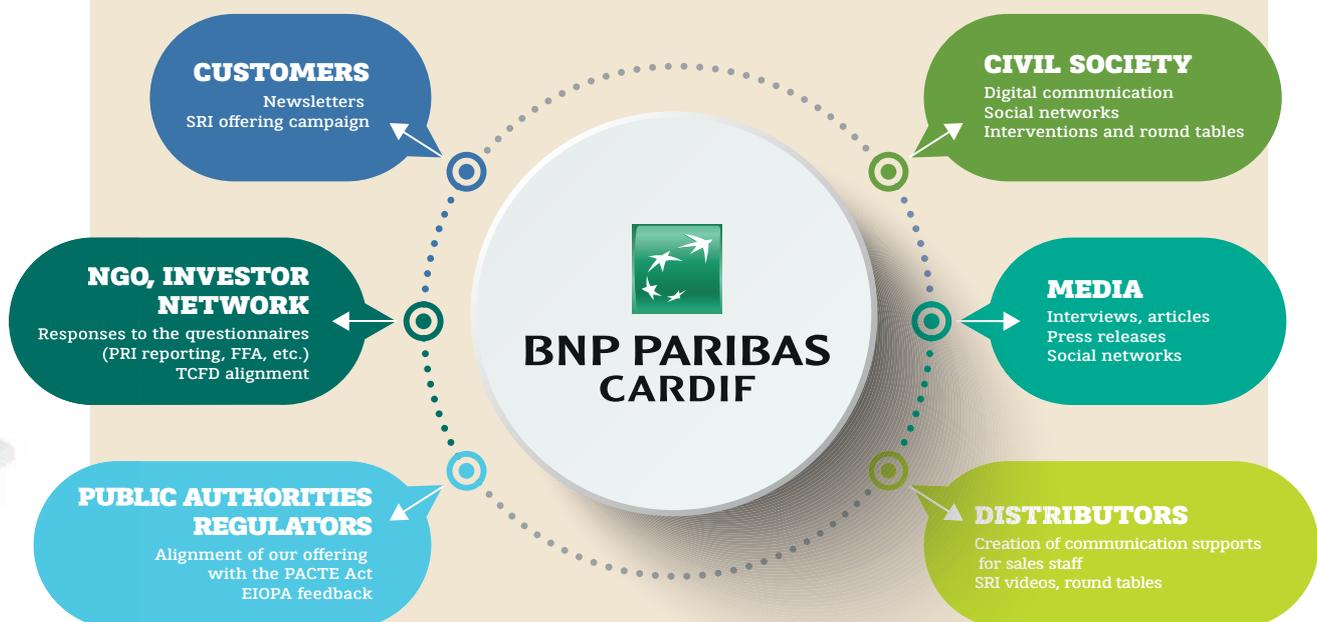
BNP Paribas Cardif actively takes part in market initiatives, and sustainable development and ESG-Climate working groups (French Insurance Federation, ACPR, etc.). The insurer communicates widely on numerous supports,

targeting its different stakeholders. It publicly discusses responsible investment by using various communications channels:

- Internal channels: intranet site, newsletters, etc.;
- External channels: customer newsletters, press releases, publications on social networks (LinkedIn, Twitter) and participation in specialist trade shows (for example Vivatech<sup>(15)</sup>).

(15) Conference on the theme "Asset Management: How to reconcile financial performance and positive impact on society?", presented at the Vivatech trade show in May 2019.

## Dialogue with the external stakeholders





**COMMITMENT I**

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Consolidating  
the ESG analysis  
and shareholder  
engagement

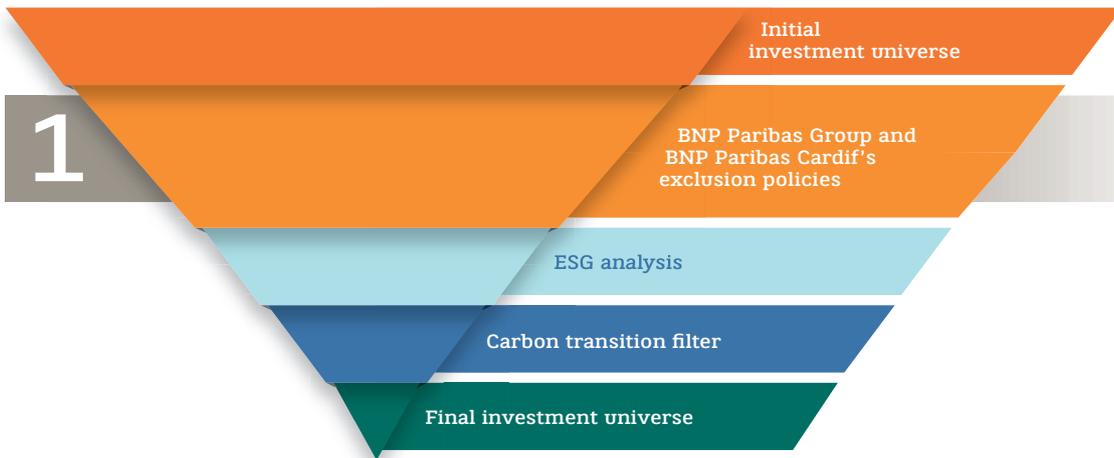


# 1. AFFIRMING THE SECTOR EXCLUSION POLICIES

The first stage of the ESG analysis for directly-held securities covers BNP Paribas Group and BNP Paribas Cardif's sector policies. BNP Paribas Cardif applies the policies defined by BNP Paribas Group for the sectors involving major environmental, social and governance (ESG) challenges. The sector policies can be found in full on the BNP Paribas website.<sup>(16)</sup> Their scope of application is briefly presented in an appendix to this report.



## The exclusion policies in the non-financial analysis of the securities directly held by BNP Paribas Cardif



In addition to the restrictions stipulated in these policies, BNP Paribas Cardif has set specific commitments for the tobacco and coal sectors.



### Tobacco

Since 2017, BNP Paribas Cardif **has excluded from its General Fund production those wholesale and distribution companies** whose revenues are mainly generated by tobacco. The signature of the Tobacco-Free Finance Pledge in 2018 reinforced this position.



(16) <https://group.bnpparibas/en/financing-investment-policies>



**Thermal coal**

BNP Paribas Cardif excludes companies that produce electricity in which over 30% of the electricity is effectively generated from coal, and mining companies in which over 10% of the revenue is generated by thermal coal.

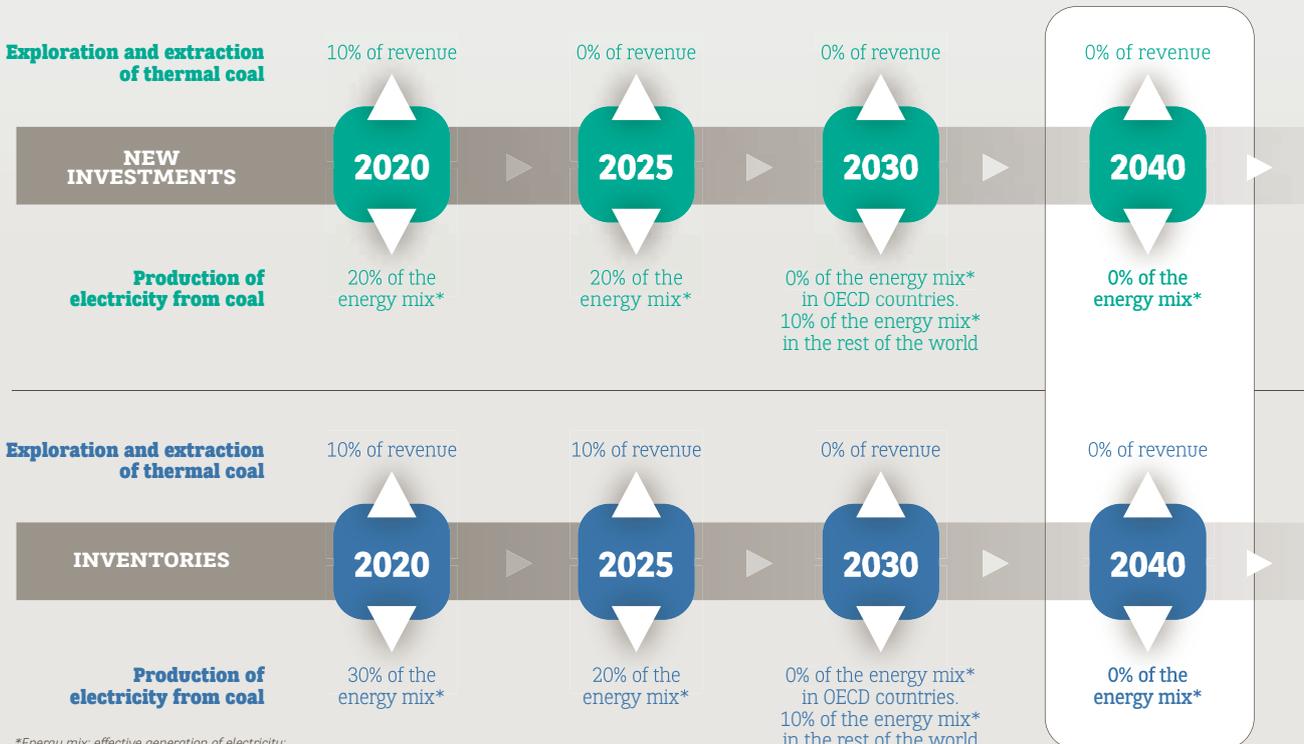
BNP Paribas Cardif is preparing **a definitive exit from this sector by 2030 at the latest for the OECD zone and 2040 for the rest of the world.**

**Process to exit the thermal coal sector**

Coal plays an important role in energy production. According to the International Energy Agency (IEA), it is the main resource used to produce electricity. In 2018, it accounted for 38% of global production.

It is, therefore, essential to reduce its use in order to promote the energy transition and reduce climate change. Building on this finding, **BNP Paribas Cardif has intensified its commitment with the publication of its strategy to definitively exit the thermal coal industry by 2030 for the OECD zone and 2040 for the rest of the world.** This ambitious strategy has been rolled out to its new investments and historical inventory. It will be gradually implemented according to a precise schedule presented in detail below.

**Presentation of the schedule for BNP Paribas Cardif's strategy to exit the coal industry**



\*Energy mix: effective generation of electricity; Excluding specific financing for the energy transition (e.g. green bonds), after study.

**Full disinvestment from the thermal coal industry in 2040**

**Scope:** France, Italy and Luxembourg. □ Directly-held securities

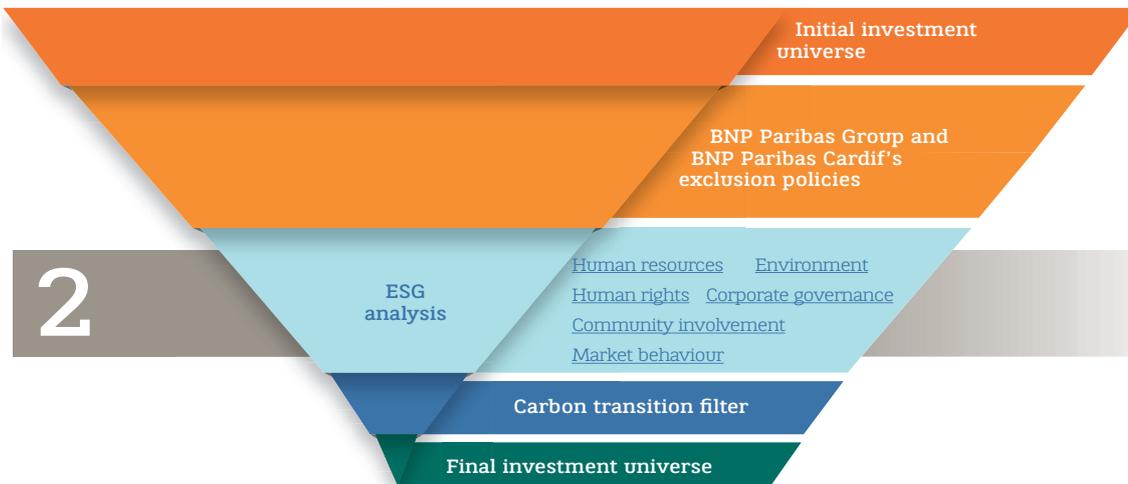
## 2. ADAPTING THE ESG INTEGRATION PROCESSES TO THE DIFFERENT INVESTMENT TYPES

The integration of ESG criteria is the second stage of the ESG analysis. In 2019, BNP Paribas Cardif extended its analysis scope. It covers **assets held directly by the General Fund as well as those held via funds or funds of funds.**

### A. DIRECTLY-HELD SECURITIES

#### > • Corporate equities and bonds

#### The ESG analysis in the non-financial analysis of the securities directly held by BNP Paribas Cardif



BNP Paribas Cardif's process is based on Vigeo Eiris' rating method. It enables the assessment of the ESG performance and risks of each company using 38 criteria. These criteria are grouped into six categories: environment, human resources, respect for human rights at work, market behaviour, civic engagement and corporate governance<sup>(17)</sup>.



(17) The methodology can be found on the Vigeo Eiris website: <http://vigeo-eiris.com/about-us/methodology-quality-assurance/>.

BNP Paribas Cardif applies **a best-in-class sector approach** for the integration of ESG criteria. Thus, each security or company is allocated a rating based on its sector and level of performance in each of these six categories. These ratings enable an assessment of the overall ESG performance. The companies obtaining the best performance in their sector of activity are favoured in the final investment decision.

**Exclusion according to ESG criteria:** BNP Paribas Cardif classifies the securities by deciles according to an overall score. It excludes securities with ESG ratings included in the last three deciles.

A last selection stage completes this approach. It includes **the carbon filter and the energy transition strategy rating**. This approach will be developed in Commitment III - Combatting global warming (see p.35).

### > Government bonds

In 2019, BNP Paribas Cardif reinforced its ESG analysis for government bonds. **It assesses States' policies and measures regarding environmental, social and societal issues.** An overall rating summarises the different scores obtained.

For instance, the level of environmental responsibility reflects the country's energy mix, national carbon footprint and the ratification of treaties such as the Paris Agreement. BNP Paribas Cardif also integrates indicators on greenhouse gas emissions and CO2 for example, compared to the gross domestic product, in its analysis.

The level of social and societal responsibility measures the policies with regard to the different issues, including, among others:

- poverty;
- access to employment;
- access to electricity;
- ratification of labour rights treaties;
- children rights.

**Exclusion according to ESG criteria:** BNP Paribas Cardif invests in Government bonds with a robust overall rating, and no specific rating considered as low.





**BNP Paribas Cardif  
integrates indicators  
on greenhouse  
gas emissions and CO<sub>2</sub>**

### > Directly-held real estate assets

The CSR strategy for directly-managed real estate assets is two-fold : environmental (see section Commitment II – Real Estate Focus) and social (see commitment III, SSE). Both may be part of a single investment process.

## B. SECURITIES HELD VIA THE FUNDS

### > Equity and bond funds

**BNP Paribas Cardif assesses its equity and bond funds according to:**

- their use of ESG criteria in their management processes;
- their alignment with sector policies;
- their shareholder engagement policy.

The index funds, structured products and most **emerging zone** funds include few or no ESG criteria in their investment processes. BNP Paribas Cardif strongly encourages management companies to factor ESG analyses into their processes. It also analyses the shareholder engagement policy of partner management companies based on their answers to the PRI questionnaire.

### > Private equity / infrastructure / private debt funds

BNP Paribas Cardif also applies ESG requirements for private equity, infrastructure and private debt funds. **Thus, the due diligence questionnaires have been revised to incorporate:**

- the integration of ESG criteria in the asset management company;
- the implementation of ESG criteria and the monitoring based on ESG criteria of the underlying companies.

The Investment Committee reviews the different ESG analysis factors when making decisions. From 2020, they will be gradually applied for investments already in the portfolio.

### > Real estate funds

**All of BNP Paribas Cardif's real estate fund management company partners have integrated a CSR strategy.** The insurer encourages them to formalise and distribute the grid of environmental criteria used during their asset selection process. This is the case for BNP Paribas Real Estate Investment Manager, which manages most of BNP Paribas Cardif's outstandings.

# 3. REINFORCING SHAREHOLDER INVOLVEMENT



As an insurer, BNP Paribas Cardif is a long-term holder of assets. It assumes its responsibility as shareholder by reinforcing its involvement, focusing on three areas: participation in voting, dialogue with companies and asset management company engagement.

## Higher participation in voting

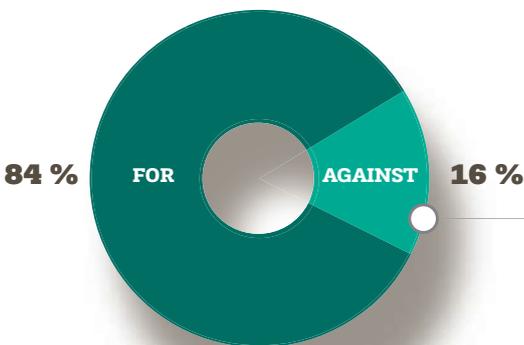
During company general meetings, the exercise of voting rights is essential as it contributes to the good direction of corporate governance. In 2019, BNP Paribas Cardif reinforced its participation in voting, by voting during **97% of the general meetings** of the companies present in its General Fund. In 2018, this participation was 85%.

