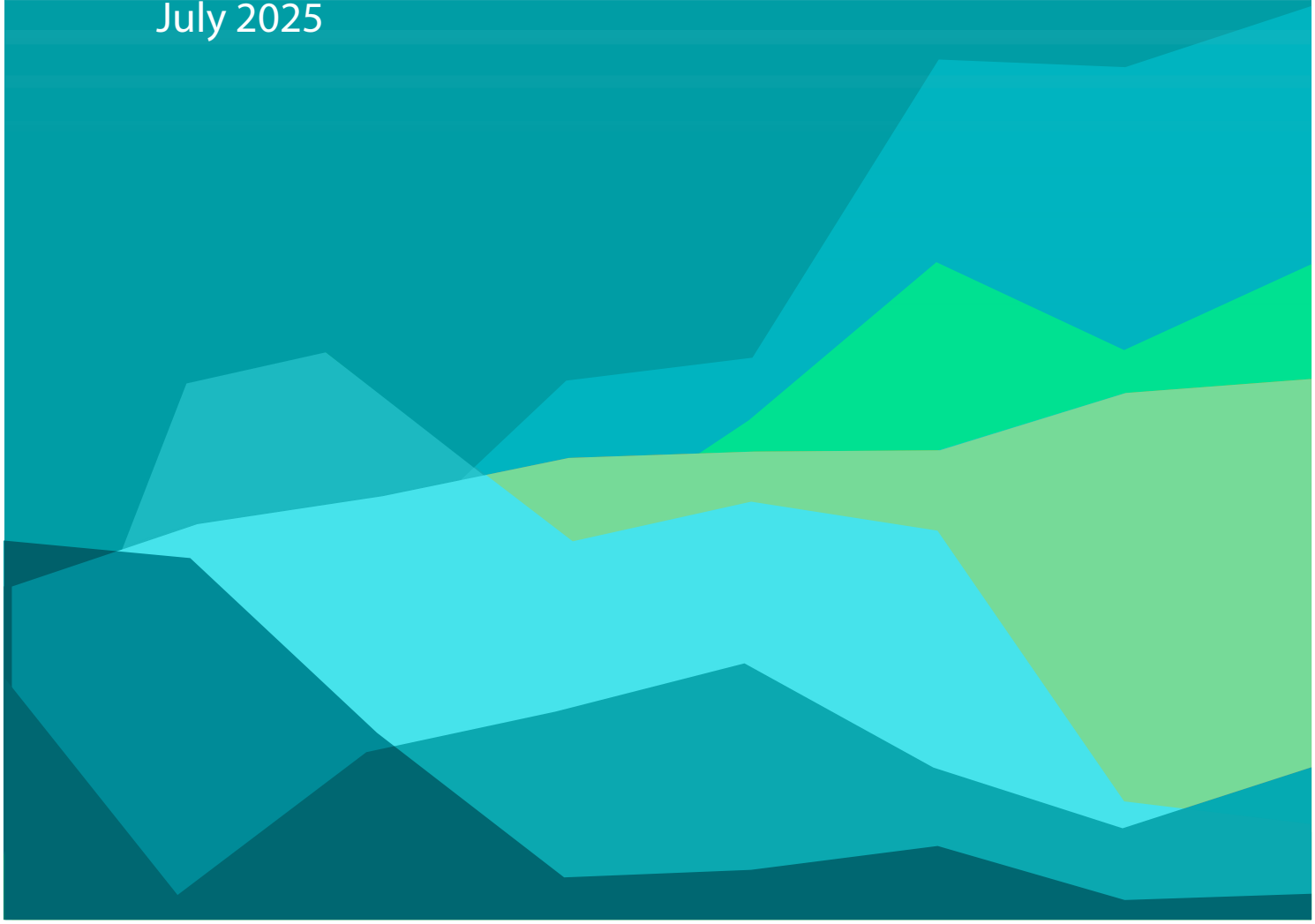
Network for Greening the Financial System

Technical Note

Target setting and Transition plans

July 2025



NGFS

Central Banks and Supervisors
Network for Greening the Financial System

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As the financial system accelerates its efforts to manage the risks stemming from climate change, climate-related targets are becoming central to the development of financial institutions' transition plans. These targets, whether driven by voluntary commitments or regulatory expectations, go beyond mere aspirational statements. They provide a concrete foundation for transition planning, offering direction and accountability as institutions navigate the complex shift toward a low-emissions and climate-resilient economy. They are a valuable source of information for micro-prudential supervisors, providing insights into financial institutions' risk management and governance of climate-related risks.

