

THE NEW FINANCE REVOLUTION

# SUSTAINABLE FINANCE (ESG, SDG & CLIMATE) - RISKS & OPPORTUNITIES FOR BANKS AND INSTITUTIONS





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Hereinafter, brief descriptions of authors profile are reported.

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He has assisted bank and financial institution in developing and implementing new limits framework, XVA metrics, Collateral Cost Optimization, Independent Price Verification, ALM ratios and sensitivity on Maturity Gap, LCR, NSFR,  $\Delta NII$  e  $\Delta EVE$ . Besides, he has a strong knowledge of pricing models as well as regulatory and supervisory packages.



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Ivana is a Consultant for Avantage REPLY (Italy) with almost 2 years of experience in sustainability area. She had been working on sustainability reporting and index rating questionnaires in banking sector and she was a part of risk services in an audit company, working on verification of sustainability data, development of corporate business strategies and assessment of business-related risks and opportunities. Ivana is currently focused on Sustainable Finance and Asset Management.

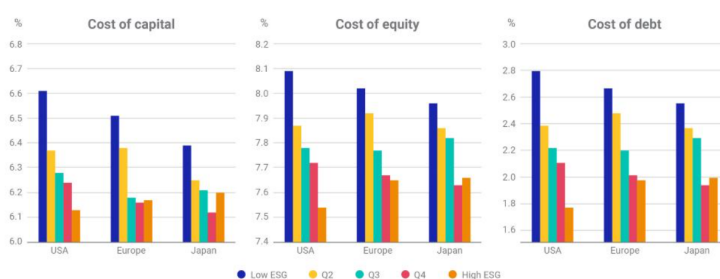


## EXECUTIVE SUMMARY

This paper provides an overview on ESG, focusing on Climate and Environmental Finance and Risk, with emphasis on challenges related to specific ESG factors that could be turned into opportunities if managed promptly. ESG is becoming increasingly relevant for various sectors; in this paper, we have focused on the correlation between BICS sectors and ESG (such as energy, utilities and agriculture), as well as on the financial sector, as one of the key enablers of the sustainable investments and a transition to a more sustainable economy. We provide an overview of the **importance of including the ESG considerations in business decisions**.

In the following sections, we have highlighted how strong ESG profile directly **improves Risk Management capabilities**, but also results in a **higher profitability**. Some empirical evidence suggests that issuers adopting sustainable ESG compliant strategies will be able to **obtain a mix of funding sources at lower costs**; in fact, it has been noticed a **correlation with the ESG scores**, which shows that companies with high ESG scores reported lower average cost of capital and cost of debt than companies with low ESG scores<sup>1</sup>.

Figure 1: Impact of the ESG score on Cost of capital



Moreover, in relation to **evaluation and profitability**, companies with a high ESG rating has shown a Price to Book Value and an R.O.E. above the market average in recent years

Figure 2: Impact of the ESG score on Price to Book value and R.O.E.



The progress towards ESG targets and performance is evaluated in the Sustainability Report of the companies, produced in compliance with GRI indicators, which provide detailed guidelines how to report on each indicator and help companies to make a comparison with other entities relevant for their benchmark. Regulation towards ESG reporting has constantly evolved over the last year, one of the most recent being the **ECB expectations**, a document with **thirteen core** climate-related issues, focusing on **Governance, Risk Management, Business and Disclosure**. Here we have highlighted the important components of **Climate Risk - Transitional and Physical risks**, which can have **substantial financial impact**.

Finally, we take a look at a **recent Bank of Italy questionnaire** of 25 banks on readiness of **financial system to address climate-related issues**; these examples are reported in the annex. Data are composed of Risk Management, Strategy, Metrics and Targets. We can see that majority of the banks assess their conformity risk, while not many banks assess impact of different emission scenarios in their portfolio.

<sup>1</sup> Sustainable Finance - Risk & Opportunities \_July2020



# OVERVIEW

The Paris Agreement is the first-ever universal, binding global climate change agreement, adopted at the Paris climate conference (COP21) in December 2015.<sup>2</sup> Nearly every single sovereign nation on earth agreed to a long-term goal of keeping the increase in global average temperature to **below 2°C** above pre-industrial levels, aiming to limit the increase to **1.5°C**, a threshold which is generally accepted among the scientific community as necessary to prevent catastrophic climate consequences.

Experts also believe that significant action is required **as soon as possible**, though a **rapid reductions scenario** would put developing nations at a serious disadvantage. These circumstances and the uncertainties that they generate are among the driving factors of Climate Risks for the financial system.

The main objective of this briefing note is to bring closer to the readers about the following main topics:

- **how the finance is facing a new revolution by including sustainable risks and opportunities** into every aspect of the process and providing a value added for all stakeholders;
- **how regulators are addressing the first question about sustainability**, focusing at first on the **Climate Change and Climate Risk (Physical Risk and Transition Risk)**.

This document is divided in the following chapters:

- **ESG relevance.** We note that companies with **strong ESG Profile** have **higher profitability** and **better Risk Management**.
- **Risk mapping in the Sustainability Report.** An overview of the materiality matrix is provided inside the Sustainability Report, which is the first step towards a stronger ESG Profile.
- **Regulatory Context.** We explain the current regulatory framework and what to expect in the coming years.
- **Focus on Climate Risk Management and Regulators Expectations.** We focus on Climate Change, Climate Risk Management, Regulators Expectations, the **impacts of new requirements** and how to **transform Climate Risk and regulators expectation into opportunities**.
- **How Reply can help**, through **our sustainable finance practice**.
- **Annex.** We provide the rationale for the following arguments:
  - **ESG relevance for specific sector:** Energy, Utilities, Agriculture as well as the Finance sector, which has high importance as the accelerator to improve the sustainability towards different sectors.
  - **The answer to the Bank of Italy questionnaire about the Climate Risk** for Finance in Italy.
  - The **principles** (ICMA and SLLP) to respect in order to **issue** Green Bond or Sustainable Linked Loans.

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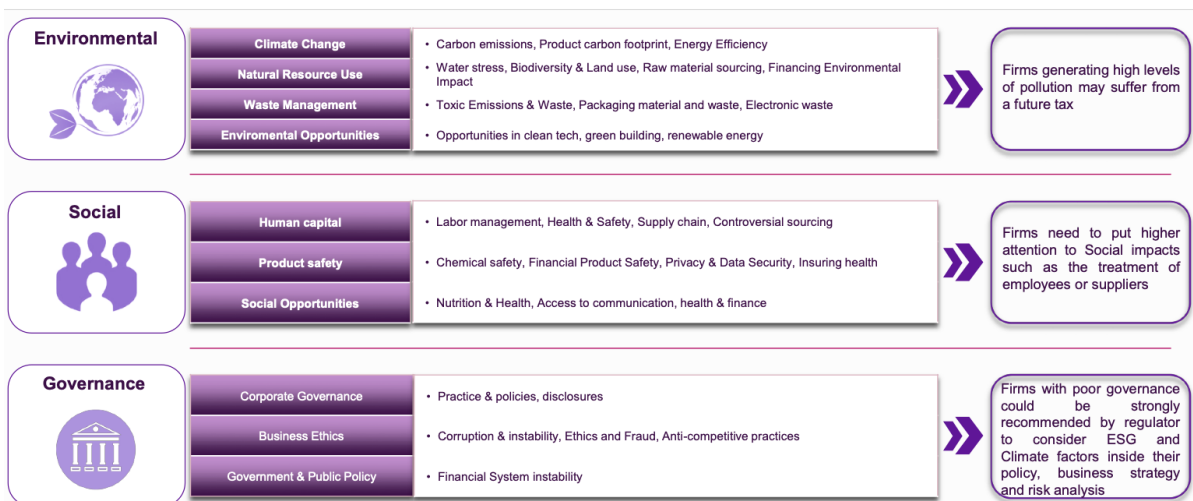
<sup>2</sup> European Commission



# ESG RELEVANCE

Environmental, social and governance (ESG) criteria are a set of standards for a company's operations that socially conscious investors use to screen potential investments. *Environmental criteria* consider how a company performs as a steward of nature. *Social criteria* examine how it manages relationships with employees, suppliers, customers, and the communities where it operates. *Governance* deals with a company's leadership, executive compensation, audits, internal controls, and shareholder rights.