BNP Paribas Cardif sometimes voted "against". The themes of the concerned resolutions mainly related to:

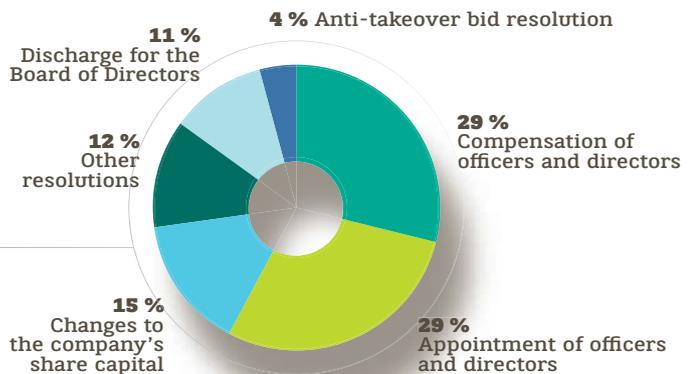
- governance issues;
- protection of the rights of minority shareholders, such as compensation and appointments of Directors to the Board of Directors;
- capital increases



Resolutions voted in 2019



Details of the resolutions voted "against" in 2019



### Corporate involvement

BNP Paribas Cardif dialogues on ESG issues with the companies in which it is a shareholder.

## INTERVIEW

**Marielle Desnier**

Head of SRI and Equity Investments at BNP Paribas Cardif



*"Shareholder involvement is a key tool for reinforcing our impact in the companies in which we invest. In 2019, we focused on voting and questioning companies. We significantly increased our participation rate in voting. We also took advantage of interviews with companies to address issues related to CSR approaches.*

*In addition, in 2020, using CDP data,<sup>(18)</sup> we will be able to reinforce our analysis. We will send letters to encourage companies to develop greater transparency and better management of environmental issues. The aim is to foster a positive impact on the environment.*

*With regard to indirect investments, the engagement of management companies is essential. We question these companies every year on how they integrate ESG criteria into their choice of investments. This way, we contribute to spreading best practices allowing better management of non-financial risks in order to protect our customers' investments".*

**The aim is to foster a positive impact on the environment.**

### Asset management companies engagement

BNP Paribas Cardif promotes shareholder engagement principles with management companies. This is two-fold:

1. Questioning the asset management companies about their SRI practices and their levels of integration of ESG criteria;
2. Analysing their shareholder involvement policies, using their PRI assessment.

(18) CDP (formerly Carbon Disclosure Project) is an international non-profit organisation that manages the most significant environmental reporting platform dedicated to companies and cities.



**COMMITMENT II**

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Combatting  
global  
warming

# INTERVIEW

## Interview with Jean Jouzel

Climatologist, Vetlesen Prize and Member of the French Academy of Science



### **BNP Paribas Cardif: Today, how does finance stand compared to the climate?**

**Jean Jouzel :** Finance has an essential role. This was enacted in Article 2 of the Paris Agreement.<sup>(19)</sup> One of the objectives directly targets the

finance sector so that it enters into a strategy of fighting against global warming and encouraging resilience. The financial sector is strongly urged to prepare for action. The targets have been clearly defined, we need to meet them as fast as possible.

### **BPC: How would you assess the current situation?**

**JJ :** In France, we have observed a delay compared to the target of a 40% reduction in greenhouse gases by 2030.<sup>(20)</sup> The Covid-19 health crisis has taken us to a turning point in economic activity, and even put us against a wall. Investments must be targeted to ensure that the objectives are met. The 2008 crisis led to monetary creation. 90% of these funds were used for speculation, and 10% were injected into the real economy, with very little in the low-carbon economy. The financial system was built on financing for multinationals, to the detriment of local companies with low environmental impacts. It is complicated to change this system, and yet, we need to reinvent it.

### **BPC: Has the financial world made progress since the Paris Agreement?**

**JJ :** Yes, CSR policies are being implemented. Thanks to Article 173 of the French Act on the energy transition, institutional investors have become more transparent. The individuals that are involved in the banks' CSR policies are dynamic, sincere and know their subject very well. There is a growing awareness

from the major banks, but the effort remains partial. Responsible investments, for example, only apply to a small share of portfolios. This approach should embrace the entire portfolios. Don't forget that the energy transition could create 600,000 to 900,000 jobs. Succeeding in this transition will lead to economic growth. We won't escape it. It would be unacceptable to move towards a world at +4°C +5°C for the young people of today. And that is what we will leave them if we do not act faster.

### **BPC: What are the initial findings that we can report about this health crisis?**

**JJ :** Without a doubt, the vulnerability of our world and our economy. There is a certain convergence between what is done to halt the health crisis and to account for climate issues. I am, of course, thinking of the relocation of activities, which is required in order to be more resilient for the next health crisis. The fight against global warming requires the relocation of a large number of activities including the agriculture - food system. Products may be more expensive, but we need to make responsible choices.

**It is urgent to decide now!**

### **BPC: And our near future?**

**JJ :** The easy solution would be to go back to business as usual. But is this the future of our society? Probably not. A different path is difficult but essential. Obviously, targeting investments over the long term, investing in the real economy, achieving carbon neutrality and ensuring that the investments that will still be operational in 2050 are part of a strategy to combat global warming. We need a more dynamic Europe, that promotes the relocation of our activities abroad. We should not give up, it is possible. We do not need to create new laws, but we need to do our utmost to comply with the Paris Agreement, to avoid a boomerang effect. It is urgent to decide now, to act collectively and individually".

(19) Paris Agreement: universal agreement on the climate and global warming adopted in December 2015.

(20) Objective announced in the Climate Energy Act. The base year is 1990. Progress or delays are monitored by the Climate-Energy Observatory.



# 1. INTEGRATING CLIMATE ISSUES INTO THE INVESTMENT POLICY

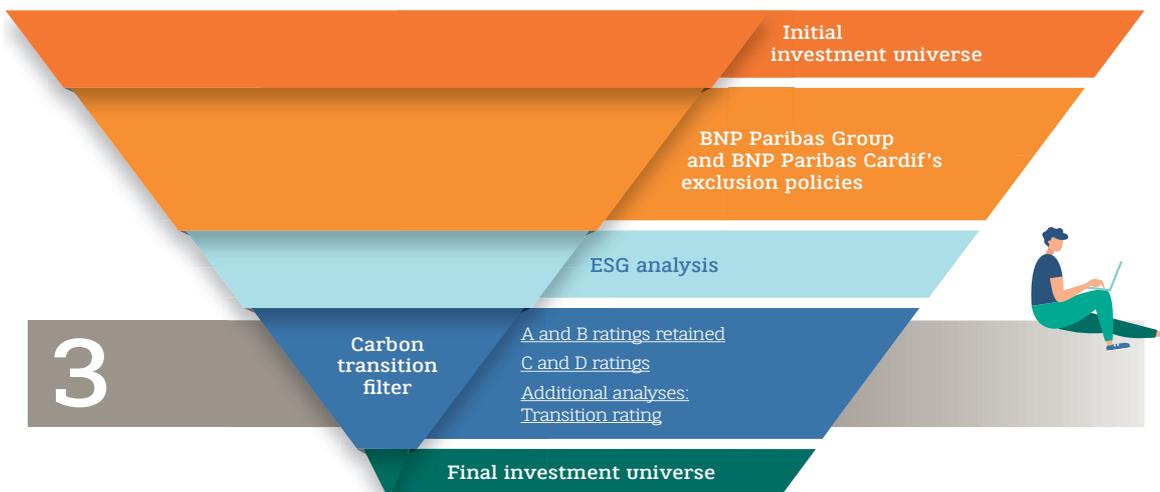
*No indicator on its own can meet all climate-related aspects of a financial asset performance and risk analysis. Climate indicators include methodological bias and coverage limits. The investor must, therefore, consider these limitations. The process to standardise indicators has begun, but will take time. BNP Paribas Cardif has decided to use some of this data to better understand the climate issues related to investment decisions.*

***The analyses conducted reveal that the portfolio is fairly well positioned as regards the climate transition requirements. BNP Paribas Cardif must confirm this positive diagnosis over time.***

## A robust analysis of how assets are positioned in the low carbon transition...

The low-carbon transition filter is the last stage of the ESG analysis for directly-held corporate equity and bonds. It comes after the sector exclusions and ESG analyses.

### The carbon transition filter in the non-financial analysis of BNP Paribas Cardif's directly-held securities



COMMITMENT II  
**COMBATTING GLOBAL WARMING**

The low-carbon transition filter applied by BNP Paribas Cardif is as follows:

**1. A carbon rating** classifies companies according to their carbon emissions in absolute value (tonnes of CO<sub>2</sub> equivalent). The CDP provides the collected data to Vigeo Eiris. Companies are rated according to their carbon footprint in ascending order from A to D, as follows:

Rating	Emissions in tonnes of CO <sub>2</sub> equivalent	Categories
A	<100 000	Moderate
B	>= 100 000 and < 1M	Significant
C	>1 and 10M	High
D	>= 10M	Severe

Source : Vigeo Eiris

**2.** Companies rated C and D are subject to an additional analysis to assess their carbon footprint reduction commitment. Depending on the results, BNP Paribas Cardif decides whether to reintegrate these companies into the investment universe. This **“energy transition strategy” rating** assesses:

- energy transition policies relevance;
- policies implementation consistency;
- results effectiveness.



Scale	“Energy transition strategy” rating	Categories
++	60 - 100	Advanced
+	50 - 59	Robust
-	30 - 49	Early stages
--	0 - 29	Weak

Source : Vigeo Eiris

**Exclusion after the “energy transition strategy” rating:** companies rated C and D for which the “energy transition” rating is lower than 30 are excluded from the investment universe.

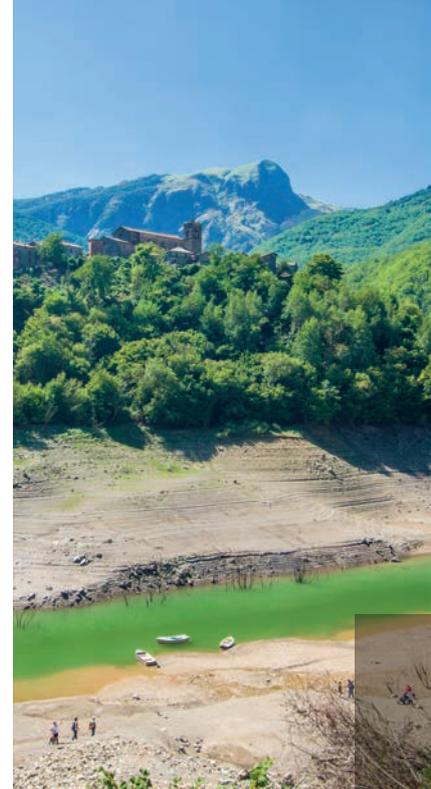


COMMITMENT II  
**COMBATTING GLOBAL WARMING**

The non-financial analysis process successively comprises sector exclusion policies, an ESG analysis and a finer selection based on “carbon” criteria. It enables a good identification of companies committed to the transition towards a low-carbon economy. It enables the integration of climate issues into BNP Paribas Cardif’s investment policy.

**... that contributes to improving the climate impact of the portfolios**

The efforts made by BNP Paribas Cardif in the successive stages of its non-financial analysis produce tangible results. The different indicators used to assess the portfolio climate impact testify to this: carbon intensity, temperature, energy mix of electricity producers and distributors. BNP Paribas Cardif publishes the results of these indicators by comparing its portfolios to a benchmark index, where possible and relevant<sup>(21)</sup>.



(21) The different benchmark indices used are presented in detail in an appendix to this report.

**Presentation of the climate reporting indicators applied to BNP Paribas Cardif’s investments**

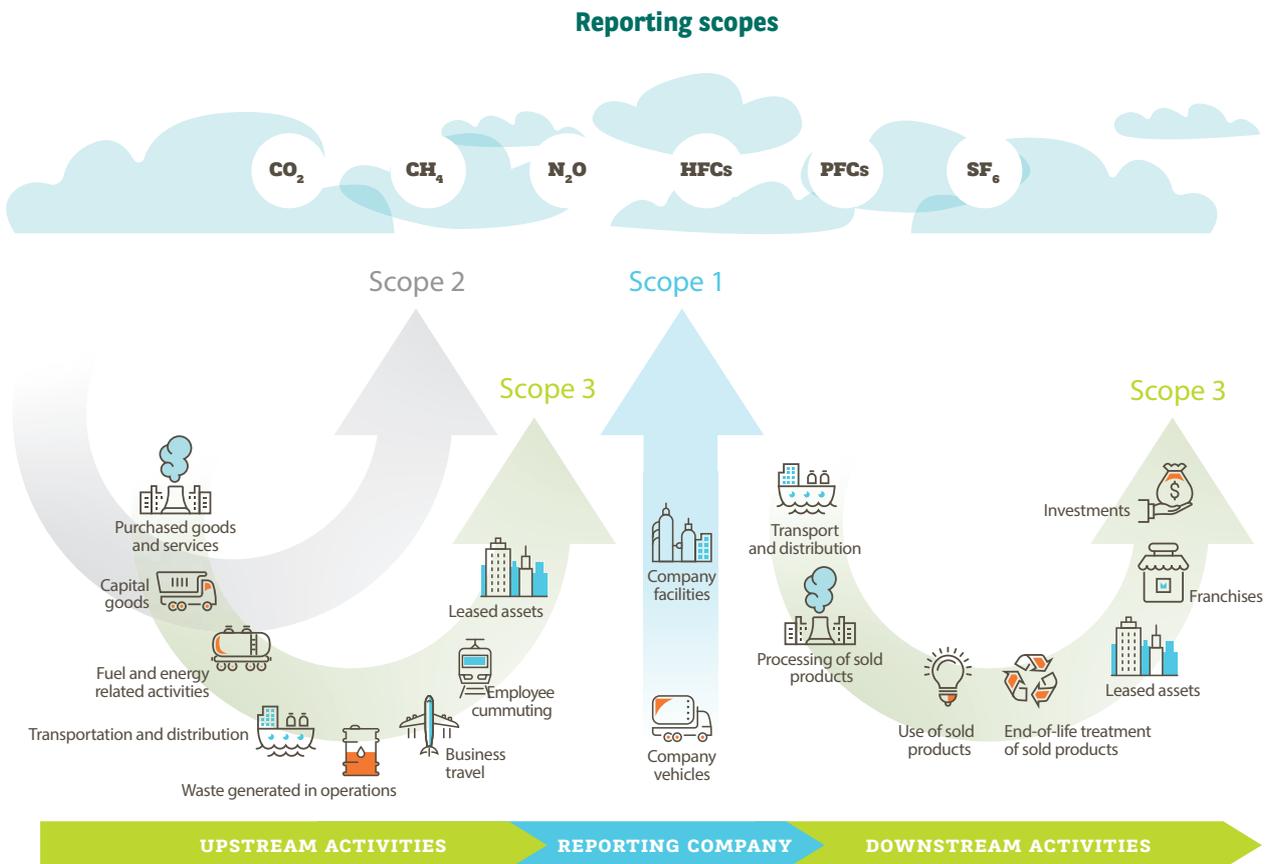
PARTNER	ASSET CLASS	INDICATOR	MEASUREMENT CARRIED OUT	OBJECTIVE FOR THE MEASUREMENT
	Corporate bonds	Emissions avoided	Emissions avoided, in tCO2e/€M invested	Calculating the contribution of bond investments to reducing greenhouse gas emissions
	Government bonds	Carbon intensity	Carbon intensity, expressed in tCO2e/€M (GDP)	Assessing the contribution of portfolios to global warming through their greenhouse gas emissions
		Energy mix	Share of each energy source in the country’s energy mix	Knowing and monitoring the share of fossil energies and the renewable energies in the energy mix of the countries in which investments are made, and thus calculating the contribution of the investments to the low-carbon transition
	Equities and bonds in electricity-producing companies	Energy mix	Share of each energy source in electricity production	Knowing and monitoring the share of fossil energies and the renewable energies in the energy mix of the companies in which investments are made, and thus calculating the contribution of the investments to the low-carbon transition
	Corporate equities and bonds	Carbon intensity and energy transition strategy	Carbon intensity for Scopes 1, 2 and 3	Linking the carbon intensity of companies with their ability to reduce this intensity over the medium and long terms in order to exclude the worst performers
			Carbon footprint in Scopes 1 and 2	
		Temperature	Energy transition score Contribution of the portfolio to global warming (in T°C)	Calculate the “warming potential” of the portfolios and their alignment with the Paris Agreement



A. CARBON INTENSITY OF DIRECTLY-HELD ASSETS **TCFD**

**Directly-held corporate assets carbon performance continued to improve significantly in 2019.** This improvement is consistent for all types of carbon intensity measurements used. The positive performance of the financial markets last year combined with a rigorous selection of companies based on their “carbon” commitments had a very positive impact.

BNP Paribas Cardif measures and publishes the carbon intensity of its portfolio every year. This indicator contributes to assessing the impact of the assets held in the portfolio on global warming. **To calculate a carbon intensity, different methodologies enable the “absolute” carbon footprints of the assets of companies making up a financial asset portfolio to be standardised. They help to calculate the carbon intensity over different scopes (Scopes 1 and 2, or Scopes 1, 2 and 3) as described in the diagram below:**



Source : GHG Protocol

In the previous responsible investment strategy reports, BNP Paribas Cardif had measured **the average intensity of the absolute carbon emissions for each company compared to its revenue** according to Scopes 1 and 2. This measurement is expressed in tonnes of CO2 equivalent per million euros of revenue weighted according to its share in the portfolio. **This year, BNP Paribas Cardif supplemented this method with the “Enterprise Value” metric.** This allows to follow the recommendations of the European standards.