Importantly, credible and well-integrated climate-related targets enhance the quality and effectiveness of transition plans. When aligned with a financial institution's broader strategy and supported by robust governance, these targets can bolster business resilience, strengthen risk management, and improve performance measurement. On the other hand, poorly designed or unachievable targets can undermine business models and stakeholder confidence, potentially leading to significant financial repercussions for financial institutions.

This technical note builds on the NGFS's ongoing work on transition plans and provides practical insights for micro-prudential authorities to understand and engage with financial institutions on target-setting practices. By examining how climate-related targets are set, monitored, and integrated into transition plans, the note aims to support supervisors in their task to ensure the safety and soundness of the financial system amid a changing climate.

This note is published together with another note on the interactions between climate scenario analysis and transition plans. Through these publications, we hope to contribute to the practical implementation of transition plans and their use by supervisors. We are convinced that these analyses will shed light on these issues, and help the central banking and supervisory community to make progress on the subject. These notes conclude an initial cycle of NGFS reports on transition plans that began in 2023, which have helped to explore the challenges of these plans from a micro-prudential perspective and to understand the context in which these plans are developed.

We are grateful for the commitment of the workstream members who contributed to this report, as well as the valuable engagement of other stakeholders who have shared their expertise, insights, and practices. We also express our heartfelt thanks to the co-leads of these reports for their leadership and dedication.

Executive Summary

Targets enable financial institutions (FIs) to measure and assess how well they are meeting their strategic and financial goals. As it relates to climate-related targets, some FIs may set targets that are tied to commitments they have made on climate change, while others may set targets to align with jurisdiction-specific regulatory or legislative requirements.

Notwithstanding jurisdiction-specific mandates or legislation, micro-prudential authorities generally do not require FIs to set climate-related targets or enforce them. That said, like other strategic and financial targets that FIs set, climate-related targets pursued by FIs can be consequential on their business strategies, business models and risks. To be successful, these targets need to be supported by effective execution, including ensuring coherence with the FIs' wider strategy and, where relevant, developing and implementing a transition plan to meet these goals. For example, FIs who set and successfully execute against effective climate-related targets can capitalise on new business opportunities whilst minimising their risks related to climate change. However, the opposite could equally be true: FIs who have set ineffective or unfeasible targets or are unable to deliver on them could create risks. This is particularly important given recent global events, which could not only impact FIs and non-financial firms' willingness to set targets, but also their ability to follow through with them.

This technical note is intended for micro-prudential authorities who engage FIs on their climate-related targets in transition plans. It provides micro-prudential authorities with an overview of the mitigation and adaptation targets FIs could set in transition plans, and actions they may take to set and execute against these targets. It considers potential risks, such as setting ineffective targets, having insufficient information to support the target setting process, and governance and control lapses in target setting and monitoring. Finally, it includes sample questions addressing these risks that authorities could consider when engaging with FIs. Following the NGFS's building blocks approach, the note also includes sample questions that authorities with climate-specific or sustainability-related mandates could consider when engaging FIs on climate-related target setting.

Introduction

To avoid the worst impacts of climate change, global temperature rise must be kept below 2 °C and greenhouse gas emissions must be reduced by 43% by 2030. Countries party to the Paris Agreement agreed to a legally binding international treaty on climate change to combat climate change that sets targets on a global level. On a domestic level, this includes setting increasingly ambitious national climate action plans, or nationally determined contributions (NDCs) and National Adaptation Plans (NAPs) by governments of many nations. Further, many non-state actors, including financial institutions (FIs) and non-financial firms,[1] have made climate-specific commitments and adopted climate-related targets,[2] either voluntarily or driven by jurisdiction-specific legislation. FI commitments and accompanying targets that align with international commitments can facilitate finance flows that are consistent with a pathway towards low GHG emissions and climate-resilient development.

