Final Guide on climate-related and environmental risks: Supervisory expectations relating to risk management and disclosure

European Central Bank (ECB)

www.managementsolutions.com

Abbreviations

Abbreviation	Meaning
ECB	European Central Bank
EU	European Union
EC	European Commission
UN	United Nations
SDGs	Sustainable Development Goals
SSM	Single Supervisory Mechanism
LSIs	Less Significant Institutions
NCAs	National Competent Authorities
C&E	Climate-related and environmental

Index

Introduction and context

Since the signature in 2015 of the Sustainable Development Agenda and the Paris Agreement, the EU has been making strides to promote the transition towards a sustainable economy, set in the EC´s Green Deal and Action Plan on Financing Sustainable Growth

September 2015

United Nations Sustainable Development Agenda for 2030

- In 2015 the **Sustainable Development Agenda for 2030** was established at the United Nations (UN), which sets 17 sustainable development goals (SDGs), including one regarding climate change mitigation, as well as 169 targets.

December 2015

United Nations Paris Agreement

- The **Paris Agreement** was also signed in 2015. Its mission is to reinforce the international response to the threat of Climate change and establishes the objective of a maximum temperature increase of 2ºC in the XXI century relative to preindustrial levels.

March 2018

European Commission´s Action Plan on Financing Sustainable Growth

- The financial sector is expected to play a key role in the transition towards a climate neutral economy, as established in the **European Commission's Action Plan on Financing Sustainable Growth**. This plan has three main goals:
  - Reorienting capital flows toward a more sustainable economy.
  - Mainstreaming sustainability in risk management.
  - Fostering transparency and long-termism.

December 2019

European Commission´s Green Deal

- The European Commission (EC) presented in 2019 the **European Green Deal,** which aims to promote a circular and sustainable economy, as well as to reduce the Union´s net emissions to zero in 2050.

Index

Executive summary

In this context, the ECB has published the Final Guidelines on climate-related and environmental risks, outlining the regulator's understanding of sound, effective and comprehensive management of such risks

EUROPEAN CENTRAL BANK
BANKING SUPERVISION

- Transitioning to a low-carbon and more circular economy entails important risks and opportunities for the economy and the financial system and its stakeholders. For the second year, **the European Central Bank (ECB) has identified climate-related risks as a key risk driver on the Single Supervisory Mechanism (SSM) Risk Map for the euro area banking system**.

- After the public consultation launched on May 2020, the ECB has issued the **Final Guidelines climate-related and environmental risks** outlining its understanding of sound, effective and comprehensive management of such risk sunder the current framework. The document sets the supervisory expectations on how institutions should address this matter.

Scope of application

The expectations set out in this guide are to be used in the ECB's supervisory dialogue with **significant institutions directly supervised**. Additionally, this guide has been **developed jointly by the ECB** and the **national competent authorities (NCAs)** and therefore, they are recommended to apply the expectations established in this guide in their supervision of **less significant institutions (LSIs)**, in a manner that is proportionate to the nature, scale and complexity of the activities of the institution concerned.

Supervisory expectations

The expectations set out in this guide are divided into four key pillars:

- Supervisory expectations relating to **business model and strategy**.
- Supervisory expectations relating to **governance and risk appetite**.
- Supervisory expectations relating to **risk management**.
- Supervisory expectations relating to **disclosure**.

Access the full document

Index

Supervisory expectations

Definition and concept

Climate risks can be categorised in physical and transition risks. These risks are in turn drivers of prudential risk, in particular credit risk, operational risk, market risk and liquidity risk as well as non-Pillar 1 risks such as migration risk, credit spread risk in the banking book, real estate risk and strategic risk

- Climate change and environmental degradation are sources of structural change that affect economic activity and, in turn, the financial system. Climate-related and environmental risks are commonly understood to comprise two main risk drivers: **physical risk and transition risk**.

- Climate risks impact economic activities, which in turn impact the financial system, either directly or indirectly. Additionally, climate risks can trigger other losses stemming from legal claims– liability risk- and reputational loss. Consequently, **physical and transition risks are drivers of prudential risk, in particular credit risk, operational risk, market risk and liquidity risk**, as well as **non-Pillar 1 risks** such as migration risk, credit spread risk in the banking book, real estate risk and strategic risk

Physical risk

- It refers to **the financial impact of a changing climate**, including more frequent extreme weather events and gradual changes in climate, as well as of environmental degradation, such as air, water and land pollution.
- It is categorised as "**acute**" when it arises from extreme events, and "**chronic**" when it arises from progressive shifts, such as increasing temperatures, sea-level rises, water stress, biodiversity loss, land use change, habitat destruction and resource scarcity.

