



EBA Final Guidelines on the Management of ESG Risks

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Executive Summary

The **EBA Guidelines on the Management of Environmental, Social and Governance (ESG)**[3] risks establish minimum standards for the **identification, measurement, management, and monitoring** of ESG risks within financial institutions. These risks, including climate change, biodiversity loss, and governance deficiencies, impact traditional financial risks and require forward-looking assessment methodologies. Institutions must **integrate ESG risks into business strategies, risk appetite frameworks, and the ICAAP**, conducting periodic materiality assessments based on qualitative and quantitative data. The guidelines mandate robust data governance and the adoption of assessment methodologies based on exposure, sector, and scenario analysis, considering short-, medium-, and long-term time horizons.

Climate stress testing and scenario analysis are essential tools for enhancing resilience, requiring the **development of transition plans** aligned with ESG regulatory objectives. These plans must include strategic targets, risk indicators, and sectoral policies. Large institutions must comply by 2026. The **EBA Guidelines on the Management of Environmental, Social and Governance (ESG)**[3] risks establish minimum standards for the **identification, measurement, management, and monitoring** of ESG risks within financial institutions. These risks, including climate change, biodiversity loss, and governance deficiencies, impact traditional financial risks and require forward-looking assessment methodologies. Institutions must **integrate ESG risks into business strategies, risk appetite frameworks, and the ICAAP**, conducting periodic materiality assessments based on qualitative and quantitative data. The guidelines mandate robust data governance and the adoption of assessment methodologies based on exposure, sector, and scenario analysis, considering short-, medium-, and long-term time horizons.

Climate stress testing and scenario analysis are essential tools for enhancing resilience, requiring the **development of transition plans** aligned with ESG regulatory objectives. These plans must include strategic targets, risk indicators, and sectoral policies. Large institutions must comply by 2026, while small and non-complex institutions (SNCI) have until 2027. Challenges in ESG data standardization necessitate more advanced methodologies and greater regulatory coordination. A first step toward the **data standardization** is represented by the adoption of **European Sustainability Reporting Standards (ESRS)** or **voluntary reporting standard** for non-listed Small and Medium-size Enterprises (SMEs). The collection of information disclosed by counterparties in accordance with such standards enables institutions to leverage robust and homogeneous **data** for the **adoption of advanced methodologies**. The implementation of these guidelines strengthens risk management, improves financial stability, and supports the transition to a sustainable economy, mitigating reputational and regulatory risks while fostering a proactive ESG risk culture.

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CLIMATE change, biodiversity loss, social issues, and other environmental, social, and governance (ESG) factors represent and will continue to represent significant challenges for the economy. Events such as the occurrence of **acute** and **chronic physical risk** events and the **transition** toward a **sustainable economy** are driving profound **economic transformations** that, in turn, impact the **financial sector**. This is due to its critical role both in supporting the transition to a climate-neutral and sustainable economy, as envisaged by the *Paris Agreement*, the *United Nations 2030 Agenda for Sustainable Development*[15], and the *European Green Deal*[8], and in managing financial risks associated with this transition and/or arising from other ESG factors. Environmental risks will have an increasingly significant impact due to the possible combinations of **transition risks** and **physical risks**, as well as their strong **interconnections** with **all traditional financial risk categories**. Furthermore, the counterparties with which institutions interact may also be subject to negative consequences arising from **social factors**, such as human rights violations, demographic changes, digitalization, health or labor conditions, as well as **governance factors**, including deficiencies in executive leadership, corruption, or bribery practices. These factors, in turn, can generate financial risks that institutions must assess and manage. The **practices adopted** by financial intermediaries for understanding, identifying, and measuring these risks, characterized by their forward-looking nature, distinct impacts across different time horizons, and limited availability of relevant historical data, **vary significantly across institutions**.

Supervisory colleges' monitoring activities and supervisory authorities' experience indicate that **ESG risk management** remains in its **early stages**, with significant room for development. For most EU institutions, established practices for managing ESG risks other than climate-related ones are still emerging. Despite progress in recent years, significant shortcomings have been observed in the integration of ESG risks into corporate strategies and risk management frameworks. These **deficiencies** could pose substantial **challenges** to the **soundness and stability of institutions** as the EU advances in its transition toward a more sustainable economy and as the materialization of ESG risks intensifies.

To ensure the resilience of an institution's business model and risk profile over the short, medium, and long term, including a time horizon of at least 10 years, these **guidelines** issued by the EBA set **minimum standards** and **reference methodologies** for the **identification, measurement, management, and monitoring** of **ESG risks** for institutions.

In particular, institutions are required to regularly assess the **materiality of ESG risks** to which they are exposed through robust data management processes and a combination of methodological approaches, including exposure-based, portfolio-based, sector-based, portfolio alignment, and scenario-based methodologies.

Institutions are also required to **incorporate these risks** into operational **processes** such as risk appetite framework, internal controls, and ICAAP. Furthermore, in accordance with *Article 76(2) of Directive 2013/36/EU*[10], institutions must develop **specific plans**, using a risk-based approach, to address risks arising from the **transition** and **adaptation** of the economy to the regulatory ESG objectives of the jurisdictions in which they operate. To this end, institutions must evaluate and **integrate ESG risk** considerations into their **strategic plans, policies, and risk management processes** through a transition planning framework that accounts for short, medium, and long-term time horizons.

1. Guidelines

The guidelines issued by the EBA[3] specify, in accordance with *Articles 87a(1) and 74 of Directive 2013/36/EU*[10], the risk management processes and governance frameworks for the identification, measurement, management, and monitoring of ESG risks over the short, medium, and long term that institutions should implement as an integral part of their broader risk management framework. In particular, they address:

- **Minimum standards and reference methodologies** for the **identification, measurement, management and monitoring** of environmental, social and governance (ESG) risks;
- **Qualitative and quantitative criteria** for the **assessment** of the **impact** of ESG risks on the risk profile and solvency of institutions in the short, medium and long term;
- The **content of plans** in accordance with *Article 76(2) of Directive 2013/36/EU*[10] which shall include specific timelines and intermediate quantifiable targets and milestones, in order to monitor and address the financial risks stemming from ESG factors, including those arising from the process of adjustment and transition trends towards the relevant Member States and Union regulatory objectives in relation to ESG factors.

Furthermore, these guidelines serve as a supplement and clarification to the EBA Guidelines on Internal Governance[4] and the EBA Guidelines on Loan Origination and Monitoring[5] concerning the management of ESG risks. The EBA expects these guidelines to be adopted by institutions other than small and non-complex institutions from 11 January 2026, whereas for small and non-complex Institutions, the adoption is expected from 11 January 2027.

1.1 Reference Methodology for the Identification and Measurement of ESG Risks

The guidelines identify the reference methodologies for the following areas:

- Materiality assessment;
- Identification and measurement of ESG risks;
- Data processes;
- Main features of reference methodologies for the identification and measurement of ESG risks.

1.1.1 Materiality Assessment

In defining the reference methodology for the identification and measurement of ESG risks, the EBA establishes that institutions shall conduct a **regular assessment of the impact** of such risks **on all categories of traditional financial risk** to which they are exposed, including the following: credit risk, market risk, liquidity risk, operational risk (including legal risk), reputational risk, business model risk, and concentration risk.