Figure 3: The ESG main indicators



The inclusion of the ESG into company strategy has multiple benefits for the company and its investors

Figure 4: Strong ESG Profile means a better Risk Management



In a recent study<sup>3</sup>, it was presented that:

- **ESG companies with strong ESG characteristics** typically have **above-average risk control and compliance standards** across the company and within their supply chain management.
- **High ESG-rated companies suffer less frequently from severe incidents** such as fraud, embezzlement, corruption, or litigation cases **that can seriously impact the value of the company** and therefore the company's stock price, because of better risk control standards.
- **Less-frequent risk incidents** ultimately lead to **less stock-specific downside or tail risk in the company's** stock price.

<sup>3</sup> This study has been conducted by MSCI, "How ESG Affects Equity Valuation, Risk, and Performance"



Figure 5: Strong ESG Profile means higher Profitability



When it comes to the cash-flow transmission channel, it can be summarized as follows:

1. Companies with a strong ESG profile are **more competitive than their peers**. For instance, this competitive advantage can be due to the **more efficient use of resources, better human capital development, or better innovation management**. In addition to this, high ESG-rated companies are typically better at **developing long-term business plans and long-term incentive plans for senior management**.
2. High ESG-rated companies **use their competitive advantage to generate higher returns, which ultimately leads to higher profitability**.
3. Higher profitability results in **higher dividends**.

Another important benefit is that **companies with strong ESG performance can be included into ESG indexes**, which can be used for the measurement of the performance of the company regarding their **sustainability objectives and potential risks/impacts**. This is also an important factor for **institutional investors**, since a fund with an ESG objective should invest only in shares of companies that respect ESG principles and could be included in those indexes. Moreover, since those indices measure a wide range of factors, many different stakeholders might be interested in the company's ESG score, which could significantly impact **risk, metrics, and targets**, pushing the company towards eventual **compliance in the sustainability area**.

The need for always improving ESG performance **pushes companies to respect ESG targets**; consequently, the market diffusions of new ESG products requires that **regulators** constantly **develop new regulations**. In fact, **regulators have published a lot of new regulations and/or expectations that will be in place starting from the end of 2020 or from the beginning of 2021**. EU Technical Expert Group on Sustainable Finance has published **Taxonomy Technical Report and Taxonomy** in March 2020; this report has been approved by EU Council in April 2020 and it has become Regulation in June 2020. The report contains the information on an overview of economic activities that can make a **substantial contribution to climate change mitigation or adaptation**. For each environmental objective, the Taxonomy Regulation (TR) recognises **two distinct types of substantial contribution** that can be considered Taxonomy-aligned<sup>4</sup>:

1. Economic activities that make a substantial contribution based on their own **performance**: For example, an economic activity being performed in a way that is environmentally sustainable.
2. Enabling activities: Economic activities that, by provision of their products or services, enable a substantial contribution to be made in **other activities**. For example, an economic activity that manufactures a component that improves the environmental performance of another activity.

Within the **Taxonomy tool** it is presented a mapping of the NACE classification system to the Bloomberg Industry Classification System (BICS) which provides details on 12 sectors by activity (see

Figure 6: Sector from the Taxonomy by NACE code macro-sectors on the right)<sup>5</sup>.



<sup>4</sup> TEG Technical Report

<sup>5</sup> More information on three most impacted sectors are reported in the annex of this document



# RISK MAPPING IN THE SUSTAINABILITY REPORT

## Materiality matrix and correlation with Sustainable Development Goals (SDGs)

Recently, many companies (both multinational or medium-sized enterprise) recognise the need to include ESG factors in the company strategy and to measure its performance in the annual sustainability report. The **first step in order to include ESG factors into business strategy is to develop a sustainability report** compliant with the Global Reporting Initiative (GRI); the GRI guidelines document provides a detailed requirement for each indicator specified in the document: how to report on energy usage, how to integrate human rights policies, etc. This document is regularly updated and always improved following the development of the sustainability and reporting needs.

One point of Sustainability Report is to publish the materiality matrix.

The **Materiality Principle of the GRI Guidelines** defines **materiality** in the context of a sustainability report. The report should cover aspects that:

- reflect the significant economic, environmental and social impacts for the organization; or
- substantively influence the assessment and decisions of stakeholders<sup>6</sup>

**RobecoSAM** states that “**Financially material** is any factor which might have a present or future impact on companies’ value drivers, competitive position, and thus on long-term shareholder value creation”. Lately, many companies decided to align their material topics with the achievement of the **Sustainable Development Goals (SDGs)**, adopted by all UN Member States in 2015. SDGs are composed of 17 most pressing world issues.

Figure 7: Defining material aspects and boundaries – process overview

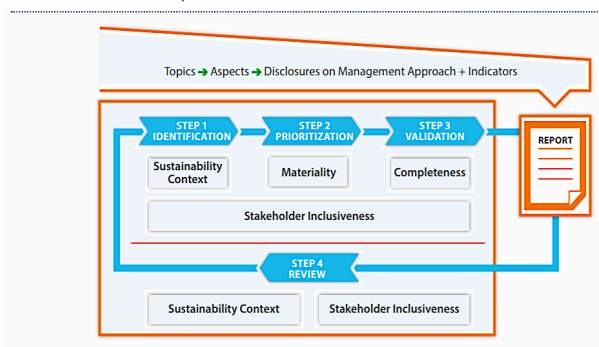


Figure 8: The 17 SDG adopted by UN in 2015



<sup>6</sup> GRI



## REGULATORY CONTEXT: CURRENT AND FUTURE

Over the past few months many regulations have been enacted on the subject of sustainable finance by various European bodies. We have singled out the following five.

Figure 9: Regulation overview



### EC – Sustainability relate disclosures (Regulation 2019/2088)

The regulation 2019/2088 was created with the aim of **harmonizing the Disclosures towards investors on the integration of sustainability risks**, on the consideration of unfavourable **sustainability impacts**, **sustainable investment objectives** or the promotion of environmental or social characteristics in the investment decision-making and in private financial advisors processes. Within the document it has been stated that **main actors** concerned were **financial market participants and private financial advisors**. It is also mentioned that the regulation will come into force from **March 2021** with some articles being applicable from **2022**, since the **ESAs are required to define Technical Standards before the end of the 2020**; European Supervisory Authorities (ESAs) have already produced the Technical Standard, that are **now in consultation until the beginning of September 2020**.

Some of the articles require relevant parties to report on **transparency of political and material issues**, **transparency of the integration of risk factors** and **publish this information either on their websites, in their annual reports or in pre-contractual documents**.