Transition risk

- It refers to an **institution's financial loss that can result from the process of adjustment towards a lower-carbon and more environmentally sustainable economy**. This could be triggered, for example, by a relatively abrupt adoption of climate and environmental policies, technological progress or changes in market sentiment and preferences.

- The magnitude and distribution of physical and transition risks depend on the level and timing of mitigation measures and whether the transition occurs in an orderly or disorderly fashion. Irrespective of this, **some combination of physical and transition risks will**, in all probability, **materialise on the balance sheets** of euro area institutions and **the economic value of their exposures**.

Supervisory expectations
Overview

This guide outlines the ECB's supervisory expectations regarding climate-related and environmental (C&E) risk management, organised in four key pillars

Key pillars	Supervisory expectations
Business models and strategy	▪ **Business environment**: understand the impact of C&E risks on the business environment in which they operate in the short, medium or long term. ▪ **Business strategy**: integrate C&E risks that impact their business environment in the business strategy.
Governance and risk appetite	▪ **Management body**: the management body should consider C&E risks when developing the business strategy, business objectives and risk management framework, and exercise effective oversight. ▪ **Risk appetite**: explicitly include C&E risks in the risk appetite framework. ▪ **Organisational structure**: responsibility of C&E risks within the organisational structure in accordance with the 3 lines of defence model. ▪ **Reporting**: report aggregated risk data that reflect their exposures to C&E to the management body.
Risk management	▪ **Risk management framework**: incorporate C&E as drivers of existing risk categories into their existing risk management framework with a view to managing, monitoring and mitigating these over a long term horizon. Further, institutions should Identify and quantify these risks within their overall process of ensuring capital adequacy (ICAAP). **Credit risk**: consider C&E at all stages of the credit-granting process and monitor the risks in their portfolios. **Operational risk**: Consider adverse impact on business continuity, reputational and/or liability risks. **Market risk**: monitor impact on current market risk positions and future investments, **Liquidity risk**: incorporate into liquidity risk management and liquidity buffer calibration. **Scenario analysis and stress testing**: incorporate C&E to stress-testing scenarios risks (into their baseline and adverse scenarios)
Disclosure	▪ **Disclosure policies and procedures**: publish meaningful information and key metrics on C&E considering with due regard to the EC's Guidelines on non-financial reporting: *Supplement on reporting climate-related information*.

Supervisory expectations

Business model and strategy

The ECB expects institutions to understand the impact of C&E risks on their business environment, as well as to integrate these risks in their business strategy. Finally, this consideration should be registered and documented

- 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.

Requirements and actions

- **Identify risks arising from climate change and environmental degradation** at the level of key sectors, geographies and products and services.
- Institutions are expected to **understand how C&E risks affect their business environment in the short, medium and long term**.
- Institutions are expected to reflect the risks to their lending portfolios stemming from the transition to a more sustainable economy.
- Institutions should also take into account:
  - The relevant time horizon
  - Scientific insights
  - Monitoring of relevant policy initiatives

Documentation and reports

- Institutions are required to **document material factors that impact their business environment**, and they should be aware that C&E risks are one of these factors.
- **Document their assessments of C&E risks for their business environment**, for example in their regular monitoring of material emerging risks or in management board discussions.
- The institution's understanding of how C&E affect their business environment is expected to be **reflected in business strategy processes**, demonstrated for example by **management body meetings and discussions**.

- When **determining and implementing their business strategy**, institutions are expected to integrate climate-related and environmental risks that impact their business environment. To this end, institutions should:
  - Determine **which climate-related and environmental risks impact their business strategy in the short, medium and long term** using, for example using **stress scenario analysis**.
  - **Establishing monitoring KPIs that reflect material C&E risks** and are cascaded down to relevant business lines and portfolios in the implementation of the institution´s business strategy.

Supervisory expectations
Governance and risk appetite

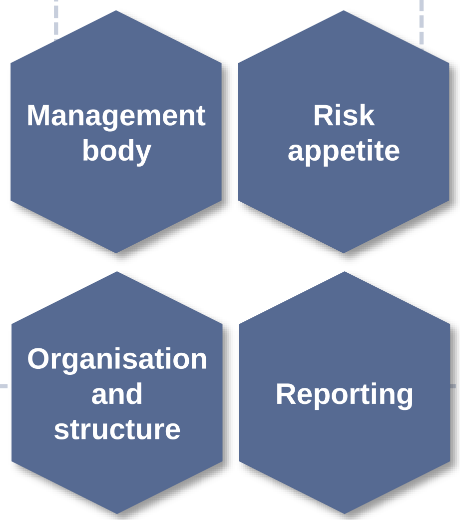
The ECB expects institutions to consider C&E risks by the management body, in the risk appetite framework, as well as within the organisational and the reporting structures