Institutions are required to conduct this assessment at least annually, or for small and non-complex institutions (SNCIs) every two years, unless exceptional circumstances necessitate a more frequent update. In particular, the assessment must be reviewed in the presence of significant changes in the operating environment, such as the adoption of new relevant public policies or substantial modifications to the business model, portfolio composition, or the institution's operations.

The materiality analysis of ESG risks should be carried out using a **risk-based approach** that integrates both quantitative and qualitative information. This approach should consider the financial impacts of ESG risks **across different time horizons**, including the short and medium term, as well as a long-term period of at least 10 years. Such a framework ensures a proportionate and institution-specific assessment that duly accounts for the nature, scale, and complexity of financial activities, portfolio exposures, and service offerings.

In the assessment process, institutions should adopt a sufficiently comprehensive framework for analyzing environmental factors. In particular, when examining the drivers of physical and transition risk, they must take into account at least the following elements:

1. For **transition risks**:

- The **main economic sectors** that the financed assets support or in which the institution's counterparty has its principal activities;
- Ongoing and potential **future material changes in public policies, technologies and market preferences** (e.g. new environmental regulations or tax incentives, development of innovative low-carbon technologies, shifts in consumer or investor demand);
- With respect to **climate-related risks**:
 - Exposures toward **sector** that **contribute** highly to **climate change** with particular consideration given to exposures towards fossil fuel sector entities;
 - The **degree of alignment or misalignment of portfolios** with the relevant **regulatory objectives** of the jurisdictions where they operate - for SNCIs and other non-large institutions at least on the basis of a high-level qualitative assessment.

2. For **physical risks**:

- The **geographical areas** in which key **assets** of counterparties (e.g. production sites) and, in particular for real estate exposures, **physical collateral** is located;
- The **vulnerability** level to **environmental hazards** (e.g. temperature-related, wind-related, water-related, solid mass-related hazards) associated with different **climate scenarios** and **transition pathways** or, for SNCIs and other non-large institutions, associated with at least one adverse scenario.

Institutions should substantiate and document as part of their ICAAP their materiality assessments of ESG risks, including methodologies and thresholds used, inputs and factors considered and main results and conclusions reached, including non-materiality conclusions.

1.1.2 Identification and Measurement of ESG Risks and Data Process

As part of the minimum standards for the identification and measurement of ESG risks, institutions should adopt a **forward-looking approach** that considers the impacts of these risks over the short, medium, and long term. In particular, the assessment of the potential impact of ESG risk drivers and their transmission channels on traditional risks and financial risk metrics should be conducted with a level of granularity and accuracy of data points, quantification tools, methods and indicators, proportionate to their materiality assessment, as well as to the size and complexity of the institution. This level should generally be higher for short- and medium-term horizons, while the long-term horizon should be considered at least on a qualitative basis.

With regard to **environmental risks**, the internal procedures and methodologies adopted should enable institutions to:

- **Quantify climate-related risks** by estimating the probabilities of materialization and the magnitude of financial impacts stemming from climate factors.
- Properly understand the **financial risks** that may result **from other types of environmental risks**, such as those stemming from the degradation of nature, including biodiversity loss and the loss of ecosystem services, or the misalignment of activities with actions aimed at protecting, restoring, and/or reducing negative impacts on nature.
- **Establish key risk indicators (KRIs)** covering at least short- and medium-term time horizons and a scope of exposures and portfolios determined in line with the results of the materiality assessment.

With regard to **social and governance risks**, institutions should, at a **minimum**, conduct a **qualitative assessment** of their impact on operations and financial risks, progressively developing more advanced approaches in line with regulatory and scientific developments, data availability, and methodological advancements.

Finally, in assessing the **interconnections between different categories of ESG risks**, internal procedures should initially provide for a separate measurement of each risk, taking into account its specific characteristics, before considering potential interdependencies and interconnections in the measurement of these risks.

1.1.3 Data Processes

Institutions should have internally implemented **robust and up-to-date information management systems** at the institution-wide level to identify, collect, structure, and analyze the data necessary to support the assessment, management, and monitoring of ESG risks within the overall data governance framework and IT infrastructure.

The internal procedures implemented should **collect data at both the client and activity level**, leveraging both internal and external sources, with a degree of granularity appropriate to enable institutions to assess, manage, and monitor both current and forward-looking ESG risks to which they may be exposed through their counterparties.

Among the different sources of data, a particularly significant role is played by the information disclosed by counterparties in accordance with **European Sustainability Reporting Standards** or **voluntary reporting standard** for non-listed Small and Medium-size Enterprises (SMEs).

Where institutions rely on **third-party providers** for access to ESG data, they should ensure an adequate understanding of the sources, data, and methodologies employed by the data providers, including any limitations. If the **quality or availability of data is insufficient** to meet risk management needs, institutions should adopt and document **corrective actions**, such as the use of estimates or proxies based on sectoral and/or regional characteristics, incorporating adjustments to account for counterparty-specific factors.

For **large corporate counterparties** (*Article 3(4) of Directive 2013/34/EU*[9]), institutions should collect the following data, where applicable:

1. For **environmental risks**:

- Geographical location of key assets (e.g. production sites) and exposure to environmental hazards (e.g. temperature-related, wind-related, water-related, solid mass-related hazards) at the level of granularity needed for appropriate physical risk analysis, and availability of insurance.
- Current and, if available, targeted greenhouse gas (GHG) scope 1, 2 and 3 emissions in absolute value and, where relevant, in intensity value.
- Dependency on fossil fuels, either in terms of economic factor inputs or revenue base.
- Energy and water demand and/or consumption, either in terms of economic factor inputs or revenue base.
- Level of energy efficiency for real estate exposures and the debt servicing capacity of the counterparty.
- The current and anticipated financial effects of environmental risks and opportunities on the counterparty's financial position, financial performance and cash flows.
- Transition-related strategic plans, including transition plan for climate change mitigation disclosed in accordance with *Article 19a or Article 29a of Directive (EU) 2022/2464*[11], when available.

2. For **social and governance risks**:

- Alignment with the OECD Guidelines for Multinational Enterprises, "*UN Guiding Principles on Business and Human Rights and International Labour Organisation Declaration on Fundamental Principles and Rights at Work*"[14].
- Negative material impacts on own workers, workers in the value chain, affected communities and consumers/end-users including information on due diligence efforts or processes to avoid and remediate such impacts.

For exposures to **counterparties other than large enterprises**, institutions should:

- **Determine the data points needed** for the identification, measurement and management of ESG risks;
- Where needed to address **data gaps**, use **expert judgment, qualitative data, portfolio-level assessments and proxies**.

1.1.4 Main Features of Reference Methodologies for the Identification and Measurement of ESG Risks

Internal methodologies for risk assessment used by institutions should incorporate a combination of exposure-based, sector-based, portfolio-based, and scenario-based approaches. In particular, to achieve a comprehensive analysis of ESG risks across all relevant time horizons, institutions should:

- Utilize **exposure-based** methods to obtain a **short-term** view of the impact of ESG risks on counterparties' risk profiles and profitability;
- Adopt **sector-based, portfolio-based, and scenario-based methods** to support **medium-term planning**, the definition of **risk limits**, and **risk appetite**;
- Apply **scenario-based methodologies** to assess their sensitivity to ESG risks across **different time horizons**.

