EUROPEAN CENTRAL BANK

BANKING SUPERVISION

The importance of being transparent

A review of climate-related and environmental risks disclosures practices and trends

Results of the 2022 supervisory assessment of institutions' climate-related and environmental risks disclosures

April / 2023

BANKENTOEZICHT
BANKTILLSYN BANKU UZRAUDZĪBA
BANKŲ PRIEŽIŪRA NADZÓR BANKOWY
VIGILANZA BANCARIA BANKFELÜGYELET BANKING SUPERVISION
SUPERVISION BANCAIRE BANČNI NADZOR
MAOIRSEACHT AR BHAINCÉIREACHT NADZOR BANAKA
BANKING SUPERVISION
PANGANDUSJÄRELEVALVE SUPERVISÃO BANCÁRIA
BANKOVNÍ DOHLED
БАНКОВ НАДЗОР BANKTILSYN
BANKENAUFSICHT
ΤΡΑΠΕΖΙΚΗ ΕΠΟΠΤΕΙΑ PANKKIVALVONTA
SUPRAVEGHERE BANCARĂ BANKOVÝ DOHĽAD
SUPERVIŻJONI BANKARJA
SUPERVISIÓN BANCARIA
BANKING SUPERVISION SUPERVISÃO BANCÁRIA BANKENAUFSICHT

Contents

Executive summary

As part of the supervisory work on the transparency of banks' risk profiles, the European Central Bank (ECB) is publishing its third review of the disclosure of climate-related and environmental (C&E) risks among significant institutions (SIs) and a selected number of less significant institutions (LSIs). The assessment of C&E risk management and disclosures was highlighted as one of the supervisory priorities for 2023-25 and is based on the expectations set out by the ECB in its Guide on climate-related and environmental risks (the Guide), which was published in November 2020 to ensure that the banking sector discloses C&E risks effectively and comprehensively. In 2023, the SIs within the scope of application of the Commission Implementing Regulation henceforth referred to as the European Banking Authority (EBA) Implementing Technical Standards (ITS) on Pillar 3 disclosures on environmental, social and governance (ESG) risks[1] will be required to disclose information as per the Annexes of the ITS, with reference date 31st of December 2022.

The assessment covered the existence, substantiation and soundness of disclosures across key areas of the expectations, including materiality assessment, business model and strategy, governance, risk management, and metrics and targets, as per the ECB Guide expectation 13. The review was conducted by the ECB and national competent authorities (NCAs) and covered 103 SIs and 28 LSIs. In addition, the disclosures of 12 global systematically important banks (G-SIBs) established outside the European Union (EU) were benchmarked against the disclosures of the EU banks within the scope of the assessment. This report describes the main findings of the review for all these institutions.

The outcome of this exercise shows that the majority of SIs now disclose at least basic information for most of the expectations. Most banks have now improved their public disclosures to address C&E risks, having clearly built up their capabilities in 2022. Most banks disclose basic information on materiality assessments and governance, and more than half of the banks disclose basic information on business strategy, risk management, and metrics and targets. However, banks still need to close remaining gaps to disclose all relevant C&E risk information as only 34% of the banks disclose information on all categories.

Notwithstanding the better provision of information, the quality thereof remains low and is unlikely to provide market participants with insights on which they can act. While significant progress could be observed across the board as regards the existence of disclosures for all categories, most of the additional information available to users remains qualitative and often generic. Overall, for three-quarters of the institutions the level of substantiation of the disclosures was deemed insufficient. For example, only a third of institutions describe the strategic

1 Commission Implementing Regulation (EU) 2022/2453 of 30 November 2022 amending the implementing technical standards laid down in Implementing Regulation (EU) 2021/637 as regards the disclosure of environmental, social and governance risks, OJ L 324, 19.12.2022, p. 1–54.

impact on their institution, drawing a clear link between the risks and the resilience of the business model. Moreover, even where metrics and targets are disclosed, banks often provide limited information on portfolio coverage and definitions and methodologies used to produce the respective information. For example, for banks that disclose their financed emissions, there is very rarely a reference to the reporting date of the underlying data, and when there is one, it is often outdated. Furthermore, most banks failed to disclose how their metrics have informed their strategy-setting and risk management. When comparing the information disclosed by banks and the information provided during the ECB's 2022 climate risk stress test and the 2022 thematic review on C&E risks, it could also be observed that much of the internal information, often relevant in the context of the Guide's expectations, is not disclosed or only partially disclosed.

Institutions need to comply with the binding Pillar 3 disclosure standards, which the ECB will closely scrutinize. In 2023, the SIs within the scope of application of the EBA ITS will be required to disclose information with reference date 31st of December 2022. While it could be observed that a number of institutions have already disclosed information relevant in the context of the ITS, such as portfolio alignment metrics and exposures to specific sectors, the overall level of disclosures demonstrates low preparedness.

Banks were asked to inform the ECB how they intend to address the identified shortcomings in their forthcoming disclosures and about their ongoing and planned preparatory actions to comply with the EBA ITS. Compliance with the ITS will be subject to further supervisory scrutiny and follow-up in accordance with the respective dates of implementation.

The ECB has identified a group of institutions that persistently lag behind in their disclosures. While in 2021 disclosures were assessed as insufficient overall for 45% of banks, this is now the case for only 15% of banks, of which six were assessed as insufficient in all disclosure categories. These six banks provided climate-related information that either does not relate to any kind of risk assessment or relates only to their own operations and does not cover the banks' portfolios. These banks have not yet adequately reflected supervisory feedback and have not demonstrated preparedness for the level of disclosures required by the applicable regulatory framework that require better disclosures considering also relevant industry initiatives.

While not yet aligned with supervisory expectations, the disclosures of the largest European banks outperform global peers across the board, when assessing those against the ECB standards. A deep dive assessment of C&E risk disclosures performed on 30 G-SIBs, of which 22 with a parent entity outside the EU, found that, overall and for all assessed categories, G-SIBs with a parent in the EU performed better than the others. Notwithstanding a noteworthy amount of C&E-related information disclosed by all G-SIBs, and in particular by a number of Asian and North American banks, some differences were observed in terms of disclosures of materiality assessment, risk management, and metrics and targets, showing different levels of advancement across the board. It was also observed that most of the non-EU G-SIBs with a subsidiary directly supervised by the ECB do not always include in their public disclosures the necessary information pertaining solely to their subsidiaries in the EU.

A sample of LSIs from four countries was assessed as part of the exercise. It was observed that most of them disclose hardly any meaningful information on C&E risks. In particular, 80% of the LSIs within the scope of this exercise were scored inadequate or somewhat inadequate in disclosing C&E risks. However, a small group of institutions managed to achieve an adequate score, in spite of potentially higher resource constraints owing to their small size.

Finally, the ECB has identified a set of observed practices originating from a range of institutions across various business models and sizes to align their practices with the supervisory expectations. Several examples of visualisation and substantiation of C&E risk indicators and information are provided in this report, which could be useful for users. Some tables and charts were found to provide summarised but very clear and transparent information on the identification and management of C&E risks. While they do not constitute a supervisory validation of the content of the disclosures, they illustrate the different ways that SIs could consider in the effort to align their practices with the supervisory expectations set out in the Guide.

1 Organisation of the review

1.1 Background

Regulatory developments

In 2021 the European Commission adopted Commission Delegated Regulation (EU) 2021/2178[2] pursuant to Article 8 of Regulation (EU) 2020/852 (the Taxonomy Regulation)[3]. In addition, Directive (EU) 2022/2464 was adopted in 2022 (the Corporate Sustainability Reporting Directive (CSRD))[4] aimed at strengthening the disclosure framework set out in the Non-Financial Reporting Directive (NFRD)[5]. The CSRD envisages the adoption of EU Sustainability Reporting Standards (ESRS). In this context, the CSRD envisages that when adopting sustainability reporting standards, the Commission should take account of technical advice that the European Financial Reporting Advisory Group (EFRAG) will develop. In April 2022 EFRAG released for public consultation (which expired in August) the Exposure Drafts of a set of ESRS "core standards" composed of cross-cutting standards and topical standards. The new standards will enter into force on June 2023 (core standards for large undertakings) and June 2024 (complementary standards and sector-specific standards as well as standards for listed small and medium-sized enterprises (SMEs) and small and non-complex institutions).

The final EBA ITS on Pillar 3 disclosures on ESG risks were published on 24 January 2022. The ITS contain tables, templates and instructions that specify the requirement set out in Article 449a of the Capital Requirements Regulation (CRR)[6] to disclose prudential information on ESG risks, including transition and physical risks, addressed to large institutions with securities traded on a regulated market of any EU Member State. The ITS include: (i) tables for qualitative disclosures on ESG risks, (ii) templates for quantitative disclosures on climate change transitional risk, (iii) a template for quantitative disclosures on climate change physical risk, and (iv) templates for quantitative information and key performance indicators (KPIs) on climate change mitigating measures, including the green asset ratio (GAR) and the

---

2 Commission Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation (OJ L 443, 10.12.2021, p. 9-67).

3 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13-43).

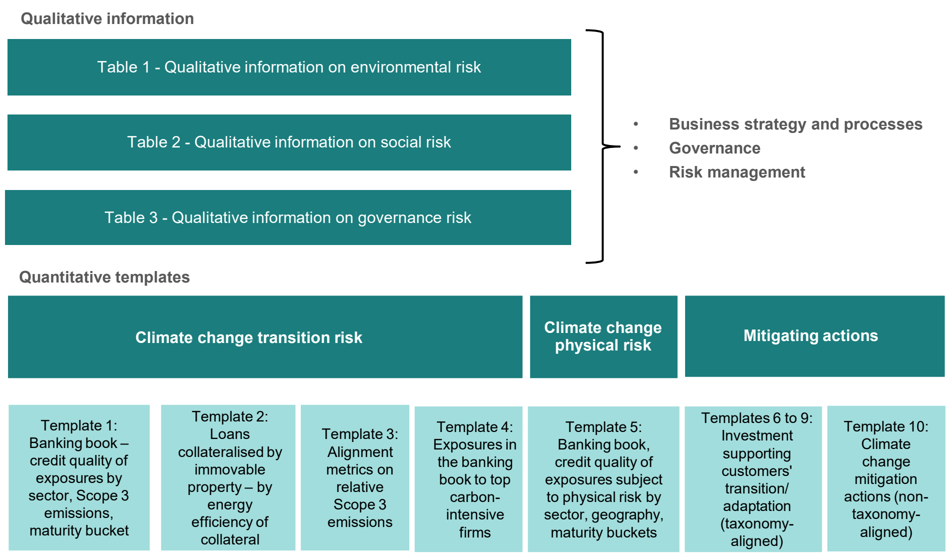
4 Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting (OJ L 322, 16.12.2022, p. 15).

5 Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups (OJ L 330, 15.11.2014, p. 1).

6 Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

banking book taxonomy alignment ratio (BTAR). Figure 1 provides an overview of the ITS on ESG disclosures.

Figure 1
Overview of the EBA ITS on ESG disclosures



Source: EBA Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CRR.

The ITS are applicable to large institutions with traded securities and provide for the disclosure of an ambitious range of metrics, for instance in relation to financed emissions, alignment metrics and physical risk. Institutions must disclose this information from June 2022. The first disclosure will take place on an annual basis, and thereafter disclosures will take place biannually. This means that the first disclosure will take place in 2023 with a disclosure reference date of 31 December 2022. Out of the total sample of banks, 88 significant supervised institutions were deemed as falling under the scope of application of Pillar 3 ITS information disclosure.

Supervisory developments

In the Guide on C&E risks, the ECB published a set of supervisory expectations related to disclosures, based on the provisions of Article 431 et seq. of the CRR. The expectations cover not only the content of the disclosures, but also the policies, processes, methodologies, definitions and criteria associated with them. In terms of content, institutions are expected to disclose C&E risks that are material, giving due regard to the Commission's Guidelines on non-financial reporting: Supplement on reporting climate-related information. They are expected to disclose their greenhouse gas (GHG) emissions for the whole group, including downstream emissions, as well as the KPIs and key risk indicators (KRIs) they use for strategy-setting and risk management.

As set out in the Single Supervisory Mechanism (SSM) supervisory priorities for 2023-2025, banks should adequately incorporate C&E risks within their business strategy and their governance and risk management frameworks in order to mitigate and disclose such risks, aligning their practices with current regulatory requirements and supervisory expectations. The results of the ECB's 2022 climate risk stress test and the 2022 thematic review on C&E risks demonstrated that banks are making progress in incorporating C&E risks into their business operations, risk management frameworks and disclosure practices. However, many gaps remain relating to, among other things, the lack of robust materiality assessments of banks' exposures to C&E risks, the development of appropriate data governance and risk quantification approaches, performance and risk appetite indicators, limits and thresholds, and robust climate risk stress-testing frameworks. Against this background, supervisors will follow up on the shortcomings identified during these exercises, monitor progress and take enforcement action if necessary. In addition, supervisors will perform targeted deep dives and on-site inspections, assess banks' compliance with new ITS reporting on Pillar 3 disclosure requirements and alignment with supervisory expectations, and prepare for the review of banks' transition planning capabilities.

1.2 Scope of the assessment and methodology

1.2.1 Scope of the assessment

103 SIs under the direct supervision of the ECB were assessed at the highest level of consolidation based on information set at November 2022. In addition, 28 LSIs under the supervision of national authorities from four Member States were also assessed by their respective national competent authorities. The table below describes the structure of the sample of SIs and LSIs in terms of their country of origin and asset size. It should be noted that, whenever any observation in the report concerns LSIs, this will be explicitly mentioned; in all other cases, the use of the term "institutions" refers solely to SIs.

Table 1

Structure of the sample of SIs and LSIs by country and asset size

	AT	BE	BG	CY	DE	EE	ES	FI	FR	GR	IE	IT	LT	LU	LV	MT	NL	PT	SI	Total
> €500 billion assets	0	0	0	0	2	0	3	1	5	0	0	2	0	0	0	0	2	0	0	15
€100 - €500 billion assets	2	2	0	0	7	0	3	1	3	0	3	4	0	0	0	0	2	1	0	28
€30 - €100 billion assets	3	3	0	0	12	0	4	1	2	4	2	6	0	2	1	0	3	2	0	45
< €30 billion assets	1	0	1	2	0	2	0	0	0	0	0	0	2	1	2	2	0	0	3	16
Number of SIs	6	5	1	2	21	2	10	3	10	4	5	12	2	3	3	1	7	3	3	103
LSIs							4		6			9					9			28

Source: 2022 disclosures exercise.