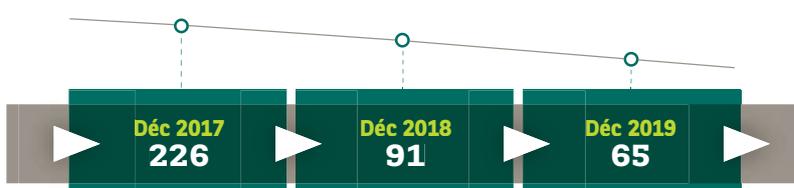
> **Carbon intensity compared to revenue, Scopes 1 and 2**



Carbon intensity of the corporate assets (equities and bonds) in France, in teqCO<sub>2</sub>/€M (revenue)  
 (Source: Vigeo Eiris for the information on greenhouse gas emissions)

The carbon intensity as at 31 December 2019 was estimated at **102 teqCO<sub>2</sub>/M€**(revenue), compared to 127 teqCO<sub>2</sub>/€M (revenue) at 31 December 2018 i.e. a **20% decrease**. As a comparison, the carbon intensity of the benchmark index, the Stoxx600 + IBOXX Euro Corporate Overall, is estimated at 220 teqCO<sub>2</sub>/€M (revenue) at the same date compared to 235 teqCO<sub>2</sub>/€M (revenue) at end 2018, or a decrease of 6.8%.

> **Carbon intensity compared to enterprise value (EV), Scopes 1 and 2**



Carbon intensity of BNP Paribas Cardif's corporate assets (equities and bonds) in France, in teqCO<sub>2</sub>/€M (EV)  
 (Source: Vigeo Eiris for the information on greenhouse gas emissions)

The carbon intensity as at 31 December 2019 was estimated at **65 teqCO<sub>2</sub>/M€**(EV), compared to 91 teqCO<sub>2</sub>/€M(EV) at 31 December 2018 i.e. a **29% decrease**. As a comparison, the carbon intensity of the benchmark composite index, the Stoxx600 + IBOXX Euro Corporate Overall, is estimated at 114 teqCO<sub>2</sub>/€M(EV) at the same date compared to 145 teqCO<sub>2</sub>/€M(EV) at the end of 2018, or a decrease of 21.3%.

According to this method, the carbon intensity of the corporate equity and bond portfolios has decreased for the two metrics selected, i.e. revenue and enterprise value. This decrease reflects the good effect of filters application:

- for the energy mix of energy producers and distributors;
- for the exclusions of thermal coal mines.

**Methodological bias**

*The decrease in the carbon intensity compared to "enterprise value" (EV) may be partly influenced by market variations: an increase in market value increases the EV all other things being equal, and reduces the carbon intensity; conversely, a decrease in markets, and the company's market value may lead to an increase in the carbon intensity.*





### > **Integration of Scope 3 in the calculation of the carbon intensity of directly-held corporate assets**

This time, BNP Paribas Cardif publishes the carbon intensity of its portfolios including scopes 1, 2 and 3 (carbon intensity per par million of generated revenue).

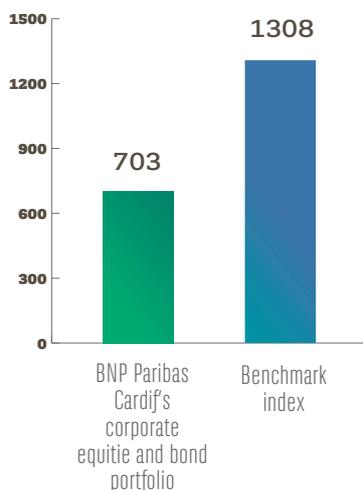
The integration of Scope 3 in the carbon intensity analysis has a dual benefit:

- It broadens the scope of the company’s carbon responsibility within its value chain. For this, it takes into account (see Illustration p.38) a more complete analysis of emissions:
  - Upstream emissions, i.e. those of both direct and indirect suppliers,
  - Downstream emissions, i.e. when the products and services supplied by the company are used;
- It also enables the identification of sectors with high Scope 3 emissions levels: For instance, the automobile industry, retail and the building industry.

#### **Methodological bias**

*The analysis of Scope 3 usually provides increased results due to double or triple counting of emissions assessment for a multi-sector financial portfolio.*

#### **Carbon intensity of BNP Paribas Cardif’s corporate assets (equities and bonds), Scopes 1, 2 and 3, in teq CO2 /M€**



**At the level of Scopes 1, 2 and 3, BNP Paribas Cardif’s corporate equity and bond portfolios have carbon intensities lower than their respective benchmark indices, IBOXX Euro Corporate Overall and STOXX600.**



## METHODOLOGICAL NOTE

*This methodology per million euros of revenue generated calculates the portfolio's emissions by using the percentage held in the "Enterprise Value". It ignores, therefore, the weight of the investment in the portfolio and replaces it by the percentage holding in the "Enterprise Value" of each company. It aims to illustrate the investor's responsibility, as a shareholder or a holder of debt, in the financing of greenhouse gas emissions generated by the activity of a company.*

**The carbon intensity is expressed by the A/B ratio:**

**A** = the amount of the relative share of each investment in a portfolio company in millions of euros *versus* its "Enterprise Value" multiplied by the company's emissions in absolute value

**> Aim:** obtain the relative share of carbon in absolute value allocated to the portfolio

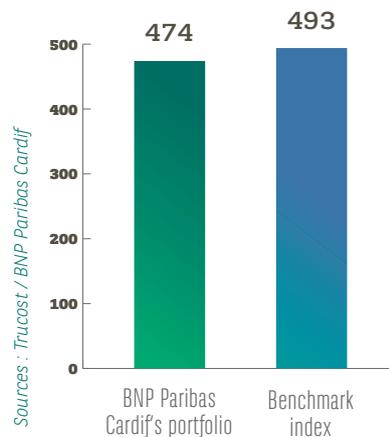
**B** = the amount of the relative share of each investment in a portfolio company in millions of euros *versus* its "Enterprise Value" multiplied by the company's consolidated revenue (sales)

**> Aim:** obtain the relative share of consolidated revenue allocated to the portfolio

*EV = stock market capitalisation + net financial debt + minority interests + other assets - other liabilities*

### > Carbon intensity of Government bonds

#### Carbon intensity of company assets (equity and bonds) as of 31st December 2019, Scopes 1, 2 and 3, in teq CO<sub>2</sub>/M€



In 2019, BNP Paribas Cardif extended the measure of carbon intensity to Government bonds. The calculation methodology for this footprint is explained in more details in appendix. The carbon intensity for Government bonds held by BNP Paribas Cardif is estimated at 31 December 2019 at **474 teqCO<sub>2</sub>/€M (GDP)**. As a comparison, the carbon intensity of the benchmark index (IBOXX Euro Eurozone Sovereign Overall QW1A) was 493 teqCO<sub>2</sub>/€M (GDP).

These results reflect the efforts made by BNP Paribas Cardif in the non-financial analysis of Government bonds (see p.28). The overweighting of France in the portfolio contributes to the good performance of this indicator.

## B. TEMPERATURE OF DIRECTLY-HELD SECURITIES PORTFOLIOS

TCFD

The future carbon performance of corporate assets may be reconciled with their compatibility with the trajectory set by the Paris Agreement in 2015. As a reminder, the latter defined the 2°C limit to global warming. In order to assess this performance, we need, therefore, to use “temperature” indicators. BNP Paribas Cardif has applied two methodologies. **The respective results differ according to whether the past or announced company reduction momentums are taken into account in the carbon performance.** Thus, for the equity portfolio, in one case, the temperature comes to +4.3°C and in the other to +2.3°C. This comparison is useful for long term investors who need to take the future into account in their decisions. It also highlights the efforts still needed.

Since 2017, BNP Paribas Cardif has published the alignment of its directly-held corporate equity and bond portfolios with the Paris Agreement’s aim of limiting warming to under 2°C. To date, financial supervisors have not approved any temperature measurement methodologies for portfolios corresponding to any standards. BNP Paribas Cardif, therefore, uses two methods with different results:

- The **Carbon Impact Analytics** (CIA) method, launched by Carbone 4 in collaboration with Mirova. BNP Paribas Cardif used this method for the third time in 2019;
- The **Science Based 2°C Alignment** (SB2A) method, created by I Care & Consult. BNP Paribas Cardif used this method for the second time in 2019.

**By presenting the results of both methods, BNP Paribas Cardif contributes to current discussions. The search for and assimilation of new relevant indicators would enable climate targets to be integrated into long term investment decisions.**

Both of these methods are mainly based on the International Energy Agency’s 2°C scenario (2DS) which models global warming at 2°C. A carbon budget is allocated to each sector of activity.

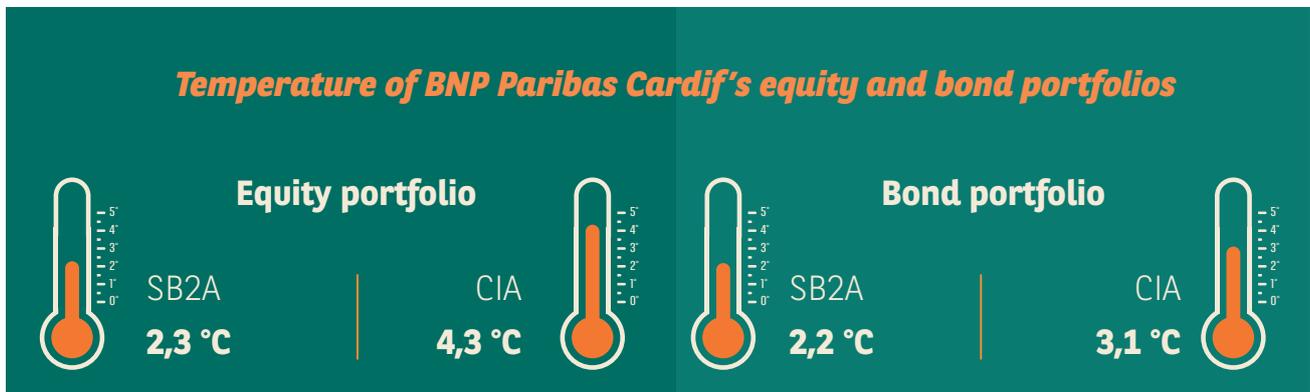
They provide for the analysis of company climate performance, then a comparison with what they would need to be for a low carbon scenario. The performance difference is then converted into an “equivalent temperature”. The different methodological approaches have relative advantages and bias. A more detailed comparison table of the two methodologies can be found in an appendix.



COMMITMENT II  
**COMBATTING GLOBAL WARMING**



The portfolio temperatures resulting from the application of the two methods differ significantly. Those from the SB2A method are lower. **The CIA method takes into account the carbon performance related to the company's current activity, without factoring in the company's past or announced reduction momentum.** This leads to an increased "portfolio equivalent temperature".



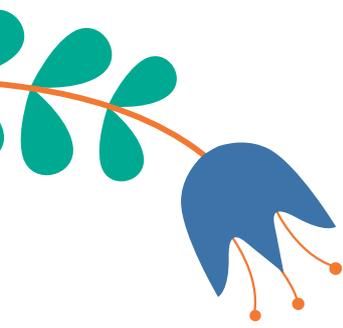
Source: SB2A: I Care & Consult / CIA: Data from Carbone 4 in collaboration with Mirova

**> Temperature analysis of the equity portfolio**

**With the CIA method, the current temperature of the General Fund equity portfolio is 4.3°C, compared to 4.2°C in 2018.** With the SB2A method, it is 2.3°C, identical to that of 2018. In both cases, the temperature is stable year on year. This is due to the combination of factors:

FACTORS THAT INCREASE THE AVERAGE TEMPERATURE	FACTORS THAT REDUCE THE AVERAGE TEMPERATURE
<p>Integration of food sector companies with low alignment with the targets defined by the Paris Agreement;</p> <p>Poorer performance of the automobile manufacturers in the portfolio. Their carbon intensity, expressed in gCO2/km, increased, notably due to the increased reliability of vehicle climate performance standards;</p> <p>Methodological adjustment for aviation sector companies, which explains the increase in the temperature for the transport sector.</p>	<p>Improvements for certain companies:                      For instance industrial conglomerates whose activity dedicated to renewable energy equipment manufacturing and the rail sector.</p>





### > **Temperature analysis of the corporate bond portfolio**

Whatever the methodology applied, the bond portfolio gives a lower equivalent temperature than the equity portfolio.

**With the CIA method, the current temperature of the General Fund bond portfolio is 3.1°C, at the same level as in 2018. With the SB2A method, it is 2.2°C, i.e. a very slight increase compared to the temperature of 2.1°C recorded in 2018.**

Like the equity portfolio, the change in the average temperature of the bond portfolio is due to contradictory changes:

<b>FACTORS THAT INCREASE THE AVERAGE TEMPERATURE</b>	<b>FACTORS THAT REDUCE THE AVERAGE TEMPERATURE</b>
Integration of food sector companies with low alignment with the targets defined by the Paris Agreement;	BNP Paribas Cardif's decision to increase its investments in bonds issued by companies in the rail transport sector, with a lower carbon impact.
Slight increase in the oil and gas sector within the portfolio.	

The sector breakdown of the assessment of the portfolio's alignment with the 2°C scenario can be found in appendix.



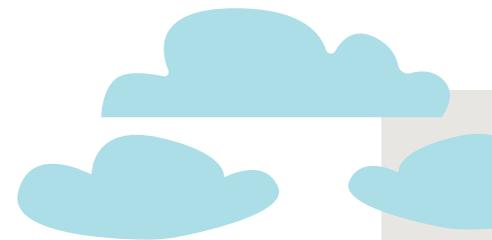
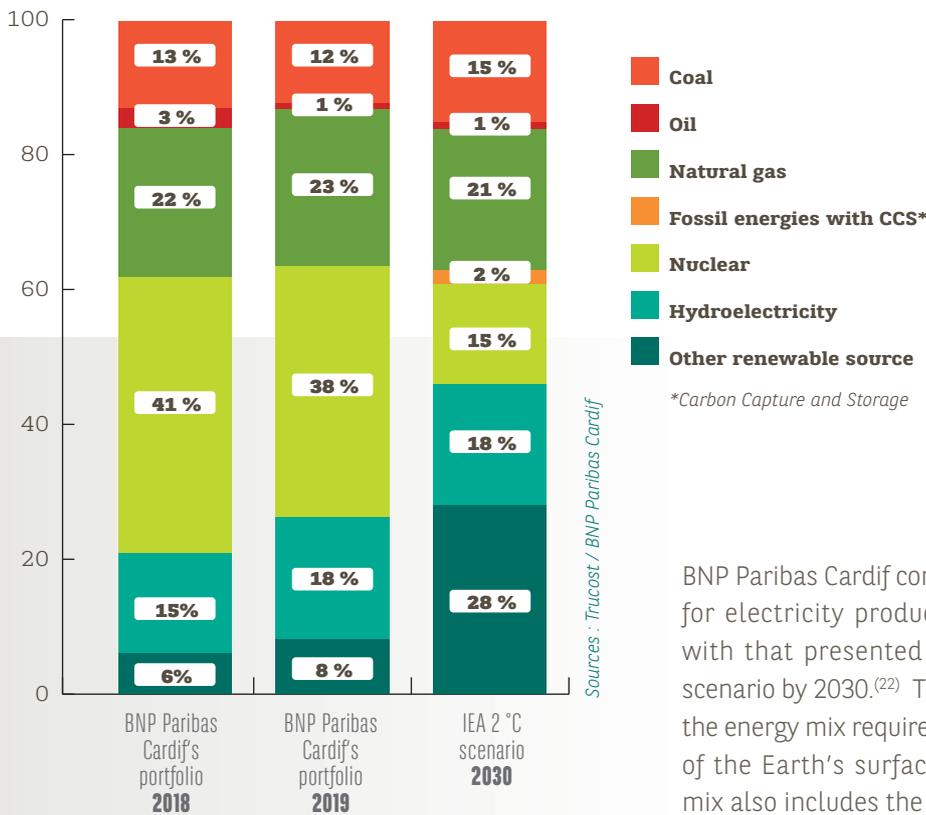
C. ANALYSIS OF THE ENERGY MIX  
 OF BNP PARIBAS CARDIF'S PORTFOLIOS



> **Energy mix of the corporate equity and bond portfolios**

Within these portfolios, BNP Paribas Cardif analyses the energy mix of the electricity producers and distributors.

**Comparison of the energy mix of the IEA's 2°C scenario by 2030 with that of the electricity producers and distributors in BNP Paribas Cardif's portfolio**

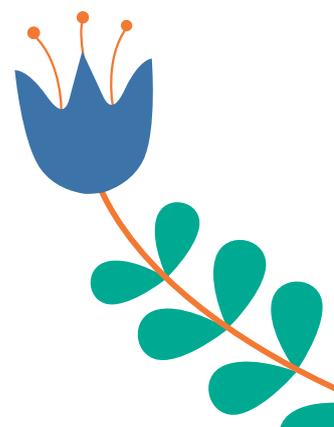


BNP Paribas Cardif compares the energy mix for electricity producers and distributors with that presented by the IEA in its 2°C scenario by 2030.<sup>(22)</sup> This scenario calculates the energy mix required to limit the warming of the Earth's surface to 2°C. This energy mix also includes the allocation of a carbon budget by sector of activity.

**The energy mix of electricity producer and distributor assets within BNP Paribas Cardif's portfolio has significantly lower carbon than the energy mix for the IEA's benchmark scenario.** This difference is partly due to the filters applied to the investment universe. It also results from the strong influence of the energy policies in countries in which the selected companies operate. The electricity producers in BNP Paribas Cardif's portfolios mainly operate in Western Europe and notably in France. In this region, nuclear and hydroelectric energies are over represented compared to the global average.

(22) See the Energy Technology Perspectives 2017 report, on the IEA website: [www.iea.org](http://www.iea.org).

Currently, BNP Paribas Cardif excludes companies that produce electricity in which over 30% of the effective electricity is generated using coal. This policy leads to a decrease in the share of coal in the energy mix of its corporate equity and bond portfolios. As a reminder, this share should be reduced to 0% by 2040, in accordance with the commitments made by BNP Paribas Cardif (see p.26).