Exposure-Based Methods

To assess the exposure of counterparties' activities and key assets to ESG factors, particularly environmental factors and the effects of climate change, as well as the adequacy of the mitigation measures adopted, institutions should incorporate these factors - placing particular emphasis on environmental ones - into their **internal risk classification procedures**. In line with the provisions set out in paragraphs 126¹ and 146² of the *EBA Guidelines on Loan Origination and Monitoring*[5], these factors should be considered in the assessment of a borrower's default risk and, where relevant, integrated into risk indicators, internal credit scoring or rating models, and collateral evaluation. When assessing environmental risks at the exposure level, institutions' internal procedures should include a **set of risk factors and criteria** capable of capturing both **physical and transition risk drivers**. For **large institutions**, these should, where applicable, include at least the following aspects:

- The degree of vulnerability to environmental hazards, taking into account the geographical location of the key assets of counterparties and guarantors, or of the physical collateral backing the exposures, considering both on-balance sheet and off-balance sheet exposures.
- The degree of vulnerability to transition risks, taking into account relevant technological developments, the impact of applicable or forthcoming environmental regulations affecting the sector of activity of the counterparty, the current and if any targeted GHG emissions in absolute and, where relevant, intensity value of the counterparty, the impact of evolving market preferences, and the level of energy efficiency in the case of residential or commercial real estate exposures together with the debt service capacity of counterparties.
- The exposure of the counterparty's business model and/or supply chain to critical disruptions due to environmental factors such as the impact of biodiversity loss, water stress or pollution.
- The exposure of the counterparty to reputational and litigation risks taking into account completed, pending or imminent litigation cases related to environmental issues.
- The (planned) maturity or term structure of the exposure or asset.
- Risk-mitigating factors, such as private or public insurance coverage, for example based on applicable national catastrophe schemes or similar frameworks, and the capacity of the counterparty to ensure resilience to transition and physical risks including through forward-looking transition planning.

¹Par. 126: Institutions should assess the borrower's exposure to ESG factors, in particular environmental factors and the impact on climate change, and the appropriateness of the mitigating strategies, as set out by the borrower. This analysis should be performed on a borrower basis; however, when relevant, institutions may also consider performing this analysis on a portfolio basis.

²Par. 146: Institutions should assess the borrower's exposure to ESG factors, in particular environmental factors and the impact on climate change, and the appropriateness of the mitigating strategies, as set out by the borrower.

For the assessment of **social and governance risks** at the exposure level, institutions should implement **due diligence** processes aimed at evaluating the financial impacts arising from these factors and the vulnerability of counterparties' business models to such risks. In particular, institutions should consider:

- The counterparties' adherence to social and governance standards;
- The counterparty's exposure to legal risks arising from social or governance-related matters;
- The applicable regulatory framework in the jurisdiction in which the counterparty operates.

Sector-Based, Portfolio-Based and Portfolio Alignment Methods

In accordance with paragraphs 127 and 149³ of the *EBA Guidelines on Loan Origination and Monitoring*[5], sector-based and portfolio-based methodologies, including graphical representation techniques such as heat maps highlighting ESG risks across individual economic sectors or sub-sectors, should **enable the mapping of portfolios** in relation to **ESG risk factors** and the identification of potential concentrations in one or more ESG risk profiles.

For the assessment of **non-climate-related ESG factors**, large institutions should develop:

- Methods to identify sectors that are highly dependent on, or have a significant impact on, ecosystem services, and tools to measure the financial impact of nature degradation and actions aimed at protecting, restoring and/or reducing negative impacts on nature.
- Approaches to measuring the positive or adverse impacts of their portfolios on the achievement of the UN Sustainable Development Goals[16] and evaluating potential related financial risks.

With regard to **climate risks**, institutions should adopt at least one **portfolio alignment methodology** that allows for the sectoral assessment of the degree of alignment between an institution's portfolios and climate pathways or benchmark scenarios. Where appropriate, this assessment should include counterparty-level analysis by comparing a given counterparty's greenhouse gas (GHG) emissions intensity against an appropriate sectoral benchmark.

The **selection of scenarios** for assessing climate-related ESG factors should be based on **up-to-date scientific evidence** relevant to the economic sectors and geographical areas of the exposures and sourced from authoritative institutions such as national, EU or international organizations such as national environmental agencies, Joint Research Center of the EU Commission, the International Energy, Network for Greening the Financial System, International Panel on Climate Change. Sectoral decarbonization pathways should be consistent with the EU's environmental objectives, including achieving climate neutrality by 2050 and reducing greenhouse gas emissions by 55% by 2030 compared to 1990 levels, or any applicable national targets.

Institutions should determine the scope and level of sophistication of portfolio alignment assessments based on the characteristics of their portfolios, the outcome of the materiality assessment, and the size and complexity of the institution.

Finally, institutions are required to justify and document the methodologies adopted, including scenario selection, base year definition, sectoral scope, and, in the case of SNCIs or smaller institutions, the identification of a representative sample of exposures. Any significant changes to the methodologies over time should be duly documented. The information derived from climate portfolio alignment methodologies should be used to:

- Assess and monitor **transition risks** arising from the **misalignment** of counterparties and/or portfolios with regulatory objectives and climate pathways established at the EU, Member State, or third-country level, as well as the associated financial risks.

³Par. 127-149: In order to identify borrowers that are exposed, directly or indirectly, to increased risk associated with ESG factors, institutions should consider using heat maps that highlight, for example, climate-related and environmental risks of individual economic (sub-)sectors in a chart or on a scaling system. For loans or borrowers associated with a higher ESG risk, a more intensive analysis of the actual business model of the borrower is required, including a review of current and projected greenhouse gas emissions, the market environment, supervisory ESG requirements for the companies under consideration and the likely impacts of ESG regulation on the borrower's financial position.

- **Support decision-making** regarding the definition and implementation of risk appetite, corporate strategy, and transition planning, including through the prioritization of engagement with specific counterparties.

Scenario-Based Methods

In addition to exposure-based, sector-based, portfolio-based, and portfolio alignment methods, institutions' internal procedures should provide for the use of scenario-based analyses to test their **resilience to ESG risks**, starting with **climate risks**, across **different scenarios**.

1.1.5 Report on Data Availability and Feasibility of Common Methodology for ESG Exposures

For the methodologies outlined, the EBA in its recent document 'Report on data availability and feasibility of common methodology for ESG exposures'[7] highlighted that, despite progress in integrating ESG risks into risk management frameworks, **significant challenges** remain, particularly in **standardizing methodologies** for **identifying** and **qualifying exposures** to **ESG risks**. The report emphasizes that the **availability, quality, and granularity** of **ESG data** continue to be **major obstacles**, along with their **limited comparability** and **transparency**. While regulatory initiatives such as the *Corporate Sustainability Reporting Directive* (CSRD) and the *European Sustainability Reporting Standards* (ESRS) have improved the ESG data landscape, **gaps persist, particularly for retail SMEs and household exposures**. In contrast, **non-financial corporates (NFCs)** benefit from **structured ESG reporting frameworks**, enabling the adoption of more advanced risk assessment methodologies.