Furthermore, the consolidated disclosures of 22 G-SIBs with a parent based outside the EU (non-EU G-SIBs) were considered as part of this exercise for benchmarking purpose.

1.2.2 Methodology

This report is based on a supervisory assessment of institutions' publicly available disclosures with a reference date of the end of 2021, or a later date where available.[7] The information typically considered in the assessment included: annual reports, non-financial reports, sustainability reports and Pillar 3 reports. For consistency with other supervisory exercises performed in 2022, the ECB also considered the documents submitted by the institutions in the context of its 2022 thematic review on C&E risks and the 2022 climate risk stress test. The supervisory assessment was conducted by the Joint Supervisory Teams (JSTs) and centrally reviewed to ensure consistency and a level playing field.

Table 2

List of questions assessed as part of the review

Topic	Question
Materiality	Does the institution disclose that its exposure to climate-related and/or environmental risks is material?
Business model	Does the institution describe the potential strategic impact of transition risks on its business model in the short and long term?
Business model	Does the institution describe the potential strategic impact of physical risks on its business model in the short and long term?
Business model	Does the institution describe the way its business model affects the climate?
Governance	Does the institution describe the board's oversight of climate-related and/or environmental risks?
Governance	Does the institution describe the management's role in assessing and managing climate-related risks?
Risk management	Does the institution describe the organisation's processes for identifying, assessing and managing climate-related and/or environmental risks?
Risk management	Does the institution make any reference to the use of risk management tools to manage climate and/or environmental risks?
Risk management	Does the institution describe how climate-related risk considerations are embedded in the management of credit risk, market risk and operational risk?
Risk management	Does the institution disclose any information about its portfolio exposure to other environmental risks (e.g. pollution, biodiversity risk)?
Risk management	Does the institution describe its exposures to sectors perceived as contributing to climate change, which might create reputational risks for the financial institution?
Metrics and targets	Does the institution disclose a key performance indicator or key risk indicator relating to C&E risks?
Metrics and targets	Did the institution have a climate-related and/or environmental target related to its portfolios that was active in the reporting year?
Metrics and targets	Does the institution disclose its assets committed in regions likely to become more exposed to acute or chronic physical climate risks?
Metrics and targets	Does the institution disclose its Scope 3 financed emissions?
EBA ITS	Does the institution disclose qualitative information related to social risk?
EBA ITS	Does the institution disclose qualitative information related to governance risk?
EBA ITS	Does the institution disclose a breakdown of exposures per NACE sector code in the most relevant climate-sensitive sectors?
EBA ITS	Does the institution disclose information about energy performance certificates (EPCs) of its real estate portfolios?

7 The latest available documents as at 25 November 2022 were considered.

Topic	Question
EBA ITS	Does the institution disclose the alignment of some of its portfolios?
EBA ITS	If the institution discloses Scope 3 financed emissions, what type of exposures are covered?
EBA ITS	Does the institution disclose information about its exposure to the top 20 carbon-intensive firms in the world?
EBA ITS	Does the institution disclose general information related to its EU taxonomy-aligned exposures?

Source: 2022 disclosures exercise.

Compared to the previous exercise, the ECB took a further step in its 2022 climate risk disclosures assessment in order to capture not only whether some information on climate risk is publicly available, but also what kind of information is disclosed by banks. Therefore, the ECB assessed three different dimensions related to Expectation 13.3 of the Guide and consistency with other supervisory exercises for each of the following categories: materiality assessment, business model and strategy, governance, risk management, and metrics and targets.

Table 3
Description of the three assessment dimensions

Dimension	Explanation
Existence	Refers to the information disclosed by the institution and its level of granularity to inform about its exposure to C&E risks, its processes and governance arrangements to manage these risks, and its key risk and performance indicators. The information is based on Expectation 13 of the Guide.
Substantiation	Refers to the methodologies, definitions and criteria associated with the C&E risk figures, metrics and targets disclosed by the institution and is based on Expectation 13.3 of the Guide.
Soundness	Refers to the coherence between information that is publicly disclosed and what the institution has in place internally in the light of the available supervisory information collected inter alia as part of the 2022 thematic review on C&E risks and the 2022 climate risk stress test.

Source: 2022 disclosures exercise.

To review the adequacy of banks' alignment with Expectation 13.3 of the Guide, only the existence and substantiation dimensions were considered in the scoring applied to banks. As such, **adequate scores should not be understood as full alignment of the bank with the supervisory expectations in their internal C&E risks identification and management processes**, but rather as a recognised capacity of a bank to disclose specific information on C&E risks and to substantiate it, regardless of its veracity. However, in cases where JSTs identified a discrepancy between external communications of the bank and their supervisory knowledge of the bank, it was duly communicated to the bank in the feedback letter.

Scores are categorised as follows:

- **Adequate**: the bank discloses relevant C&E risk information in line with Expectations 13.4 to 13.7 of the Guide and somewhat substantiates that information in line with Expectation 13.3 of the Guide.
- **Broadly adequate**: the bank discloses some C&E risk information in line with Expectations 13.4 to 13.7 of the Guide, but it is either not comprehensive or not sufficiently substantiated.

- **Somewhat inadequate**: the bank discloses minimal C&E risk information in line with some of Expectations 13.4 to 13.7 of the Guide, but it is not sufficiently substantiated.

- **Inadequate**: the bank does not disclose C&E risk information in line with some of the Expectations 13.4 to 13.7 of the Guide or the information is irrelevant in the context of the Guide or the information is not substantiated at all.

1.3 Follow-up of the assessment

Banks were informed of the outcome of the ECB's analysis of the shortcomings in their disclosures via individual feedback letters. They are expected to further advance their C&E risk disclosures and to ensure that they comprehensively convey their risk profile and disclose information that is material. In particular, the ECB expects banks to take decisive action to address the shortcomings set out in the feedback letter in their posterior disclosures. Furthermore, banks were asked to inform the ECB on how they intend to address the identified shortcomings in their forthcoming disclosures and of their ongoing and planned preparatory actions to comply with the EBA ITS[8].

The SSM supervisory priorities for 2023-2025 refer to the strategic objective that banks adequately incorporate C&E risks in their business strategy and their governance and risk management frameworks in order to mitigate and disclose such risks. As such, a further review of banks' compliance with new ITS reporting and Pillar 3 disclosure requirements related to C&E risk, including benchmarking of banks' practices against supervisory expectations, is planned for 2023 and 2024.

Furthermore, in a context of increasing public commitments to net zero, further supervisory investigations will target the soundness of banks' disclosures and how these align with their internal practices.

8 Commission Implementing Regulation (EU) 2022/2453 of 30 November 2022 amending the implementing technical standards laid down in Implementing Regulation (EU) 2021/637 as regards the disclosure of environmental, social and governance risks (OJ L 324, 19.12.2022, p. 1).

2 State of institutions' climate and other environmental risk disclosures

2.1 General observations

2.1.1 Overall results

Overall, the assessment shows that banks have made clear progress in various areas compared with 2021, at least in terms of the existence of disclosures. Most banks have now improved their public disclosures to address C&E risks, having clearly built up their capabilities in 2022. This broadly reflects the observations made in the 2022 thematic review on C&E risks, which found that most institutions have devised an institutional architecture to address C&E risks.

For example, while only slightly more than a third of banks disclosed that their exposure to C&E risks was material in 2021, the percentage of banks making such a disclosure – at least for some risks or in general terms – is now 86%. Progress has also been made in relation to all other expectations. When also assessing whether the disclosures made are adequate or somewhat adequate, the picture becomes more mixed. Disclosures are particularly well-advanced both in terms of existence and substantiation with regard to board oversight, internal processes, KPIs and KRIs. On the other hand, while half of the banks make disclosures relating to Scope 3 financed emissions, in 85% of cases these are not (broadly) adequate. Overall, a mere 5% of banks made adequate or somewhat adequate disclosures on all of Expectations 13.4 to 13.6. Therefore, banks should continue their efforts to make disclosures that go beyond generic information.

Table 4

Institutions disclosing C&E risk information in line with Expectation 13 and its sub-expectations in 2022 compared to 2021

Expectation	Disclosure practices	2021	2022	
		Existence of disclosures	Existence of disclosures	Adequate and broadly adequate disclosures*
13	Does the institution disclose that its exposure to climate-related and environmental risks is material?	36%	86%	24%
13.4	Does the institution describe the potential strategic impact of transition risks in the short or long term?	41%	60%	37%
	Does the institution describe the board's oversight of climate-related and environmental risks?	71%	97%	50%
	Does the institution describe the organisation's processes for identifying, assessing and managing climate-related and environmental risks?	71%	92%	41%
	Percentage of institutions that disclose all of the information set out in Expectation 13.4	39%	58%	21%
13.5	Does the institution disclose its Scope 3 financed emissions?	15%	50%	16%
13.6	Does the institution disclose its key performance indicators or key risk indicators associated with its strategy-setting?	49%	75%	46%
Percentage of institutions that disclose all of the information set out in Expectations 13.4 to 13.6		6%	34%	6%
13.7	Does the institution disclose key information on environmental risks other than climate-related risks?	25%	35%	17%

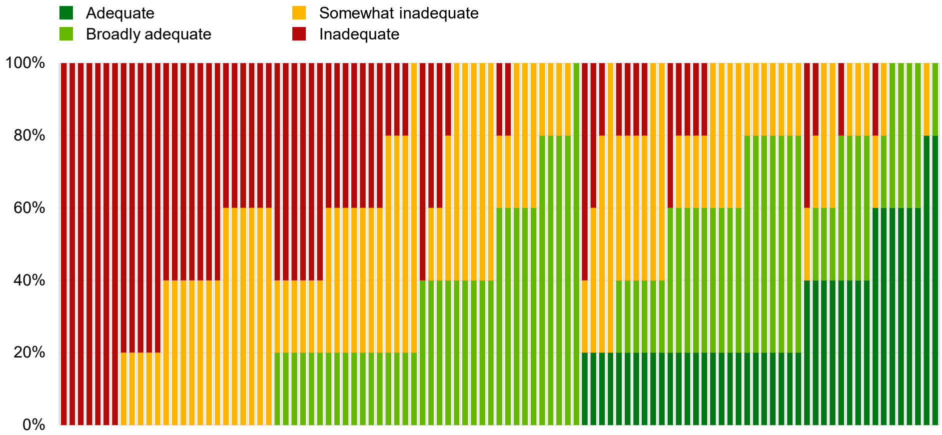
Source: ECB.
Notes: Supervisory assessment based on disclosures from 103 institutions with a reference date of end-2021, or later where available. Data for 2021 are from the 2022 disclosures report.
* The last column considers all banks that fulfilled minimum criteria with regard to existence and minimum requirements with regard to substantiation.

Notwithstanding the development of good practices in many areas, most institutions still need to make significant efforts to transparently disclose their exposures to C&E risks and further substantiate the disclosure of the practices they have put into place to mitigate C&E risk. Banks disclose that structures and methodologies to manage and mitigate C&E risks have been put into place, but these are not substantiated, detailed, or exemplified in their public reports. In fact, the assessment found that only seven banks disclose broadly adequate or adequate information for all five categories and most institutions have insufficient disclosures in one or several categories under investigation. Six banks were identified as having insufficient disclosures for all categories.

Chart 1

Adequacy of banks' C&E risks disclosures across categories

(Percentage per bank of alignment of supervisory expectations for the disclosure of 5 categories: materiality assessment, governance, business model, risk management and metrics and targets)



Source: ECB.

An assessment of the different categories shows that banks now disclose more meaningful C&E risk information pertaining to governance and risk management, with more than half of the sample being broadly adequate or adequate in these two categories. However, banks' disclosures in the business model and metrics and targets categories remain insufficient, with almost half of banks achieving an inadequate score. This is in line with the ECB's findings from previous C&E risk reports, as many banks have set up procedures surrounding C&E risk management when it comes to remuneration, requirements for hiring and electing management and board members, governance structures, etc. However, we do not see the same progress in the other categories. For example, the disclosure of metrics and/or targets used by banks to calculate and manage C&E risks is deficient or, in almost half of the banks assessed, practically absent. As of yet, not one institution is publicly disclosing metrics and targets that are deemed adequate. Moreover, 74% of banks share insufficient information on how or, more specifically, how much their portfolios will be affected.

What we can conclude from these findings is that at this point in time external stakeholders are not given sufficient information on how banks could be affected by C&E risks, how they monitor these risks, which scenarios have been used, and how their business strategies have been amended following their findings.

Box 1

The importance of naming climate-related risks

The ECB values clear references to C&E risks in banks' disclosures. As an apocryphal quote from Albert Camus states, to misname things is to add to the world's unhappiness. Using generic and sometimes inconsistent terminology across the same report may not provide enough detail on the specific risks related to climate change. Furthermore, while the term "ESG" has spread significantly in banks' reports, it should always be clearly reported to what extent this specifically encompasses C&E risks. In many of the disclosures assessed, this is not specified for many of the disclosure categories, such as materiality, governance, strategy and risk management. This dilutes the risk concept and is not consistent with the supervisory expectation.

2.1.2 Laggards

The ECB assessment found that 16 banks still had inadequate C&E risk disclosures overall, both in terms of their existence and in terms of substantiation. Six banks were assessed as inadequate in all five categories: materiality assessment, business model and strategy, governance, risk management, and metrics and targets.

It was noted that, of the banks that were scored as overall inadequate, 14 fall under the scope of application of the EBA ITS on Pillar 3 and 8 of them have made net-zero commitments, casting doubt on their capacity to rapidly develop meaningful and credible disclosures associated with such standards and commitments.