Consider C&E risks when developing the business strategy, business objectives and risk management framework, and to oversight

- Allocate roles and responsibilities
- Ensure the embedding of C&E risks in business strategy and risk management framework
- Consider specific objectives such as the Paris Agreement or the EU Green Deal
- Exercise effective oversight
- Adequate understanding of climate-related and environmental risks for a sound and effective management and disclosure of C&E to which the institution is exposed

Explicitly include C&E risks in the risk appetite framework (RAF)

- Develop a description C&E risks in their risk inventory that feeds into their risk appetite statement (RAS)
- Develop KRIs and set limits for C&E risks
- Develop metrics that consider the long-term nature of climate change, particularly different paths of temperature and GHG emissions
- Ensure that their remuneration policy stimulates behavior consistent with their C&E risk approach



Responsibility of C&E risks within the organisational structure should be distributed in accordance with the 3 LoD model

- Assign and document responsibilities for C&E risks
- Ensure these functions have appropriate resources
- Define the tasks and responsibilities of each relevant function

Report aggregated risk data that reflect their exposures to C&E to the management body

- Develop a holistic approach to data governance for C&E risks
- Adapt their IT systems to collect the necessary data
- Reflect these risks in risk reports, which also cover climate-related and environmental risks

Supervisory expectations

Risk management framework

Institutions are expected to incorporate C&E risks as drivers of existing risk categories into their existing risk management framework. Further, institutions should identify and quantify these risks within their overall process of ensuring capital adequacy

- Institutions are expected to **comprehensively analyse the ways in which C&E risks drive the different risk areas**, including liquidity, credit, operational, market **and any other material risk to capital or any of its sub-categories** that it is or might become exposed to. Furthermore, they are expected to pay particular attention to **concentrations within and between risk types** that climate-related and environmental risks may cause.
- Institutions are expected to comprehensively **include climate-related and environmental risks in their assessment of materiality** for all of their business areas in the short, medium and long-term under various scenarios.

Institutions are expected to have a **holistic and well-documented view** of the impact of C&E risks on existing risk categories (both financial and non-financial risks).

Institutions are expected to **adequately quantify the C&E risks** that the institution is exposed to. Where such quantification methodologies are subject to further developments, institutions may use plausible assumptions to develop proxies for the assessment of C&E risks.

Institutions are expected to adopt a **strategic approach** to managing and/or mitigating C&E risks in line with their business strategy and risk appetite, and to **adapt policies** (e.g. setting limits on financing certain sensitive economic sub-sectors), **procedures**, **risk limits and risk controls accordingly**.

Institutions are expected to conduct a **proper climate-related and environmental due diligence**, both at the inception of a client relationship and on an ongoing basis and to perform reasonability checks on such information and data.

Institutions are expected to **assess the impact** of C&E risks and any **concentration** within and between those risks on their **capital adequacy** from an economic and a normative perspective.

Institutions are expected to evaluate the appropriateness of their **identification**, **measurement** and **mitigation instruments** for C&E risks in their periodic reviews (e.g. in the context of the ICAAP).

Supervisory expectations

Risk management framework

Due to the fact that physical and transition risks are drivers of prudential risks[1], in particular credit, market, operational and liquidity risks, institutions are expected to integrate C&E risks on their existing risk management frameworks

Risks affected	Physical		Transition	
	Climate-related	Environmental	Climate-related	Environmental
	▪ Extreme weather events ▪ Chronic weather patterns	▪ Water stress ▪ Resource scarcity ▪ Biodiversity loss ▪ Pollution ▪ Other	▪ Policy and regulation ▪ Technology ▪ Market sentiment	
Credit	The **PD and LGD of exposures** within sectors or geographies **vulnerable to physical risk** may be impacted (e.g. lower collateral valuations in real estate portfolios).		**Energy efficiency standards** may trigger **substantial adaptation costs and lower corporate profitability**, which may lead to a higher PD as well as lower collateral values.	
Market	Severe physical events may lead to **shifts in market expectations** and could result in **sudden repricing**, **higher volatility and losses in asset values** on some markets.		Transition risk drivers may generate an **abrupt repricing of securities and derivatives**, for example for products associated with industries affected by asset stranding.	
Operational	The **bank's operations** may be disrupted due to physical damage to its property, branches and data centres as a result of extreme weather events.		Changing **consumer sentiment regarding climate issues** can lead to reputation and liability risks for the bank.	
Other risk types (liquidity, business model)	**Liquidity risk** may be affected in the event of clients withdrawing money from their accounts in order to finance damage repairs.		Transition risk drivers may affect the **viability of some business lines** and lead to strategic risk for specific business models if the necessary adaptation or diversification is not implemented. **Abrupt repricing** of securities, for instance due to asset stranding may reduce the value of banks' high quality liquid assets affecting liquidity buffers.	