The **application of ESG risk assessment methodologies varies significantly** across institutions, leading to **inconsistencies** in materiality assessments and difficulties in data comparability. Currently, the **most advanced ESG risk measurement practices** are observed in **NFCs**, where institutions typically rely on information collected from counterparties or external providers, which feed into internal scores, stress testing, or scenario analysis. However, using such scores as a potential basis for a standardized methodology presents significant challenges due to the **complexity and variability of ESG scores**, stemming from different approaches, heterogeneous data sources, and differences among rating providers. Additionally, **retail SMEs face further challenges** due to **high data collection costs** and the **lack of mandatory disclosure requirements**. The EBA considers that the **fundamental elements are not yet sufficiently developed** to form a solid foundation for the establishment of a **standardized and robust methodology** for identifying and qualifying ESG risks at this stage, particularly concerning their impact on credit risk. However, the situation varies significantly depending on the type of exposure and the risks considered. In this context, the introduction of a standardized methodology for identifying and qualifying exposures appears to be **more feasible for climate transition risk in non-financial corporates (NFCs) and, to a lesser extent, for climate-related transition and physical risks associated with household mortgage exposures**. Accordingly, a **sequential approach would be preferable**, starting with **climate risks for exposure classes where practices are more advanced, such as large corporates, and then gradually extending this methodology to other exposure classes and ESG risk dimensions**.

Furthermore, while **supervisory stress testing and scenario analysis** are **gaining importance** in ESG risk assessment, they **remain largely exploratory and require further methodological refinements** before they can serve as the basis for a standardized ESG risk classification.

The EBA emphasizes the importance of maintaining a prudential, risk-based, and evidence-driven approach, allowing ESG risks to be recognized in an integrated manner while preserving the integrity and purpose of the prudential framework.

1.2 Minimum Standards and Reference Methodology for the Management and Monitoring of ESG Risks

This paragraph establishes the essential criteria and reference methodologies for the effective management and proper monitoring of ESG risks.

1.2.1 Principles of ESG Risk Management

In recent years, **deficiencies** have been identified in the inclusion of **ESG risks** within **corporate strategies** and **risk management frameworks**. These types of risks, considering their impact and

synergies with the bank's traditional risks, could pose a threat to the security and stability of institutions. It is essential for institutions to integrate ESG risks into their Risk Appetite Framework (RAF) and consider the role of these risks as potential drivers of all categories of financial risks (credit risk, market risk, operational risk, liquidity risk, reputational risk, business model risk, and concentration risk).

Institutions should, therefore, **incorporate ESG risks into their risk management frameworks**, ensuring consistency with corporate strategy and the overall risk strategy they intend to adopt. In their risk mapping activities, banks must consider these types of risks, defining their risk capacity, risk appetite, and risk tolerance thresholds. Additionally, institutions should incorporate ESG risks into their internal control processes and ICAAP.

Regarding **ICAAP**, banks should assess capital adequacy by considering the impact of **ESG risks** (particularly environmental risks, including climate-related risks, which will become even more evident in the future through various combinations of transition and physical risks) on all other traditional risk categories.

Once identified, institutions should develop risk management and mitigation tools, adopting a solid and forward-looking approach that considers the short, medium, and long term (up to a 10-year horizon). Institutions should utilize a set of functional **tools to mitigate and manage ESG risk**, such as:

- **Dialogue with counterparties and advisory services:** establishing relationships with counterparties to better understand their geographic area of operation, sectoral legislation, risk profile, resilience to ESG risks, and transition processes.
- **Adjusting financial terms:** including contractually agreed safeguard measures, modifying conditions and pricing based on ESG criteria.
- **Considering ESG risks when developing sectoral policies:** setting sectoral or global risk limits, applying deleveraging strategies.
- **Portfolio diversification based on ESG criteria:** promoting transition processes and reallocating financing toward exposures more resilient to ESG risks and with sustainable transition plans.

To this end, institutions could **define Key Risk Indicators (KRIs) and early warning thresholds to monitor ESG risk exposure**. Institutions should also implement granular and frequent monitoring of counterparties, exposures, and portfolios identified as materially exposed to ESG risks.

1.2.2 Strategies and Business Models

When defining and implementing their corporate strategy and risk profile, institutions must consider ESG risks. A **forward-looking approach** should consider several aspects, including:

- Understanding and assessing the **operating environment**: analyzing exposure to structural changes in the economy and financial system while considering the impact of ESG factors on business strategies.
- Evaluating how ESG risks, particularly environmental risks (transition and physical risks), may negatively affect **business model feasibility** and **corporate strategy sustainability** in the medium to long term.
- Assessing how ESG risks could compromise the institution's ability to achieve its **strategic objectives** while remaining within its risk appetite. To support decision-making, banks should implement forward-looking risk assessment methods, including:
 - Periodic scenario analysis of environmental risk, considering potential future business environments;
 - Climate or environmental stress tests to assess resilience in the face of adverse shocks;
 - Heat maps visualizing ESG risks in different economies or sub-sectors and portfolio alignment methodologies evaluating sectoral alignment with climate-related pathways and reference scenarios.

1.2.3 Risk Appetite

Institutions should **integrate ESG risks** into their risk appetite framework, specifying the level and type of ESG risk they are willing to assume within their portfolio. This risk appetite should align with their business model while considering the principle of proportionality.

Risk assessments should factor in ESG risks concerning financial products, client segments, collateralized loans, and risk mitigation tools. Within the risk appetite framework, banks should define their **ESG-related KRIs**, including thresholds, potential limits, or exclusions. Once defined, these KRIs must be continuously monitored and analyzed.

Large institutions should monitor at least the following **indicators**:

- **Exposure amounts and income share** (interest, fees, commissions) from business relationships with counterparties operating in **sectors that significantly contribute to climate change**.
- **Portfolio alignment metrics**, showing the extent to which exposures align with climate-related regulatory objectives, such as achieving net-zero greenhouse gas emissions by 2050.
- **Financed greenhouse gas emissions**.
- **Progress in implementing key financing strategies to ensure resilience to ESG risks** and preparedness for the transition to a sustainable economy.
- **Breakdown of real estate-backed portfolios by energy efficiency levels of collateral**.
- **Ratio of environmentally sustainable exposures** financing activities contributing to climate change mitigation.
- **Ratio of financing for low-carbon energy supply technologies vs. fossil fuel-based energy supply technologies**.
- **Measures of concentration risk related to physical risks** (e.g., exposures in high-risk flood zones, water stress areas, wildfire-prone regions).
- **Reputational risk measures** related to ESG factors and any ESG-related litigation.
- **Parameters regarding exposures to counterparties with material dependencies or negative impacts on biodiversity**.

1.2.4 Internal Culture, Capabilities, and Controls

To develop an effective ESG risk assessment and monitoring system, institutions should ensure that boards are adequately trained to understand ESG implications and challenges. A strong risk culture must be promoted throughout the institution.