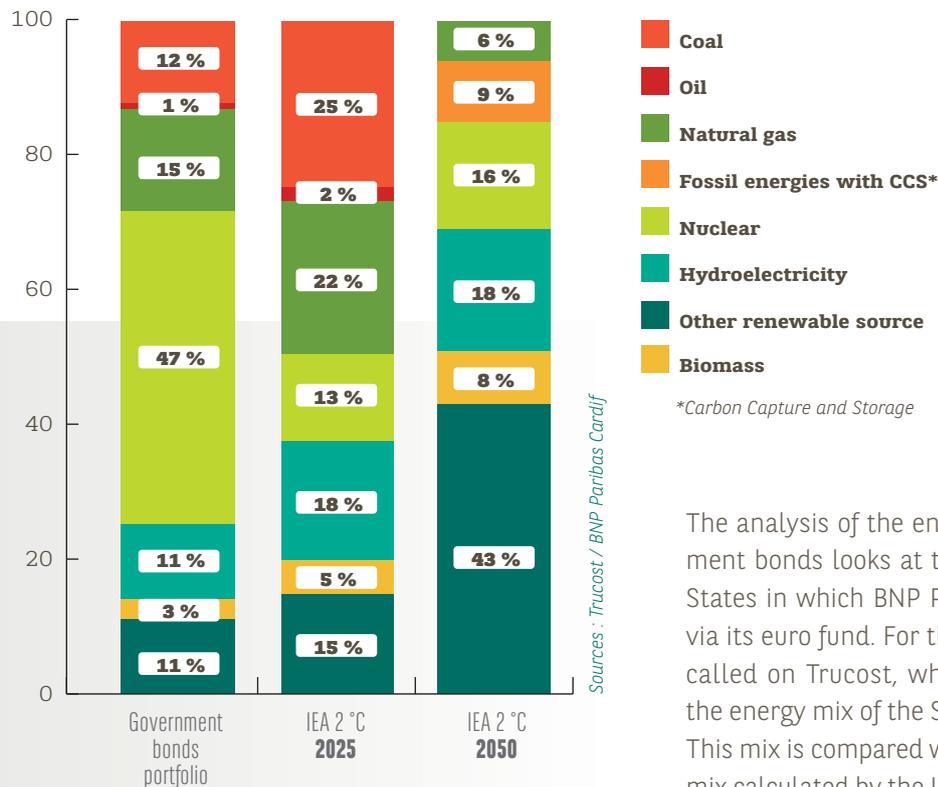


Moreover, BNP Paribas Cardif applies a filter combining the carbon footprint and energy transition strategy (see p.35). This approach favours the selection of manufacturing companies that use low-carbon energies. Thus, over several years, at the portfolio level:

- the share of electricity from fossil fuels decreased by 2 points between 2018 and 2019;
- the share of electricity produced by renewable energies and hydroelectricity increased by 5 points between 2018 and 2019.

### > Energy mix for Government bonds

#### Comparison of the energy mix of the Government bonds portfolio with the energy mixes for 2025 and 2050 of the IEA 2°C scenario



The analysis of the energy mix for Government bonds looks at the energy mix of the States in which BNP Paribas Cardif invests via its euro fund. For this, the Company has called on Trucost, which collects data on the energy mix of the States in the portfolio. This mix is compared with the global energy mix calculated by the IEA for 2025 and 2050, based on the 2°C scenario.

BNP Paribas Cardif invests primarily in bonds issued by European governments, and mainly France, Spain and Italy. These countries do not have much coal in their energy mixes. For this reason, **the share of coal in the Government bonds portfolio is low compared to the IEA scenario**. The General Fund includes a large share of Government bonds issued by France. This explains why the energy mix includes a large share of nuclear, which is a low-carbon energy source.

## INTERVIEW

**Eric Béquet**

Head of Insurance Asset Management at BNP Paribas



*"Initially, we used a first series of 'climate' indicators to filter our investment universes. Gradually, these indicators changed and were added to the portfolio analysis tools. They are increasingly used in our investment processes. This supports the implementation of strategic targets and the everyday steering of our asset management through the selection of the companies most committed to ecological transition. With this in mind, we took part in the 'Climate Objective' call for tenders along with other institutional investors. These funds aim to foster the emergence of innovative climate analysis methods and portfolio management techniques".*

**An everyday steering of our asset management through the selection of the companies most committed to ecological transition**

47

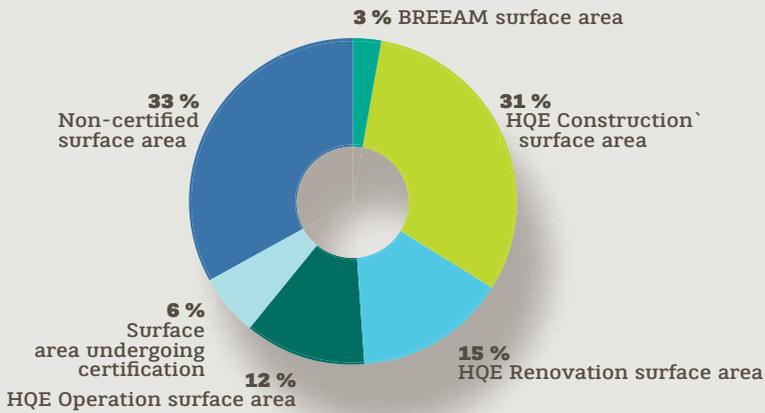




D. REAL ESTATE FOCUS

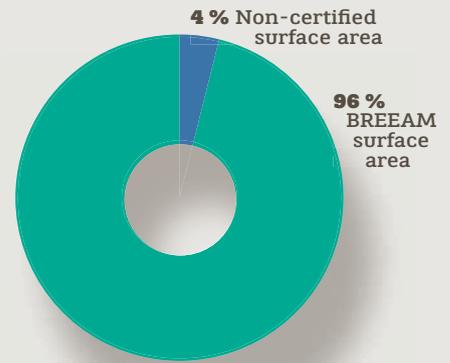
**Monitoring of the certification approaches for office buildings and shopping centres at 31 December 2019, by surface area**

**HQE AND BREEAM\* CERTIFICATION OVERVIEW**



61% of the office surface areas had been certified at the end of 2019. This rate should increase to 67% by 2020.

**HQE / BREEAM\* CERTIFICATION OVERVIEW**



96% of shopping centre surface areas had been certified at the end of 2019.

**The energy consumption of office buildings decreased by 24% between 2011 and 2019.** The target is to take it to under 30% by 2020.

In order to improve the environmental impact of its real estate assets, BNP Paribas Cardif has announced different commitments for 2020, 2021 and 2022:

- contracting green electricity for the entire directly-managed portfolio;
- installing energy consumption meters for residential buildings, and not only for shared areas, in order to have better knowledge of consumption by tenants and propose improvements;
- monitoring water consumption (residential and tertiary);
- monitoring waste recovery (tertiary);
- developing energy performance contracts for offices to better raise awareness of maintenance suppliers and tenant companies.



## 2. ANALYSING THE EXPOSURE TO CLIMATE-RELATED RISKS

**BNP Paribas Cardif carried out an analysis of the climate risks** present in the corporate asset portfolios. This analysis covered the physical risks due to global warming and the risks related to the transition towards a low-carbon economy. **The results show that the impacts are low for physical risks and manageable for the transition risks.**

TCFD

BNP Paribas Cardif is working to integrate climate issues in the investment policy in order to promote the transition to a low-carbon economy. Moreover, it sizes up the challenge of climate change risk management. This change raises new systemic risks for all economic players. As announced in the previous edition of this report, BNP Paribas Cardif carried out an analysis of the exposure to these risks.

BNP Paribas Cardif's assessment of this exposure enables to gradually integrate these risks into our investment process.

By nature, these risks are different from the usually managed risks, and require appropriate processes. In November 2019, the I4CE think tank<sup>(23)</sup> published the report *Pour une autre approche du risque climatique en finance* (For another approach to climate-related risks in finance). It explains that climate-related risks have the intrinsic characteristics of being "long term, not probabilistic and without a history".

### Exposure to physical and transition risks

The TCFD defined two types of risks related to climate change.

**Physical risks** represent the potential damage caused by the climate change phenomenon. There are two types:

- **Acute risks:** related to one-time events, including extreme and serious weather phenomena such as cyclones, hurricanes, floods, etc.;
- **Chronic risks:** due to long-term changes in climate regimes that may cause increased sea levels or chronic heatwaves.

(23) I4CE (Institute for Climate Economics) is a think tank with expertise in economics and finance with the mission to support action against climate change.



**Transition risks** result from the shift towards a low-carbon economy.

They comprise:

- *Regulatory risks*: the change in political actions aiming to force companies to pollute less or support greener practices;
- *Technological risks*: technological improvements, innovations or breakthroughs to promote the transition towards a low-carbon emission and energy-saving economic system;
- *Market/cost risks*: the change in supply and demand of certain products and services (consumer behaviour, increase in raw material costs);
- *Liability risks*: the change in external (customers, local authorities) or internal (shareholders) pressures with regard to the organisation's contribution to the transition towards a low-carbon intensity economy, or potential claims for damages related to global warming.



### Initial analysis of physical and transition risks for directly held securities

This initial analysis of the portfolios' exposure is based on data from the Trucost agency. For BNP Paribas Cardif, the aim is to model the physical and transition risks for the directly held corporate assets.

#### A. PHYSICAL RISKS

For these risks, the analysis covered seven climate hazards that may affect the activity of the companies present within the portfolios:

- fires;
- cold snaps;
- heatwaves;
- water stress;
- coastal flooding;
- flooding;
- hurricanes.

Trucost carried out a long-term analysis of these climate hazards, based on a high climate change scenario.<sup>(24)</sup> This scenario corresponds to the current trajectory of greenhouse gas emissions if no changes are observed. It would lead to warming of over four degrees by 2100. This analysis enables the geographical mapping of the different hazards to which the physical assets are confronted. It enables the measurement of a physical risk score for companies. This score is included between 1, the minimum risk, and 100, the maximum<sup>(25)</sup>.

(24) BNP Paribas Cardif follows the most pessimistic RCP 8.5 scenario prepared by the Intergovernmental Panel for Climate Change for 2050.

(25) A detailed methodology of companies' physical risk can be found in an appendix to this document.

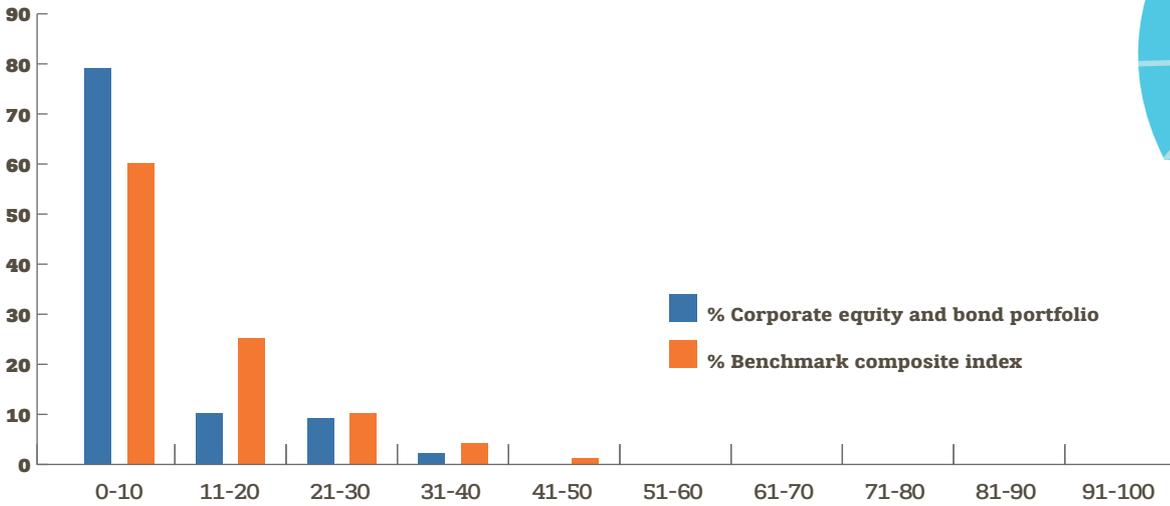
#### METHODOLOGICAL NOTE

The assessment methodologies for physical risks include bias.

The results of this analysis provide new insight but data comprehensiveness and precision still need to be improved.

COMMITMENT II  
**ANALYSING THE EXPOSURE TO CLIMATE-RELATED RISKS**

**Distribution by decile of the physical risk scores of the corporate assets held by BNP Paribas Cardif, as a percentage of market value, at 31 December 2019**



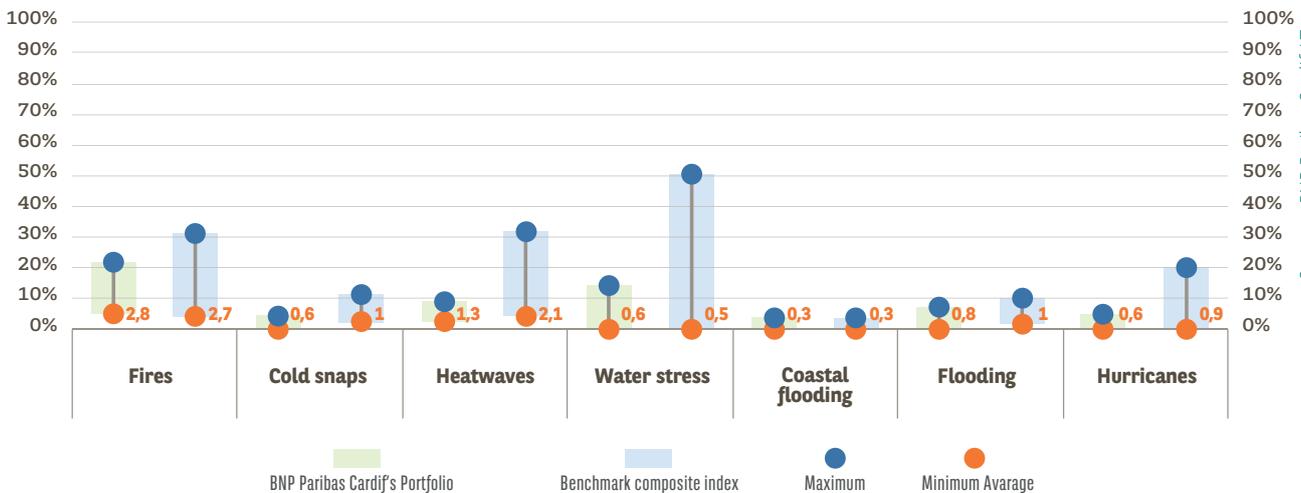
Sources : BNP Paribas Cardif / Trucost

The analysis reveals that **79% of the companies in the portfolio are found in the lowest decile**. The portfolio's exposure to physical risks is also lower than the benchmark index.

The analysis enables the identification of companies to be monitored more closely. Their climate strategies will be specifically observed over the coming non-financial performance assessment campaigns. This analysis also enables the identification of the climate hazards that present the most risk for BNP Paribas Cardif's portfolio.

**Adjusted score by risk indicator according to the high scenario by 2050, at 31 December 2019**

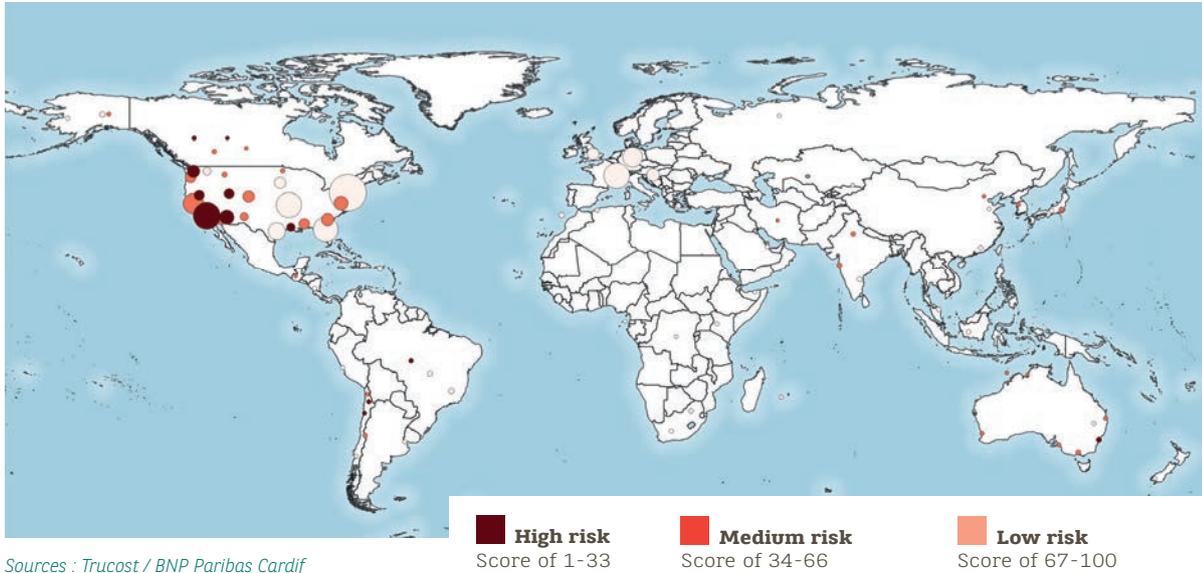
**CORPORATE EQUITY AND BOND PORTFOLIO**



Sources : BNP Paribas Cardif / Trucost

The graph above presents the average score of companies in BNP Paribas Cardif's directly-held equity and bond portfolio for each of the indicators and risks. It also shows the maximum and minimum scores of the companies in the portfolio. The scores are adjusted according to the companies' relative vulnerability. This graph also reveals that BNP Paribas Cardif's portfolio is more exposed to fires, heatwaves and water stress than to the four other climate hazards. The exposure remains, however, very limited.