Defining climate-related targets

Generally, 'target' denotes a desired goal or end-state that an entity aspires to meet. Among other attributes, they can be defined in qualitative or quantitative terms, as well as expressed as an absolute or relative measure.

As applied to the impacts of climate change specifically, the International Sustainability Standards Board (ISSB) defines climate-related targets in paragraph 33 of the IFRS S2 Climate-relate disclosures as "quantitative and qualitative [that an entity] has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation, including any greenhouse gas emissions targets". Furthermore, the ISSB requires entities to disclose the following for each target:

a) the metric used to set the target;
b) the objective of the target (for example, mitigation, adaptation or conformance with science-based initiatives);
c) the part of the entity to which the target applies (for example, whether the target applies to the entity in its entirety or only a part of the entity, such as a specific business unit or specific geographic region);
d) the period over which the target applies;
e) the base period from which progress is measured;
f) any milestones and interim targets;
g) if the target is quantitative, whether it is an absolute target or an intensity target; and
h) how the latest international agreement on climate change, including jurisdictional commitments that arise from that agreement, has informed the target.

The NGFS adopted the ISSB definition for the purpose of this technical note. Whilst the ISSB standard focuses on disclosures, which is not the focus of this note, it highlights the relevant elements of what effective and comprehensive targets would look like.

A continuation of the NGFS's work on transition plans

Like other strategic and financial targets that FIs set, climate-related targets need to be supported by effective execution, including ensuring coherence with the FIs' wider strategy and, where relevant, developing and implementing a transition plan to meet these goals. Indeed, the NGFS Stocktake report (May 2023)[3] recognized the relevance of target setting in transition planning and plans. Specifically, the report defined transition planning as an "internal process undertaken by a firm to develop a transition strategy to deliver climate targets and/or prepare a long-term response to manage the risks associated with a transition." Furthermore, the report defined transition plans as a "key product of the transition planning process and are mainly used as an external-facing output for external audiences (e.g., public stakeholders or supervisors). [They] represent the strategy of how firms plan to align their core business with a specific strategic climate outcome."

1 Consistent with the mandate of the NGFS Workstream on Supervision, "financial institutions" and "FIs" are used to describe banks and insurers subject to micro-prudential supervision. Non-financial firms refer broadly to firms in the real economy.

2 For the purpose of this technical note, a [climate-related] commitment denotes a FI's pledge to minimise the impacts of climate change whereas a [climate-related] target denotes specific measures an FI uses in demonstrating how it achieves its commitment.

3 NGFS (2023), The NGFS Stocktake report on Transition plans.

Deep dives undertaken by the NGFS following the Stocktake further highlighted the need to explore climate-related target-setting in the context of transition planning.[4] To illustrate:

- Any FI transition plan and planning process would be tailored and contextualized accordingly to capture the specificities of the composition of the FI's portfolio and the type of related risk (e.g., focus on physical risk and related adaptation actions of FIs operating in jurisdictions where these are particularly important). This implies that FIs may set different types of climate targets in their transition plans (i.e. mitigation and adaptation targets) depending on their business activities, geographic footprint, risk profile, and relevant national regulatory frameworks and requirements.
- Given the connection between FIs' transition plans and non-financial firms' transition plans, the ability of the former to meet their targets will be affected (or informed) by the latter.
- In building credibility for transition plans, an underlying prerequisite will also be whether the set targets (which transition plans seek to achieve) are credible themselves. Beyond the credibility and implementation of the strategy within transition plans, it is also important to consider their broader implications for the FI's resilience and oversight frameworks. Micro-prudential authorities may consider the relevance of a FI's target setting activities to its safety and soundness – such as how targets set against certain metrics could be used as key performance indicators to measure the FI's progress against its business or strategic objectives or to assess the effectiveness of their risk management processes.