ESG risks must be embedded in internal control frameworks through the **three lines of defense**:

- **First Line of Defense**: responsible for conducting **ESG risk assessments**;
- **Second Line of Defense**:
 - **Risk management function**: independently assesses and monitors ESG risk, ensuring compliance with risk limits;
 - **Compliance function**: oversees how the first line ensures adherence to ESG legal requirements and internal policies, advising management on necessary measures.
- **Third Line of Defense** (Internal Audit Function - IAF): provides **independent review and assurance** of ESG risk control frameworks and systems.

1.2.5 Internal Capital Adequacy and Liquidity Adequacy Assessment Process (ICAAP & ILAAP)

As previously mentioned, institutions should integrate ESG risks into **ICAAP** to determine the appropriate internal capital buffer for ESG-related risks. Special **attention** should be given to **exposures** and **portfolios** deemed **more vulnerable** to ESG risks, requiring additional capital buffers.

Capital planning should be forward-looking, considering adverse scenarios, including specific environmental risk elements that could significantly drain capital reserves. **ESG-related capital needs** should be calculated using **stress testing** and **scenario analysis**.

Additionally, institutions should incorporate material environmental risks and their impacts on liquidity into their **ILAAP** across appropriate time horizons. ICAAP and ILAAP frameworks should define risk appetite, thresholds, and limits for material ESG and environmental risks and their effects on solvency and liquidity.

1.2.6 Policies and Procedures for Financial Risk Categories

ESG risks can act as drivers for traditional financial risks. Proper management is essential to mitigate the current and potential future impact of ESG risks on the following:

- **Credit Risk.** ESG risks should be integrated into credit risk assessment frameworks.
- **Market Risk.** Institutions should evaluate how ESG risks impact the value of financial instruments, potential losses, and portfolio volatility.
- **Liquidity and Funding Risk.** ESG risks could affect net cash outflows, asset valuations, and funding stability, requiring adjustments in liquidity buffers.
- **Operational and Reputational Risks.** Institutions must consider ESG risk impact on operational losses, reputational damage, and greenwashing-related risks. By implementing strong identification, prevention, and management processes, institutions can mitigate risks associated with greenwashing, reputational damage, and regulatory scrutiny.
- **Concentration Risk.** Banks should assess sectoral/geographic exposure concentrations prone to ESG risks, including carbon emissions, geographic vulnerabilities, and ESG-related controversies.

1.3 Plans in Accordance with Article 76(2) of Directive 2013/36/EU

Plans developed in accordance with *Article 76(2) of Directive 2013/36/EU*[10] should provide an overview of the **strategic actions and risk management tools** adopted by institutions to ensure their resilience to ESG risks and their preparedness for the transition to a sustainable economy.

The plans developed by institutions should address the **forward-looking** aspects of ESG risk management while maintaining consistency with other applicable requirements, such as those related to due diligence, sustainability reporting, and the strategic actions necessary to align business models with the transition to a sustainable economy.

At the group-wide level, institutions should ensure that their plans and objectives are proportionate to their nature, size, and operational complexity, as well as to the materiality of ESG risks, and that they are aligned with risk and funding strategies, risk appetite, ICAAP, and the overall risk management framework.

1.3.1 Governance

This paragraph provides guidelines on governance and transition planning related to ESG risks, defining roles and responsibilities, internal processes, data management, scenario analysis, metrics, and key contents of the plans. Additionally, it establishes criteria for monitoring, reviewing, and periodically updating the plans, ensuring an integrated and strategic approach to sustainability management.

Roles and Responsibilities

Institutions should clearly identify **roles** and assign **responsibilities** for the **development, validation, implementation, and monitoring** of the plans. Institutions should take into account the influence that the transition planning process should exert on other processes, such as the overall corporate strategy and risk appetite.

The body responsible for approving these plans should oversee their implementation, provide ongoing updates on relevant developments and progress made against the institution's objectives, and, where necessary, take corrective actions in the event of significant deviations from the predefined targets.

For the proper **integration of ESG risks within the three lines of defense**, institutions should ensure that:

- The **first line of defense** possesses the necessary **expertise** and **experience** to assess the extent to which **counterparties' transition strategies** - including their transition plans, where available-enhance their resilience to ESG risks and align with the institution's objectives and risk appetite.
- The **risk management function** ensures that the **risk limits** set out in the risk appetite statement, within the overall risk management framework, are **consistent** with all aspects of the **institution's plan**, including sectoral policies.
- The **internal audit function (IAF) reviews** the **institution's plan** as part of the risk management framework and assesses its compliance with legal and regulatory requirements, as well as its alignment with the institution's strategy and risk appetite in relation to ESG risks.

Internal Processes and Capacity

Institutions, within the process of formulating, implementing, and reviewing plans, should systematically consider information and feedback from all levels of the organization. To this end, it is essential to ensure the **involvement** of, at a minimum, the **heads of functions responsible for strategic planning, risk management, sustainability reporting, legal services, and compliance**.

To ensure the effective implementation of the transition planning process, institutions should also have adequate capacities, competencies, and resources to support the development of plans, the periodic assessment of their soundness, the monitoring of their implementation, and the timely adoption of any necessary corrective actions.

Data Management

Institutions must implement **robust governance processes** for the **collection, validation, and aggregation** of the **data** necessary to support transition planning and monitor the implementation of the plans.

Transition Planning

The Transition Planning section outlines the framework for analyzing and managing ESG risks, with a particular focus on transition and physical risks, through the use of scenarios and strategic pathways. It defines the criteria for scenario selection, the establishment of time horizons and interim milestones, the assessment of risk materiality, the adoption of metrics for monitoring and measuring impacts, and the key components of transition plans. Finally, it describes the process for monitoring, reviewing, and updating the plans to ensure alignment with the institution's strategic objectives.

Scenarios and Pathways

Institutions should analyze their **sensitivity to ESG risks**, particularly transition and physical environmental risks, by leveraging various scenarios and assessing how these may impact their transition planning efforts.

The selection of scenarios should be proportionate to the institution's size and complexity and aligned with its business model and exposures. In particular, **small and non-complex institutions**,

as well as other non-large institutions, may rely on a **simplified set of key parameters and assumptions**, including risks, time horizons considered, and regional breakdowns of impacts. **Large institutions** must benchmark their plans against a **scenario compatible with the 1.5 global warming limit**, in line with the Paris Agreement, and the objective of achieving **climate neutrality by 2050**. In selecting scenarios, institutions must follow at least the following steps:

- Assess the potential implications of EU, Member States and, where relevant, third countries' objectives for transition pathways, at least for selected sectors determined on the basis of the materiality assessment. In this process, institutions should take into account the likely pathways originated from the European Green Deal[8], the EU Climate Law[12], and the latest reports and measures prescribed by the European Scientific Advisory Board on Climate Change.
- Consider science-based and up-to-date scenarios originating from national, EU or international organizations.
- Take into account voluntary or regulatory-mandated objectives or commitments of the institution with respect to climate change mitigation and adaptation.