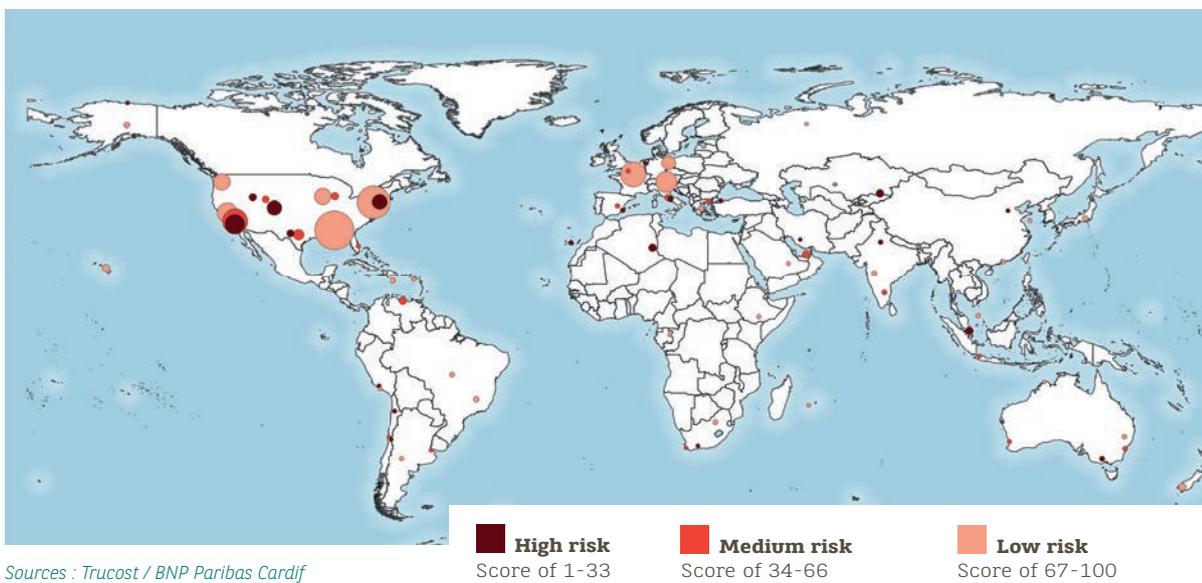
**Overlay of assets directly held by BNP Paribas Cardif with exposure to fire risks**



Sources : Trucost / BNP Paribas Cardif

BNP Paribas Cardif's directly held assets exposed to the risk of fires are mainly located in the United States.

**Overlay of the assets directly held by BNP Paribas Cardif with exposure to water stress**



Sources : Trucost / BNP Paribas Cardif

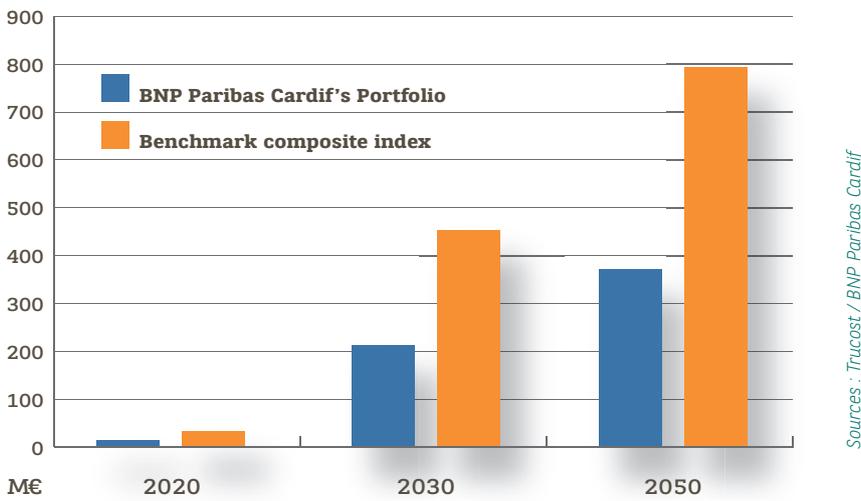
The geographical areas in which the assets directly held by BNP Paribas Cardif are particularly vulnerable to water stress are concentrated in the Western United States and in Europe.

## B. TRANSITION RISK

BNP Paribas Cardif focuses its analysis of transition risk<sup>(26)</sup> around two areas, namely the portfolio's exposure to the future carbon price, on the one hand, and to "stranded"  assets, on the other.

### Exposure of the portfolio to future carbon pricing

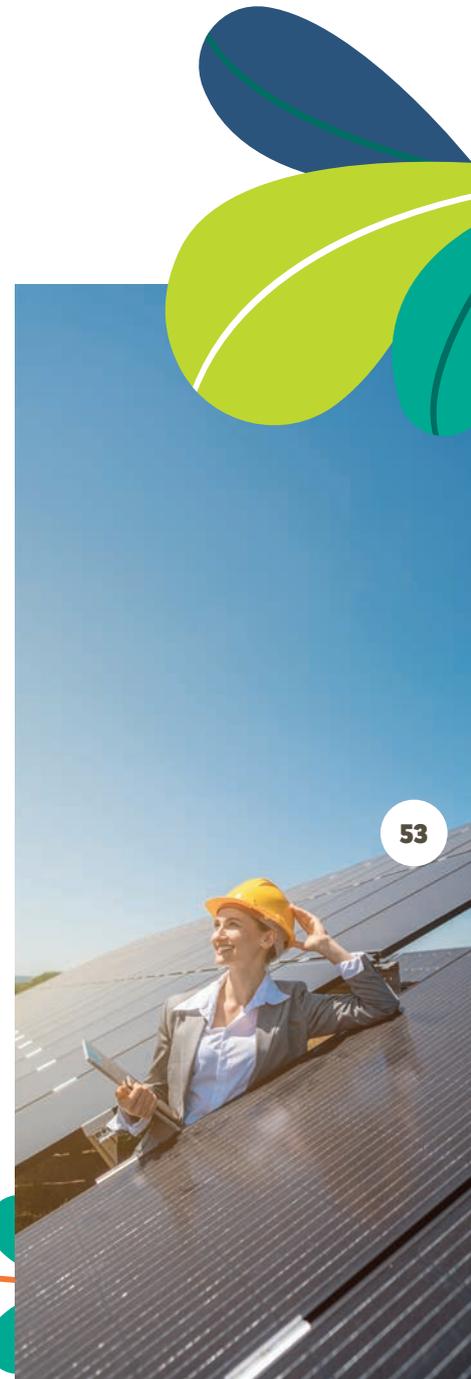
**"Allocated" future costs of carbon by 2020, 2030, 2050 ("high carbon price" scenario)**



The graph above shows that BNP Paribas Cardif appears to have a low exposure to transition risks, including in the "high carbon price" scenario. The portfolio is less exposed than its benchmark index for the three time horizons analysed. This result reflects the strict application of successive sector exclusions and the carbon transition filter. This process enables the selection of companies with low carbon footprints or that have begun an energy transition.



 [READ GLOSSARY](#)



(26) A detailed methodology of companies' exposure to transition risks can be found in an appendix to this document

**Future costs of carbon and EBITDA at risk (assumptions: high carbon price, 2030)  
at 31 December 2019**

	<b>"ALLOCATED" FUTURE COSTS OF CARBON (€)</b>	<b>EBITDA AT RISK (%)</b>
<b>BNP Paribas Cardif's corporate equity and bond portfolio</b>	<b>212,284,929</b>	<b>4,19 %</b>
<b>Benchmark composite index</b>	<b>453,792,136</b>	<b>9,67 %</b>

Sources : Trucost / BNP Paribas Cardif

The figures indicate that the exposure for the directly-held corporate equity and bond portfolio is much lower than for its benchmark composite index. 4.19% of the EBITDA<sup>(27)</sup> for the corporate equity and bond portfolio will be at risk in 2030 (2 Degrees Scenario) compared to 9.67% for the benchmark index.

The difference with the benchmark composite index is also due to the significant weight of the financial sector, much less exposed than the others to transition risks. In the absence of transparency of financial sector data, these figures must be used with caution.

**EBITDA at risk as a percentage by sector  
(assumptions: high carbon price, 2030)**

<b>SECTORS</b>	<b>PORTFOLIO</b>		<b>BENCHMARK INDEX</b>	
	<b>Weights (%)</b>	<b>Risk EBITDA (%)</b>	<b>Weight (%)</b>	<b>Risk EBITDA (%)</b>
Financials	66 %	0 %	32 %	0 %
Communication services	6 %	1 %	9 %	1 %
Healthcare	2 %	1 %	7 %	1 %
Information technology	2 %	1 %	3 %	1 %
Industrials	5 %	2 %	9 %	6 %
Utilities	6 %	40 %	9 %	43 %
Consumer staples	4 %	2 %	8 %	3 %
Consumer discretionary	2 %	1 %	10 %	3 %
Real estate	2 %	0 %	4 %	1 %
Materials	1 %	56 %	4 %	70 %
Energy	5 %	18 %	5 %	25 %
<b>Total</b>	<b>100 %</b>	<b>4,19 %</b>	<b>100 %</b>	<b>9,67 %</b>

Sources : Trucost / BNP Paribas Cardif

(27) EBITDA: Earnings Before Interest, Taxes, Depreciation, and Amortisation.

The analysis of the exposure to the future carbon price enables the identification of the companies to be monitored, by determining those that are the most exposed to transition risk.

### Exposure to stranded assets

Stranded assets\* are assets related to the exploration and exploitation of fossil energies. These assets may be subject to depreciation or transformation into unexpected or premature “liabilities”, through the energy transition. This impairment loss is mainly due to the significant changes that transition risk represents for the asset portfolio. For example, these may be:

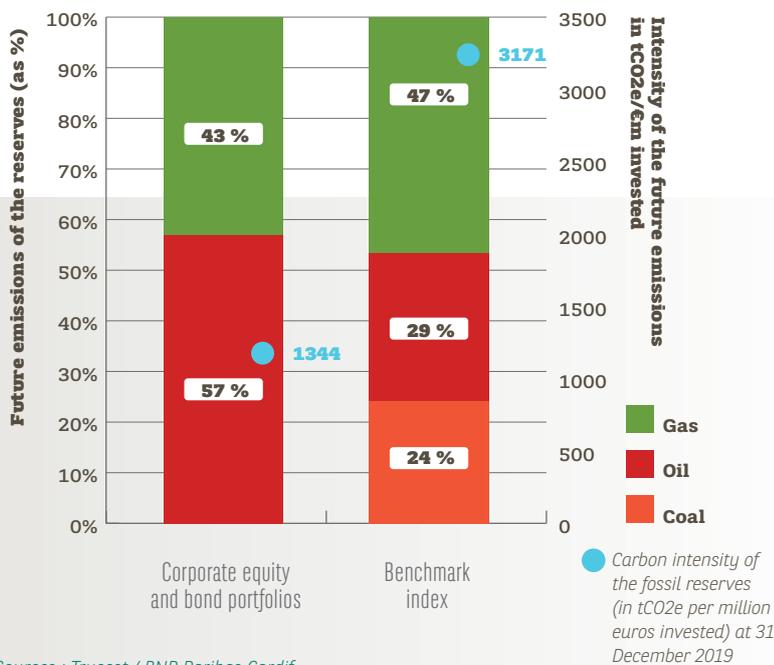
- changes in legislation such as the implementation of a carbon tax;
- environmental constraints such as the decrease in resources;
- technological innovations.

BNP Paribas Cardif publishes the Trucost analysis, which measures:

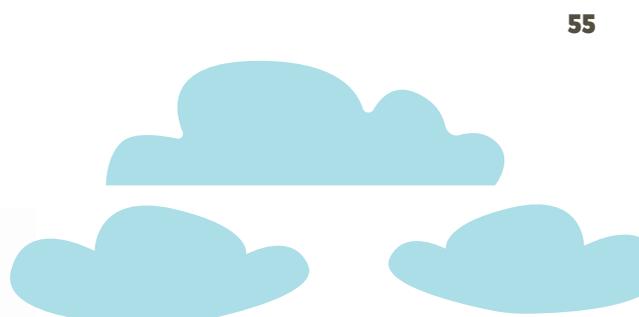
- the future carbon emissions from the fossil reserves of the companies present in the corporate equity and bond portfolio;
- the emissions intensity from the portfolio reserves, expressed in tCO<sub>2</sub>e per million euros invested.

Trucost bases this analysis on the amounts of the reserves communicated by the companies.

### Future carbon emissions from fossil reserves, as a percentage



Sources : Trucost / BNP Paribas Cardif



The emissions intensity from the portfolio (corporate equities and bonds) reserves is evaluated at 1,344 tCO<sub>2</sub>e per million euros invested. This is significantly lower than its benchmark composite index (recording 3,171 tCO<sub>2</sub>e per million euros invested).

### The difference in intensity between BNP Paribas Cardif's portfolio and the benchmark composite index is mainly due to the absence of coal reserves in the portfolio.

For the benchmark index, 24% of the CO<sub>2</sub> emissions come from coal reserves. Regulatory monitoring enables BNP Paribas Cardif to have a better idea of the valuation of companies with fossil reserves and ensure the sustainability of the investments made. This monitoring is in addition to the carbon filter that includes an energy transition score.

Factoring the climate into risk management

INTERVIEW **TCFD**

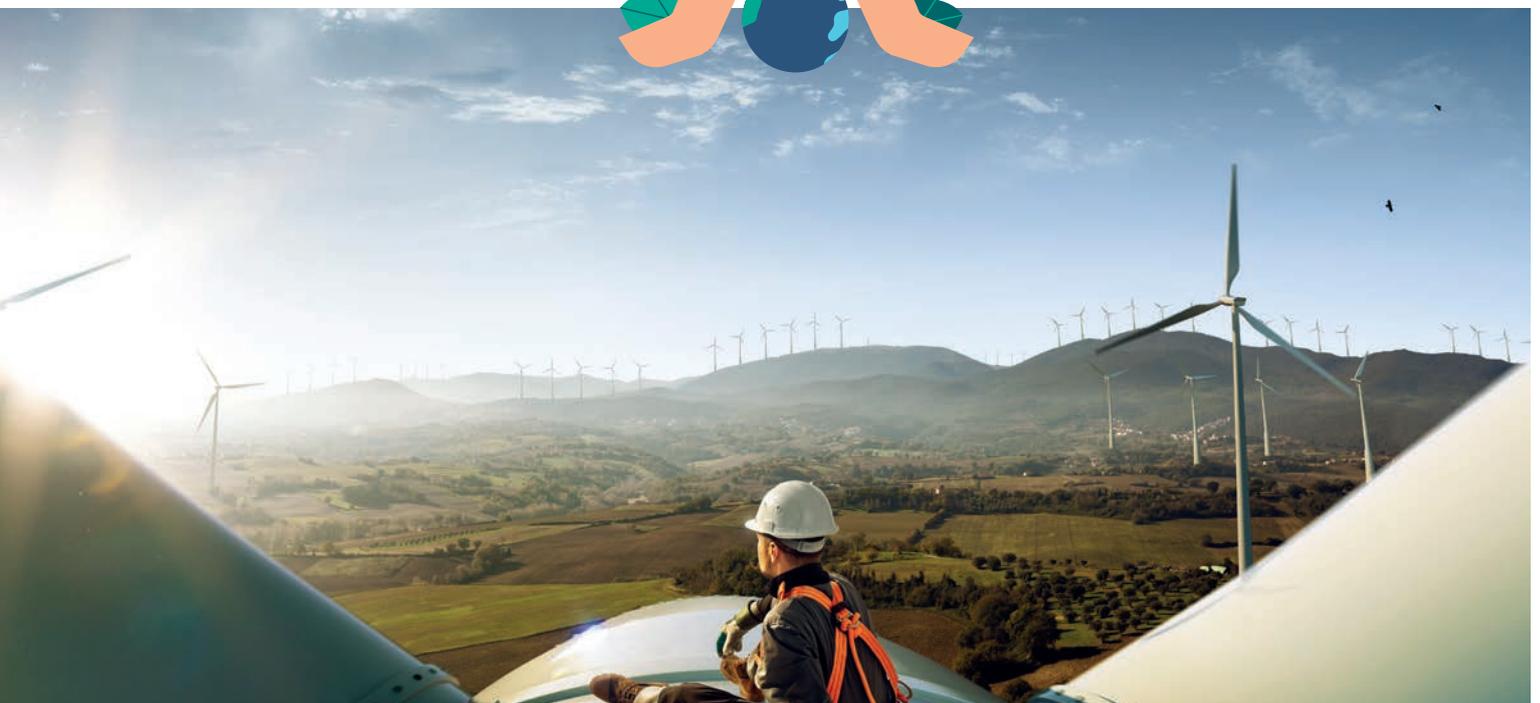
**Olivier Héreil**

Chief Operating Officer, Asset Management at BNP Paribas Cardif



*"It is essential that we recognise the risks of climate change so as to make the portfolios more resilient. This is the approach recommended by the TCFD. Initial results of our climate risk analyses show that the ESG policy implemented has a positive impact on the future exposure of our portfolios. Gradually, these analyses will be added onto with the stress-testing begun by the regulators".*

***These analyses will be added onto with the stress-testing begun by the regulators.***





**COMMITMENT III**

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Developing  
positive-impact  
investments

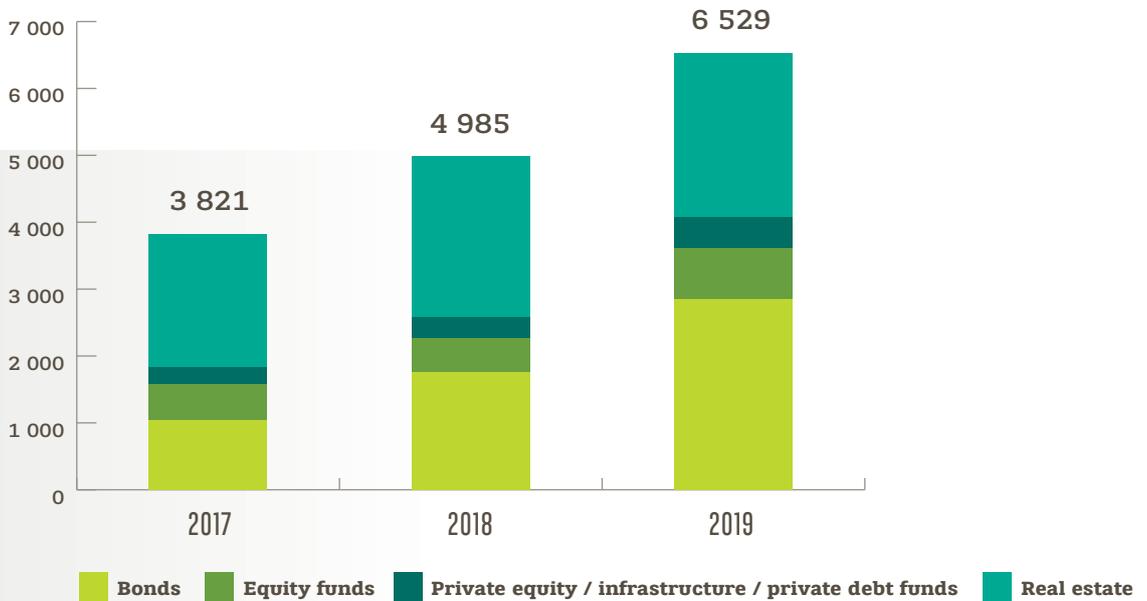


COMMITMENT III  
**DEVELOPING POSITIVE-IMPACT INVESTMENTS**

According to the GIIN<sup>(28)</sup>, Impact investments are investments made with the intention to generate positive, measurable social and environmental impact [...]. BNP Paribas Cardif adopts this definition by means of the following investments:

- **Green bonds** financing projects that pursue environmental objectives: mitigating climate change, adapting to climate change, conserving natural resources, preserving biodiversity, and preventing and controlling pollution;
- **Social-purpose or SDG bonds**, financing projects that contribute to the United Nations' Sustainable Development Goals (SDG)<sup>\*</sup>;
- **Environmentally-themed funds**: energy transition, energy efficiency, sustainable food and agriculture, mitigation of climate change, waste management;
- **Socially-themed funds**: workplace well-being, job creation, inclusivity;
- **Societally-themed funds**: education, sustainable mobility, customer satisfaction, social and solidarity economy;
- **Real estate assets** with a good environmental performance (like certified buildings) and/ or with a social/ civic dimension (such as intermediary housing and social housing).