### EBA - Sustainable Action Plan

Action Plan provides an **overview of the guidelines and technical standards that will support banks and supervisors in assessing ESG and climate risks**. The document highlights the **roadmap** of the activities from **2020-2025**, also dealing with any interventions on **Pillar III (EIOPA and ESMA have also been activated with a similar path)**. The EBA's work-plan on sustainable finance put a focus first on **key metrics and disclosure** to support **banks' green strategies** and then looks into evidence for any **adjustments to risk weights**. The EBA should **develop a monitoring system to assess material ESG risks**, taking into account the Paris Agreement. In addition, the EBA should **develop common methodologies for assessing the effect of economic scenarios** on an institution's financial position taking into account, inter alia, risks stemming from adverse environmental developments.<sup>7</sup>

<sup>7</sup> EBA





## European Green Deal

New European legislation with specific focus on the Green Economy: **formalizes Blocks objectives and commitments to target the UN milestones of 2030 and 2050 to reduce emissions and become carbon neutral.**

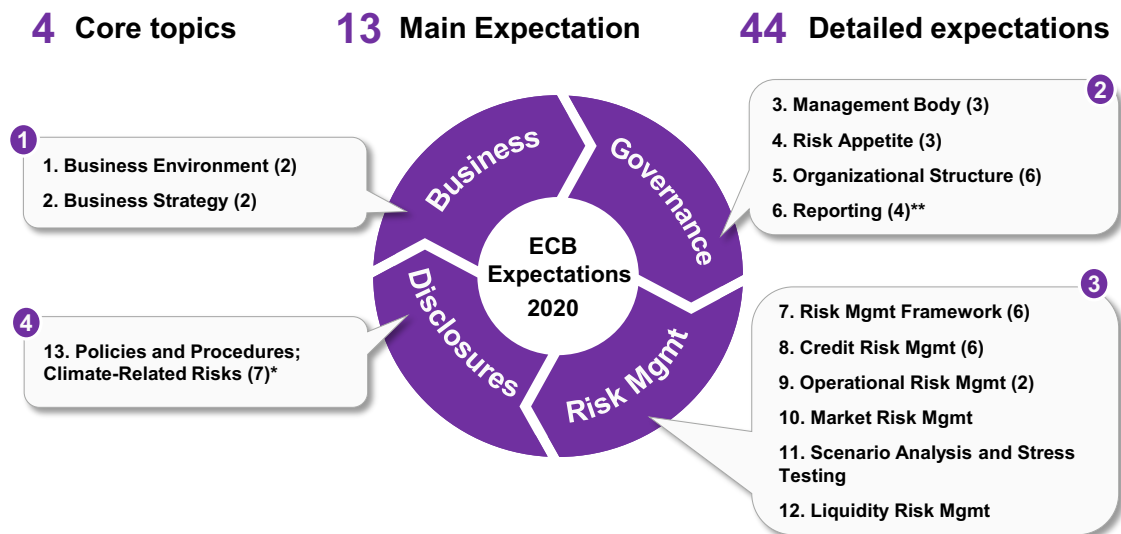
## ECB - guidelines and supervisory expectations<sup>8</sup>

ECB has laid down a document that declines **4 core topics, 13 main expectations and 44 detailed expectations for banks, including internal policies, governance, risk management. and disclosure.** This document is currently under consultation, which will expire on the 25<sup>th</sup> of September 2020.

The ECB expectations are divided in the following **4 Core Topics**:

- **Business:** Strategy and Environment.
- **Governance:** from Management body to Reporting through Risk Appetite framework.
- **Risk Management:** Credit, Operational, Market and Liquidity Risk Management including Scenario Analysis and Stress Test.
- **Disclosures:** Defining and disclose policy and procedure on Climate-Related Risk.

Figure 10: ECB guidelines and main expectations



We are going to report more in detail the 13 Main expectation of ECB in the next chapter.

## Taxonomy and Disclosures

EU 2020/852 formalizes Taxonomy, adopting the definitions of the Group of experts (TEG). The regulation **clarifies the definitions of the contents for the Non-Financial Disclosure in various aspects.** EU Taxonomy is a tool to help investors, companies, issuers and project promoters to navigate the **transition to low-carbon, resilient and carbon efficient economy.** Macro principles defined in the document are: **climate change mitigation, climate change adaptation, sustainable and protection of water and marine resources, transition to a circular economy, pollution prevention and control and protection and restoration of biodiversity and ecosystems.**

<sup>8</sup> This document is currently under consultation, which will expire on the 25th of September 2020.

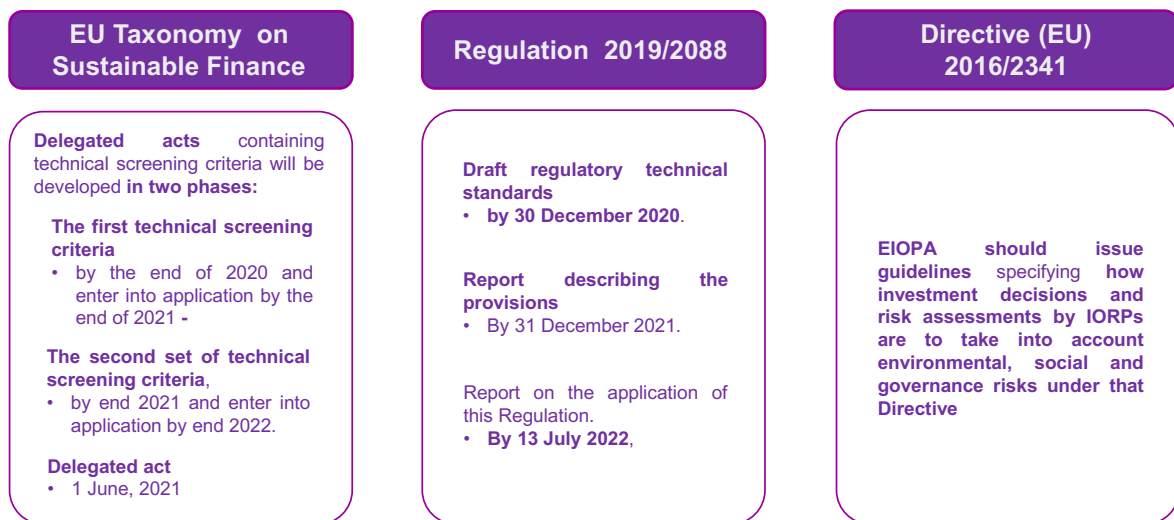


In the previous section, we have provided an overview of the recent regulation development. Here we report on delegated acts and technical standards that will be published or come into force during the following years.

Hereinafter, we report the following 3 Regulations, whose delegated acts or technical standard are going to be published or coming into force during next years:

- EU Taxonomy on Sustainable Finance;
- Regulation 2019/2088;
- Directive (EU) 2016/2341.

Figure 11: Regulation (Delegated Acts and technical standard) that will be published or come into force during next years



**Delegated acts of the Taxonomy** containing technical screening criteria will be developed in **two phases**: The **first technical screening criteria**, for activities which substantially contribute to climate change mitigation or adaptation, will be **adopted by the end of 2020 and enter into application by the end of 2021**. The **second set of technical screening criteria**, which cover economic activities substantially contributing to the other four environmental objectives, will be **adopted by end 2021 and enter into application by end 2022**. By the **1<sup>st</sup> of June, 2021**, the European Commission will adopt a delegated act specifying how the corporate disclosure obligations should be applied in practice. The delegated act will consider the differences between non-financial and financial companies.

Regulation in the field of sustainable finance is constantly evolving; although the **regulation 2019/2088** was published in November 2019, **some articles are applicable from 2021 and some other from 2022**. We highlighted that the provisions of the regulation regarding **annual reports** require that such reports **should apply from the 1<sup>st</sup> of January 2022** as such reports **will have to summarize business results for complete calendar years**.

**Under Directive (EU) 2016/2341**, IORPs are already **required to apply governance and risk-management rules to their investment decisions and risk assessments** in order to ensure continuity and regularity. Investment decisions and the assessment of relevant risks, including environmental, social and governance risks, should be made in such a manner as to ensure compliance with the interests of members and beneficiaries of IORPs. **EIOPA should issue guidelines** specifying **how investment decisions and risk assessments by IORPs are to take into account environmental, social and governance risks under that Directive**. It is also stated that **ESAs should develop technical standards by the 30<sup>th</sup> of December 2020**.



# FOCUS ON CLIMATE RISK MANAGEMENT AND REGULATORS EXPECTATIONS

Hereinafter we focus on Climate Risk (both physical and transition) and the Regulators expectations about including it into the Banks Business strategy, Governance, Risk Management and Disclosure to Regulators

In relation to ECB expectations, **from the end of 2020, all financial institutions** G-SIB and D-SIB will have to inform the ECB of any divergence between their practice for **the inclusion of environmental and climatic risks in their analyses** (from business strategy to risk analyses and capital adequacy; the same expectations, **re-proportioned for their risk profile and for their business model, apply also to non-D-SIB financial institutions.**

Figure 12: ECB expectations



The 13 ECB Main expectations are the following<sup>9</sup>:

1. **Business.** Institutions are expected to understand the impact of climate-related and environmental risks on the business environment in which they operate, in the short, medium and long term, in order to be able to make informed strategic and business decisions.
2. **Business.** When determining and implementing their business strategy, institutions are expected to integrate climate-related and environmental risks that materially impact their business environment in the short, medium or long-term.