Institutions must ensure that the scenarios and pathways used in their plans are consistent across the organization and aligned with the time horizons considered, such as in the process of defining corporate strategies and setting short-, medium-, and long-term objectives.

Institutions must document the scenario selection process, including the rationale for any modifications or differences in their application.

Time Horizons and Milestones

As part of their plans, institutions should consider a set of differentiated **time horizons**, including the short, medium, and long term, with the latter defined as a period of no less than ten years. To ensure effective monitoring of progress towards the established targets, institutions should **define interim milestones at regular intervals**, ensuring full alignment with the objectives set for each time horizon.

To this end, institutions should adopt an integrated approach that enables the translation of long-term objectives, such as commitments to climate neutrality and the reduction of net greenhouse gas (GHG) emissions, into medium-term strategies. This may be achieved, for instance, through the implementation of sector-specific policies or the establishment of growth targets for specific business lines. Similarly, short-term financial metrics and operational objectives (e.g., profitability indicators, cost of risk, KPIs, KRIs, risk limits, pricing frameworks) must be structured to ensure consistency and alignment with medium- and long-term objectives, thereby supporting a harmonized and sustainable strategic approach over time.

Materiality Assessment Basis

The **transition planning** process aims to **manage materially relevant ESG risks**, with particular focus on transition and physical environmental risks, which may have significant implications for the economy's adaptation to applicable regulatory and legislative objectives concerning ESG factors.

Metrics

In line with their corporate strategies and risk appetite, institutions must adopt a **comprehensive set of metrics**, including forward-looking metrics, to define objectives, guide decision-making, and monitor the implementation of their plans.

To this end, the measurement and monitoring process must include:

- The assessment, calculation, and use of metrics designed to estimate the **financial implications of transition planning on the institution's business model** and risk profile across different time horizons (short, medium, and long term).
- The measurement of the **impact of transition planning on financial performance, revenue streams, profitability, and portfolio risk exposure**.

In accordance with the principle of proportionality, non-complex firms and other smaller institutions may adopt a more limited set of indicators for defining objectives and using metrics, leveraging qualitative targets where appropriate.

While institutions are required to adopt at least a combination of climate risk-related metrics, they must **progressively integrate indicators that enable a broader assessment of their exposure to and management of environmental risks not directly linked to climate change**. Such risks include, for instance, those arising from ecosystem degradation and biodiversity loss, as well as their potential correlation with climate risks. Furthermore, institutions must consider integrating metrics to monitor social and governance risks to ensure a holistic approach to ESG risk management.

1.3.2 Key Contents of the Plans

Institutions must document and periodically review the methodologies, assumptions, criteria, and objectives used in the preparation of their plans to ensure their soundness and adequacy in relation to the institution's risk profile and corporate strategy. As part of the planning process, institutions must clearly **specify the scope of the risks considered**, ensuring that each section of the plan addresses at least environmental risks.

Large institutions must include at least the following elements in their plans:

1. Strategic objectives and roadmap of the plans:

- i. The **definition** of the overarching **strategic objective** for managing ESG risks across different time horizons (short, medium, and long term), in alignment with the overall corporate strategy and risk appetite.
- ii. The comprehensive set of **long-term objectives** and **interim milestones** aimed at ensuring the resilience of the business model to ESG risks, guaranteeing consistency between the corporate structure and the revenue sources linked to the achievement of such milestones.
- iii. The **key assumptions**, inputs, and relevant contextual information for defining the institution's objectives and targets, including the selection of reference scenarios and the conclusions drawn from ESG risk materiality assessments, portfolio alignment analyses, and other scenario analyses.

2. Targets and metrics:

- i. The **quantitative objectives** defined to address ESG risks, including measures aimed at facilitating the transition towards a sustainable economy.
- ii. The **scope of application** of objectives and monitoring metrics, covering portfolios, sectors, asset classes, business lines, and, where applicable, economic activities, ensuring that the coverage is adequate in relation to the nature, size, and complexity of the institution's activities and the assessment of ESG risk materiality.
- iii. The **time horizons** to which the objectives and metrics apply, with a clear distinction between short, medium, and long term.

3. Governance:

- i. The **roles and responsibilities** assigned for the formulation, validation, implementation, monitoring, and updating of the plan, as well as the escalation processes to be activated in case of deviations from the predefined objectives.
- ii. The **actions and resources allocated** to ensure the acquisition of adequate skills, knowledge, and expertise for the effective implementation of the plan, including training initiatives on ESG risks and the development of a strong corporate culture in this area.
- iii. The **remuneration policies and practices** aimed at promoting a prudent and sound management of ESG risks, in alignment with the institution's objectives and risk profile.
- iv. The **data and systems** employed to support transition planning.

4. Implementation strategy:

- i. The description of **actions undertaken or planned** in the short, medium, and long term to achieve the plan's objectives, including mechanisms for integrating these objectives into decision-making processes and the risk management framework.
- ii. The **adaptation of policies and procedures** related to financial risk categories, as well as the revision of lending and investment conditions in key sectors and economic activities.
- iii. The **modifications** introduced in the **product and service offering**, including pricing policies, to support the plan's implementation.
- iv. The **investments and portfolio allocation strategies** aimed at ensuring alignment with the corporate strategy and risk appetite concerning ESG risks.

5. **Engagement strategy:**

- i. The **counterparties' engagement policies**, including information on the frequency, scope, and objectives of engagement, as well as the types of actions planned and the applicable escalation criteria and processes.
- ii. The **processes, methodologies and metrics** used to **collect and assess information** on **counterparties' exposure to ESG risks** and their alignment with the institution's objectives and risk appetite.

Small and non-complex institutions (SNCI) and other smaller institutions must include in their plans at least the aspects covered in the following points: 1(i)-(ii), 2(i)-(ii), 3(i), 4(i)-(ii) and 5(i)-(ii).

1.3.3 Monitoring, Review and Update of the Plans

Institutions must ensure **continuous and systematic monitoring of the implementation of their plans**, in proportion to the nature, size, and operational complexity of the entity. This process must provide an integrated organizational perspective, enabling a timely and effective assessment of the institution's ability to achieve its predefined objectives.

The monitoring framework must allow the management body to oversee both the **evolution of ESG risk monitoring metrics** and the **progress made toward the milestones** set in the plan. Furthermore, in cases where objectives are not met, the institution must provide a clear and detailed justification, supported by an analysis of the potential impact on different financial risk categories, with reference to various time horizons.

Institutions must regularly **review** and, where necessary, **update** their **plans**, and in any case, whenever there is a modification to the corporate strategy. The review process must incorporate the most up-to-date information, including: new ESG risk materiality assessments; changes in portfolios and counterparties' activities; newly available scenarios, sector benchmarks, and updated transition pathways; and the impacts arising from regulatory changes or the introduction of new legal requirements.

2. Consultation Paper on Guidelines on ESG Scenario Analysis

In January 2025, the European Banking Authority (EBA) published *Guidelines on ESG Risk Management*[2], taking into account the principle of proportionality. These guidelines integrate the *Guidelines on Institutions' Stress Testing* (EBA/GL/2018/04)[6] and assist institutions using the Internal Ratings-Based (IRB) approach in incorporating ESG risks-particularly physical and transition risks stemming from climate change-into their credit risk stress testing. These **stress tests** should be conducted periodically to **assess the effect of specific conditions on institutions' capital requirements for credit risk**.