**Positive-impact investments outstanding in the BNP Paribas Cardif General Fund, in millions of euros**



(28) The Global Impact Investing Network (GIIN) groups investors of all kinds: institutional actors, foundations, etc. Its mission is to publicise and develop impact investment around the world.

<sup>\*</sup> READ GLOSSARY

COMMITMENT III  
**DEVELOPING POSITIVE-IMPACT INVESTMENTS**

**Change in positive-impact investments outstanding, in millions of euros**

<b>MARKET VALUE IN €M</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Environmental themes</b>	<b>3 649</b>	<b>4 814</b>	<b>6 189</b>
Green Bonds	1 041	1 751	2 756
Equity funds	396	399	604
Private equity / infrastructure / private debt funds	255	302	436
Real estate	1 957	2 362	2 393
<b>Social and societal themes</b>	<b>172</b>	<b>171</b>	<b>340</b>
SDG bonds	-	-	97
Equity funds	142	122	157
Private equity / infrastructure / private debt funds	0	1	21
Real estate	30	48	65
<b>Total</b>	<b>3 821</b>	<b>4 985</b>	<b>6 529</b>

**NOTE:** BNP Paribas Cardif has changed the positive-impact investment scope of 2019 compared to that of 2018. It no longer includes funds that only apply ESG criteria without a clearly-identified positive impact.

*BNP Paribas has made **the commitment to increase its positive-impact investments by €5 billion at December 2024.***



# 1. ANALYSING THE CONTRIBUTION OF INVESTMENTS TO THE ENVIRONMENTAL TRANSITION

## Identifying the green share thanks to the new European taxonomy

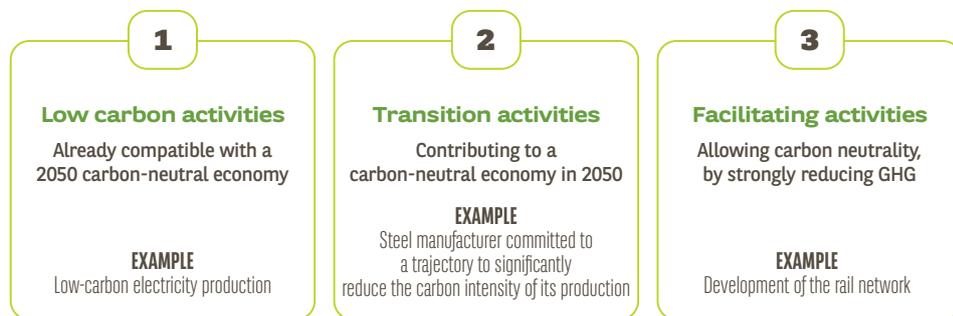
TCFD

Analysing the green share consists of **identifying the portion of corporate equity and bond portfolios related to activities contributing to the energy and environmental transition**. BNP Paribas Cardif has chosen to rely on the expertise of Trucost to calculate the green share that matches the recommendations of the European taxonomy<sup>(29)</sup>.

### European taxonomy

In June 2019, a group of technical experts appointed by the European Commission published the first version of the European taxonomy<sup>(30)</sup>. This **system of classifying sustainable economic activities makes three categories of activities eligible for the green share**:

### Typology of activities eligible for the Green Share



Source : EU Technical Group on Sustainable Finance

For this classification, **six environmental issues** were selected:

- climate change mitigation;
- adaptation to climate change;
- protection of water and marine resources;
- transition to a circular economy;
- fight against pollution;
- protection of ecosystems.

(29) A detailed methodology for calculating the green share is available in an appendix to this report.

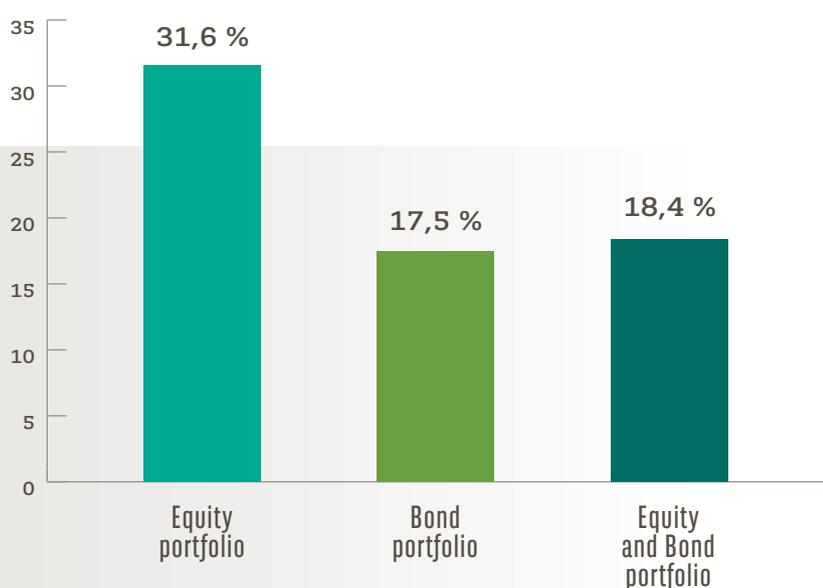
(30) The final version was published in March 2020. The analyses done by Trucost factor in the recommendations from the first version.

At present, Trucost has included BNP Paribas Cardif investments that have a significant impact on the issues of mitigation and adaptation to climate change in its calculations.

BNP Paribas Cardif is closely following the work of the expert group on classifying activities promoting an environmental and energy transition. **Indeed, investors use this taxonomy to identify the highest-performing companies and those that are providing innovative solutions.** It will be a key tool in implementing the transition.

The Trucost study on BNP Paribas Cardif’s investments has provided the following results:

### Green share of the equity and corporate bond portfolios held by BNP Paribas Cardif



Sources : Trucost / BNP Paribas Cardif



The portfolios of BNP Paribas Cardif feature a substantial green share. This is specifically the case for equities, whose green share is 31.6%, while that of bonds is 17.5%. The sectoral analysis of the portfolio’s contribution to the green share shows a considerable amount from companies specialising in green energy<sup>(31)</sup> and sustainable real estate.

### Continuing to assess multiple environmental issues

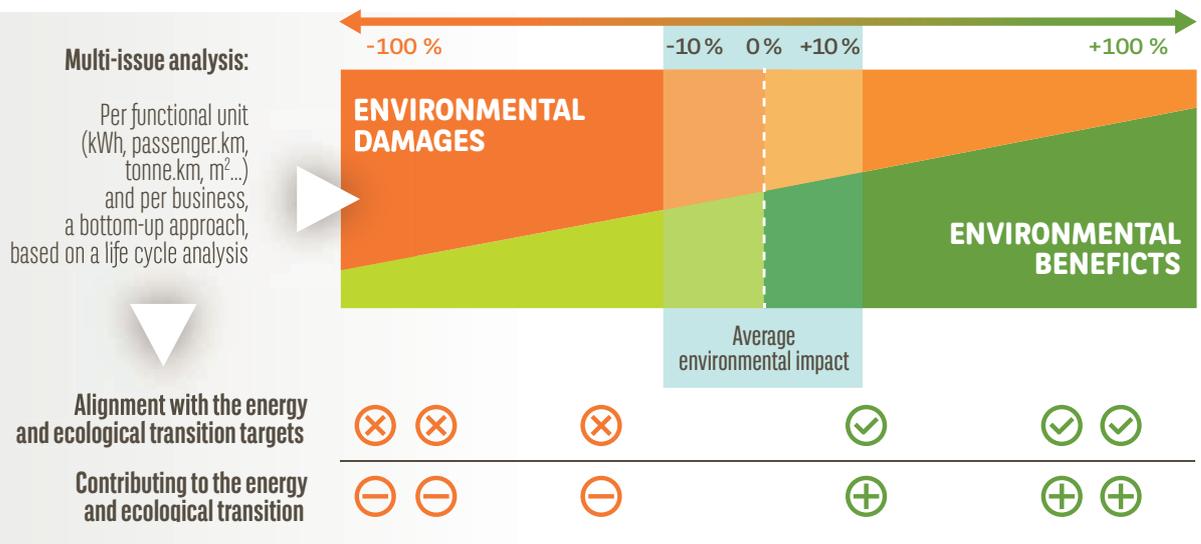
Alongside this analysis of the green share, BNP Paribas Cardif assesses its corporate assets using another indicator: the **Net Environmental Contribution (NEC)**.<sup>(32)</sup> The NEC recognises an environmental view that expands to include other issues besides the climate. In other words, the carbon issue is put into perspective with other environmental issues: biodiversity, waste management, air quality, etc. These latter are weighted by importance within each sector.

In concrete terms, **the NEC analyses a company’s contribution to the environmental transition by evaluating the performance of its products and services in comparison to its reference sector.** This scale goes from -100, a negative contribution, to +100, for a positive contribution. By construction, the average environmental performance of a given sector is 0%.

(31) Except for nuclear, which is excluded from the European taxonomy.

(32) A detailed methodology is available in an appendix to this document. As this methodology is now open source, additional information about it can be found at the NEC Initiative website: <https://nec-initiative.org/>.

Summary of the NEC approach



BNP Paribas Cardif uses the NEC to improve its understanding of the environmental impact of its investments. The indicator lets it refine the non-financial analysis of the companies in its portfolio and understand the key environmental issues by sector, for instance:

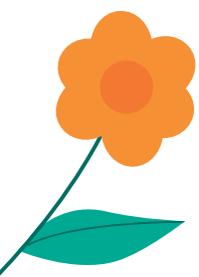
- air quality for the automotive sector;
- waste management for the nuclear industry;
- energy use of glass bottle production compared to plastic, etc.

Applying the NEC to the equity and corporate bond portfolios held directly by BNP Paribas Cardif produced the following results:

NEC scoring of BNP Paribas Cardif's portfolios at 31 December 2019



BNP Paribas Cardif receives a **combined NEC score of 14%**. This performance confirms the ESG policy developed by the Company on these asset classes, which combines sectoral exclusions, an ESG filter, and a low-carbon transition filter. Indeed, the ESG filter is used to select companies with the best non-financial performance compared to their sector. Thus their products and services have better environmental performance.



### **Results of the equity portfolio**

Across the equity portfolio, 72% of companies were subject to a detailed NEC analysis, compared to 59% in 2018.

**Compared to 2018, a slight decrease was seen in the portfolio's NEC, which was -2% compared to -1.5%.** This was due to the indicator's expansion to the apparel, textile, and distribution sectors. In fact, the companies in these sectors in the portfolio have a lesser environmental performance than their sectoral averages. Their business model is based on fast fashion or involves the use of leather goods. At constant scope of consolidation, the portfolio's NEC improved, moving to 0% in 2019, compared to -1.5% in 2018.

On the sectoral scale, the NEC's ratings vary widely. The automobile manufacturers' performance has worsened due to the increased carbon intensity of the vehicles sold. Conversely, other sectors are seeing their average NEC increase. This is the case for power producers and distributors, who are improving their score for two major reasons. On the production side, the share of renewable energy in the mix has increased. On the distribution side, these companies are benefiting from an improved energy mix in the countries in which they operate. In addition, BNP Paribas Cardif has intensified this sector's share in its portfolio, thereby increasing the positive contribution to the overall NEC.

### **Results of the bond portfolio**

On the bond portfolio, 27% of companies were subject to a detailed NEC analysis in 2019, compared to 22% in 2018.

**The bond portfolio's NEC rose appreciably, standing at 17% compared to 2% in 2018.** It benefited from the combined effect of the improved environmental performance of certain companies in the portfolio and management decisions taken by BNP Paribas Cardif.

There was also a change in methods: this year, the NEC included railway companies, which had been considered government-affiliated agencies and thus outside the scope. Railway companies have very good environmental performance. The average NEC for the transport sector went from -17% in 2018 to +49% in 2019.

First, all companies in the real estate sector improved their environmental performance. This improvement is due to the increase of the share of certified surface area (HQE, BREEAM\*, etc.) in their real estate portfolio. It is also the result of the energy intensity of buildings under management, expressed as kWh/m<sup>2</sup>. BNP Paribas Cardif has invested in bonds issued by two new operators who are very involved in sustainable real estate. These choices highlighted the contribution of this sector to the portfolio's overall environmental performance.

In addition, the portfolio's improved performance was due to divestment from companies whose environmental contribution is negative. A company in the cement sector having a particularly low NEC was removed from the portfolio in 2019.

A summary table of the average NEC by sector in the portfolio is available in an appendix.



[\\* READ GLOSSARY](#)

## 2. DEVELOPING GREEN INVESTMENTS

BNP Paribas Cardif continues to accelerate its investments in green projects connected to the energy and environmental transition. These investments are deployed across several vehicles, from financing of green bonds to financing thematic funds as part of the General Fund.

### Green investments at BNP Paribas Cardif

VALEUR DE MARCHÉ EN M €	2017	2018	2019
Green bonds	1 041	1 751	2 756
Equity funds	396	399	604
Private equity / Infrastructure / Private debt funds	255	302	436
Real estate	1 957	2 362	2 393
<b>Total green investments</b>	<b>3 649</b>	<b>4 814</b>	<b>6 189</b>

In 2019, the real estate assets that earned environmental certification are included in green investments.

### Equity funds

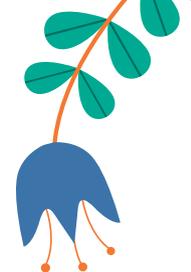
Through its investments in equity funds, BNP Paribas Cardif seeks to promote projects with a positive environmental impact. It targets low-carbon-intensity projects.

For example, **BNP Paribas Cardif has invested in the Theam Quant Equity Europe Climate Carbon Offset Plan.**

The residual carbon footprint of the **Theam Quant Equity Europe Climate Carbon Offset Plan Fund** is offset each quarter by the purchase of verified carbon credits, issued by the **Kasigau Corridor REDD + Project<sup>(33)</sup>** in Kenya. This project protects more than 200,000 hectares of threatened Kenyan forest, together securing the migration corridor between the Tsavo East and Tsavo West National Parks. The project will offset more than **1 million tonnes of CO2 each year over the next 30 years.**

(33) REDD+ (Reducing Emissions from Deforestation and Degradation) is a strategy for mitigating climate change established by the United Nations. The "+" sign refers to the additional benefits for the local community and biodiversity.





## Green bonds

Green Bonds<sup>\*</sup>, are a preferred vehicle for financing green projects. They are of interest to companies, governments, and development banks alike. In total, **green bond financing increased by 61% to reach €2.7 billion at the end of 2019.**

BNP Paribas Cardif increased **its investment by €200 million in the green OAT**, the first green sovereign bond launched by the French government in 2017. That issue was **consistent with France's commitments for implementation of the Paris Agreement.** The supported projects must:

- contribute to one of the following green goals:
  - combatting global warming,
  - adapting to climate change,
  - protecting biodiversity,
  - reducing pollution; and
- belong to one of the following six green sectors: buildings, transport, energy (including smart networks), living resources, adaptation, pollution and environmental effectiveness.

BNP Paribas Cardif also invested in **a green bond issued by Chile**, for financing the country's expenses in various sectors. Transport, energy efficiency, protection of natural resources, and water management are some of the sectors covered.

## Assessing avoided emissions with green bonds

BNP Paribas Cardif wanted to quantify the impact of its investments in terms of greenhouse gas emissions avoided. To this end, Trucost assessed the carbon impact of the eligible projects financed, for some green bonds. The impact data include the project's full life cycle:

- Construction: suppliers and materials;
- Operation: energy consumption;
- End of life: waste management, recycling, etc.