2.1.3 Observations on preparedness for EBA ITS

Social risk is defined as the risk of losses arising from any negative financial impact on the institution stemming from the current or prospective impacts of social factors on the institution's counterparties or invested assets. The ITS on ESG disclosures require banks to disclose qualitative information on social risk with respect to their business strategy and processes, governance and risk management. Out of the banks falling under the scope of the ITS, 68% already disclose at least partial information on social risk. The disclosed information focuses mainly on banks' own activities and lacks detail on the social risk associated with banks' counterparties. Where such information was disclosed, it was often high-level and covered only some of the sectors of social risk. For example, institutions disclosed the responsibilities of the management body regarding governance of social risk or high-level processes in place for the management and monitoring of social risk. Few banks disclosed the methodology used for assessing social risk, and even in those cases the disclosures covered only partial information and lacked detail on the strategy to mitigate social risk. It was observed that social information was generally given in the context of sustainability reporting and not disclosed from a risk perspective.

Governance risk is defined as the risk of losses arising from any negative financial impact on the institution stemming from the current or prospective impacts of governance factors on the institutions' counterparties or invested assets. The ITS on ESG disclosures require banks to disclose qualitative information on governance risk with respect to their governance and risk management. This includes information on the integration in the institution's governance and risk management arrangements of the governance performance of the counterparty, covering ethical considerations, strategy and risk management, inclusiveness, transparency, management of conflicts of interest and internal communication on critical concerns. 60% of the banks within the scope of the EBA ITS already disclose at least partial information related to governance risk, which is similar to the figure for social risk. Most banks do not yet disclose in a comprehensive manner the relevant qualitative information on their methodologies regarding governance risks. When information on methodology was disclosed, it was done broadly, covering only partial information disclosed and without details on the strategy to mitigate governance risk associated with counterparties. For example, the disclosure may refer to the governance arrangements around sustainability but is not explicit about the role of the management board in managing governance risk, or the institution may disclose some of the governance risks that may affect their counterparties, but provides no specific reporting or indicators related to this.

The assessment also reviewed how banks might already be disclosing some quantitative metrics. The ITS on ESG disclosures contain ten quantitative templates related to climate change transition risk and physical risk, KPIs on taxonomy-aligned exposures, mitigating actions, the GAR and the BTAR, some of which with a phase-in approach.

Template 1 of the ITS requires banks to disclose a *breakdown of exposures per Nomenclature of Economic Activities (NACE)*[9] *sector code in the most relevant climate-sensitive sectors*. This template provides information on the credit quality of exposures by sector, emissions and residual maturity. While the information on financed emissions is required to be disclosed at the latest by June 2024 disclosure reference date and the gross carrying amount of environmentally sustainable exposures at the latest by December 2023 disclosure reference date, the rest of the template is to be disclosed as of the 31 December 2022 disclosure reference date. Only few banks disclosed a full breakdown of exposures by NACE sector, and 24% of banks disclosed this information partially. When disclosed, the information was often only disclosed at level 1 NACE code, and without details on GHG emissions. Some banks also omitted the exact NACE codes from their disclosures.

Banks subject to the EBA ITS disclosures are required to disclose information on the *energy efficiency of the collateral of loans collateralised by immovable property* in Template 2[10] of the ITS. Few institutions are disclosing this information: out of the banks in the ITS sample, only 21% banks disclosed this information, with 8% banks disclosing this information for both commercial and residential real estate. In the ITS, banks are expected to disclose this information as of 2023, including the percentage of exposures for which, in the absence of an EPC label for the collateral, they are providing estimates.

Template 3[11] of the ITS requires banks to disclose *alignment metrics for indicators of potential climate change transition risk* by sector. Around 32% of banks within the scope of the ITS sample disclosed alignment of some of their portfolios, using

9 The Statistical Classification of Economic Activities in the European Community, commonly referred to as NACE (from the French term "nomenclature statistique des activités économiques dans la Communauté européenne"), is the standard industry classification system used in the EU.

10 Template 2: Banking book – Indicators of potential climate change transition risk: Loans collateralised by immovable property – Energy efficiency of the collateral.

11 Template 3: Banking book - Indicators of potential climate change transition risk: Alignment metrics.

methodologies like the Paris Agreement Capital Transition Assessment (PACTA). Most banks disclosing this information (14%) reported the International Energy Agency (IEA) Net Zero Emissions by 2050 (NZE2050) scenario referred to in the ITS as the benchmark scenario. However, it was observed that the disclosed information was at a high level or figures were disclosed only for a selected number of sectors.

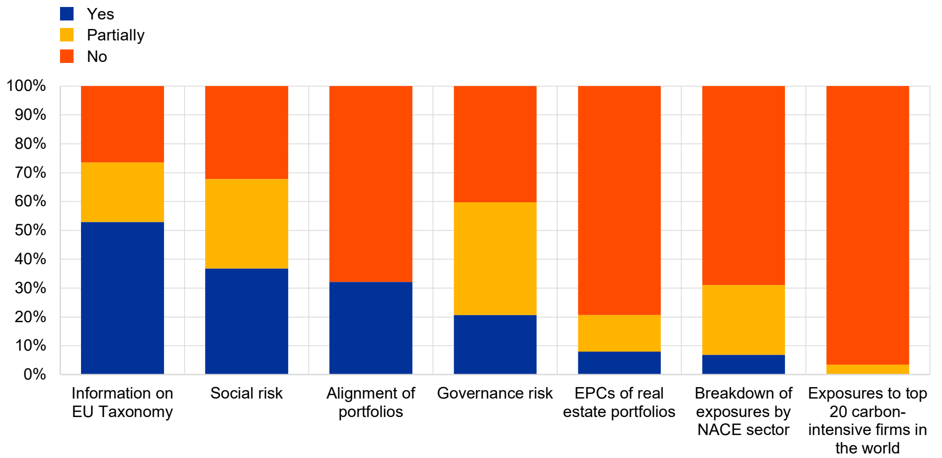
The EBA ITS on ESG disclosures require banks to disclose their *exposures to the top 20 carbon-intensive firms in the world* in Template 4[12]. No institution in the sample has yet disclosed its exposures in the banking book to the top 20 carbon-intensive firms in the world, and only three institutions disclosed this information partially. The disclosed information was restricted to a high-level assessment of the bank's exposures to one or more select carbon-intensive sectors, with the exposures to such sectors being assessed as limited.

Most banks (74%) have started disclosing *general information related to their EU taxonomy-aligned exposures*. Around half of the institutions (53%) disclosed both qualitative and quantitative information. 15% of institutions disclosed only qualitative information and 6% only quantitative information. While a few banks already disclosed their GAR or an estimate thereof, it was observed that most of the disclosed information was general and not yet at the level required in the ITS. For example, the disclosure may include information about the relevant sectors the bank is exposed to, but the methodology is described at a high level only.

Chart 2

Existence of information in the disclosures for selected categories

(Percentages of institutions)



Source: ECB.
Note: The category "Partially" was assigned to disclosures where information on a topic was available to a limited extent or at very high-level. For the question "EPCs of real estate portfolios", partial availability means that information was available only for residential real estate, and not for both commercial real estate and residential real estate. For the question "Information on EU Taxonomy", partial availability means that either qualitative or quantitative information was available in the disclosure.

Banks will need to make significant efforts to be compliant with the ITS on ESG disclosures. On the basis of a few basic indicators that almost none of the banks are disclosing, it was concluded that banks are largely unprepared to disclose

[12] Template 4: Banking book - Indicators of potential climate change transition risk: Exposures to top 20 carbon-intensive firms.

information as defined in the EBA ITS on Pillar 3 disclosures. As the first disclosure year for ESG information is 2023, most institutions need to make substantial efforts to disclose the ESG risk information as defined in the EBA ITS.

2.2 Deep dive on the disclosures of G-SIBs and LSIs

2.2.1 Disclosures of EU and non-EU G-SIBs

In addition to the eight G-SIBs with a parent in the EU and the ten G-SIBs with a parent outside the EU but with a subsidiary under direct supervision by the SSM, the assessment has been complemented by the review of 12 G-SIBs with a parent outside the EU and without a subsidiary directly supervised by the SSM. The objective was to compare the approach to C&E risks of all eight EU G-SIBs and all 22 non-EU G-SIBs[13] and to provide an international benchmarking dimension to the assessment.

In general, both EU and non-EU G-SIBs provide extensive and detailed disclosures at the group level in several reports (e.g. annual reports, Task Force on Climate-related Financial Disclosures (TCFD) reports, sustainability reports, ESG reports, Pillar 3 reports and non-financial reports). It was also observed that most of the non-EU G-SIBs with a subsidiary directly supervised by the ECB do not include in their public disclosures the necessary information pertaining solely to their subsidiaries in the EU.

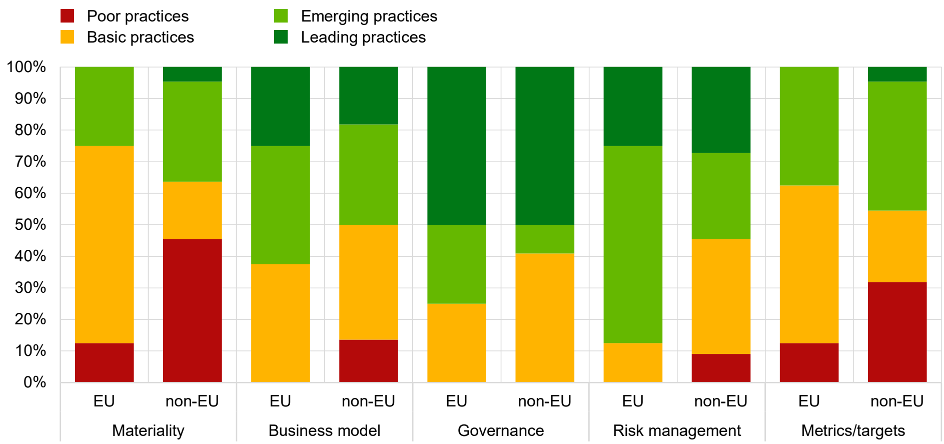
As shown in Chart 3 almost all of the EU G-SIBs display at least basic practices that result in disclosing that they are materially exposed to C&E risks. In contrast, slightly more than half of the non-EU G-SIBs disclose that they are materially exposed to C&E risks. Non-EU G-SIBs also appear to lag behind EU G-SIBs with regard to business model disclosure assessments of the potential strategic impact of transition and/or physical risks on the institution's business model and the business model's impact on the climate. All the EU G-SIBs disclose information relevant to all the above matters, while three of the non-EU G-SIBs do not.

[13] See the 2022 List of Global Systemically Important Banks (G-SIBs) as at the end of 2021.

Chart 3

Overall scores of EU and non-EU G-SIBs

(Percentages of institutions)



Source: 2022 disclosures exercise.
Note: The table provides an overview of the ECB's supervisory assessment of the existence and substantiation of C&E risk disclosures in the light of the Guide.

Regarding governance structures and arrangements pertaining to the comprehensive management of C&E risks, all of the EU and non-EU G-SIBs disclose information on their internal governance structures and arrangements with specific references to the board's oversight of C&E risks as well as to the senior management's role related to the assessment and management of C&E risks. In addition, all of the EU G-SIBs have diverse C&E risk management practices, while two of the non-EU G-SIBs do not. G-SIBs often include C&E risk management only in certain risk categories, which is similar to the shortcomings observed in the materiality assessment. More specifically, C&E considerations tend to be embedded in credit risk management, while they are often lacking in market, operational, liquidity and strategic risk management. Overall, both EU and non-EU G-SIBs scarcely substantiate their C&E metrics and targets, which is similar to the general conclusion in the 2022 disclosures report[14]. Notably, all of the EU G-SIBs and about two-thirds of the non-EU G-SIBs have joined the Net-Zero Banking Alliance (NZBA), committing themselves, amongst other things, to aligning their lending and investment portfolios with net zero emissions by 2050 and to setting intermediate targets for 2030 or sooner.[15] Regarding the latter, almost all of the EU G-SIBs and about two-thirds of the non-EU G-SIBs have set 2025 or 2030 portfolio emissions targets for carbon-intensive sectors. Nevertheless, a significant share of the G-SIBs have not updated their Scope 3 financed emissions for the latest disclosure reference date. In addition, only about a third of the non-EU G-SIBs have reported these Scope 3 financed emissions relative to their net zero ambitions, while almost all of the EU G-SIBs disclose the alignment of some of their portfolios (at best covering power generation, oil and gas, automotive, aviation, shipping, cement and

---

[14] "Supervisory assessment of institutions' climate-related and environmental risks disclosures – ECB report on banks' progress towards transparent disclosure of their climate-related and environmental risk profiles", ECB Banking Supervision, March 2022.

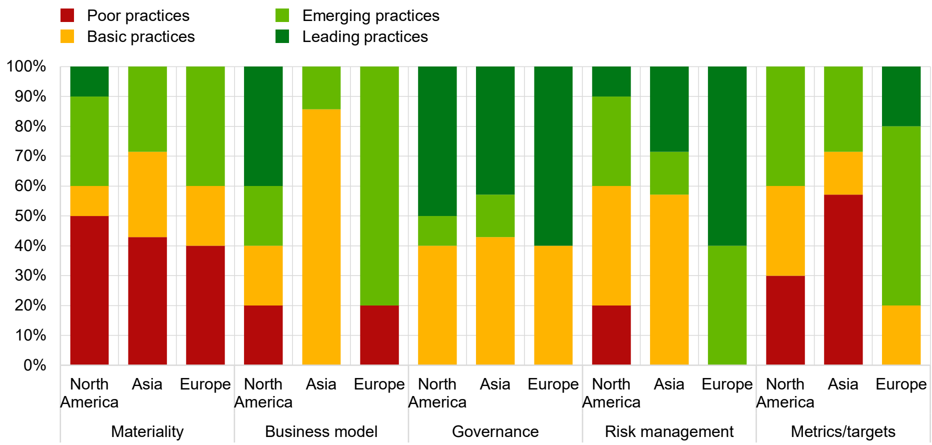
[15] For more information, see the "Net-Zero Banking Alliance" pages on the United Nations Environment Programme Finance Initiative (UNEP FI) website.

iron, and in some cases also covering business loans, commercial real estate and mortgages).

Chart 4

Overall scores of non-EU G-SIBs in a regional breakdown

(Percentages of institutions)



Source: 2022 disclosures exercise.
Note: The table provides an overview of the ECB's supervisory assessment of the existence and substantiation of C&E risk disclosures in the light of the Guide.