The guidelines emphasize the role of **scenario analysis** (see Table 1) in enhancing institutions' resilience against **environmental risks**, starting with climate-related risks. Scenario analysis is a critical tool that helps institutions anticipate and prepare to manage ESG risks while also identifying opportunities arising from the challenges posed by climate change.

Use of Climate Scenario Analysis (CSA) to Test Bank's Resilience	
Climate Stress Testing (CST)	Climate Resilience Analysis (CRA)
Test bank's financial resilience <ul style="list-style-type: none"> Limited to a rather short-term horizon (less than 5 years) Under Reasonable Uncertainty – hypotheses not forecasts Using a baseline & adverse but plausible scenarios Through a static or dynamic balance sheet approach, including the changes from the transition plan Considering indirect effects and seeking consistency between counterparty and macro level 	Challenge bank's business model resilience <ul style="list-style-type: none"> Encompassing a long-term horizon (at least 10 years) Under Deep Uncertainty – hypotheses not forecast Using a central scenario & a set of district scenarios Through a dynamic (balance sheet) approach Leveraging sectoral trajectories and counterparty transition plans
<ul style="list-style-type: none"> ➤ To measure financial impacts ➤ To check capital & liquidity adequacy 	<ul style="list-style-type: none"> ➤ To assess compatibility with global warming of 1.5°C ➤ To check robustness of the business model

TABLE 1: A Schematic Illustration of the Use of Climate Scenario Analysis to Test Bank Resilience[2]

In this analytical process, institutions move **from basic qualitative "what-if" approaches to more sophisticated models** that require continuous monitoring of data and methodologies. The ultimate goal is to assess and understand the potential implications of a range of plausible future states on institutions' strategies and risk exposure. A distinction must be made based on the intended **purpose** of the scenario analysis:

- **Testing financial resilience:** evaluating the institution's resilience to severe short- and medium-term shocks and assessing capital and liquidity adequacy (ICAAP and ILAAP).
- **Assessing long-term business model resilience:** determining whether the institution's business model remains viable and its strategy sustainable over the long term.
- **Evaluating portfolio vulnerability:** assessing the extent to which portfolios are exposed to transition and physical risks.
- **Integrating ESG risks into corporate culture:** embedding ESG considerations into the institution's risk management culture.

Scenarios should be regularly reviewed, and the analyses conducted should be validated and properly documented. Institutions should prioritize analyzing material ESG risks, starting with the most significant ones. To achieve this, institutions should map ESG risks and their transmission channels concerning their sectoral and geographical portfolio exposure.

2.1 Climate Stress Test

The effectiveness of a Climate Stress Test (CST) depends on a detailed understanding of climate-related risks and their direct and indirect impact on an institution's financial performance, capital base, and liquidity position.

However, ESG risks have specific characteristics that make their full integration into institutions' risk management systems challenging. These challenges include extended time horizons, new risk transmission channels that are not yet supported by historical data, and fundamental uncertainties regarding global economic shifts.

When developing climate scenarios, institutions should **consider a set of interconnected factors** to ensure relevance:

- Socioeconomic context;

- Technological advancements;
- Climate policies;
- Energy systems;
- Consumer preferences;
- Sectoral pathways toward net-zero emissions;
- Emission levels and climate impact.

Institutions should **use credible scenarios based on the latest scientific knowledge**, developed by international or regional organizations, and refine them to align with their scope, granularity, and analysis objectives (see Figure 1).

In CSTs, institutions should incorporate:

- A **baseline scenario** (the reference scenario);
- A **set of adverse scenarios** that are severe (tail risk) yet plausible (reasonably likely).

The baseline scenario should reflect adopted or soon-to-be-adopted policies during the analysis period. Institutions should also analyze how their counterparties, particularly the largest or most concentrated ones, are indirectly exposed to climate-related risks.

Based on materiality assessments, institutions should adopt proactive measures, including **risk mitigation strategies** such as:

- Insurance coverage;
- Adaptation plans by counterparties;
- Local or governmental adaptation measures (without relying excessively on government actions or overly optimistic financial support schemes).

Scenario analysis should serve as a guiding framework for institutions operating under uncertainty and over an extended time horizon.

The Task Force on Climate-related Financial Disclosures (TCFD)[13] recommends the use of climate scenario analysis to help institutions explore the potential range of climate-related outcomes, assess their business impacts in a structured manner, and proactively address or even anticipate these risks.

Besides being a key tool, scenario analysis fosters a culture of continuous adaptation and change, essential for planning an institution's transition strategy.

Conducting scenario analysis requires several **preliminary steps**:

- **Understanding the business environment:** institutions should conduct an in-depth analysis of their operational landscape and how it may evolve.
- **Using internationally recognized scenarios:** institutions should reference scenarios developed by the International Energy Agency (IEA) and the Network for Greening the Financial System (NGFS), ensuring they are adverse yet plausible.
- **Incorporating Basel Committee guidance:** the Basel Committee on Banking Supervision (BCBS) has contributed to climate scenario analysis, publishing a discussion paper in April 2024[1].

Scenario analysis is a critical decision-making tool, but caution is required given the uncertainties in the operating environment. Beyond defining scenarios, institutions must **identify transmission channels through which ESG events translate into concrete financial impacts** (see Table 2).

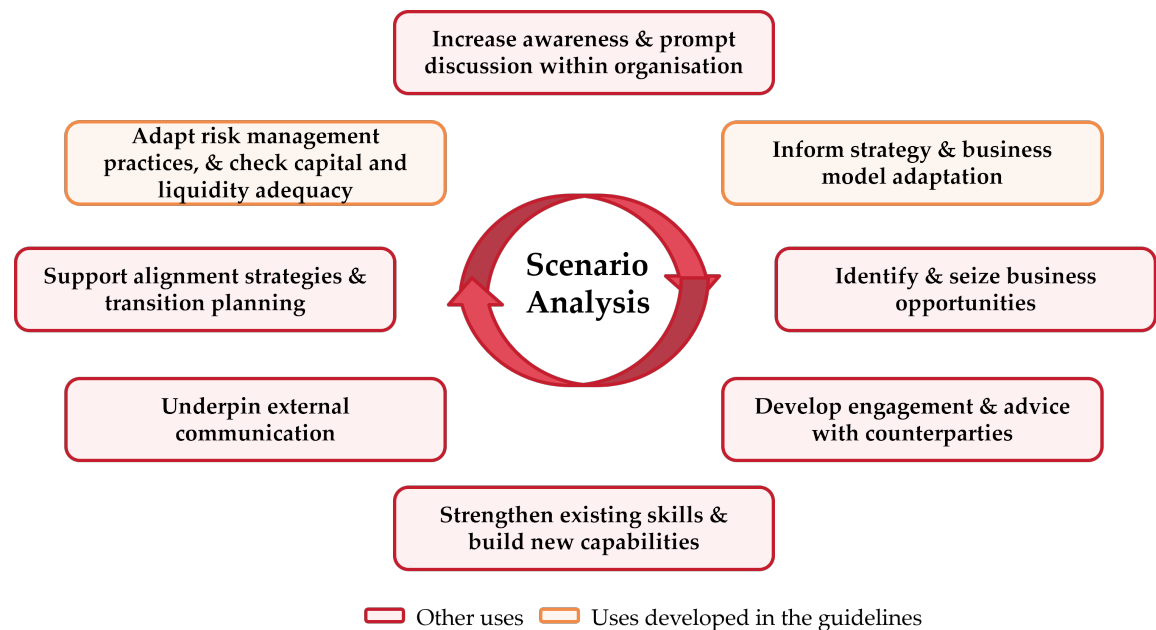


FIGURE 1: Uses of Scenario Analysis in the Banking Sector[2]