Next, the assessment process anticipates the annualised project emissions based on the bond's maturity. Finally, the emissions are compared with a benchmark index, e.g. the country's energy mix, to obtain a differential corresponding to the emissions avoided.

The green bonds held by BNP Paribas Cardif primarily finance projects connected with green infrastructure, green buildings, and renewable energy. These green bonds reviewed should have **saved the emission of 968 tonnes of CO2 equivalent per million euros invested<sup>(34)</sup>** throughout the projects' life. The percentage of green bonds analysed should increase in the years to come.

## Private Equity funds

Private Equity funds are an ideal vehicle for financing projects with targeted themes. In 2019, out of the various investments in impact funds, BNP Paribas Cardif selected two ecosystem-preservation funds.

(34) Based on the data collected, not all of the portfolio's green bonds could be put to a materiality analysis.

Protecting the oceans and marine and coastal ecosystems is a crucial environmental issue - but also a social issue, in terms of food, jobs, and housing.

**BNP Paribas Cardif has invested in the Althélia Sustainable Ocean Fund**, managed by the Mirova management company. The goal of this fund is to protect and develop marine resources on three fronts: protection of species, circular economy, and ocean conservation.<sup>(35)</sup>

In addition, BNP Paribas Cardif increased its investment in the **Land Degradation Neutrality** fund in 2019. This fund is managed by Mirova with the support of the UN, the European Investment Bank, and the French Development Agency (Agence Française de Développement). Its purpose is to protect and develop arable land, mainly in emerging countries. This entails financing sustainable land-management projects (organic farming, reforestation, etc.) and supporting local communities.

### **Infrastructure funds**

Infrastructure funds are strategic investment vehicles for the environment, specifically for financing the energy transition. That is why, in 2019, BNP Paribas Cardif stepped up its investments in projects dedicated to the production and distribution of renewable energy. These projects are spread across developing and emerging countries alike.

#### **Sample investment in sustainable infrastructure**

The **Actis Long Life Infrastructure** Fund is focused on developing the generation and distribution of de-carbonised power generated by wind farms and solar panels. It targets the emerging countries of Latin America, Africa, and Asia. This fund has financed the development of a solar farm in the Atacama region of Chile, with an installed capacity of 100 MW, and wind farms in Brazil, with an installed capacity of 137 MW.

In Europe, BNP Paribas Cardif invested in the **Eurofideme IV** Fund managed by Mirova. This fund is specialised in the distribution of renewable energy such as solar and wind in European countries.

### **Real estate**

Real estate is one of the pillars of BNP Paribas Cardif's green investment policy. The company is committed to improving the environmental footprint of the real estate assets under management. Moreover, it selects virtuous real estate projects with regard to energy consumption and greenhouse gas emissions.

For example, BNP Paribas Cardif wanted to promote wood as a key material in the low-carbon transition. It invested in a **wood construction project of 80 housing units in Rueil-Malmaison**, near Paris..

The company's investment also supported the construction of a 25,000 m<sup>2</sup> office building without air conditioning in Paris Batignolles. The tenant in place spent the 2019 heat wave in comfortable conditions comparable to air-conditioned buildings which cease to be efficient above a certain outside temperature.

(35) More information on this fund is provided p.71



# 3. DEVELOPING SOCIAL AND COMMUNITY-BASED INVESTMENTS



BNP Paribas Cardif is aware of the important role that investors have to play for the development of a society that is fairer socially. On this point, it is increasing its investments in funds with a high social and community impact. The purpose of this strategy is to improve access to jobs and to support vulnerable people with access to housing.

## SDG bonds

BNP Paribas Cardif has invested in the first corporate bond related to indicators contributing to the Sustainable Development Goals (SDG). This bond, issued by the Italian company ENEL, is tied to the achievement of a set of SDG-related targets..

### Social and community-themed investments at BNP Paribas Cardif

VALEUR DE MARCHÉ EN M €	2017	2018	2019
Equity funds	142	122	157
Private equity / Infrastructure / Private debt funds	0	1	21
Real estate	30	48	65
SDG bonds	-	-	97
<b>Total Social &amp; Community Investments</b>	<b>172</b>	<b>171</b>	<b>340</b>



## Equity funds

For example, for several years now, BNP Paribas Cardif has been investing in the NovESS Fund managed by Mandarine Gestion. The focus of this fund is to invest in cooperative associations, mutual insurance companies, and corporations in the **Social and Solidarity-Based Economy\*** (SSE).

### Investment example by the NovESS Fund

*La Conciergerie Solidaire is a Responsible Company of Social Interest (Entreprise solidaire d'utilité sociale - ESUS), a subsidised Integration Company (Entreprise d'Insertion - EI). It provides concierge services to businesses in alternative work spaces<sup>(36)</sup> and neighbourhoods. Its subscribers include employees, residents, and professionals. La Conciergerie Solidaire provides a wide range of turnkey services for everyday needs. By promoting the hiring of people without access to jobs, it supports social integration through economic activity.*



BNP Paribas Cardif is investing in the **development of access to jobs**. That is why the Company has upped its investment in the dynamic Insertion Emplois (job integration) Fund managed by Natixis.

BNP Paribas Cardif also espouses other social and societal themes such as **gender equality**. It has invested in the Women Leaders Equity Fund managed by Mirova.<sup>(37)</sup>

## Private equity / Infrastructure / Private debt funds

BNP Paribas Cardif has invested in the "Blue Like an Orange" Fund whose purpose is to finance **agriculture, education, healthcare, and infrastructure** companies in Latin America, in connection with the UN's 17 Sustainable Development Goals.

## Real estate

BNP Paribas Cardif's commitment to social and solidarity housing is also actualised by the increase in its positions on the **intermediary housing funds** FLI 1 and FLI 2, managed by CDC Habitat.

The Company has also decided to invest in a fund dedicated to **life leases**, Certivia 2, managed by La Française REM. The goal is to empower retirees who own their primary residence to improve their current income.

In certain cases, office buildings are in an urban-planning transition phase. The option of renting to players working in conjunction with social and solidarity businesses is under review. Thus BNP Paribas Cardif has rented more than 1,000 m<sup>2</sup> in a building located in Paris' 18th district to Plateau Urbain.<sup>(38)</sup>



(36) Locations other than home or the workplace.

(37) More information on this fund is provided in p.71

(38) Plateau Urbain is a temporary urban planning cooperative that proposes providing vacant spaces for cultural operators, non-profits, and the social and solidarity economy.



# 4. ANALYSING THE CONTRIBUTION OF INVESTMENTS TO THE SUSTAINABLE DEVELOPMENT GOALS

## INTERVIEW

**Laurence Hontarrede**  
CSR and Prospective Manager at BNP Paribas Cardif



*"Our CSR strategy organises our commitments into four areas: employers, customers, civic involvement, and investment. So each action is assessed according to the expected impact. For the investment area, we measure the impact through the choice of specific vehicles, but we are also careful to assess all our investments. The SDG are a very useful guide for pinpointing our measurements, and we use them as much as possible as a framework for our choices".*

**Each action is assessed according to the expected impact**

### Analysing directly-held equities through the lens of the Sustainable Development Goals

The development programme developed in September 2015 by the UN Member States focuses on 17 Sustainable Development Goals or SDGs. These aim to build a sustainable future by meeting the main global challenges by 2030: ending poverty and hunger, promoting equality, and building sustainable cities, whilst protecting the planet.



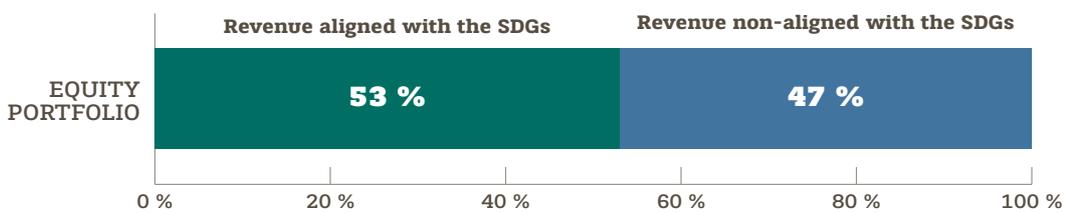


The financial sector plays a crucial role, supporting projects and businesses that provide solutions for sustainable-development issues. **For the third consecutive year, BNP Paribas Cardif is analysing the contribution of its directly-held equities to the Sustainable Development Goals.** This method assesses the share of revenues contributing to the SDG, according to a methodology developed by Trucost. Known as the Trucost SDG Positive Impact Taxonomy, this benchmark indexes which products and services are aligned with the SDGs.

### METHODOLOGICAL NOTE

The degree to which the SDGs are incorporated into corporate strategies is low overall. As such, the methods for analysis cannot fully reflect a portfolio's contribution to the SDGs. Sometimes, corporate publications make more reference to some SDGs than others. This can result in bias between the portfolio's sectoral distribution and its contribution to the SDGs.

### Share of equity portfolio revenue related to the Sustainable Development Goals at 31 December 2019

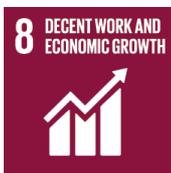


Sources : BNP Paribas Cardif / Trucost

Using the Trucost method of analysis, 53% of revenues generated by issuers in the BNP Paribas Cardif equity portfolio are in line with the SDGs. The analysis is used to identify the main SDGs to which the BNP Paribas Cardif equity portfolio contributes most.



This goal is supported by healthcare players. According to the results, 18% of revenues generated by the equity portfolio contribute to this goal.



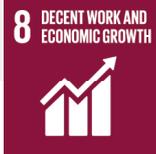
According to the results, 17% of revenues contribute to this goal in favour of decent work. This stems from the ESG policy carried out by BNP Paribas Cardif, which selects the companies with better ESG performance.



The portfolio is used to finance infrastructure in transport, irrigation, energy, and information and communication technologies. According to the results, 16% of the portfolio's revenues meet this target.

# Analysing the funds in relation to the sustainable development goals

The funds are also preferred vehicles for contributing to the Sustainable Development Goals.

SUPPORTED FUNDS	FUND OVERVIEW	TARGETED SDGS <sup>(39)</sup>
<b>Sustainable Ocean Fund</b>	<p>The Sustainable Ocean Fund, managed by Althélia and Mirova, invests in activities with high growth potential in three sectors:</p> <ul style="list-style-type: none"> <li>■ Sustainable seafood: fishing and aquaculture businesses that can be certified “sustainable”;</li> <li>■ Circular economy: plastics and wastewater management;</li> <li>■ Ocean conservation: biodiversity, responsible tourism, and infrastructure linked to the blue economy.</li> </ul> <p><b>SAMPLE INVESTMENTS</b></p> <ul style="list-style-type: none"> <li>■ <b>Sustainable Seafood</b>   Investment in Kampachi Farms (Mexico) for the development of sustainable offshore agriculture that respects the environment, in cooperation with the scientific community (international conservation).</li> <li>■ <b>Circular Economy</b>   Investment in Biocirculo, a plastics collection and recycling company in Colombia and Peru, which helps reduce the quantity of waste discharged in the sea.</li> <li>■ <b>Ocean Conservation</b>   Investment in Blue Finance, a public-private operator in charge of co-managing a marine area of 8,000 km<sup>2</sup> in the Dominican Republic.</li> </ul>	 
<b>ECPI Circular Economy Leaders</b>	<p>The ECPI Circular Economy Leaders Fund, managed by BNP Paribas Asset Management, invests in equities issued by companies included in the ECPI Circular Economy Leaders Equity Index.</p> <p>The companies in this index are selected by the industrial sectors most affected by the principles of the circular economy: <b>recycling, extension of product life cycles</b>, etc. An ESG analysis is completed with an assessment of their capacity to translate these principles into their economic model.</p>	
<b>Women Leaders Equity Fund</b>	<p>The Women Leaders Equity Fund is managed by Mirova, in partnership with ONU Femmes France (UN Women France). Its purpose is to promote gender equality in the professional world, in particular by combatting two scourges: <b>wage inequality and the glass ceiling</b>.</p> <p>This fund’s strategy is to invest in companies that have a high proportion of women in senior positions. It also targets those that have policies promoting gender diversity: training to combat unconscious bias, wage transparency, measures to improve work-life balance, etc.</p>	
<b>Certivia 2</b>	<p>The Certivia 2 Fund, managed by the French company La Française REIM, is dedicated to life leases. Its objective is to empower retirees who own their primary residence <b>to improve their quality of life</b> by providing them with current income and allowing them to remain at home.</p> <p>To maximise its impact on sustainable development, the fund has established a clear strategy for evaluating investment opportunities. This strategy requires that projects meet at least two of the five SDGs targeted by the fund: no poverty, good health and well-being, decent work and economic growth, reduced inequalities, and sustainable cities and communities. If they meet only one of these SDGs, the projects’ eligibility depends on their capacity to make a specific additional “positive” impact: benefiting a low-income person, repaying debts, or protecting another member of the family.</p>	    

(39) SDGs selected by the Fund Management Company.



# CONCLUSION & OUTLOOKS

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In 2019, BNP Paribas Cardif consolidated its sustainable finance approach, broadening the non-financial coverage of its various investment types. In addition, the insurer has multiplied the number of environmental metrics, including climate risks indicators. It has thereby gained visibility on the impact and the contribution of its investments in the environmental transition.

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For 2020 and beyond, BNP Paribas Cardif will pursue its commitments around two focus areas. Firstly, it will apply its new insights by integrating the results of the latest metrics - especially those on risk - into investment and management decision policies, in line with the TCFD recommendations. A formalised climate strategy will support this strengthening. Secondly, issues of biodiversity and the positive impact of investments are to play a larger role in BNP Paribas Cardif's responsible investment policy. As such, they will be reviewed in detail.



# APPENDIX 1

## Cross-reference table with the TCFD recommendations

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TCFD		Corresponding pages
<b>GOVERNANCE</b>	Description of the board's oversight of climate-related risks and opportunities	<i>p.11</i>
	Description of management's role in assessing and managing climate-related risks and opportunities	<i>p.11</i>
<b>STRATEGY</b>	Description of climate-related risks and opportunities the organization has identified over the short, medium, and long term	<i>p.49 to 56</i>
	Description of the impact of climate related risks and opportunities on the organization's businesses, strategy, and financial planning	<i>p.49 to 56</i>
	Description of the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	<i>p.35 to 44</i>
<b>RISK MANAGEMENT</b>	Description of the organization's processes for identifying and assessing climate-related risk	<i>p.49 and 50</i>
	Description of the organization's processes for managing climate-related risks.	<i>p.50 to 55</i>
	Description of how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management	<i>p.56</i>
<b>INDICATORS &amp; TARGETS</b>	Publication of metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process	<i>p.43 and 44, p.50 to 55, p.60 and 61</i>
	Disclosure of Scope 1, Scope 2 and if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risk	<i>p.39 to 44</i>
	Description of the targets used by the organization to manage climate-related risks and opportunities and performance against targets	<i>p.9, p.25, p.48</i>

# APPENDIX 2

## Cross-reference table with Article 173 – VI of the LTECV

Provisions of Article 173 - VI of the LTECV	Corresponding pages
<b>INFORMATION ON THE ENTITY</b>	General approach of the investor when accounting for ESG criteria <i>p.25, p.27</i>
	Where appropriate, descriptions of the policies for managing risks related to those criteria <i>p.25, p.27, p.31</i>
	Procedures for informing subscribers, contributors, etc. about these processes <i>p.20, p.31</i>
	Any adherence to initiatives, external charters, or labels <i>p.12</i>
	Type of criteria recognised and the reasons for these choices <i>p.25 and 26, p.27</i>
<b>DESCRIPTION OF THE ESG CRITERIA</b>	Information used for the analysis and type of analysis (internal/external, financial/non-financial) <i>p.27 to 30</i>
	Methods and results of the analysis and explanation of the relevance of the method and scope. The investor may present the information by activity, asset class, sector, issuer, type of portfolios (euro contracts/unit-linked vehicles), clearly stating the reasons <i>p.14 and 15, p.27 to 30</i>
	Presentation of the integration of the results of the analyses. These may be impacts on investments (risk management, divestment decision) or on relations with issuers (commitment or vote, via management companies as applicable). The explanation will also include values not covered in the analysis <i>p.25, p.31, p.35 and 36, p.64 to 66</i>
<b>DESCRIPTION OF CRITERIA RELATED TO CLIMATE ISSUES</b>	Type of criteria recognised, differentiating those that are physical risks (exposure to physical consequences directly induced by climate change), transition risks (exposure to changes induced by the transition to a low-carbon economy), and their contribution to meeting the goal of limiting climate change and to the goals of the transition <i>p.49 and 50</i>
	Information used for the analysis and type of analysis (internal/external, financial/non-financial) <i>p.51 to 55</i>
	Methods and results of the analysis and assumptions applied and their compatibility with the international target of limiting climate change. In each case, the investor will add any specification as to: the consequence of climate change and major weather events; changes in the availability and price of natural resources; the consistency in expenditures of issuers with a low-carbon strategy; the measurements of greenhouse gas emissions (methods to be specified); the amounts invested in themes and infrastructures contributing to the transition; and anything implemented by the public authorities in this context. <i>p.35 to 49, p.49 to 55, p.60 to 63, p.64 to 66</i>
	Presentation of the contribution to compliance with the international goal of limiting climate change and the achievement of the energy and environmental transition goals. The investor may lay out the indicative targets set and how consistent they think it is with this goal. <i>p.26, p.42 to 44, p.60 to 63</i>

# APPENDIX 3

## Methodologies and detailed results

### 1. BENCHMARK INDICES

The table below shows the benchmark indices defining the initial investment universe of the BNP Paribas Cardif portfolios:

<i>Benchmark indices by asset class</i>	
<b>TYPE OF PORTFOLIO</b>	<b>BENCHMARK INDICES</b>
Equities	Stoxx 600
Corporate bonds	IBOXX Euro Corporate Overall QW5A
Corporate equities and bonds	Stoxx 600+ IBOXX Euro Corporate Overall QW5A
Government bonds	IBOXX Euro Eurozone Sovereign Overall QW1A

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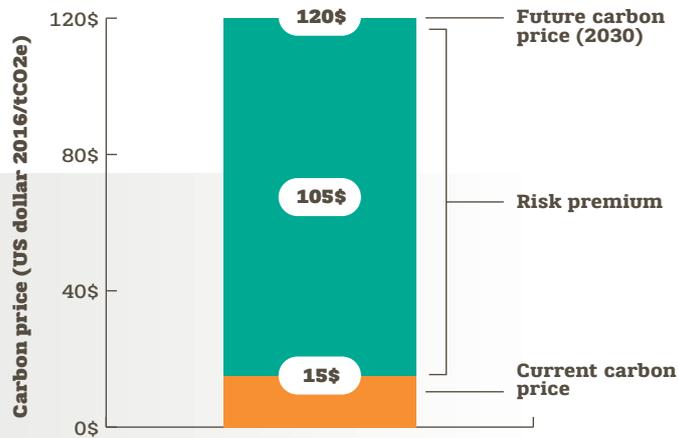
### 2. CARBON INTENSITY

The carbon intensity of these securities corresponds to the average greenhouse gases, expressed as CO<sub>2</sub> equivalent, compared to the millions of euros in Gross Domestic Product generated. The calculation scope for the emissions factors in the emissions produced and the emissions imported. The emissions exported are not exempted from the emissions produced, so that the total GHG emissions of a country's economy are counted.