2.2.2 Disclosures of LSIs

From a regulatory perspective, certain LSIs are currently subject to disclosure requirements for C&E risks under the NFRD. However, upcoming regulatory developments, such as the entry into force of the CSRD and the adoption of the ESRS, will add additional C&E risk disclosure requirements for a number of LSIs. It is also worth noting that, despite the fact that Article 449a of the CRR and the related EBA ITS on Pillar 3 disclosures on ESG risks in its current version do not apply to LSIs, CRR reform proposals may foresee the application of the EBA ITS to all credit institutions. Therefore, it will be necessary for LSIs to strengthen their C&E risk disclosures going forward.

Although LSIs are not expected to meet the ECB's supervisory expectations on C&E risk disclosures, the ECB has recommended that NCAs apply the expectations set out in the guide in a manner that is proportionate to the nature, scale and complexity of the activities of the institution. At this stage, in line with the ECB approach, most NCAs have already set expectations on C&E risks addressed to LSIs, including C&E risk disclosures.[16]

In this context, it is important to highlight that NCAs only started publishing their supervisory expectations in 2020, while this assessment is based on institutions' publicly available disclosures with a reference date of the end of 2021. Against this

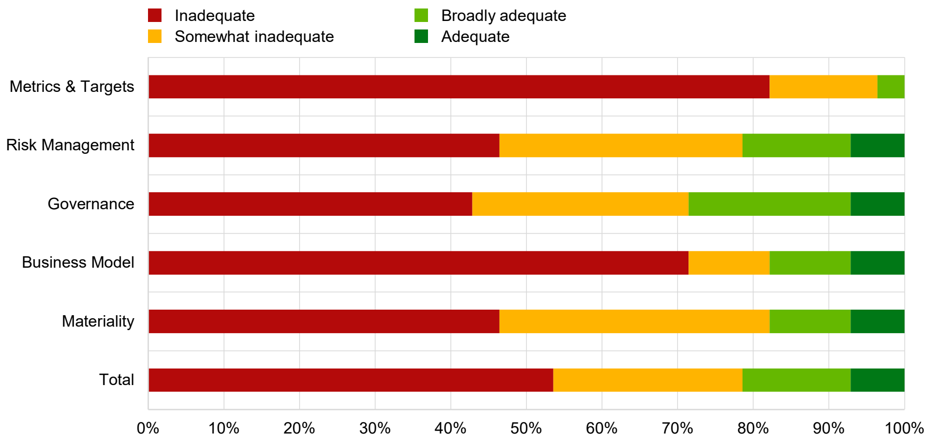
[16] The supervisory expectations on C&E risks set by the NCAs participating in this assessment are available via the following links: Spain (in Spanish), France, Italy (in Italian) and Netherlands (in Dutch).

background, LSIs are working to improve their alignment with the respective supervisory expectations in subsequent disclosures.

Chart 5

Results of C&E risk disclosure assessments for LSIs

(Percentages of institutions)



Source: ECB.
Note: Sample of 28 LSIs that were in scope of the disclosures assessment.

As part of the assessment covering 28 LSIs, most of the less significant and smaller institutions assessed are not aligned with supervisory expectations on the disclosure of C&E risks. In particular, 80% of the less significant and smaller institutions within the scope of this exercise are assessed as inadequate or somewhat inadequate in disclosing C&E risks. Looking at the results by category, 82% of the sampled banks showed inadequate or somewhat inadequate disclosure of the impact of C&E risks on their business model and the materiality of such risks. In terms of disclosures related to governance and risk management practices, on average approximately 25% of the sampled LSIs disclose adequate or broadly adequate information.

Out of the five categories assessed, most room for improvement is observed in the business model and strategy, and the metrics and targets categories, where almost all the sampled LSIs were scored inadequate or somewhat inadequate. For the metrics and targets category, the vast majority of LSIs in the sample do not disclose the share of assets committed in regions likely to become more exposed to physical risks, nor do they disclose their Scope 3 financed emissions. This category seems to represent the key challenge ahead both for smaller banks and for larger institutions.

On the positive side, a small group of institutions achieved an adequate score, in spite of potentially higher resource constraints owing to their size. For example, one LSI comprehensively described the potential strategic impact of physical and transition risks on its business model by defining a heatmap to specify the relevance of transition risk, key drivers and mitigating factors for different sub-sectors, considering short and long-term horizons. One LSI defined limits on investments in companies that are not in line with the decarbonisation objectives, while another LSI described the monitoring tools used by its management board, defining the risk appetite thresholds of such monitoring tools. Moreover, one LSI defined climate-related and/or environmental targets pertaining its sub-portfolios, specifying CO2 reduction targets for its listed equity, corporate bond, oil and gas, real estate and infrastructures portfolios at a given horizon.

When comparing the LSI findings of this assessment to those of the 2022 thematic review on C&E risks, there is a broad alignment in terms of key areas for improvement. Topics such as the impact of C&E risks on institutions' business model, data governance and/or the availability of granular quantitative metrics and KRIs come up as areas in which further improvement is needed. It is also worth mentioning that, out of the sampled LSIs, it was observed that listed institutions tended to provide more detailed disclosures. However, after the finalisation of this assessment, a general improvement trend has already been observed across various institutions in the LSI landscape. This trend is expected to continue in the coming years.

Table 5

Key findings for LSIs

Topic	Example
Materiality assessment	Most LSIs do not adequately disclose the materiality of their exposure to climate-related and/or environmental risks. Most of the descriptions of the materiality assessment are done at a high level, with the criteria underpinning the assessment too broadly described, and this assessment is performed only for some risks.
Business model and strategy	Most LSIs do not adequately describe the potential strategic impact of physical and transition risks on their business model. Nevertheless, on average LSIs disclose more substantially, albeit still somewhat inadequately, the impact their business model and strategy have on the climate.
Governance	Although the majority of LSIs do not adequately disclose their governance arrangements to address C&E risks, on average LSIs disclose the board's oversight role more precisely than the management's role in assessing and managing climate-related risks.
Risk management	In this category, greater accuracy was observed in the disclosure of processes for identifying, assessing and managing C&E risks and in the description of how climate-related risk considerations are embedded in the management of Pillar 1 risks. However, significant gaps remain in the disclosure of banks' portfolio exposures to other environmental risks and their exposures to sectors perceived as contributing to climate change.
Metrics and targets	This category shows the largest need for progress as nearly 80% of LSIs were assessed as inadequate. While at least half of the institutions disclose a KPI or KRI relating to C&E risks, only very few institutions disclose C&E targets related to their portfolios and their Scope 3 financed emissions.

Source: ECB.
Notes: Supervisory assessment of publicly available disclosures with a reference date of end-2021 for 28 LSIs.
The figures in the metrics and targets category describe the relative performance of the LSIs within the scope of the respective assessment category. Please refer to Table 1 in Section 2.2.1 for an overview of the number of LSIs per jurisdiction.

2.3 Materiality assessment

Expectation 13 states that institutions are expected to disclose meaningful information on C&E risks that they deem to be material. As there is no common threshold for materiality, it is important that institutions conduct an assessment tailored to their business model and risk profile over short and longer time horizons. Any conclusions on the materiality of information should be based on concrete quantitative and qualitative thresholds.

Around 86% of the banks in the sample considered their exposure to C&E risks to be material, which is an increase from 80% highlighted in the 2022 disclosures report and a significant increase from 50% in the 2020 report[17]. Out of 61 institutions that did not consider their exposure to climate and/or environmental risk to be material in 2021, 52 now disclose that their exposure is material for at least one risk or in general terms. It was observed that among the banks that did not consider C&E-related risks to be material there was often no sound justification for this assessment or no assessment had been conducted.

While more banks are disclosing information on the materiality of their C&E risks, the quality of the disclosed information is often poor. This is exemplified by the fact that almost one-third of banks were scored as not adequately assessing the materiality of C&E risk while only 11% of banks were deemed to do so adequately. Around one third of the banks have an internal assessment of the materiality of their exposures to C&E-related risks, but this assessment is not disclosed or is disclosed only partially. For example, a bank may have disclosed that only some exposures are materially affected by C&E-related risks; or a bank may have shared its conclusion on the materiality of climate-related risks per risk area, risk driver, scenario and time horizon with the JST for the 2022 thematic review on C&E risks but disclosed only the methodology in its disclosure report.

2.4 Business model

Expectation 13.4 of the Guide sets out expectations as regards the nature of information to be disclosed and makes reference to the description of climate-related risks in the company's business model, strategy and financial planning, but also the description of the ways in which the company's business model can affect the climate.

Only 32% of the institutions in the sample describe the potential strategic impact of both transition and physical risk on their business model in a satisfactory manner. 60% of the 103 institutions surveyed still inadequately or somewhat inadequately assess and consider the impact of C&E risks on their business model. The overwhelming majority still provide only a general description of climate change or climate-related risks affecting either the economy or the financial sector and do not draw an explicit link between these and the longevity of their current business model and/or ensuing changes in their strategy for the future. Descriptions remain largely generic, high-level and not always tailored to the profile of the institution and its exposures to certain sectors or collateral. Furthermore, only 29% of the banks make an adequate assessment of the way their business model affects the climate in return. As a result, when determining how many banks disclose the result of their double materiality assessment, it could be observed that only 14 banks disclose the impact of physical and transition risks on their business operations as well as the impact of their business operations on the climate and the environment.

Many of the institutions' disclosures are severely lacking and allow neither an analysis of the impact of transition risks on the business environment in which the

17 "ECB report on institutions' climate-related and environmental risk disclosures", ECB Banking Supervision, November 2020.

institution operates nor a mapping of the sectors, counterparties and products that are most sensitive to transition risks and their share in the institution's balance sheet. At present, a majority of banks do not enable stakeholders to understand and/or appropriately assess the risks facing the institution by, for example, sharing the extent to which the institution funds or has stakes in entities that are carbon intensive. Furthermore, the disclosures are not sufficiently substantiated to understand the methodologies used to calculate or estimate the carbon footprint of the institution's activities.

Under Expectation 13.6, institutions are expected to disclose the KPIs and KRIs used for strategy-setting and risk management, as well as their current performance against these metrics. In our assessment, we determined that 40 of the banks in the sample declare that they are using C&E-related KPIs and KRIs to set and monitor their strategy and its alignment with pre-determined goals. However, among these banks, only 12 adequately disclose or reference their methodologies, criteria and definitions, and 27 do so only partially. While most institutions state that they have started monitoring the impact of climate change on their business environment, only a small minority share how they measure this impact and how they intend to strategically incorporate these consequences in their business model or strategy-setting. In conclusion, at this point in time, a majority of institutions do not appear ready to identify, monitor and set up a long-term strategy to deal with such risks.

2.5 Governance

Expectation 13.4 of the Guide refers to the description of governance-related information in disclosures. In particular, it sets expectations describing the board's oversight of climate-related risks and the management's role in assessing and managing climate-related risks.

Considerable headway has been made since the 2022 review of the institutions' disclosures pertaining to governance-related information in the context of C&E risks. Approximately one-third of the banks in the sample have been assessed as having adequate governance structures and arrangements in place with proper board oversight and senior management involvement in the assessment and management of C&E risks. In all, 85% of the total sample broadly fulfil the disclosure standards, which is considerable progress compared to the previous year (71%). However, approximately 15% of the institutions still have sub-standard levels of disclosure.

Regarding the specific aspects reviewed in the context of the exercise, in particular the board's oversight of the climate-related risks, the assessment provides evidence that about 70% of the institutions broadly fulfil the assessment criteria. Of these institutions 35% have adopted a comprehensive approach regarding the board's active involvement in managing climate-related risks with proper reporting and monitoring mechanisms in place as well as continuously revised thresholds for the assessment, management and mitigation of such risks. However, in most credit institutions there is a lack of necessary information on the frequency of reporting to the board, with most institutions only indicating "regularly". Nevertheless, in spite of the gradual familiarisation with the adjustments required to facilitate a comprehensive climate-related risk management framework, a considerable fraction of the institutions classified as meeting the assessment criteria still adopt a relatively generic way of disclosing information on their governance structures and mechanisms pertaining to climate risks, e.g. by making reference to a broader ESG strategy or sustainability targets, without explicitly or clearly outlining the management's role in risk mitigation pertaining solely to the climate, thus potentially hindering stakeholders' capacity to fully understand their robustness in tackling climate-related issues.

Conversely, with regard to the second parameter under review, namely the role of senior management in assessing and managing climate-related risks, there is a shift towards a better outlook with almost 85% of institutions evidently providing an effective description of the senior management's involvement in the identification, measurement, monitoring and reporting of climate-related risks through the respective committees reporting directly to the board. Of these, some describe in more detail the agility of their organisational structures and their monitoring and reporting mechanisms, while others either resort to rather generic references or do not take climate-related risks into account when managing their entire risk spectrum, mostly focusing on only assessing the impact of climate-related risks on their credit risk portfolio.

In all, notwithstanding the ever-improving picture in the context of internal governance as regards climate-related risks, there is still progress to be made towards more detailed disclosures providing more precise information regarding the interface between the respective committees, the flow of information among the three lines of defence, the bottom-up and top-down provision of information, the frequency of reporting and the transversal nature of climate-related risks as embedded in the risk management spectrum of the institutions.

The conclusions outlined above appear to be consistent with the findings of the 2022 thematic review on C&E risks, where the improvement of the organisational structure is actually captured in the prevalent role of the management body and certain sub-committees in identifying and managing climate-related risks, with approximately 90% of the total sample of SIs reporting basic to leading practices. However, the lack of granularity in the monitoring and reporting mechanisms still poses obstacles, as also depicted in the 2022 thematic review on C&E risks, in which approximately 30% of the total sample did not reach the basic standards of reporting and just under 30% did not have proper data governance provisions in place. Nonetheless, it is of prime importance that the progress made, albeit more comprehensive and faster for some institutions than for others, is actually depicted in their disclosures for the purpose of allowing a better understanding of an institution's robustness in its approach to climate-related issues.

2.6 Risk management

Expectation 13 of the Guide makes reference not only to the description of the processes for identifying, assessing and managing climate-related risks (including how decisions are taken on mitigating, transferring, accepting or controlling these risks) but also to the description of how these processes are integrated into the company's overall risk management.