<sup>9</sup> Source: Guide on climate-related and environmental risks - Supervisory expectations relating to risk management and disclosure

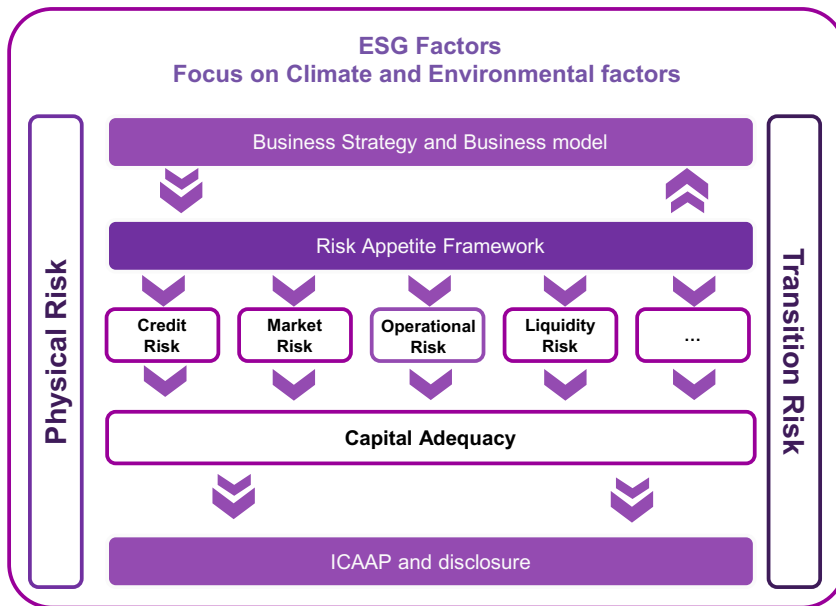


3. **Governance.** The management body is expected to consider climate-related and environmental risks when developing the institution's overall business strategy, business objectives and risk management framework and to exercise effective oversight of climate-related and environmental risks.
4. **Governance.** Institutions are expected to explicitly include climate-related and environmental risks in their Risk Appetite Framework.
5. **Governance.** Institutions are expected to assign responsibility for the management of climate-related and environmental risks within the organisational structure in accordance with the three lines of defence model.
6. **Governance.** For the purposes of internal reporting, institutions are expected to report aggregated risk data that reflect their exposures to climate-related and environmental risks with a view to enabling the management body and relevant sub-committees to make informed decisions.
7. **Risk Management.** Institutions are expected to incorporate climate-related and environmental risks as drivers of established risk categories into their existing risk management framework, with a view to managing and monitoring these over a sufficiently long-term horizon, and to review their arrangements on a regular basis. Institutions are expected to identify and quantify these risks within their overall process of ensuring capital adequacy.
8. **Risk Management.** In their credit risk management, institutions are expected to consider climate-related and environmental risks at all stages of the credit-granting process and to monitor the risks in their portfolios.
9. **Risk Management.** Institutions are expected to consider how climate-related events could have an adverse impact on business continuity and the extent to which the nature of institutions' activities could increase reputational and/or liability risks.
10. **Risk Management.** Institutions are encouraged to monitor, on an ongoing basis, the effect of climate-related and environmental factors on their current market risk positions and future investments, and to develop stress-testing scenarios that incorporate climate-related and environmental risks.
11. **Risk Management.** Institutions with material climate-related and environmental risks are expected to evaluate the appropriateness of their stress testing with a view to incorporating them into their baseline and adverse scenarios.
12. **Risk Management.** Institutions are expected to assess whether material climate-related and environmental risks could cause net cash outflows or depletion of liquidity buffers and, if so, incorporate these factors into their liquidity risk management and liquidity buffer calibration.
13. **Disclosure.** For the purposes of their regulatory disclosures, institutions are expected to publish meaningful information and key metrics on climate-related and environmental risks that they deem to be material, as a minimum in line with the European Commission's Guidelines on non-financial reporting: Supplement on reporting climate-related information.

These expectations are defined by Regulator in order to **include** ESG factors and especially **Climate (Transition and Physical Risk) and Environmental factors in the whole process of the Bank**. Consequently, they **will impact on different functions and activities**, starting **from the definition of the Business strategy and Business model** up to the **Capital Adequacy and the disclosure** passing through the **Risk Appetite Framework** (Hereinafter also "RAF") and the Risk Management analyses.



Figure 13: ESG factors (Climate and Environmental) have to be included in the whole process of the bank



The Regulator expects ESG factors, with a particular focus on climatic and environmental factors, to be included in the whole process of the Bank

Consequently, the impacts will have on different functions and different activities, starting from the definition of the business strategy and business model up to Capital Adequacy, ICAAP and disclosure passing through the RAF and the Risk Management analyses

The ECB, within the detailed expectations concerning the disclosure, indicates as an expectation that the banking institutions will have to consider **all the business lines and their exposure in full in carrying out the reporting concerning their contribution to the environmental objectives**; moreover ECB refers to the Recommendations of the Task Force on Climate-related Financial Disclosures (“TCFD”) to describe an example of expected disclosure.

Figure 14: Task Force on Climate Disclosure recommended disclosure

Governance	Strategy	Risk Management	Metrics and targets
Disclose the organization's governance around climate related risks and opportunities.	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	Disclose how the organization identifies, assesses, and manages climate-related risks.	Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.
<p>a) Describe the board's oversight of climate-related risks and opportunities.</p> <p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.</p> <p>b) Describe the impact of Climate related risks and opportunities on the organization's businesses, strategy</p> <p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p> <p>b) Describe the organization's processes for managing climate-related risks.</p> <p>c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.</p>	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and p</p>

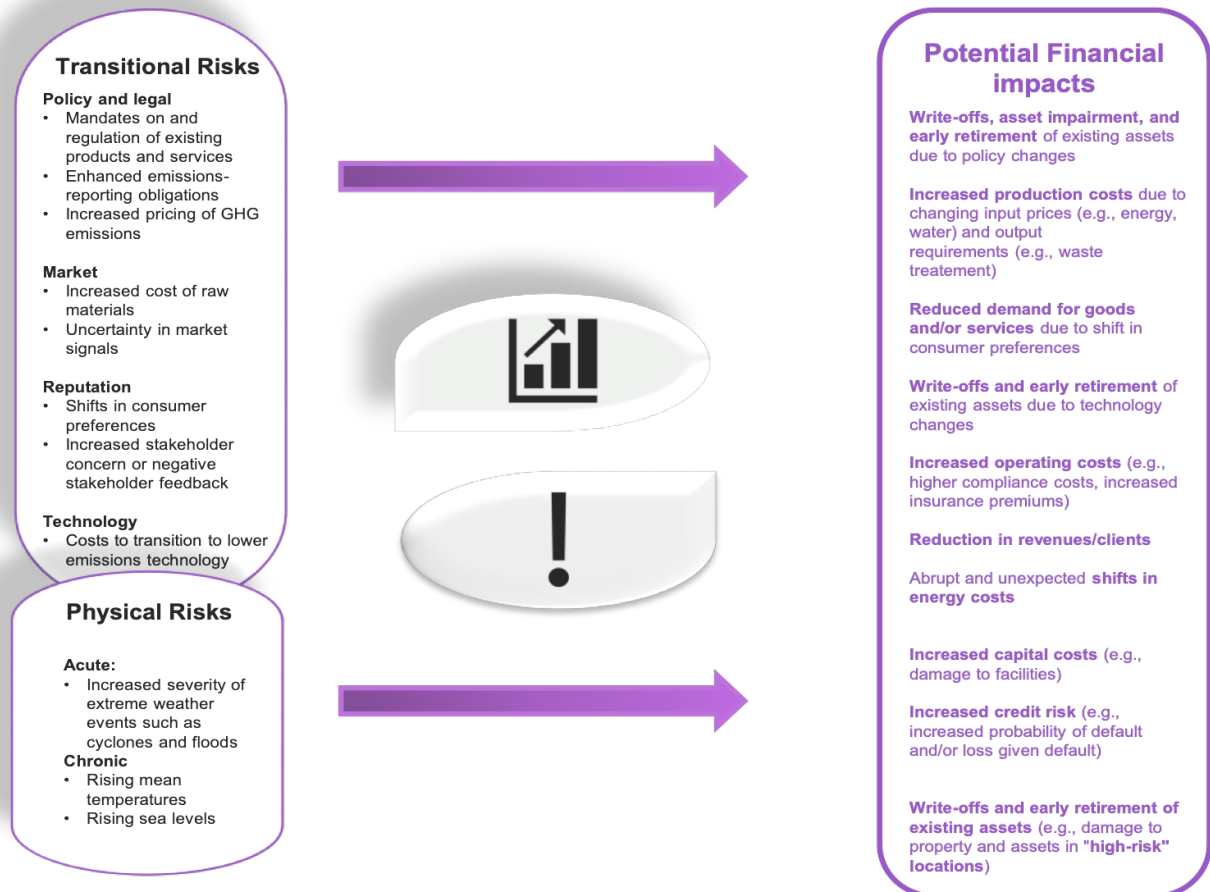
Climate Finance and Risk could be divided in the following two main stream: **Physical risk and Transition risk.**