(1) Source: ECB Guide on climate-related and environmental risks

Supervisory expectations
Risk management framework: Credit risk

In their credit risk management, institutions are expected to consider C&E risks at all stages of the credit-granting process and to monitor the risks in their portfolios

Credit risk management

- **C&E risks are expected to be included in all relevant stages of the credit-granting process and credit processing**. Specifically, institutions are expected to form an opinion on how these risks affect the borrower's probability of default (PD) risk, where key factors should be identified and assessed.
- Institutions are expected to **adjust risk classification procedures in order to identify and evaluate, at least qualitatively, C&E**. In this sense, institutions should define appropriate general risk indicators or ratings for their counterparties that take into account C&E. Critical exposures should be highlighted and where applicable, considered under various scenarios.
- Institutions are expected to consider **C&E in their collateral valuations**. In this regard, institutions are expected to give particular consideration to the physical locations and the energy efficiency of commercial and residential real state.
- Institutions are expected to **monitor and manage credit risks and critical CR& E risk exposure in their portfolios under different scenarios**, for example, through sectoral/geographic/single-name concentrations analysis, including credit risk concentrations stemming from climate-related and environmental risks, and using exposure limits or deleveraging strategies. For larger counterparties, institutions may consider C&E risks in the single-name concentration analysis.
- **Institutions' loan pricing frameworks** are expected to reflect their **credit risk appetite and business strategy with regard to C&E factors**. Furthermore, institutions may also consider to **incentivise their clients** to mitigate C&E risks.
- **Institutions' loan pricing** is expected to reflect the **different costs driven by C&E risks**. Environmentally sustainable assets may, for example, be funded by dedicated instruments, such as green (covered) bonds, and thus incur different funding costs. Areas exposed to increasing physical climate risks (e.g. floods or droughts) may see an increase in credit loss.

Supervisory expectations

Risk management framework: Operational and market risk management

Institutions are expected to consider how climate-related and environmental events could have an adverse impact on business continuity and should monitor the effects of C&E factors on their current market positions and future investments

Operational risk management

- Institutions are expected to consider how C&E events could have and **adverse impact on business continuity** and the extent to which the **nature of their activities could increase reputational and/or liability risks**. In this sense, institutions are expected to adopt all necessary measures to safeguard business continuity and to ensure a timely disaster recovery, both in terms of policies and the functioning of physical assets, including IT systems.
- Institutions are expected to assess the **impact of physical risks on their operations** in general, including the ability to quickly recover their capacity to continue providing services. This assessment should be conducted as part of their **business continuity management** and the outcome of this assessment is expected to be reflected in its **business continuity plan**.
- Institutions are expected to evaluate the **extent to which the nature of the activities** in which they are involved increases the risk of a negative financial impact arising from future **reputational damage, liability and/or litigation**. Institutions associated with social or environmental controversies could face negative financial impacts stemming from reputational risks as a result of changing market sentiment in relation to C&E risks. Further, institutions should review their exposure to **compliance risk regarding C&E risks** and ensure their **alignment with relevant regulation**.

Market risk management

- Institutions are expected to consider that C&E risks could lead to **potential shifts in supply and demand for financial instruments** (e.g. securities or derivatives), products and services, **with a consequent impact on their values**. **Internal stress testing** could be usefully applied to better understand and assess the relevance of climate-related risks for an institution's trading and banking book.
- In line with the nature of the ICAAP perspectives, institutions are expected to assess in the normative perspective, as a minimum, **risks arising from debt, equity and equity-related financial instruments in the regulatory trading book**, as well as **foreign exchange positions** and **commodities risk positions** assigned to both the **trading and banking book**. In the economic perspective, all instruments are expected to be assessed based on economic value considerations, irrespective of their accounting treatment.
- Special attention should be given to C&E risks' potential impact on credit spreads and commodity trading.