The assessment showed that 85% of the institutions disclose at least minimal information about their processes for identifying, assessing and managing climate-related and/or environmental risks. However, only 17% do so comprehensively, i.e. in a way that allows stakeholders to understand how the elements of C&E risks have been integrated into the risk management processes in terms of interconnections, temporal horizon, proportionality and consistency. In 2020 only 57% had described these processes, of which 18% comprehensively, and in 2021 only 71%, of which 17% comprehensively. The banks are continuing the progress identified in the assessments performed over the past two years with regard to describing their processes for identifying, assessing and managing C&E risks. However, we found that there has been no notable progress on specifying the technicalities surrounding these processes in their public reports.

In most of cases, the description of the risk identification process is somewhat underdeveloped, without a clear connection between financial and non-financial risks and climate-related risks. However, banks do provide some information on risk identification and assessment processes. Some institutions briefly describe which of the sectors they operate in are more susceptible to C&E risks and what their strategy to monitor and reduce their exposure is, but very few provide a quantitative breakdown of exposures to the most vulnerable sectors.

For example, several banks expressed concerns about reputational risk and consequently describe their strategy to monitor exposures to and mitigate reputational risk, for example by limiting the exposure via their policies and speaking to clients during the ESG assessment. However, descriptions of exposure to reputational risk remain rudimentary.

56% of banks do not disclose which key risk indicators are used for monitoring and managing C&E risks. Those that do describe which tools they use to manage climate-related risks – e.g. stress testing, ESG assessment, specific policies – and how the outcome is considered in business decisions. However, even when risk management tools are described, there are only rare mentions of what business areas were involved in the development of the tools and which are in charge of their implementation and, more importantly, which scenarios, risk factors, translation risk channels or assumptions were used.

Furthermore, a majority of banks provide evidence that C&E risks are considered in either credit, market or operational risk management, and describe how C&E risk considerations are embedded in the management of these risks, at least for climate-related risks. These banks substantiate their statements by referring to specific policies and processes. However, no information is disclosed on whether operational, credit and market risk are deemed material from a C&E risk perspective, and how C&E risk considerations are embedded within these risk management frameworks (e.g. assessment of the impact of physical risks on operations, investment due diligence, new product approvals, etc.).

2.7 Other environmental risks

As noted in the preamble to the CSRD (recital 11), there is a growing awareness not only of institutions' risks associated with climate change but of also broader environmental issues, such as biodiversity loss. Expectation 13.7 of the Guide sets out expectations as regards disclosures of these other environmental risks. Banks' risk management and public disclosures are expected to take a holistic approach to identifying, monitoring and managing all material climate-related and wider environmental risk drivers.

As already pointed out in the 2022 disclosures report, most banks still have a blind spot for other environmental risks. In 2021 only 25% of the banks made any reference to other environmental risks. In 2022 a slightly higher percentage (35%) disclosed information about their portfolio's exposure (rather than their own operation's exposure) to at least one other environmental risk. When disclosing other environmental risks, about 20% of the banks included only one environmental risk, most often biodiversity risk, while the rest included more than one environmental risk, such as the pollution of water due to fracking and the safeguarding of forests.

Similar to the findings of the 2022 thematic review on C&E risks – only a small group of banks deploy leading practices, disclosing, for example, quantitative information about their portfolio exposure to other environmental risks or targets for the future to keep integrating other environmental risks. In most cases, however, banks have set minimum standards which have to be fulfilled in order to conduct business with a client and/or engage with clients to minimise their other environmental risk impact, which can be categorised as risk-mitigating actions. In addition, some of the banks disclose that they are materially exposed to other environmental risks through physical or transition risks (C&E or ESG risks) but describe only in general terms how these risks are integrated into their risk management. In several cases the wording used to describe environmental impacts mostly referred to the banks' own operations and focused on the banks' local actions to foster biodiversity, diverting the focus of the disclosures away from the risk in the portfolio.

2.8 Metrics and targets

Expectation 13.6 of the Guide states that institutions are expected to 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. Access to the targets used by an organisation allows investors and other stakeholders to better assess its general exposure to climate-related issues and its progress on managing or adapting to those issues. It also provides a basis upon which investors and other stakeholders can compare organisations, for example as regards their level of ambition in tackling C&E risks. This is also why, like other metrics, targets need to be well substantiated, and their definition and the criteria underlying their calculation need to be well explained, in the spirit of Expectation 13.3 (see also Section 4.1.3).

2.8.1 Financed emissions

Financed emissions are one of the key elements in approaches to climate risk identification, measurement and management. Financed emissions have been widely used as a reference metrics in many major regulatory C&E risk disclosure initiatives, such as in the ESRS, the EBA ITS and the International Sustainability Standards Board (ISSB) Exposure Draft IFRS S2 Climate-related Disclosures.

With Expectation 13.5 of the Guide the ECB also expects institutions to disclose their financed emissions for the whole group. While GHG emissions are expected to feed into the KPIs and KRIs of Expectation 13.6, according to Expectation 8.2, institutions must consider current and projected emissions in their scenarios.

Half of the banks in the sample did not disclose their Scope 3 financed emissions, while 47% of the sample disclosed such information for parts of their portfolios only. In addition, 53% of the disclosing banks were not able to sufficiently substantiate their measurement approaches and 29% did so only partially. In particular, it was observed that most banks did not provide insights on the methodologies used for the calculation of the emissions, meaning that banks tend to list in a broad way the methodologies used, without reference to the estimation protocol used or the underlying assumptions and formulae. In a few cases, banks did not provide sufficiently granular data to distinguish Scope 3 financed emissions from Scope 3 emissions from their own activity. In addition, the level of aggregation of Scope 3 financed emissions does not always allow differentiation by asset class/sector/geography/entity. There is rarely a clear reference to the reporting date of underlying data, and where a reporting date is given, it is sometimes outdated (e.g. 2019 data). Banks also do not state whether their financed emissions consider removed or avoided emissions. Finally, banks don’t sufficiently elaborate on the quality of the data used or on the depth of the value chain used in their estimations. The lack of clarity regarding banks’ measurement approaches sometimes raised doubts about the soundness of the figures provided. In the same vein, the 2022 climate risk stress test revealed that more than 80% of the banks used proxies for the estimation of Scope 3 emissions, leading to a high dispersion of the data reported.

The disclosed data and supporting information regarding the financed emissions should be treated with caution as there are several heterogeneities hindering comparability of figures across banks. Banks don’t assess the same asset class categories, and in several cases there is no clarity on the measurement approaches, with measurement sometimes referring only to upstream or only to downstream financed emissions. These factors limit the extraction of meaningful conclusions from the analysis of the measurement of financed emissions.

2.8.2 Alignment metrics

Alignment metrics can be an important tool for banks to measure their progress towards the Paris Agreement objectives applied to their portfolio. Expectation 13.6 of the Guide states that institutions are expected to describe the short, medium and long-term resilience of their strategy in the light of different climate scenarios. As such, targets allow institutions to measure their progress towards climate adaption against various scenarios on a regular basis.

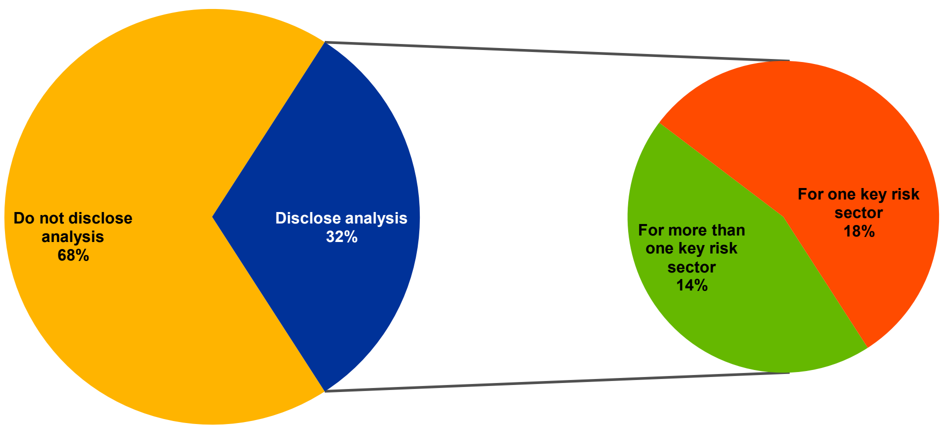
For effective target-setting, material portfolios need to be identified. Credit portfolios in key risk sectors can be identified using NACE sector classification. However, only six institutions within the scope of the ITS assessment provided a breakdown of all exposures by NACE code. Besides the credit portfolios, the real estate sector also has high transition risks and therefore needs sound target-setting for the portfolios. As stated in Expectation 13.5 of the Guide, institutions are expected to measure the actual energy consumption or energy efficiency of their real estate portfolios. However, the assessment showed that only 19 institutions disclose information about EPCs in their real estate portfolio. Without information on the energy intensity of a building it is challenging to set targets for the whole portfolio and the use of proxies is unavoidable.

One positive development is that 32% of the institutions in scope have carried out a PACTA analysis. PACTA methodology allows banks to take a forward-looking approach to assessing portfolios in key risk sectors for alignment using different scenarios. However, the observed outcomes of the analyses were often not in-depth. Of the 32% of institutions that conducted a PACTA analysis, only 14% examined more than one portfolio in a key risk sector.

Chart 6

Institutions that disclose a PACTA analysis

(Percentages of institutions)



In general, the International Energy Agency scenarios predominated for target-setting. Over 62% of the institutions used either the NZE2050 scenario or the Sustainable Development Scenario (SDS). Although the SDS scenario also allows for regional alignment targets, such as for the EU, institutions used global target-setting almost exclusively across all portfolios.

In practice and on a portfolio level, target-setting initiatives and portfolio alignment approaches of banks do not describe how portfolio emission reductions are achieved. For example, where a portfolio has become more climate-aligned between two dates, no explanation of what drove that specific improvement is given, e.g. whether the portfolio emissions were reduced through portfolio reallocation or disinvestment or whether the underlying counterparty managed to decarbonise its processes or production.

3 Examples of observed practices

3.1 Introduction

This chapter shares observations and good practices, illustrating the different ways that SIs can align their disclosure practices with the supervisory expectations set out in the Guide. The chapter should be read in conjunction with the ECB's report on good practices observed in the 2022 climate risk stress test and with the compendium of good practices observed as part of the 2022 thematic review on C&E risks[18]. This chapter covers observed practices related to C&E risk disclosures and provides examples of visualisation and substantiation of C&E risk indicators and information which could be useful for users. It does not necessarily express a view on the content of those disclosures or on the arrangements chosen by banks to deal with C&E risks.

The practices outlined here serve as an illustration that could help institutions to make progress on disclosing C&E risks. The practices are not necessarily replicable, nor do they necessarily ensure alignment with supervisory expectations. They may have been amended and/or augmented with comparable practices from other institutions for illustrative purposes. Moreover, institutions should consider the applicability of the observed practices in the light of their overall approach to managing and disclosing C&E risks. The ECB also emphasises the evolving nature of good practices and expects these to mature over time. This report should be read in conjunction with the Guide and the prudential requirements set out in the regulatory framework, particularly the CRR and the Capital Requirements Directive (CRD)[19], as further specified in EBA guidelines.

3.2 Materiality assessment

Compared to the previous year's report, more institutions have started to disclose not only qualitative but also quantitative approaches to assessing the materiality of C&E risks. Several banks disclosed:

1. the transition and physical risks which could be relevant to the portfolio of the institution, considering its business lines, client sectors, locations of collateral, etc.;
2. the transmission channels;

---

18 "Good practices for climate-related and environmental risk management – Observations from the 2022 thematic review", ECB Banking Supervision, November 2022.

19 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 (OJ L 176, 27.6.2013, p. 338).

3. how the primary risks (i.e. credit, business/strategy, operational, market and liquidity risks) were affected considering different time horizons;
4. whether sector-level or client-level information, with actual data or proxies, was used to draw conclusions on materiality;
5. where different scenarios were considered, the underlying assumptions and the variables used, such as carbon price impacts, changes in commodity prices and renewable and fossil energy prices.

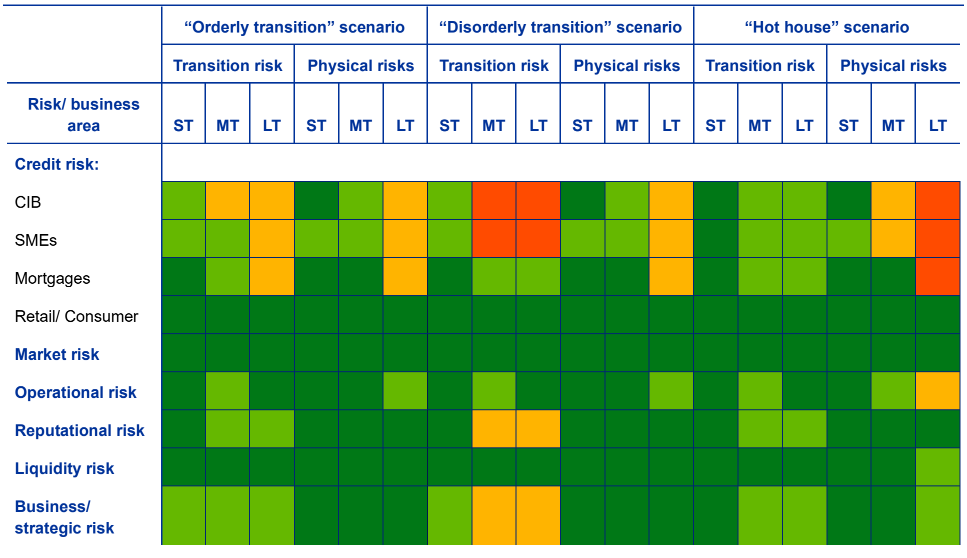
In addition, several institutions used heatmaps to summarise the results of the assessment. One observed practice was to provide a clear statement on which risks, business areas and client sectors were considered to be materially affected under particular scenarios and time horizons, with a reference to the relevant disclosure sections outlining the respective risk management practices adopted to address these risks.