**Physical risk** has an effect on economic entities, such as **environmental disasters** that damage a physical capital, impacting reallocation of financial resources, therefore have a direct effect on **increasing debt** and also contribute to **reducing the value of the assets pledged for loans**. Examples of extreme weather events are **flooding, drought, sea level rise, heat stress and hailstorm**. Effects of these events are **higher costs, reduced efficiency and production**. Some of direct outcomes can be **decreasing EBITDA and ROE**.



**Transition risks** are related to **policy, liability and technology risk**, that have an impact on **changing market demands**; these risks are more dependent on the decision and scenario to reach the Climate objective.

Figure 15: Physical and Transition Risks<sup>10</sup>



On the graph above we have listed some physical and transition risks<sup>11</sup>, that have a potential financial impact for a bank.

**Transition risk has policy and legal, market, reputational and technology risk driver:**

- **Policy and legal risk driver** could lead to **increased operating costs, write-offs, asset impairment, and early retirement of existing assets due to policy change**, that are not any more compliant with regulation.
- **Market risk driver** could result in abrupt and unexpected **shifts in energy costs**, reduced demand for goods and/or services due to shift in consumer preferences and **increased production costs** due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment).
- **Reputation risk driver** could have an effect by increasing stakeholder concern on negative feedback from other stakeholder **due to shift in consumer preferences and/or negative news, reducing demand for goods and/or services**; therefore, as a consequence, it might have a **reduction in revenues/clients**;
- **Technology risk driver** may impact **write-offs and early retirement of existing assets due to technology changes (e.g. faster technological obsolescence of products that do not consider ESG**

<sup>10</sup> Source: Cicero

<sup>11</sup> It is a short list of physical and transition risk, that could not be considered as complete and exhaustive.



Factors and especially Climate and Environmental Factors).

**Physical risk** has **acute** and **chronical risk driver**.

- **Acute risk driver** could increase **credit risk** (e.g., increased probability of default and/or loss given default) and **capital costs** (e.g., damage to property or assets in “**high-risk locations**”);
- **Chronic risk driver** may influence **increased operating costs** (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants) and **write-offs and early retirement of existing assets**.

Sustainability is also facing phenomenon called **Greenwashing**: the process of conveying a false impression or providing misleading information about how a company's products are more environmentally sound. Greenwashing is considered an **unsubstantiated claim to deceive consumers into believing that a company's products are environmentally friendly**, therefore such practice is considered highly unethical. We would point out that in the **Sustainable Finance has a very high importance the transparency in the disclosure and the reputation**.



# HOW AVANTAGE REPLY CAN HELP - OUR SUSTAINABLE FINANCE PRACTICE

In order to help its clients to move faster inside the Sustainability fields, Reply has developed a robust end-to-end approach, providing project governance, functional analysis and model development by combining our expertise in Capital Markets & Risk Management with our expertise in Sustainable Finance, including ESG, SDG as well as focusing on Climate Finance (Climate Change and Climate Risk).

The development of an ESG Program has Profitability and Risk Management benefits, but on the other hand entails the following obligations:

- Publish the Sustainability Report annually.
- Meet ICMA principles for Green Bond and Sustainable Linked Loans, that require high transparency, so issuers have to create a report on the Sustainable Performance Target at least annually.

Figure 16: Our approach to Sustainability – Capital market and Risk management



Our approach for Capital Markets includes the following activities:

- Strategic Advisory to take advantage from managing new enterprise risk & opportunities arising from new products - from vanilla products to derivatives.
- Design, create and publish and/or manage ex-post requirements, such as Sustainability Report and Reporting on new products that meet Sustainability Requirements (e.g. Green Financial Instruments: Green Bond, Climate Bond, Sustainable Linked Loans, Climate Derivatives, ESG Linked Derivatives, etc.).
- Introduce advanced tools and Quantitative Models to analyse the Portfolio exposure and to apply different Portfolio strategies (increase, hedge or reduce the exposure to ESG or Climate Factors).
- Design an efficient process to share information within the company (e.g. with Risk Management).





Moreover, Reply can help Banks, Insurances Companies or Asset Managers to analyze their portfolio by **automating data acquisition and analysis of third-parties disclosure** (Sustainable Report and/or annual Report on the single instrument), creating data infrastructure with the necessary information related to ESG and/or Climate Finance to **save time and reduce effort of document analysis**.

We highlight that Financial Institutions such as Banks, Insurance Companies and Asset Managers, are particularly impacted by Climate Risks considering the nature of their business and their role in the economy. At the very least, Competent Authorities will require these firms to report new risk information to help monitor Financial Stability as described in the previous chapter of this documents.

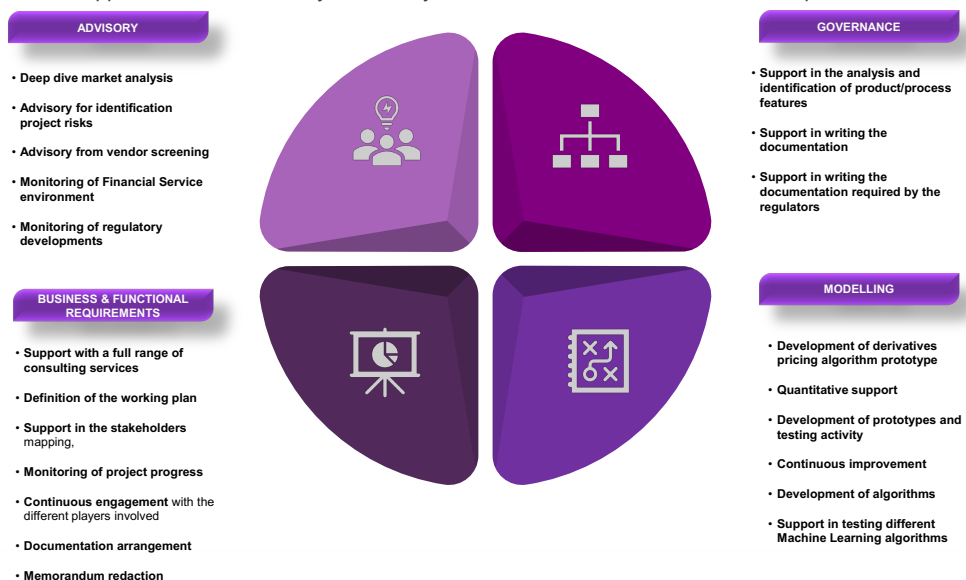
For these reasons, Climate Risks will need to be progressively integrated into Management Assessments, Pricing, Prudential Treatment, Reporting and more.