Climate Risk Drives		Sources of variability
Climate Transition Risk	Climate Physical Risk	
Microeconomic Channels <ul style="list-style-type: none">• Unprofitable or overly indebted corporate due to lack or partial transition• (Near) stranded assets• Legally liable corporate• Higher running costs for households	Microeconomic Channels <ul style="list-style-type: none">• Lower corporate profitability due to disruptions or growing physical stress• Household's income & health affected by shocks or gradual deterioration of physical conditions• Property damage• Increasing adaptation costs	Geographic/ Sectoral heterogeneity <ul style="list-style-type: none">• Exact location• Vulnerabilities and dependencies Amplifiers/ Mitigants <ul style="list-style-type: none">• Risk driver's interactions• Banks reactions• Availability and pricing of insurance• Adaptative capacity of counterparties• Availability of hedging solutions
Macroeconomic Channels <ul style="list-style-type: none">• Change in energy mix, price and use• Significant shift in prices• Productivity changes• Labor market frictions• Changes in consumer and market preferences• International trade, government revenues,...	Macroeconomic Channels <ul style="list-style-type: none">• Knock-on effects to economies• Significant shift in prices• Reduced workforce productivity• Supply chain disruption & resource scarcity• Migrations and displacements...	
Business model risk / Credit risk / Market risk / Liquidity risk / Operational risk		

TABLE 2: Summary of Climate-related Risk Transmission Channels[2]

2.2 Climate Resilience Analysis

A new proposed tool to support institutions is the Climate Resilience Analysis (CRA). This tool serves as a **forward-looking assessment of the potential impacts of distinct long-term (10+ years) climate scenarios** including both transition and physical risks on an institution’s business model feasibility and resilience. In particular, the Climate Resilience Analysis (CRA) include the following:

- Uses **"what-if" analysis** (due to limited quantitative data availability);
- Evaluates **risk-adjusted profitability** for each business unit;
- Supports institutions in defining a **strategy** that aligns with their risk appetite and transition plan objectives over the next decade;

- Progressively increasing **capital buffers** to enhance resilience to environmental risks;
- Regularly **updating risk inventories** to include newly identified climate risks;
- Conducting **targeted portfolio analyses** for segments identified as vulnerable.

Given the increasing relevance of ESG factors, regulators are intensifying efforts to integrate ESG risks into prudential supervision.

While it is essential to advance scenario analysis and ESG risk management practices, institutions must be given sufficient time to implement the necessary changes effectively.

By developing comprehensive risk management tools and methodologies, institutions can **address a wide range of emerging risks**, including:

- Epidemics;
- Human migrations;
- Ecosystem collapse;
- Species extinction;
- Terrorism and wars;
- Political instability.

These risks are often interlinked with or exacerbated by climate-related factors.

The key output of a CRA is a qualitative assessment of an institution's business model feasibility and strategic sustainability across different tested scenarios.

By implementing CRA, institutions can ensure long-term business viability, proactively adapt to evolving environmental conditions, and maximize their likelihood of achieving transition objectives.

3. Conclusions

The EBA guidelines on ESG risk management represent a fundamental step in **encouraging institutions to integrate environmental, social and governance factors into their risk management framework and business models**. The objective is to ensure the resilience and sustainability of the banking sector in the medium to long term in response to the challenges posed by climate change, the energy transition, and other ESG factors.

The **adoption of advanced methodological approaches**, the **definition of monitoring metrics**, and the **promotion of an ESG risk culture** within institutions are key elements for an effective and forward-looking risk management strategy. Institutions must also consider the relationship between these risks and the main categories of financial risk, assessing how ESG risks can act as drivers for all other risk categories within the bank. Additionally, the introduction of **scenario analysis** and **climate stress testing** will help institutions assess their exposure to ESG risks under adverse conditions and develop appropriate mitigation strategies.

To adequately assess ESG risks, banks must first **collect the necessary data** and among the different sources of data, a particularly significant role is played by the **information disclosed by counterparties** in accordance with **European Sustainability Reporting Standards** or **voluntary reporting standard** for non-listed Small and Medium-size Enterprises (SMEs). The collection of information disclosed by counterparties in accordance with such standards enables institutions to leverage **robust and homogeneous data** for the adoption of **advanced methodologies**.

Compliance with the guidelines and the gradual integration of ESG risks into corporate decision-making processes will contribute not only to financial stability but also to the transition towards a more sustainable and resilient economy, in line with European and international objectives. Moreover, institutions have a key role in supporting the transition to a sustainable economy.

Finally, adherence to these guidelines will help reduce compliance risk and reputational risk for institutions.

References

- [1] **Basel Committee on Banking Supervision.** *Discussion Paper - The role of climate scenario analysis in strengthening the management and supervision of climate-related financial risks*, April 2024.
- [2] **European Banking Authority.** *Consultation Paper - Draft Guidelines on ESG Scenario Analysis*, January 2025.
- [3] **European Banking Authority.** *Final Report - Guidelines on the management of environmental, social and governance (ESG) risks*, January 2025.
- [4] **European Banking Authority.** *Final Report on Guidelines on internal governance under directive 2013/36/EU*, July 2021.
- [5] **European Banking Authority.** *Final Report - Guidelines on loan origination and monitoring*, May 2020.
- [6] **European Banking Authority.** *Final Report - Guidelines on institutions' stress testing*, July 2018.
- [7] **European Banking Authority.** *Report on Data Availability and Feasibility of Common Methodology for ESG Exposures*, February 2025.
- [8] **European Commission.** *The European Green Deal*, December 2019.
- [9] **European Parliament and the Council.** *Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC*, June 2013.
- [10] **European Parliament and the Council.** *Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC*, June 2013.
- [11] **European Parliament and the Council.** *Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting*, December 2022.
- [12] **European Parliament and the Council.** *Directive (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ("European Climate Law")*, July 2021.
- [13] **Task Force on Climate-related Financial Disclosures.** *Task Force on Climate-related Financial Disclosures - Overview*, December 2022.

- [14] **United Nations.** *Implementing the United Nations "Protect, Respect and Remedy" Framework*, April 2011.
- [15] **United Nations.** *The Paris Agreement - United Nations - Framework Convention on Climate Change*, December 2015.
- [16] **United Nations.** *Transformation our world: The 2030 Agenda for Sustainable Development*, October 2021.

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