Observed practice 1: Heatmaps

One bank has for example developed and disclosed a table with an identification and description of the C&E risk subtypes, then it has given a detailed description of the potential impacts of these risks on the banks' stability and longevity. This gives the reader the opportunity to see that the bank has assessed C&E risk under several risk-types, is aware and understands how these might directly or indirectly impact the banks' and its clients' operations and in what time horizon it expects these events to take place.

Table 6

Illustration of a heatmap displaying the risk assessment of three transition scenarios per risk area over a short-, medium- and long time-horizon



Notes
Dark Green: Low risk
Green: Medium-low risk
Yellow: Medium risk
Orange: Medium-high risk
Dark red: High risk
ST: Short-term (up to 4 years)
MT: Medium-term (4-10 years)
LT: Long-term (more than 10 years).

Table 7

Illustration of a heatmap categorised by client sectors

Sector	Transition risk			Physical risks			Exposures	
	ST	MT	LT	ST	MT	LT	Gross amount	% of Total Exposures
Agriculture, livestock and fisheries	Yellow	Dark red	Dark red	Yellow	Dark red	Dark red		
Consumer	Green	Green	Green	Green	Green	Green		
Consumer discretionary	Green	Green	Green	Green	Yellow	Yellow		
Energy/utilities	Yellow	Dark red	Dark red	Green	Yellow	Dark red		
Health sector	Green	Green	Green	Green	Green	Green		
Manufacturing & industry	Green	Green	Green	Green	Yellow	Yellow		
Infrastructure	Green	Yellow	Yellow	Green	Yellow	Yellow		
Materials	Yellow	Dark red	Dark red	Green	Yellow	Yellow		
Mining and metallurgy (excl. oil and gas)	Yellow	Dark red	Dark red	Green	Yellow	Dark red		
Oil and gas	Yellow	Dark red	Dark red	Green	Yellow	Dark red		
Real estate	Green	Yellow	Yellow	Green	Yellow	Yellow		
Services	Green	Yellow	Yellow	Green	Green	Green		
Technology & communication	Green	Green	Green	Green	Green	Green		
Transport	Yellow	Dark red	Dark red	Green	Yellow	Yellow		
Tourism	Green	Yellow	Yellow	Green	Yellow	Yellow		
Cement	Yellow	Dark red	Dark red	Green	Yellow	Dark red		
Iron & steel	Yellow	Dark red	Dark red	Green	Yellow	Dark red		
Coal	Yellow	Dark red	Dark red	Green	Yellow	Dark red		

Notes:
Green: Low risk
Yellow: Medium risk
Dark red: High risk
ST: Short term (up to 4 years)
MT: Medium-term (4-10 years)
LT: Long-term (more than 10 years).

3.3 Business model

Observed practice 2: Impact of C&E risks on institutions' business environment

Many institutions disclosed the scenario analysis used to evaluate the actual and potential impact of physical and transition risks on their business model and strategies, notably extending the time horizon for strategic planning to allow stakeholders to assess the resilience of such strategies.

One institution included in its disclosure the standard scenarios provided by international bodies which it leveraged to assess the resilience of its business model and strategies to C&E risks. The results of different scenarios were published, distinguishing the impact of physical risks and transition risks, sourced from the Intergovernmental Panel on Climate Change (IPCC)'s scenario processes but adapted to the institution's own situation. Relying on internationally accepted scenarios, even with a certain degree of adaptation, ensures that the institution provides relevant and easily comparable information to any investors. In particular, the use of such scenarios allows the institution to publicly disclose the main physical and transition factors that could have an impact on its business model and the related risk management measures (see best practices under Section 4.4 Governance).

Table 8

Physical risk factors scored as a result of scenario analysis

Physical risk	Risk score	Scenario
Extreme heat	High risk	30 consecutive hot days (>34°C)
	Low risk	0 consecutive hot days (<34°C)
Flooding	Medium risk	Flooding above 1m every 10 years
	Low risk	Flooding above 1m every 50 years
Seismic risk	Medium risk	4.0 to 4.9 Richter
	High risk	6.0 to 7.9 Richter

Another institution disclosed the scenarios used to evaluate the impact of C&E risks on its business model and strategies. The institution clearly provided the sources of such scenarios and the adaptation made to fit with the institution’s own situation, especially considering the region and sector in which it operates, to understand how its lending and investment business could be affected. Directly linked to such scenarios is the disclosed identification of factors, informing stakeholders of potential changes in the institution’s strategy over various time horizons.

Figure 2

Factors identified via scenario analyses

SHORT TERM	MEDIUM TERM	LONG TERM
Examples of climate and Environmental Risks		
Sudden depletion of carbon-intensive assets and related revenue	Prices declines/Lower valuations in energy-intensive real estates	Unsuccessful transition in the real estate sector
High costs for the transition to clean energies	Reputational risk in case of deficiencies in the institution’s management of climate and environmental risks	Higher probability of extreme weather events
Sudden political changes accelerating transition	Stricter transition requirements leading to force business closure	Impact of climate change on the global economy could create a shock on the financial sector.

Observed practice 3: Impact of C&E risks on institutions’ strategies and objectives

One institution clearly disclosed the potential strategic impact of C&E risks on its business model. In particular, the institution’s disclosures distinguished between transition and physical risks over both short and long-term horizons. The institution also disclosed actual timeframes: short-term is considered to be 4 years, which coincides with its planning horizon, medium-term is considered to be between 4 and 10 years, and long-term is considered to be over 10 years. The disclosures are supported by a heatmap providing an overview of the estimated impacts of both physical and transition risks on the institution's risk profile.

Table 9

Description of the impact of physical and transition risks on credit, market, liquidity and operational risks

	Italy			Other geographies		
	Short term	**Medium term**	**Long term**	**Short term**	**Medium term**	**Long term**
Physical risk						
Credit	Green	Yellow	Dark Green	Green	Dark Green	Orange
Market	Orange	Green	Yellow	Orange	Green	Dark Green
Liquidity	Orange	Yellow	Green	Dark Green	Orange	Green
Operational	Yellow	Dark Green	Orange	Green	Green	Orange
TOTAL	Dark Green	Yellow	Dark red	Green	Green	Green
Transition risk						
Credit	Dark Green	Orange	Yellow	Yellow	Green	Green
Market	Dark Green	Yellow	Dark Green	Yellow	Green	Orange
Liquidity	Yellow	Dark Green	Dark Green	Orange	Green	Yellow
Operational	Yellow	Yellow	Dark Green	Yellow	Green	Orange
TOTAL	Dark red	Dark red	Yellow	Orange	Green	Yellow

Notes
Dark Green: Low risk
Green: Medium-low risk
Yellow: Medium risk
Orange: Medium-high risk
Dark red: High risk
ST: Short-term (up to 4 years)
MT: Medium-term (4-10 years)
LT: Long-term (more than 10 years).

Observed practice 4: Institutions' and clients' engagement for climate transition

Many institutions disclose how C&E risks are integrated into business strategies from a corporate and social responsibility (CSR) perspective. In this regard, the institutions provide information on numerous ongoing actions promoting C&E transition, such as participating in external sustainable finance networks, supporting sustainable finance principles based on international standards, and defining internal objectives, such as a commitment to net zero. In the disclosures, one observed practice is to relate such action to the institutions' development of new sustainable products and services for their clients, as a basis for clients' engagement actions.

One institution listed such actions split into three areas – sustainable investment, sustainable finance and environmental impact – further translated into products and services offered to clients and their related measurable impact.

Examples of such actions with regard to the promotion of sustainable finance are disclosed below. The use of graphs and various font colours and sizes increases the readability of the information.

Moreover, disclosing information with a backward-looking view makes it possible to quickly picture progress and the results of the institutions' incentives with respect to C&E risks.

Figure 3
Exposure per energy class

Mortgage loans by Energy class (EURm)			
	2019	2020	2021
Energy class A	EUR Xm	EUR Xm	EUR Xm
Energy class B	EUR Xm	EUR Xm	EUR Xm
Energy class C	EUR Xm	EUR Xm	EUR Xm
Energy class D	EUR Xm	EUR Xm	EUR Xm
Energy class E	EUR Xm	EUR Xm	EUR Xm
Energy class F	EUR Xm	EUR Xm	EUR Xm
Energy class G	EUR Xm	EUR Xm	EUR Xm
Not classified	EUR Xm	EUR Xm	EUR Xm

3.4 Governance

Observed practice 5: Remuneration

Several institutions disclose details of a core set of sustainable targets embedded in the Chief Executive Officer (CEO)'s performance scorecard aligned with the institution's ambitions and risk appetite. Disclosed elements provide enhanced transparency on the different components of the respective variable remuneration packages of top managers and may ease comparability among peers. Goals and targets may include volumes for sustainable products, ESG ratings of the institutions and broader initiatives – for example in relation to social inclusion, industry certifications or promotion of diversity – and may account for up to 30% of variable remuneration.

Table 10
Illustrative remuneration scorecard

Areas	Weight	Goal	Reference target	Category
Balance sheet	70%	Return on assets / Assets under management	vs budget	Value creation
Costs		Cost income ratio	vs budget	Cost efficiency
Risk management		Performing exposures	vs target	Risk-based
Stakeholder value	30%	Improve / maintain ESG ratings	External ratings	Sustainability
Business model		Lending volumes in absolute or relative terms	Environmental lending, ESG investment products, sustainable bonds	Sustainability

Observed practice 6: Governance arrangements for the management body

Governance arrangements, in particular the organisation of the management body in relation to C&E risks, are now disclosed by many institutions. Several supervised entities disclose information regarding the management body in a clear and comprehensive way. More specifically, institutions disclose in a clear and systematic way the following:

- the processes and frequencies by which the board and/or board committees are informed about C&E risk issues, including how many meetings were held the previous year;
- how the board monitors and oversees progress against goals and targets for addressing C&E risks;
- the topics that were discussed in the previous year and forward-looking considerations for the upcoming year.

More details on the reporting lines are provided, such as the frequency and content of reports, the direct lines of communication, and the processes by which management is informed about climate-related issues (e.g. regular and ad hoc meetings and specific management committees) and monitors policies.

For example, climate-related risk reporting is sent to the Management Board and the Risk Committee of the Supervisory Board on a regular basis, while meetings are held every two months so that the highest decision-makers are regularly informed about relevant sustainability issues. The Chair of the Management Board is in regular contact with the Chief Sustainability Officer (at least once a month) and receives information on various sustainability issues. In addition, current developments in the area of ESG are discussed at every meeting of the Supervisory Board.

Moreover, as climate-related risk topics can be followed up in different ways, including via a dedicated body, a forum and/or a dedicated sub-committee, several institutions also include detailed information on the following elements: composition and frequency of meetings, processes to report information to the management bodies and the overall involvement of the management bodies in the management of this risk. The various approaches should not be seen as mutually exclusive. Several institutions have adopted a combination of methodologies.

It was observed that a particularly effective practice was to disclose information in a visual way with a summary of key elements presented through a chart and/or table. This could be complemented by a more detailed description in another section of the report or in another report (e.g. the TCFD report could include a summary visual presentation while more detail is provided in the annual report).

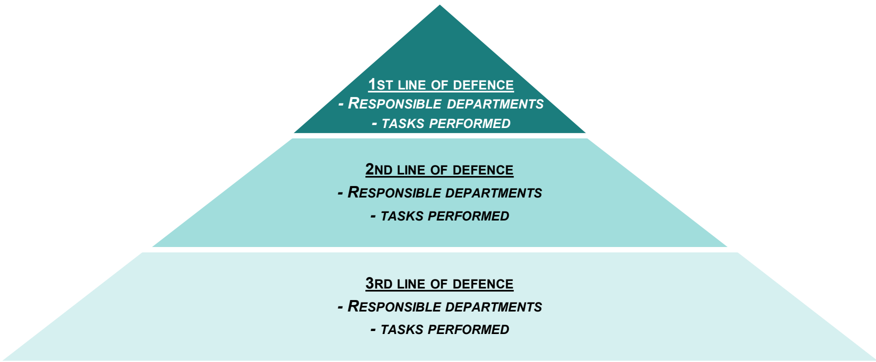
Table 11
Governance structure

Governance body	Areas of responsibility and main tasks	Frequency of updates concerning C&E	Topics discussed	Priorities
Board of Directors	XXX	XXX	XXX	XXX
CEO	XXX	XXX	XXX	XXX
Sustainability Committee	XXX	XXX	XXX	XXX
Chief Risk Officer	XXX	XXX	XXX	XXX
Climate Risk Task Force	XXX	XXX	XXX	XXX
Chief Climate Officer	XXX	XXX	XXX	XXX
Risk Committee	XXX	XXX	XXX	XXX

Observed practice 7: Three lines of defence

It was observed that banks assigned (and subsequently disclosed) responsibilities for climate risk to the three lines of defence for the primary risk domains (market risk, credit risk, underwriting risk and liquidity risk). In particular, banks described how these departments implement an appropriate risk management framework consisting of the identification, measurement, management and reporting of climate risk in accordance with the risk appetite statement established by the board. One institution has started providing this information in visual form through a high-level description of roles in relation to C&E risks across the three lines of defence, including any other department and/or function supporting their work.

Figure 4
Description of the 3 lines of defence



Observed practice 8: Other corporate functions

In several cases it was observed that banks created ad hoc positions, such as Chief Sustainability Officer or Chief Environmental Risk Officer, that report directly to the Chair of the Executive Board. Typically, banks have chosen to appoint the CEO or Chief Risk Officer (CRO) to that position in order to give sustainability prominence at all levels of management and throughout all departments. By the same logic, the CEO and CRO are appointed as Chair and Deputy Chair of the Sustainability Committee (SC) as the decision-making body responsible for the development and management of the institution's sustainability strategy and ESG criteria, execution monitoring as well as initiating of appropriate countermeasures in the case of significant plan deviations. New Chief Sustainability Officers (CSOs) and CROs are either supported by sustainability managers who share responsibility for the implementation of the policy or by a sustainability office/arm that makes decisions at all operational and strategic sustainability management levels. The Sustainability Office's responsibilities cover reporting, advising, steering, coordinating, implementing and monitoring the group-wide sustainability strategy.