Reply helps its clients to establish the proper framework to observe and mitigate these new risks throughout the organization. We have designed a robust end-to-end approach, providing the proper project governance, innovation, and expertise on Sustainable Finance and Climate Risk Management for items such as:

- **Strategic Risk Advisory, revising ERM or specific Risk Management functions, updating your RAF, and identifying related opportunities.**
- Identification of the necessary **External and Internal Data** to observe, measure, and address Climate Risks.
- **Introduction of advanced tools and techniques** to apply strategies, scenarios analyses, Stress Testing, Capital Impact and more.
- **Interpretation and sharing of information** by implementing a distribution mechanism of the relevant information within the organization and to the regulator.

Lastly, we underline that we have been able to develop our sustainable practice by leveraging on our expertise regarding the end-to end support in the Capital Markets & Risk Management area.

**Figure 17:** Our approach to Sustainability – Advisory, Governance, Business&Functional requirements and Modelling





Within our **Advisory services**, we provide the following services to our clients:

- **Deep dive market analysis** for evaluating the main competitor.
- **Advisory for identification project risks** and related actions to be undertaken.
- **Advisory from vendor screening** to find the most suited solution based on the reference context.
- **Monitoring of Financial Service and Digital Transformation environment** through specific and international observatories (eg. study of Fintech' reality in order to support clients to accelerate digital transformation and to create competitive advantage).
- **Monitoring of regulatory developments** to reduce regulatory complexity (eg. Basel IV, FRTB, ISDA master agreements, GL e RTS EBA, **ECB Consultation on Climate Risk**, **ESA Technical Standard**, etc.).

Regarding **Governance**, we provide:

- **Support with a full range of consulting services** in order to define business strategy, architecture design, operational model, process improvement, systems integration and application management.
- **Definition of the working plans.**
- **Support in the stakeholders** mapping, drafting of the plan of communication, definition of quality control processes.
- **Monitoring of project progress.**
- **Continuous engagement** with the different players involved.
- **Documentation arrangement** and **Memorandum redaction.**

In the area of **Business and Functional requirements**, Reply supports its clients in terms of:

- **Support in the analysis and identification of product/process features** for which Reply is called to intervene (eg. Business Requirement collection).
- **Support in writing the documentation** to be provided to the different users/players involved in the project/process/product with the aim of describing the main features (eg. redaction of Functional Analysis).
- **Support in writing the documentation required by the regulators** (in case of mandatory project) and/or the client.

Finally, Avantage Reply offers support also in the modelling function:

- **Development of derivatives pricing algorithm prototype.**
- **Quantitative support** during the development of the pricing and hedging model.
- **Development of prototypes and testing activity.**
- **Continuous improvement** through to implementation of new features required by the continuously evolving business.
- **Development of algorithms** utilized for different purposes such as risk management, capital optimization and trading.
- **Support in testing different Machine Learning algorithms** identifying which one is the best fit for client's goal.



## ANNEX

Hereinafter, the following arguments are deepened:

- **ESG relevance for specific sector:** Energy, Utilities, Agriculture as well as the Finance sector, that has high importance as the accelerator to improve the sustainability towards different sectors.
- **The answer to BankIt questionnaire about the Climate Risk** for Finance in Italy.
- The **principles** (ICMA and SLLP) to respect in order to **issue** Green Bond or Sustainable Linked Loan.

## ESG RELEVANCE FOR SPECIFIC SECTORS

This paragraph shows the ESG relevance for Energy, Utilities, Agriculture sectors as well as the Finance sectors.

### Energy sector

Climate change is impacting energy sector through the regulations that call for the **transition to low-carbon energy sources**, which are gradually replacing carbon-intensive fossil fuels over the long run. This, as a consequence, requires companies to **invest in new technologies and improve their operating efficiency**. Key sustainability issues in the energy sector that could have a material financial impact on a company's long-term business position are<sup>12</sup>:

- Energy use and greenhouse gas emissions
- Water management
- Health & safety
- Community relations
- Bribery & corruption
- Corporate governance

Energy sector has been under pressure and according to Robeco, it has experienced **a double shock relating to Covid-19 lockdown, in forms of a collapse in oil demand and oil war and failed OPEC deal**, which generated an oversupply of oil and a downward price spiral. On the other hand, they have stated **they had experienced a positive overall performance in their SDG credit portfolios**.

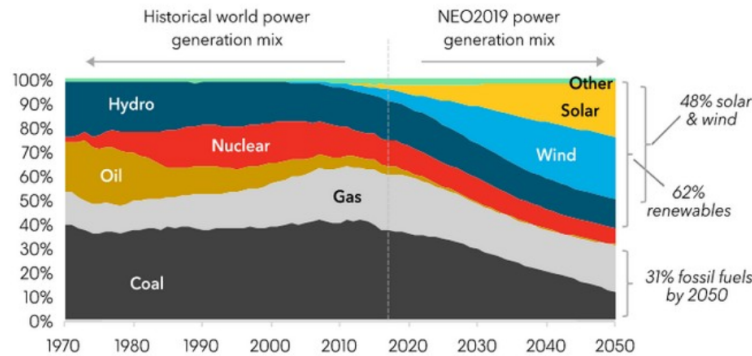
### Utilities

**Mix of energy sources used to generate electricity is the main element for assessing ESG profile in utilities sector**. Same as for energy, utilities sector is under political and consumer pressure. However, **research conducted by Vigeo** shows that 41% of companies have an intense carbon footprint and 58% display a weak performance in terms of energy transition. Here under the outlook for power and utilities industry from 2026-2050.

<sup>12</sup> Source: <https://www.robeco.com/za/insights/2017/04/six-key-esg-issues-in-energy-credits.html>



Figure 18: Global power generation mix



13

NEO 2019 forecast that by 2050, nearly half of the global power will be supplied by renewables (50/50 solar and wind). **Renewables** have already become the **cheapest energy throughout over 2 third of the globe**. In ten years from now, they are expected to undercut fossil fuel in nearly every country.

The most **material risk drivers** identified in the energy sectors were:<sup>14</sup>

- Corruption
- Board of Directors
- Renewable energy
- Social and Economic Development
- Health and safety
- Anti-competitive practices
- Career management
- Air emissions from combustion power plants WEAK (0-29)
- Access to energy

## Agriculture

Agricultural sector plays an important role in feeding the world's growing population and it is directly connected to **deforestation, water scarcity and access, climate change and poverty**. In March 2020, the European Commission's Technical Expert Group on Sustainable Finance (TEG) proposed an **EU Taxonomy** that includes guidelines for sustainable investment in agriculture focused on perennial crops, annual crops, and animal husbandry. The taxonomy contains mitigation actions and **Do not Significant Harm guidance**. Production of food is connected with climate change, biodiversity collapse, and resource (e.g. water) scarcity.

Fitch Ratings considers economic, demographic and regulatory shifts more significant to the short-term availability of water for the agribusiness sector than climate change, considering that water risk management will become financially material to agribusiness operations as the effects of climate change manifest.