### 3. EXPOSURE OF THE PORTFOLIO TO FUTURE CARBON PRICING

Measuring the exposure to carbon pricing assigns the carbon footprint a cost relative to the duties and mechanisms of future regulations in each country in which the country does business. This indicator reflects the exposure to the regulatory transition risk.

To measure this exposure, Trucost analyses both the current price of carbon and the future price of carbon, at different time horizons: 2025, 2030, and 2050. The carbon risk premium is the difference between the two. Calculated for each company, this premium corresponds to the future carbon costs it will face.

**Carbon risk premium**

Source : Trucost

The carbon risk premium varies according to:

- the geographic region, due to differences in government policies;
- the year under review;
- the sector, due to the different treatment of sectors in many policies combatting climate change.

Businesses also face indirect financial risks related to the repercussion on suppliers of the increase in carbon prices. Suppliers are looking to absorb some or all of these costs by increasing their own prices. New parameters are used to estimate the proportion of additional costs that would be passed from suppliers to businesses.

The increase in carbon prices thus modelled will have an impact on the future EBITDA of the corporation being analysed. The transition risk to which a company is exposed is assessed using the indicator of EBITDA at risk. This latter designates the share of operating profits exposed to a carbon price increase. It is obtained as follows:

$$\text{EBITDA at risk} = \frac{\text{Future carbon costs}}{\text{EBITDA}}$$

The EBITDA at risk in the BNP Paribas Cardif portfolio is obtained by the weighted sum of EBITDA at risk of the invested companies.

## 4. ALIGNMENT OF THE PORTFOLIOS WITH THE TARGETS OF THE PARIS AGREEMENT

## SCIENCE-BASED 2°C ALIGNMENT

## SERVICE PROVIDER



**COVERAGE** Most carbon-intensive activities: energy (oil, gas and coal), power generation, transport (passenger and freight), industry (cement, steel, aluminium, chemicals and paper), and agriculture and forest activities. Sectors located “upstream” of the above activities (original equipment manufacturers).

**APPROACH** For sectors covered by the SDA approach as well as the oil and gas business:

Based on the **physical carbon intensity** according to the sector, compared to a sector benchmark scenario (IEA 2DS).

*Example of physical carbon intensity: tonnes of CO2 equivalent per tonne of steel produced for the steel industry.*

For the other sectors covered:

Based on the **typology of the activities** carried out for agriculture and forestry, by combining the trajectories specific to each activity.

Based on the **typology of the products** sold for “upstream” sectors, compared to their contribution to improving the trajectories of the sectors located “downstream”.

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## SCOPE OF THE EMISSIONS TAKEN INTO ACCOUNT

The scope of the emissions taken into account differs by sector according to its relevance. Scopes 1, 2 and 3 may be combined.

Examples :

- Scope 1 for electricity producers: it is production that is carbon-intensive;
- Scopes 1, 2 and 3 for oil and gas producers: it is the use of oil and gas that is carbon-intensive.

**VISION** Future emissions are extrapolated from past data, with partial consideration of the company's announced intensity-reduction targets<sup>(40)</sup>.

**ADVANTAGES** Analysis based on physical intensity, without economic bias.  
Analysis of the progress made by issuers in reducing emissions. Recognition of the efforts made by issuers.

**BIASES** Extrapolating from the past does not fully capture future events, nor does it account for advances in available technology. Moreover, the vision is based in part on reported and sometimes non-binding corporate commitments.

(40) The intensity-reduction targets included are those validated by the Science-Based Target Initiative.

**CARBON IMPACT ANALYTICS****SERVICE PROVIDER****COVERAGE**

All economic activities.

**APPROACH**

For the key sectors of the transition:

Detailed analysis based on the **economic carbon intensity** (tCO<sub>2</sub>/€M/year), from the emissions generated and avoided at company level, resulting from the performance of all their activities in a life cycle analysis compared to a benchmark scenario. Supplemented by a qualitative analysis of the development trajectory of emissions in the future (based on CAPEX, R&D expenditures, and the climate strategy).

For the other sectors:

Simplified analysis based on the **economic carbon intensity** (Scopes 1 and 2).

**79****SCOPE OF THE EMISSIONS TAKEN INTO ACCOUNT**

The scope of the emissions taken into account differs by sector according to its relevance. Scopes 1, 2 and 3 may be combined.

Scopes 1 and 2

**VISION**

The current emissions generated or avoided are calculated in relation to the products' life cycle.

**ADVANTAGES**

Very broad sector coverage.  
Recognition of the emissions avoided.

**BIASES**

The economic intensity ratios involve pricing biases that may have an influence on a company's climate performance. Indeed, at equal performance, a company will see its economic intensity ratio decline simply because of inflation.

The calculation factors in the company's current performance only, not the company's past or future progress in reduction. This drives the "portfolio's equivalent temperature" upward.



**5. NEC - NET ENVIRONMENTAL CONTRIBUTION**

Currently, the state of the art in terms of assessment and calculation methods does enable pertinent analysis in all economic sectors, specifically the financial sector.

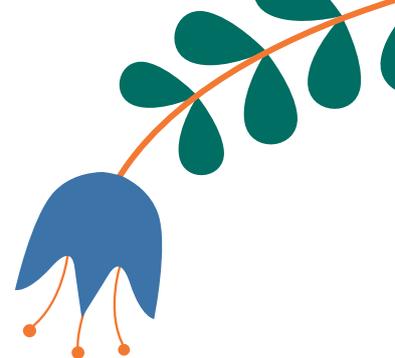
In 2020, the analysis of NEC covered a greater number of sectors than last year: electricity producers; electrical equipment manufacturers; automobile manufacturers; transport; transport equipment manufacturers; cement; building components; finance; mining and metals; oil and gas; real estate; food, beverage and tobacco; chemicals; and industrial conglomerates.

**Summary of the NEC scores by sector**

*Bond portfolio at 31 December 2019*

	<i>Weight in the portfolio</i>	<i>NEC %</i>
Chemicals	0,0 %	-27 %
Construction and engineering	0,0 %	10 %
Cement	0,1 %	-10 %
Metals and mining	0,1 %	4 %
Business services	0,1 %	0 %
Electrical equipment and components	0,2 %	1 %
Electricity producers and distributors	0,2 %	-17 %
Machinery	0,3 %	3 %
Waste and water treatment services	0,5 %	75 %
Industrial conglomerates	0,6 %	2 %
Information technology	1,7 %	10 %
Real estate	2,3 %	20 %
Food	3,5 %	-6 %
Oil and gas	4,8 %	-18 %
Transport equipment manufacturer	5,3 %	19 %
Transport	9,1 %	42 %
<b>Total</b>	<b>28,8 %</b>	<b>17 %</b>

Sources : BNP Paribas Cardif / I Care & Consult



**Summary of the NEC Scores by sector**  
*Equity portfolio at 31 December 2019*

	<i>Weight in the portfolio %</i>	<i>NEC %</i>
Distribution	0,9 %	-4 %
Cement	1,4 %	-10 %
Electrical equipment and components	1,8 %	0 %
Construction and engineering	2,2 %	7 %
Transport	2,7 %	-50 %
Transport equipment manufacturer	3,3 %	-3 %
Food	3,9 %	-7 %
Automobile manufacturers	4,3 %	-3 %
Industrial conglomerates	4,6 %	10 %
Household and personal products	4,7 %	-6 %
Electricity producers and distributors	5,9 %	28 %
Oil and gas	5,9 %	-19 %
Apparel and textile	8,8 %	-14 %
Chemicals	10,5 %	-5 %
Information technology	11,5 %	13 %
<b>Total</b>	<b>72,4 %</b>	<b>-2 %</b>

Sources : BNP Paribas Cardif / I Care & Consult



# APPENDIX 4

## BNP Paribas Group's sector policies

### DEFENCE

The BNP Paribas Group recognises the rights of governments to defend and protect their national security. Nonetheless, it considers the specific ESG risks inherent in this sector: status and potential end use of certain weapons, risk of corruption.

### PALM OIL

This activity is an essential source of income, providing millions of people living in developing countries with a livelihood. However, the exploitation of palm oil plantations can result in various types of damage with respect to local communities, climate change and ecosystems.

### PAPER PULP

Paper pulp production is a major source of revenues for millions of people in developing and emerging countries. However, demand for paper-based products will increase over the next decade. Presumably, this will have an impact on the environment around the world.

### NUCLEAR ENERGY

Some countries have chosen to develop their nuclear industries considering that nuclear energy has a positive impact, in particular on economic development, the security of their power supply, and the reduction of greenhouse gases. By publishing this policy, BNP Paribas wants to ensure that the projects that it helps to finance comply with the principles of control and mitigation of environmental and social impacts applicable to the nuclear energy sector.

### PRODUCTION OF ENERGY FROM COAL

Coal can contribute to the economic development of certain countries by providing low-cost, reliable access to electricity and by supporting energy independence. A right balance must therefore be found between the need for increased access to electricity and economic development, and the need to reduce the emissions of CO<sub>2</sub> from human activities. Achieving this balance is essential for limiting climate change.

### AGRICULTURE

A key sector of the economy, agriculture is an important source of income and the livelihood of millions of people, in both developed and developing countries. Without appropriate management, the development of agriculture could have numerous adverse effects on local communities, ecosystems, and climate change. Meeting these environmental and social challenges requires a sustainable-growth strategy focused on agricultural practices (ecosystem and biodiversity).

### MINING INDUSTRY

The mining industry extracts mineral resources, which are basic components for most economic sectors. It also accounts for a large part of GDP in numerous countries. However, these aspects must be examined in the light of the environmental, social and governance risks associated with the mining industry.

### TOBACCO INDUSTRY

The World Health Organization has recognised smoking as one of the major causes of avoidable death worldwide. BNP Paribas considers that companies in this sector have a role to play in minimising the risks related to the production and use of tobacco. The Group encourages its customers to conduct their business in compliance with international best practices.

### UNCONVENTIONAL OIL AND GAS

The production of unconventional oil and gas currently represents almost 10% of total oil and gas production. This percentage should increase, because unconventional oil and gas currently represent, respectively, 55% and 44% of recoverable resources. Within this policy, unconventional oil and gas resources include shale gas and oil, tar sands, and oil and gas resources located in the Arctic region.

*For more information,  
please consult  
the BNP Paribas Group  
website at:*



# GLOSSARY

## STRANDED ASSETS

In this report, stranded assets means investments in fossil energies that carry one or more risk(s) of devaluation. These risks may be as follows: transition to a low-carbon economy; simultaneous changes in legislation; or environmental, technological or market constraints.

## BREEAM (Building Research Establishment Environmental Assessment Method)

See "HQE"

## DUE DILIGENCE

This is the procedure whereby an investor reviews the documents of a target company before investing.

## CARBON FOOTPRINT

This is the measurement at a given moment of "the quantity of GHGs expressed in terms of CO<sub>2</sub>-e, [released into the atmosphere by an individual, process, organisation, event, or product]... from within a specified boundary". (Authors: Pandey, Agrawal and Pandey, 2011; Source: ScienceDirect)

## SOCIAL AND SOLIDARITY-BASED ECONOMY (SSE)

This term includes historical players in the social economy such as associations, mutual insurance companies, cooperatives, and foundations, as well as new forms of social entrepreneurship. These include business corporations with a public-interest purpose that decide to follow the principles of the social and solidarity-based economy themselves.

## GENERAL FUNDS

Also known as "euro funds", these funds are life insurance vehicles, traditionally comprising bonds, equities, and real estate assets. For General Funds, the amount of the insurer's commitment is expressed in euros.

## DEDICATED FUND

Mutual fund dedicated to a maximum of 20 bearers.

## OPEN FUND

Investment fund to which several investors can subscribe (units are available on request, both for sale and for purchase).

## GEOGRAPHIC FUND

Fund investing in certain countries or geographic areas.

## EMERGING ZONE FUND

Fund investing primarily in countries with emerging economies on the MSCI Emerging Markets Index.

## INFRASTRUCTURE FUND

Fund investing in public-interest assets offering essential services to the community and its economic and social development.

## HQE (High Environmental Quality) AND BREEAM (Building Research Establishment Environmental Assessment Method)

These are environmental evaluation methods for the design and construction of buildings. The first is French and the second is British.

## RESPONSIBLE INVESTMENT

This is a generic term which refers to the various approaches considering Environmental, Social and Governance aspects in financial management. Responsible investment can take a structured and systematic approach in terms of stock-picking for a given fund and, moreover, support the players in an inclusive, low-carbon economy. This is known as Socially Responsible Investment (SRI). (Source: Novethic)

## GREEN INVESTMENT

This term refers to a practice that qualifies as Socially Responsible Investment. This practice applies to all operations aimed at improving the environment, such as promoting the energy transition and mitigating the environmental footprint.

## GREEN BOND

A green bond is a bond issued with the aim of financing a specific project with high environmental added value. These may consist of securities issued by companies, entities or countries, in which BNP Paribas Cardif may invest directly, or via funds, otherwise known as collective investment vehicles.

## SOCIAL BOND

A bond issued with the aim of financing a specific project with high added social value. These may consist of securities issued by companies, entities or countries, in which BNP Paribas Cardif may invest directly, or via funds, otherwise known as collective investment vehicles.

## SUSTAINABLE DEVELOPMENT GOALS OR SDGS

These 17 goals are at the heart of the 2030 Agenda defined by the UN. These integrate the three dimensions of sustainable development across the board: economic, social, and environmental. The SDGs cover all issues deriving from these three dimensions: climate, biodiversity, energy, water, poverty, gender equality, economic prosperity, peace, agriculture, education, etc.

## DIRECTLY-HELD SECURITIES

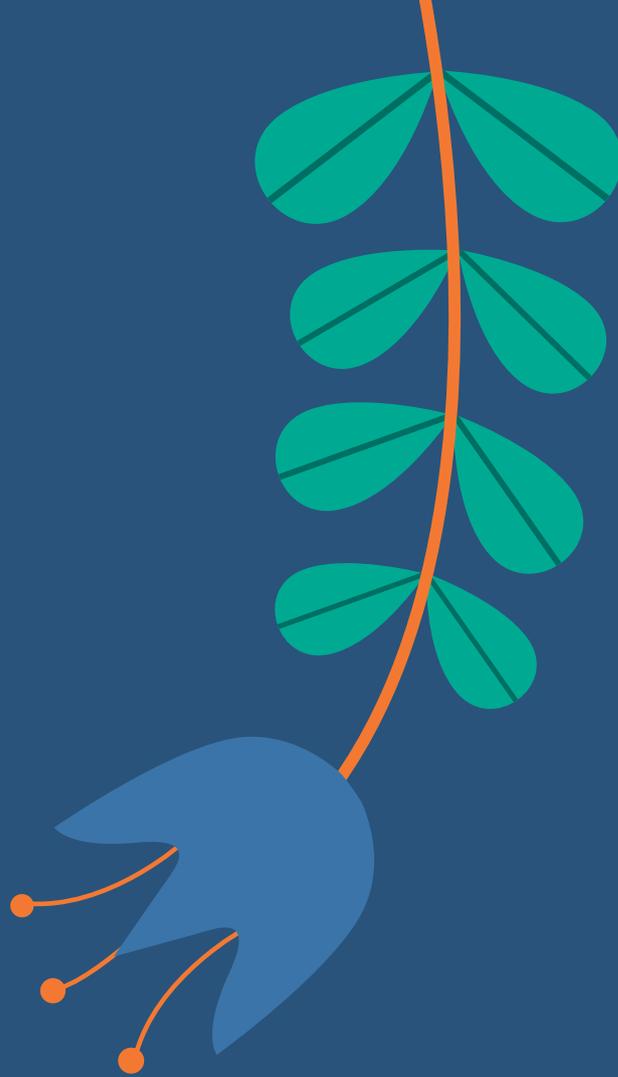
These securities are held without an intermediary by BNP Paribas Cardif. They may be equities or bonds.

## UNIT-LINKED VEHICLES

Like the General Funds, the unit-linked vehicles are life insurance investment vehicles. For unit-linked contracts, the insurer's commitment is expressed in units, the value of which varies according to market fluctuations.

## CORPORATE VALUE

This metric represents all of the capital committed. It includes stock market capitalisation, net financial debt, and minority interests, plus other assets and minus other liabilities.



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382 983 922 RCS Paris French public limited company (société anonyme), registered capital: 149 959 051,20 euros.

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for a changing  
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