Sharing this information allows stakeholders to be aware of who bears ultimate responsibility at the bank for the monitoring and mitigation of C&E risks and who is entrusted with the implementation of C&E-related strategies. This emphasises the banks' commitment to transparency and accountability in tackling C&E risk.

Observed practice 9: Skills adequacy and capacity building

The ECB has observed that several institutions provide information on the skills and competences that are needed by the board with regard to C&E risks. In particular, the ECB observed that one institution discloses in a visual way (iconographic charts, charts with percentages) the current competences available at board level concerning C&E-related topics. Furthermore, the same institution has also disclosed its plans to build up capacity and skills across the management body and staff by listing the training and certification being offered to address specific needs. Disclosing this information is considered particularly relevant because it allows stakeholders to assess the bank's engagement with these topics and its capacity and readiness to deal with them.

Table 12

Description of training activities

Interested parties	Short description of the training activity/certification offered	Frequency (one-off, periodic, etc.)
Board of Directors	e.g. GARP certification, in-house training on transition risk, external course on scenario analysis	e.g. Annual training activity
Managerial level	e.g. GARP certification, in-house training on transition risk, external course on scenario analysis	e.g. One-off certification
Employees	e.g. GARP certification, in-house training on transition risk, external course on scenario analysis	e.g. One-off activity upon joining the institution

3.5 Risk management

Observed practice 10: Processes for identifying, assessing and managing C&E risks

Several banks currently disclose the practices they have recently developed. However, while some banks already describe (mostly only in written form) the main characteristics of each phase of the risk management process in dedicated paragraphs and sub-paragraphs, other institutions have successfully developed more advanced disclosure frameworks. In particular, these institutions have managed to include the main results of their analysis also in a visual format (e.g. tables, graphs, etc.), delivering a more straightforward message to stakeholders.

In relation to risk identification, one institution provides information on the main C&E risk drivers in the form of a diagram using a top-down approach with increasing levels of granularity. The identified risk drivers have been linked, via the relevant transmission channel, to the financial and non-financial impacts. The link between C&E risks and the impact on the bank's activities is also well presented by another institution which in its section dedicated to the identification and assessment of C&E risks presents a chart in which climate events are linked to the institution's financial risks via various economic channels.

Table 13

Description of risks drivers

	Type of risk driver – L1	Sub-type of risk driver – L2	Transmission channel	Impact on traditional risk types
Climate-related & environmental risks	Physical risk	Type 1 of physical risk Type 2 of physical risk …	Transmission channel A (e.g. companies) Transmission channel B …	Financial risks Non-financial risks
	Transition risk	Type 1 of transition risk Type 2 of transition risk …	Transmission channel A Transmission channel B (e.g. individuals) …	Financial risks Non-financial risks
	Other environmental risk	Type 1 of other environmental risk Type 2 of other environmental risk …	Transmission channel A (e.g. macroeconomic impacts) Transmission channel B …	Financial risks Non-financial risks

Other institutions have decided to rely on studies targeting specific sectors, locations and projects in order to develop screening tools that would allow them to identify any new potential emerging risk. The results of these analyses are often presented in the form of a heatmap but also in more straightforward forms, such as showing a map of the relevant territories with symbols flagging low, medium and high-risk areas to offer a quick overview on the origins of risks. Finally, one institution has decided to dedicate a full section of its TCFD report to exploratory work on the potential effects of physical events stemming from climate risk.

Observed practice 11: Risk mitigation

Regarding risk mitigation, several approaches were observed during the assessment. For example, it was mentioned that ad hoc due diligence processes had been implemented as part of the regular risk assessment. However, few details were disclosed regarding the steps and the characteristics of these analyses.

Another important piece of the risk identification, management and mitigation framework is represented by the policies in place. A couple of institutions have decided to disclose clear information on the policies in place by listing them in a single section of their disclosure with a brief description of what they are about and the relevant link to allow stakeholders to understand the policy framework concerning C&E risks.

Table 14

Policies in place to integrate C&E risks within the bank’s risk identification, assessment and management processes

Policy	Topic covered	Link
Policy 1	Description of the policy supporting the identification, assessment or management of C&E risks	webpage
Policy 2	Description of the policy supporting the identification, assessment or management of C&E risks	Webpage
Policy 3	Description of the policy supporting the identification, assessment or management of C&E risks	webpage

One institution also decided to include a graph showing how its policies have evolved over the years, signalling to stakeholders how the framework has become more granular and complex in terms of areas included. Another institution included in their documentation a section fully dedicated to the framework implemented to oversee compliance in relation to C&E risks. The structure they have developed is particularly effective because it starts by describing (i) the internal framework in place, (ii) general provisions, (iii) processes in place to keep the framework updated and owners of the process, and (iv) policies and provisions dedicated to ad hoc C&E risk-sensitive sectors.

Observed practice 12: Embedding C&E risks in regular processes

Because of their transversal nature, **climate-related risk events have been embedded in the management of traditional banking risks and disclosed as such**. In particular, several institutions have decided to integrate climate risk considerations into their existing risk management processes, creating additional procedures, policies and tools so that these risks can be properly identified and measured. One bank provided information on how these risks have been embedded in a comprehensive, clear and systematic way. In particular, it assessed C&E risk management processes against the traditional risk areas (credit risk, market risk, treasury and capital risk, and operational risk) along different dimensions.

Table 15

Climate-related risk management processes

Climate-related risk management process	Credit risk	Market risk	Treasury and capital risk	Operational risk
Frequency of assessment	Annual, semi-annual, etc.	Annual, semi-annual, etc.	Annual, semi-annual, etc.	Annual, semi-annual, etc.
Time horizon covered	Short term, medium term, long term	Short term, medium term, long term	Short term, medium term, long term	Short term, medium term, long term
Description of the risk (under the climate risk dimension)	Description	Description	Description	Description
Risk identification	Risk identification description	Risk identification description	Risk identification description	Risk identification description
Owners of the risk identification processes	Department	Department	Department	Department
Risk measurement	Outcome	Outcome	Outcome	Outcome
Owners of the risk measurement processes	Department	Department	Department	Department

The embedding of C&E risk considerations in the risk management framework was also further explored in dedicated sections of the disclosures of several institutions. Several banks dedicated ad hoc sections to the assessment of credit risk, market risk and operational risk under the climate risk dimension to give stakeholders a more detailed view of the management of their main risk areas.

Observed practice 13: Description of credit risk

Credit risk is the core risk for most institutions, which have therefore set up ad hoc processes to include climate risk considerations in their credit-granting processes. One institution included in its disclosure a diagram clearly outlining how this integration is achieved with the different phases of the process and the relevant parties involved. The diagram was complemented by a description of the main changes in the process at counterparty and transaction level (e.g. tailored questionnaires, climate profile of the customer, etc.). Another institution has developed an enhanced due diligence process to tackle emerging risks stemming from C&E events related to credit operations. In particular, the bank disclosed that a new ad hoc questionnaire was developed for the assessment phase, with some questions, grouped by source of climate risk and sub-risk area, disclosed to stakeholders to allow a broad understanding of what issues are tackled. Furthermore, the bank also described the main steps of the risk management process and the main actors involved. Another institution has developed a series of vulnerability analyses performed along different dimensions to assess the impacts of physical and transition risks on their main exposures. One analysis was described in particular detail as the institution provided stakeholders with an organigram summarising the information used as inputs for the analysis (client data, assumptions, counterparty sector, etc.), main processes, including the relevant departments, the outputs of the analysis and the next steps concerning specific positions depending on their severity.

Moreover, in relation to credit risk, several institutions mentioned in their disclosures that they use the Partnership for Carbon Accounting Financials (PCAF) and PACTA methodologies to calculate the overall amounts of emissions financed via their credit operations, disclosing the sectors in their portfolios that account for the highest share of emissions and their positions vis-à-vis the rest of the industry.

Table 16
Exposure and alignment to specific sectors

PACTA-relevant sector	Exposure (%)	Institution vs benchmark
Automotive	A%	Worse than the benchmark
Aviation	B%	Better than the benchmark
Cement	C%	Aligned with the benchmark
Oil and Gas	D%	Worse than the benchmark
Steel	E%	Aligned with the benchmark

Observed practice 14: Description of scenario analyses and stress testing

Scenario analyses and stress testing are two of the risk management tools most widely disclosed by institutions in relation to C&E risks. However, the degree of transparency of the disclosures varies substantially. While some institutions merely disclose the use of scenario analysis and/or stress testing, others disclose the underlying assumptions, including the timeframe of the analysis, risks being assessed (transition, physical or both) and how the results of the analysis are used internally to manage, steer and mitigate C&E risks.

One observed practice consists in the detailed explanation of the use of scenario analyses and stress testing, including the reasons for using these tools (e.g. assessing the sensitivity of a given portfolio to climate-related risks) and how they differ from purely capital-based scenario analyses and stress testing (climate-related exercises usually adopt a longer timeframe than exercises that are purely capital based).

In addition, one institution provided a detailed description of the scenarios it had used, including the scope of application of a given scenario (e.g. single portfolio, business entity or groupwide), the target or scope of the analysis (e.g. understanding the challenges of a 2°C trajectory) and, finally, the detailed scenario.

Table 17

Description of scenarios and scope

Scenario 1	Scenario 2	Scenario 3
Scenario Applied at Group Level	Scenario Applied in Material Legal Entities	Scenario Applied only In Selected Entities
Scope: explore challenges arising from a 2C Path	Scope: explore challenges arising from several transition risk scenarios	Scope: explore challenges arising from specific scenarios that might be relevant only for selected entities or portfolios
Type of Scenario: Carbon Neutrality to be achieved by 2050 with a limited increase in temperature to 1.65 degrees.	Type of scenarios: baseline transition risk scenario combined with an accelerated transition risk scenario and an adverse transition risk scenario.	Type of scenarios: tailored physical risk scenarios (flooding, extreme heat, draught) to be applied depending on the location of legal entities.

Besides disclosing a high-level overview of (some of) the results of the different exercises, the institution also described how those results are used for risk management and mitigation purposes. For example, the institution was able to quantify the possible impact of transition risks on specific sectors and conclude whether the related financial impact was material or not.

Observed practice 15: Other environmental risks

Assessments of disclosures pertaining to financial reporting and sustainability reporting for each environmental risk, including pollution, water and marine resources and biodiversity, found that institutions predominantly took a descriptive approach, providing lists of prohibited investments in the light of revised sustainability policies put in place to comply with supervisory expectations and the challenges of climate-related risks.

However, one institution disclosed a policy explaining how it manages biodiversity risk also taking into account other environmental risks, such as overexploitation and pollution. More specifically, the institution clearly described how biodiversity risks and overexploitation of resources are integrated into its risk management with the explicit formulation of biodiversity selection criteria for companies, institutions, projects and government bonds. It favours companies and institutions that do not pose a threat to biodiversity through their own activities or activities within their sphere of control or that comply with the assessment guidelines. In addition, the institution defines criteria for resource extraction.

Observed practice 16: Exposure to sectors sensitive to C&E risks

The review of disclosures pertaining to the outline by institutions of their exposures to sectors related to climate change found that the descriptions varied from merely descriptive ones to ones that include a quantitative breakdown in accordance with the assessment criteria.

One of the most comprehensive examples of a quantitative breakdown of an institution’s exposures to sectors related to climate change is one where the institution included a table outlining the various levels within the climate action landscape that influence the institution’s overall climate strategy in accordance with the objectives of the Paris Agreement. This table reflects sector initiatives and climate-related reporting standards (improving climate-related transparency), the most carbon-intensive sectors and products (supporting the transition to a low-carbon economy), the current methodologies used by the institution to determine the climate-related impact of the most carbon-intensive components of its loan portfolios, the set of climate scenarios which more concretely set out sectoral decarbonisation efforts, and the climate-relevant metrics gathered to date.

One institution includes in its disclosures a table with a breakdown of its credit portfolio by sector, including the sectors most susceptible to climate change, such as power, oil and gas, mining and metal, transport, shipping, real estate, water supply and agriculture, combined with a customer classification system, leading to an ESG score to monitor and manage climate-related risks. The table actually provides quite accurate information, making it easier to understand and easier to compare with other disclosures.

Moreover, one institution has designed and disclosed a C&E risk assessment questionnaire to determine its clients' positions on the transition pathway employing three key dimensions: (a) level of current exposure; (b) level of future vulnerability; and (c) economic impact. The inclusion of C&E risks and opportunities in its credit assessment resulted in a risk quantification methodology which included the filling in of a questionnaire addressing both high and low-emission clients in line with expectations leading to the generation of a C&E risk scorecard summarising the main KPIs and identifying the counterparty's positioning in one of the four risk areas of the transition assessment matrix (low, medium-low, medium-high or high risk) and the inclusion of this environmental scoring in the credit valuation process. Such published information is visually powerful and helps provide stakeholders with a clear picture of both the institution's exposures and its risk mitigation approach.

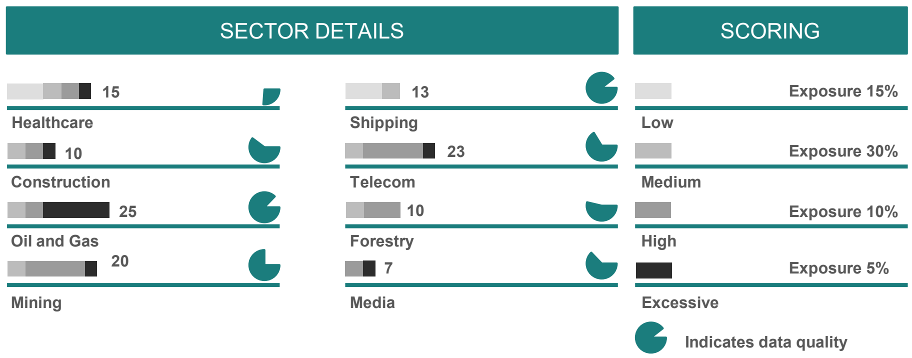
Table 18

Split of exposures per NACE code

NACE Code (2-digit)	NACE Description	% on Non Financial Corporate exposure
AO1	Crop and animal production, hunting and related service activities	[•]
BO5-BO9	Mining and quarrying	[•]
C19	Manufacture of coke and refined petroleum products	[•]
C20	Manufacture of chemicals and chemical products	[•]
C23	Manufacture of other non – metallic mineral products	[•]
C24-C25	Manufacture of basic metals; Manufacture of fabricated metal products except machinery and equipment	[•]
D35	Electricity, gas, steam and air-conditioning supply	[•]
H50	Water transport	[•]
Total		[•]

Figure 5

Data quality per sector



One institution includes in its disclosures a table of its risk concentration by NACE sector disclosing loans and advances to non-financial corporates and high carbon-intensive sectors, pointing out that it has small or no exposures to carbon-intensive industries with the notable exception of the electricity, gas and steam sector.