## Financial sector

According to the European Commission, the term 'green finance' refers to the process of taking due account of environmental considerations when making investment decisions, leading to increased investment in longer-term and

<sup>13</sup> Bloomberg NEF

<sup>14</sup> Source: Vigeo Eiris



sustainable activities. Over the years, financial sector increased its investing to environment-friendly projects, such as renewable energy, but also has a significant impact on financial inclusion in developing countries. The importance of ESG criteria is increasing as financiers need to assess borrowers in terms of the impacts that might impose financial risks to their practices. Green bonds and Sustainability-linked loans are financial instruments banks use for sustainable investment incentives and transition to greener economy. **Equator Principles, UN Principles for Responsible Banking and recommendations of Task Force on Climate-related Financial Disclosures are voluntary guidelines banks are expected to follow in their practices.** It is worth mentioning that in December, 2016, the European Commission established a **High-level Expert Group on sustainable finance (HLEG)** and that **ECB has published a Guide on climate-related and environmental risks.** Likewise, **Supervisory expectations relating to risk management and disclosure in May 2020.**



# BANK OF ITALY QUESTIONNAIRE ON CLIMATE RISK

## The climate risk for finance in Italy - Bank of Italy questionnaire

Hereunder the results of the survey conducted by Bank of Italy on the basis of TCFD Recommendations. The responses to the questionnaire provide a general framework on the readiness of the financial system to address climate-related risks and opportunities and the policies for managing and addressing those risks.<sup>15</sup>

Figure 19: Bank of Italy questionnaire – Risk Management 1

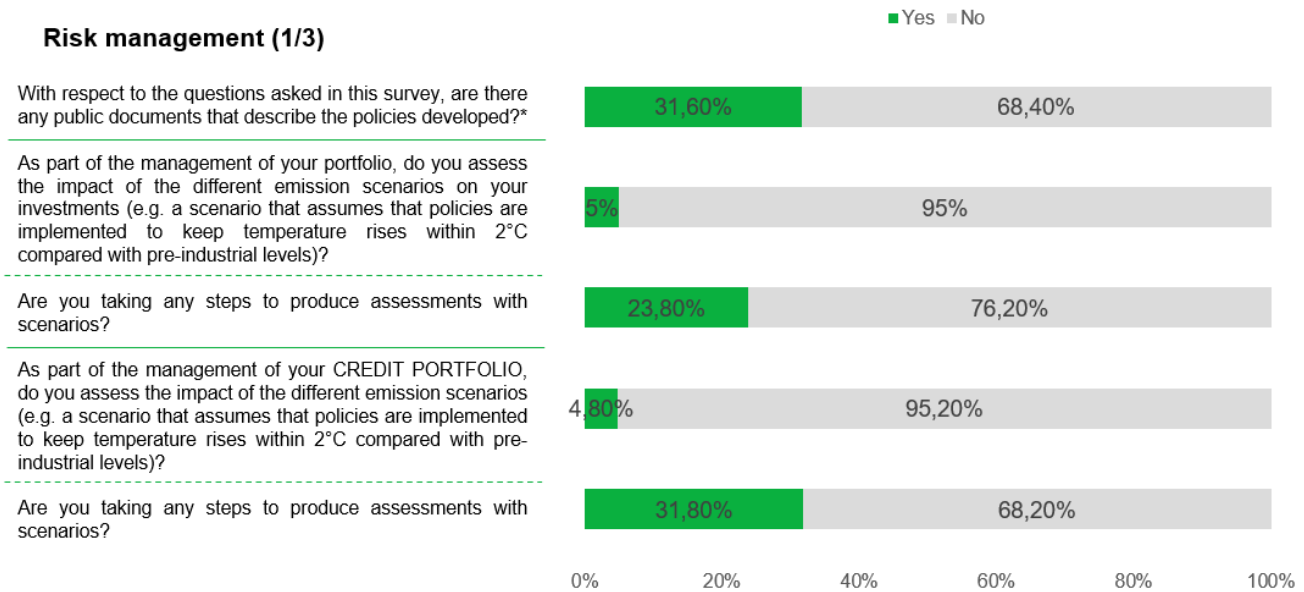
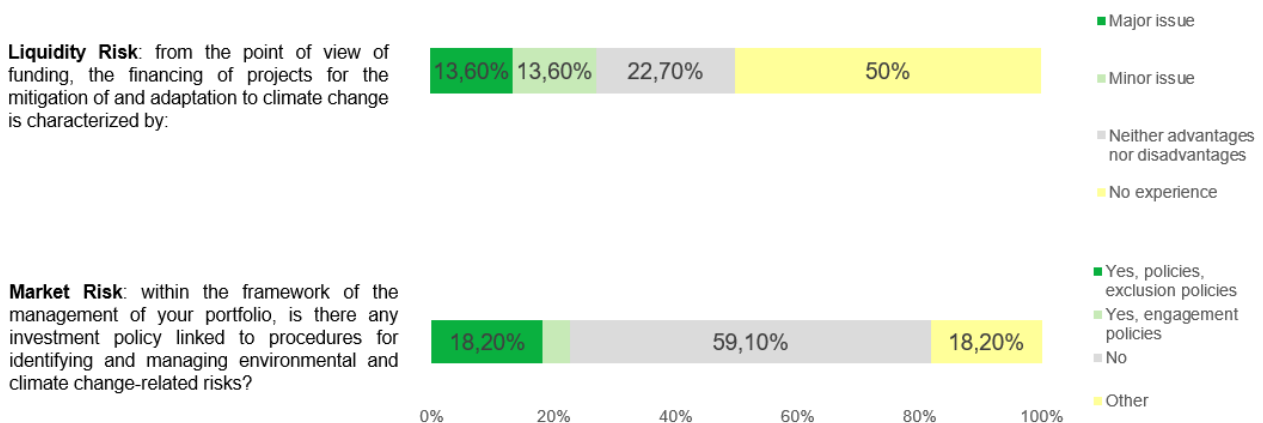