Supervisory expectations

Risk management framework: Liquidity risk and stress test

Institutions are expected to assess whether material C&E risks could cause net cash outflows or depletion of liquidity buffers. Further, institutions are expected to conduct a tailored an in-depth review of their vulnerabilities through stress testing

Liquidity risk management

- To ensure robust **liquidity risk management**, institutions are expected to consider the direct or indirect impacts of C&E risks on their **liquidity position**, and are encouraged to include such considerations in their **ILAAP**. In this sense, they are expected to assess whether C&E risks could have a **material impact on net cash outflows or liquidity buffers**, and in that case, incorporate this into their liquidity risk management and **liquidity buffer calibration**.
- These assessments are expected to be conducted in a **forward-looking manner**, assuming both business-as-usual and stressed conditions, and to consider in particular severe but plausible scenarios that may occur in combination, with a focus on key vulnerabilities.
- Additionally, institutions are expected to link their business strategy with the **allocation of liquidity resources**.

Stress test

- Institutions with material C&E risks are expected to **evaluate the appropriateness of their stress testing**, with a view to incorporating physical and transition risk into their **baseline** and **adverse scenarios**[1]. Specifically for transition risk, institutions are expected to use scenarios that, for different policy outcomes, embed plausible considerations for the related physical outcome[2].
- Aspects expected to be considered when conducting a **C&E scenario analysis and stress testing**:
  - How the institution might be **affected by physical and transition risk**
  - How C&E risks might **evolve under various temperature scenarios**, taking into account that these risks may not be fully reflected in historical data
  - How C&E risks **might materialize in the short, medium and long term** depending on the scenarios considered. It should include a forward-looking **timespan of minimum 3 years**
  - **Integrate potential impacts in recovery and resolution scenarios**
- In addition, institutions are expected to **define the assumptions for their own risk profile and individual specifications**, as well as **consider several scenarios** based on different combinations of assumptions.
- Further, as part of their **capital planning**, institutions are expected to assess their capital adequacy under a plausible baseline scenario and institution specific adverse scenario.

(1) Institutions are expected to consider using scenarios that are in line with scientific climate change pathways, such as IPCC scenarios.

(2) These aspects should be reflected in an institutions' ICAAP.

Supervisory expectations
Disclosure

Institutions are expected to publish meaningful information and metrics on C&E risks, considering as a minimum EC's *Guidelines on non-financial reporting: Supplement on reporting climate-related information*

- For the purposes of their regulatory disclosures, institutions are expected to **publish meaningful information and key metrics** on C&E risks that they deem to be material, with due regard to the *European Commission's Guidelines on non-financial reporting: Supplement on reporting climate-related information*. In this regard:
  - Institutions are expected to specify in their disclosure policies key considerations that inform their **assessment of the materiality of C&E risks**, as well as the frequency and means of disclosures.
  - In case an institution deems climate-related risks to be **immaterial**, the institution is expected to document this judgement with the available **qualitative and quantitative information underpinning** its assessment.
  - When institutions disclose figures, metrics and targets as material, they are expected to **disclose the methodologies, definitions and criteria** associated with them.
  - When institutions commit to contribute to C&E goals, they are also expected to provide a **comprehensive overview of the climate and the environmental impact of the entity as a whole**.

Content of C&E risk disclosures

- Disclose climate-related risks that are financially material in line with the EC's *Guidelines on non-financial reporting: Supplement on reporting climate-related information*, which integrate the recommendations of the TCFD and is consistent with the NFRD.
- Disclose the institution's Scope 3 GHG emissions for the whole group in line with the GHG Protocol.
- Disclose the KPIs and KRIs used for the purposes of their strategy-setting and risk management, as well as their current performance against these metrics.
- Explicitly consider the need for further disclosures.

Index

Relevant information and next steps

The guide will be primarily used in the supervisory dialogue with significant institutions directly supervised, although NCAs are recommended to apply it in their supervision of LSIs

- This Guide is applicable since its **date of publication**.
- As part of the supervisory dialogue, **from early 2021**, significant institutions will be asked by **Joint Supervisory Teams** to inform the ECB of any existing divergences in their practices from the supervisory expectations described in this guide and to inform the ECB of arrangements aimed at progressively addressing these expectations.

Correspondence with the ECB's general prudential framework:

- This guide describes the ECB's understanding of the safe and prudent management of C&E risks under the current prudential framework. In that respect, the following regulation is particularly relevant:
    - **Capital Requirements Directive (CRD)** - Directive 2013/36/EU of the European Parliament and of the Council on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.
    - **Capital Requirements Regulation (CRR)** - Regulation (EU) No 575/2013 of the European Parliament and of the Council of on prudential requirements for credit institutions and investment firms.
- Additionally, the EBA has adopted several guidelines which complement the abovementioned directives. Where the ECB's guide makes reference to those guidelines, the reference should be read in conjunction with the directives.