Table 19

Loans and advances to non-financial corporates and high carbon-intensive sectors

NACE Code	Description sector	2021 (in € millions)	2020 (in € millions)	High carbon intensive sector (yes/no)	Total carbon emissions 2021 (tonnes CO2eq)	Total carbon emissions 2020 (tonnes CO2eq)	Carbon intensity 2021 (Tco2eq/€ million)	Carbon intensity 2021 (tCO2eq/€ million)
010(A)	Agriculture, forestry and fishing	[•]	[•]	[•]	[•]	[•]	[•]	[•]
080(H)	Transport and storage	[•]	[•]	[•]	[•]	[•]	[•]	[•]
090(I)	Accommodation and food service activities	[•]	[•]	[•]	[•]	[•]	[•]	[•]
100(J)	Information and communication	[•]	[•]	[•]	[•]	[•]	[•]	[•]
140(N)	Administrative and support service activities	[•]	[•]	[•]	[•]	[•]	[•]	[•]
160(P)	Education	[•]	[•]	[•]	[•]	[•]	[•]	[•]

Finally, one bank disclosed a distinctive link between its exposures to climate-related sectors and reputational risk. The institution described in considerable detail how its reputational risk management works and its internal processes and assessment to address exposures and mitigate reputational risk. The early identification and appropriate management of environmental risks is incorporated into the institution’s overall risk strategy and managed via its reputational risk department. It consists of a review of products, transactions and customer relationships with sustainability aspects focusing on ecologically sensitive areas, such as where projects may lead to increased pollutants in the air, water and soil, or where they may be linked to the overexploitation of natural resources.

3.6 Metrics and targets

Observed practice 17: Strategy resilience

Most institutions using PACTA analysis disclose the exposures in scope, the total amount of matched loans per sector and the portfolio used for the analysis (for example the industrial loan book). Several institutions also provide further details on the methodology of the PACTA analysis and the scenarios used to measure the alignment of their portfolio.

Owing to the high number of existing scenarios and the large differences between them, it is important to provide a comprehensive overview. Several institutions have not only published a description and the sector coverage for each scenario, but also provide further granularity down to the regional level. For example, the IEA SDS scenarios for the EU are much more restrictive in specific areas (e.g. power, oil and gas, automotive and coal) than those for OECD countries or global scenarios. However, most banks use global regions for their alignment analysis.

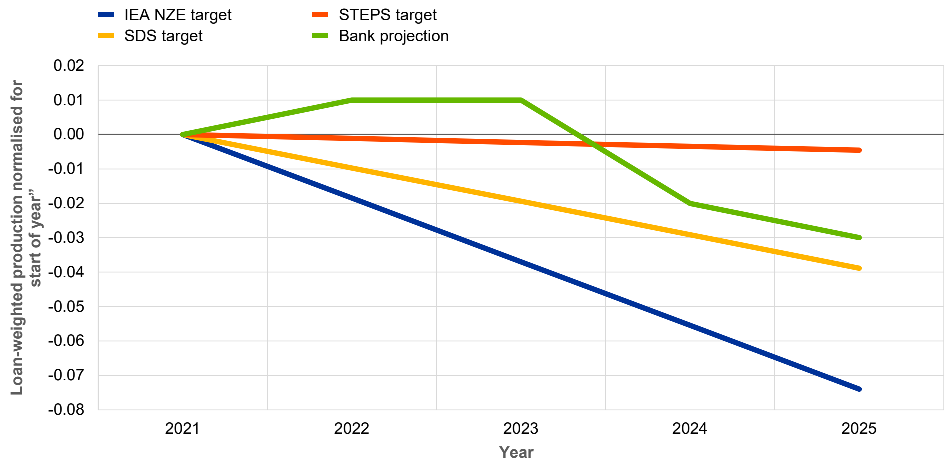
Table 20
Scenario descriptions

Scenario name	Scenario description	Sector coverage	Scope of the scenario
IEA NZE 2050	Net zero emissions by 2050 / scenario 2021: The NZE 2050 scenario is designed to achieve specific outcomes – an emissions trajectory consistent with keeping the temperature rise in 2100 below 1.5 °C (with a 50% probability), universal access to modern energy services and major improvements in air quality – and shows a pathway to reach it.	Power, Oil and Gas, Automotive, Coal	Global
IEA SDS	The Sustainable Development Scenario would limit the global temperature rise to below 1.8°C with a 66% probability if CO_2 emissions remain at net zero after 2070. If CO_2 emissions were to fall below net zero after 2070, then this would increase the possibility of reaching 1.5°C by the end of the century	Power, Oil and Gas, Automotive, Coal	Global, European Union, OECD countries

As a last step, institutions publish their targets and respective alignments for each sector. These include both the trajectories for the invested portfolio and the targets under the selected scenarios.

Chart 7

Portfolio alignments vis-à-vis various scenarios – coal sector



Observed practice 18: Self-assessment of data quality

One institution disclosed in its sustainability report a large collection of sustainability and climate-related data on various portfolios. Sustainability data cover non-financial areas of human capital, the institution's direct footprint, clients and community involvement in a transparent and granular way, while climate-related data cover loan, insurance and investment portfolios.

The institution transparently acknowledges that the data collection process (especially for climate-related data on its business portfolios) is not exhaustive and that there is significant room for improvement. The table below provides an overview of the scope and boundaries of the institution's GHG emissions and the respective data quality of the calculations (1 = highest quality; 5 = lowest quality), including an external verification by a third party. The institution acknowledges that, while the reported figures provide an initial high-level indication of the emission weights of the different sectors and products in its portfolios, they do not replace actual emissions of counterparties and may over or understate emissions.

Table 21

Scope and boundary of GHG emissions and the respective data quality

Scope	Source of GHG emissions	Scope and boundary if GHG emissions	Data quality	Third party verification
Indirect scope 3 Upstream	Purchased goods and services	Emissions from paper and water consumption of all groupwide operations are included	3	Yes
	Business travel Etc.	Emissions from business travel by not-own fleet (vehicles, public transport and air travel) of all groupwide operations are included	3	Yes
Indirect scope 3 Downstream	Downstream leased assets	Emissions from Institution's operational lease portfolio	5	No
	Investments	Emissions from Institution's oil and gas loan portfolio (Scope 1, Scope 2 and Scope 3)	5	No
		Emissions from Institution's mining loan portfolio (Scope 1, Scope 2 and Scope 3)	5	No
		Emissions from Institution's remaining loan portfolio (Scope 1, Scope 2 and Scope 3)	5	No

Annex – Bank by bank anonymised results

	Materiality assessment	Business model	Governance	Risk Management	Metrics and Targets
Bank 1	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 2	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 3	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 4	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 5	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 6	Inadequate	Inadequate	Inadequate	Inadequate	Inadequate
Bank 7	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 8	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 9	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 10	Inadequate	Inadequate	Inadequate	Inadequate	Somewhat inadequate
Bank 11	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 12	Somewhat inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 13	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Somewhat inadequate
Bank 14	Inadequate	Inadequate	Somewhat inadequate	Inadequate	Somewhat inadequate
Bank 15	Inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 16	Somewhat inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 17	Somewhat inadequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 18	Inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 19	Somewhat inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 20	Somewhat inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 21	Inadequate	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 22	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 23	Somewhat inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 24	Inadequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate
Bank 25	Inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 26	Broadly adequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 27	Inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 28	Inadequate	Inadequate	Inadequate	Broadly adequate	Somewhat inadequate
Bank 29	Broadly adequate	Inadequate	Somewhat inadequate	Inadequate	Inadequate
Bank 30	Inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 31	Somewhat inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 32	Inadequate	Somewhat inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 33	Inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Somewhat inadequate
Bank 34	Somewhat inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Inadequate
Bank 35	Broadly adequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 36	Broadly adequate	Inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 37	Somewhat inadequate	Inadequate	Somewhat inadequate	Inadequate	Broadly adequate
Bank 38	Somewhat inadequate	Inadequate	Somewhat inadequate	Broadly adequate	Somewhat inadequate
Bank 39	Somewhat inadequate	Inadequate	Broadly adequate	Somewhat inadequate	Somewhat inadequate

	Materiality assessment	Business model	Governance	Risk Management	Metrics and Targets
Bank 40	Broadly adequate	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate	Inadequate
Bank 41	Somewhat inadequate	Somewhat inadequate	Broadly adequate	Somewhat inadequate	Somewhat inadequate
Bank 42	Broadly adequate	Inadequate	Broadly adequate	Inadequate	Inadequate
Bank 43	Inadequate	Inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 44	Inadequate	Broadly adequate	Somewhat inadequate	Broadly adequate	Inadequate
Bank 45	Inadequate	Somewhat inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 46	Somewhat inadequate	Somewhat inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 47	Broadly adequate	Broadly adequate	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate
Bank 48	Somewhat inadequate	Somewhat inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 49	Somewhat inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate	Somewhat inadequate
Bank 50	Somewhat inadequate	Somewhat inadequate	Somewhat inadequate	Broadly adequate	Broadly adequate
Bank 51	Inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 52	Inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate	Broadly adequate
Bank 53	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 54	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 55	Somewhat inadequate	Broadly adequate	Broadly adequate	Somewhat inadequate	Broadly adequate
Bank 56	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 57	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 58	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 59	Somewhat inadequate	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 60	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 61	Somewhat inadequate	Inadequate	Adequate	Inadequate	Inadequate
Bank 62	Somewhat inadequate	Inadequate	Adequate	Somewhat inadequate	Inadequate
Bank 63	Somewhat inadequate	Somewhat inadequate	Inadequate	Adequate	Somewhat inadequate
Bank 64	Somewhat inadequate	Somewhat inadequate	Adequate	Somewhat inadequate	Somewhat inadequate
Bank 65	Somewhat inadequate	Inadequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 66	Broadly adequate	Somewhat inadequate	Adequate	Somewhat inadequate	Inadequate
Bank 67	Somewhat inadequate	Inadequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 68	Inadequate	Broadly adequate	Adequate	Somewhat inadequate	Somewhat inadequate
Bank 69	Somewhat inadequate	Somewhat inadequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 70	Somewhat inadequate	Somewhat inadequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 71	Broadly adequate	Inadequate	Adequate	Broadly adequate	Inadequate
Bank 72	Somewhat inadequate	Broadly adequate	Broadly adequate	Adequate	Inadequate
Bank 73	Broadly adequate	Inadequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 74	Broadly adequate	Broadly adequate	Adequate	Somewhat inadequate	Inadequate
Bank 75	Somewhat inadequate	Broadly adequate	Adequate	Broadly adequate	Inadequate
Bank 76	Broadly adequate	Adequate	Adequate	Somewhat inadequate	Somewhat inadequate
Bank 77	Somewhat inadequate	Broadly adequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 78	Somewhat inadequate	Broadly adequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 79	Somewhat inadequate	Broadly adequate	Adequate	Somewhat inadequate	Broadly adequate
Bank 80	Somewhat inadequate	Somewhat inadequate	Adequate	Broadly adequate	Broadly adequate
Bank 81	Somewhat inadequate	Broadly adequate	Adequate	Broadly adequate	Broadly adequate
Bank 82	Somewhat inadequate	Adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 83	Broadly adequate	Broadly adequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 84	Broadly adequate	Broadly adequate	Somewhat inadequate	Adequate	Broadly adequate
Bank 85	Adequate	Broadly adequate	Broadly adequate	Broadly adequate	Somewhat inadequate

	Materiality assessment	Business model	Governance	Risk Management	Metrics and Targets
Bank 86	Somewhat inadequate	Adequate	Broadly adequate	Broadly adequate	Broadly adequate
Bank 87	Broadly adequate	Adequate	Somewhat inadequate	Broadly adequate	Broadly adequate
Bank 88	Inadequate	Inadequate	Adequate	Adequate	Somewhat inadequate
Bank 89	Somewhat inadequate	Adequate	Adequate	Broadly adequate	Inadequate
Bank 90	Adequate	Adequate	Somewhat inadequate	Broadly adequate	Somewhat inadequate
Bank 91	Somewhat inadequate	Broadly adequate	Adequate	Adequate	Somewhat inadequate
Bank 92	Adequate	Broadly adequate	Adequate	Broadly adequate	Inadequate
Bank 93	Somewhat inadequate	Broadly adequate	Adequate	Adequate	Broadly adequate
Bank 94	Broadly adequate	Somewhat inadequate	Adequate	Adequate	Broadly adequate
Bank 95	Adequate	Adequate	Broadly adequate	Broadly adequate	Somewhat inadequate
Bank 96	Inadequate	Adequate	Adequate	Adequate	Somewhat inadequate
Bank 97	Adequate	Adequate	Adequate	Broadly adequate	Somewhat inadequate
Bank 98	Adequate	Adequate	Adequate	Broadly adequate	Broadly adequate
Bank 99	Adequate	Adequate	Adequate	Broadly adequate	Broadly adequate
Bank 100	Adequate	Adequate	Adequate	Broadly adequate	Broadly adequate
Bank 101	Broadly adequate	Adequate	Adequate	Adequate	Broadly adequate
Bank 102	Adequate	Adequate	Adequate	Adequate	Somewhat inadequate
Bank 103	Adequate	Adequate	Adequate	Adequate	Broadly adequate

Postal address 60640 Frankfurt am Main, Germany
Telephone +49 69 1344 0
Website www.bankingsupervision.europa.eu

For specific terminology please refer to the SSM glossary (available in English only).

PDF ISBN 978-92-899-6066-3, doi: 10.2866/499637, QB-05-23-074-EN-N