Figure 20: Bank of Italy questionnaire – Risk Management 2



<sup>15</sup> The climate risk for finance in Italy



Figure 21: Bank of Italy questionnaire – Risk Management 3

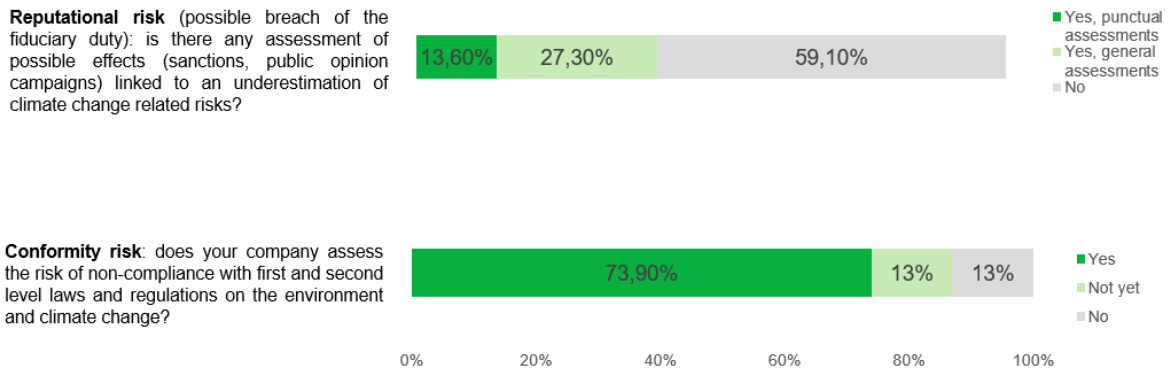


Figure 22: Bank of Italy questionnaire – Strategy

**Strategy**

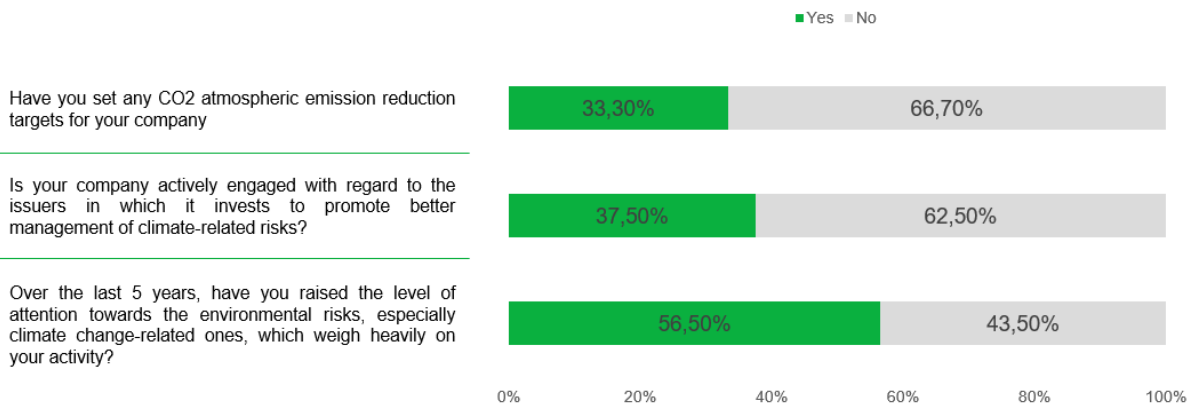
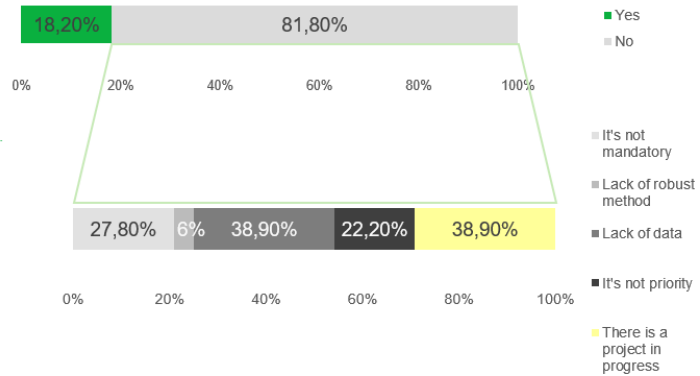




Figure 23: Bank of Italy questionnaire – Metrics and Targets 1

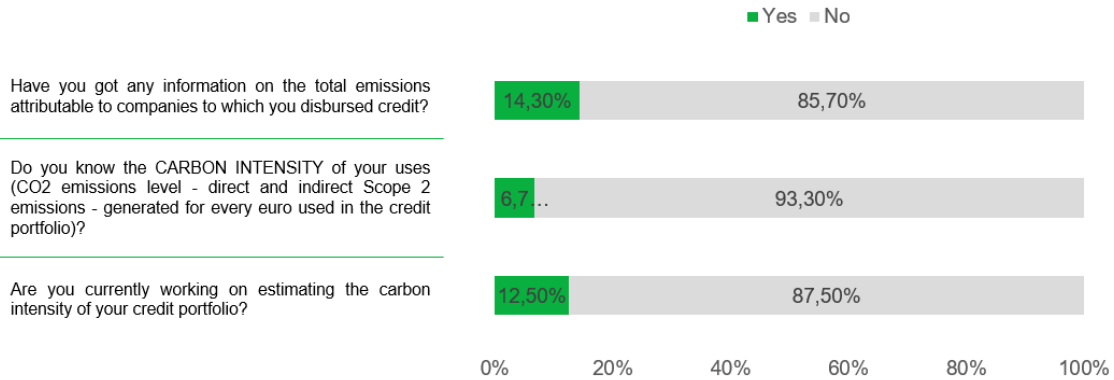
**Metrics and Targets (1/2)**

Have you got any information on the total emissions attributable to companies in which you have invested (ratio between the total CO2 emission level of companies included in the asset allocation and the shares in your portfolio compared with the total number of shares)?



Could you please explain why you haven't got this information?

Figure 24: Bank of Italy questionnaire – Metrics and Targets 1







# PRINCIPLE FOR ISSUING SUSTAINABLE PRODUCTS

Principles that have to be respected for the issuer of Green Bond (ICMA principles) and Sustainable Linked Loan (SLLP Principles)

## Green bonds

The **Green Bond Principles (GBP)** are defined by ICMA and voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by clarifying the approach for issuance of a Green Bond.

Figure 25: Green Bond Principles



Hereunder the **four components**:

### 1. *The use of proceeds.*

The use of the proceeds for **Green Projects**, which are described in the documentation relating to the title issued. The GBP recognise several categories of eligibility for Green Projects with the objective to address key areas of environmental concern such as climate change, natural resources depletion, loss of biodiversity, and air, water or soil pollution.

### 2. *Process for project evaluation and selection*

The issuer of a Green Bond should communicate to investors:

- the environmental sustainability objectives;
- the process by which the issuer determines how the Projects fit within the eligible Green Projects categories;
- the related eligibility criteria, including exclusion criteria or any other process applied to identify and manage potentially material environmental and social risks associated with the Projects.

### 3. *Management of proceeds.*

### 4. *Reporting.*

Issuers should make, and keep, readily available up to date information on the use of proceeds to be renewed annually until full allocation, and as necessary thereafter in the event of material developments.

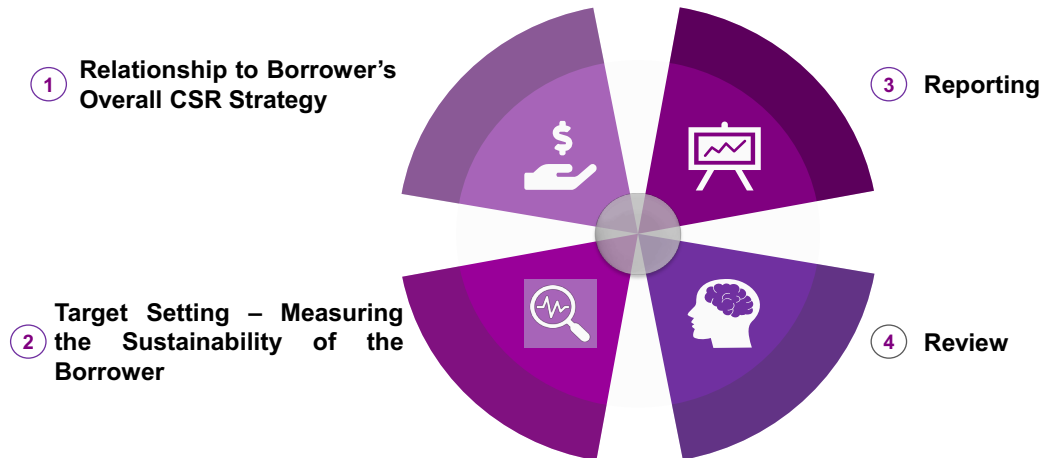
An independent auditor must confirm that the proceeds of the issue are managed separately



## Sustainable-linked loan

The SLLP has defined a framework that allows all market operators to clearly understand the characteristics of a loan linked to sustainability.

Figure 26: Sustainable Linked Loan Principles



The principle are based on the four main components listed below.

### 1. *Relationship to Borrower's Overall CSR Strategy.*

The borrower of a sustainability linked loan should clearly communicate to its lenders its sustainability objectives, as set out in its CSR strategy, and how these align with its proposed SPTs.

### 2. *Target Setting – Measuring the Sustainability of the Borrower*

Appropriate SPTs should be negotiated and set between the borrower and lender group for each transaction. A borrower may elect to arrange its sustainability linked loan product with the assistance of one or more "Sustainability Coordinator(s)" or "Sustainability Structuring Agent(s)" and where appointed, they will assist with negotiating the SPTs with the borrower.

### 3. *Reporting.*

Borrowers should, where possible, make and keep readily available up to date information relating to their SPTs (such as any external ESG<sub>4</sub> ratings), with such information to be provided to those institution participating in the loan at least once per annum.

### 4. *Review*

The need for external review is to be negotiated and agreed between the borrower and lenders on a transaction-by-transaction basis.

## AVANTAGE REPLY

With a strike force of almost 300 consultants combining recognized regulatory, business and sectoral expertise within ALM, Finance and Risk functions of the European banking sector, we offer our customers tailor-made solutions adapted to their key issues while accessing the best practices in place. Finally, our European network allows us to have a transversal and european vision of prudential expectations but also of best practices in terms of organization, governance, steering process, modelling and stress testing and information systems of ALM, Risk and Finance functions