These NGFS deep dives pointed to a common observation: while transition plans and target setting as a product are primarily strategy focused, risk management is an integral part of the transition planning process. Although micro-prudential mandates focus on the safety and soundness of FIs and do not typically include meeting broader climate objectives, such as decarbonisation of a supervised entity or the economy, these authorities can benefit from understanding how climate-related targets are set in FIs' transition plans and potential implications on their risk profile and the financial system more broadly.[5]

Consistent with any other non-climate driven strategic or transformation projects, it is important for supervisors to understand, at a minimum, the implications of a FI setting and achieving climate-related targets on its business model, risk profile and change management. Furthermore, sound transition planning will reinforce FIs' abilities to identify, monitor and tackle climate-related risks and opportunities. By defining a transition planning framework and associated processes, FIs can strengthen their risk management capabilities.

The objective and organisation of this technical note

This technical note provides micro-prudential authorities with an overview of the types of targets, and approaches used by FIs when setting targets in transition plans. It considers the implications of target setting from a micro-prudential perspective, enhancing micro-prudential authorities' ability to engage with FIs. Importantly, it is not a guide on how authorities could require FIs to set climate-related targets or enforce any climate-related targets that FIs may set.

A two-step approach was used to develop this note. The first step was to undertake a stocktake of current literature and the second step was to obtain an update on current supervisory practices.

The NGFS first undertook a stocktake of current literature on target setting from 10 different sources, including from non-governmental organisations and private sector groups, to understand different approaches to develop climate-related targets within transition plans. The NGFS supplemented its research with an outreach to these organisations[6] for reviewing the summarized content for reasonability and getting additional insights and best practice examples.

Secondly, two NGFS member roundtables were convened, during which different micro-prudential authorities were invited to share their conceptual thinking and/or experience engaging FIs on climate-related targets.

4 NGFS (2024), Transition Plan Package Cover Note; Tailoring Transition Plans: Considerations for EMDEs; Connecting Transition Plans: Financial and non-financial firms; Credible Transition Plans: The micro-prudential perspective.

5 European Banking Authority (2024), Report on fit for 55 climate scenario analysis.

6 UNEP-FI, GFANZ, WWF, ADEME, RMI (PACTA), UNFCCC, and TPI.

This was an important step to understand varying mandates of authorities in different jurisdictions as well as the differing national circumstances.

The note is structured as follows:

- Sections 1 and 2 provide micro-prudential authorities with a summary of the common types of climate-related targets that FIs may set, as well as actions undertaken by them to set and meet their targets from current frameworks and literature. They aim to give micro-prudential authorities a high-level understanding of FI target setting activities.
- Sections 3 and 4 focus on potential risks that may arise in connection to ineffective target setting and execution, and questions that micro-prudential authorities may consider when engaging FIs who set climate-related targets.
- Section 5 concludes with topics for future consideration to continue advancing the discussion on transition plans and climate-related targets.

1. Examples of climate-related targets

For micro-prudential authorities to engage FIs on climate-related targets in transition plans, a key component is understanding the types of targets they may set.

This section summarises some examples of climate-related targets that FIs may set, based on a review of external frameworks and literature, to help supervisors identify these targets.[7] The NGFS does not endorse any specific frameworks or targets. Rather, it distilled relevant information to inform the report.

As highlighted in the introduction, the NGFS adopted the ISSB definition of climate-related targets for this note. Aside from the ISSB definition, this note also adopted the United Nations Environment Programme Finance Initiative (UNEP-FI) categorization of targets: (1) Mitigation targets, which relate to reducing greenhouse gas (GHG) emissions and limiting global warming, and (2) adaptation targets, which relate to managing the risks and impacts of climate change. According to the UNEP-FI Principles for Responsible Banking guidance, mitigation and adaptation targets differ in the following ways:

	Mitigation	Adaptation
Focus	Reducing greenhouse gas emissions and limiting global warming.	Managing the risks and impacts of climate change.
Timeline	Typically focused on the long term, with a goal of achieving net zero emissions by 2050.	May have a shorter-term focus, depending on the specific risks and impacts that the organisation is exposed to.
Scope	Typically focuses on the bank's lending to businesses and sectors that are high emitters of greenhouse gases.	May focus on a wider range of businesses and sectors. This is because the impacts of climate change are already being felt around the world, and businesses in all sectors are facing some level of risk. In developing countries, focus on sectors key to the economy, especially under-diversified economies.
Goal	Support clients in the transition and shift its lending to businesses and sectors that are supporting the transition to a low-carbon economy. Could include exclusions of certain activities, or participation in managed phase-out programmes.	Help clients to manage climate risks and build resilience. Exclusions are not recommended as they will further increase existing vulnerabilities, at the detriment of developing countries.

Source: UNEP-FI Principles for Responsible Banking (reproduced by the NGFS).

The NGFS adopted this categorisation in this note as a starting point because it is helpful to consider the differences in targets that are set as a response to climate change mitigation versus adaptation. Furthermore, it aligns with the NGFS view that transition plans, inclusive of targets therein, should integrate transition and physical risks, and consider both mitigation and adaptation.

Whilst two categories of targets exist, it is important to recognise the connection between them. For example, a net-zero 2050 target (mitigation focused) implies a specific climate outcome the FI aligns its operations with. However, even in a scenario where the world achieves net zero emissions by 2050, GDP in G7 countries could be 8.5% lower p.a. as a result of the physical impacts of climate change.[8] Therefore, while on the surface, a FI's credible actions to deliver a 1.5 °C aligned target may address mitigation, they in fact also need to reflect actions for climate resilience that address the increased climate impacts of a 1.5 °C world on the FI's business. It may also imply, from a risk management perspective that the FI may need to plan to adapt to a 2 °C or higher world, even as its own strategy aims for a 1.5 °C one.

Through the stocktake of external frameworks, the NGFS noted that current guidance mostly focuses on transition risks and mitigation targets. A minority of guidance discusses adaptation targets. Nevertheless, this section includes examples of both categories of targets.

7 See Annex 1 for the list of literature reviewed for this technical note.

8 Oxfam (2021), G7 economies could love 8.5% per year by 2050 without more ambitious climate action.

1.1 Mitigation targets

Mitigation targets focus on FIs' actions aimed at reducing GHG emissions and can take different forms and focus on different aspects of the mitigation efforts.

Based on the NGFS stocktake of available guidance and feedback from external organisations, different organisations prioritize different targets to achieve various objectives. For example, GHG emission reduction targets aim to reduce the impact on climate change and/or align the business model to a transition economy, while profitability targets focus on transition plan execution. Some organisations suggest a differentiated use of targets, such as preferring client engagement ahead of divestment. See Table 1 below for examples of relevant mitigation targets.

Table 1 **Examples of climate mitigation targets**

Target type	Description
A. Emissions-based targets	
1. GHG emission reduction targets	From a FI's perspective, these targets focus mainly on Scope 3 category 15[1] emissions, including both financed and facilitated emissions of the business lines. It can be expressed in absolute terms (tons of CO_2 equivalent emissions) and/or in relative terms (tons of CO_2 equivalent emissions per amount invested or earned; tons of CO_2 equivalent per amount of production). These targets tend to be set across several timeframes and could be expressed as a range (lower and upper bound targets) – for example, in the short term (e.g., 5 years) to drive near term action, and in the long term to inform strategic commitments and planning, usually expressed as net-zero targets to 2040 or 2050. It could incorporate different categories of business activities, including: 1. Equity investments 2. Debt investments 3. Project finance 4. Managed investments and client services 5. Underwriting Some guidance also specifies the emissions FIs could target, such as methane emission reduction targets. These targets are used to measure material non-carbon emissions from fossil methane and biogenic methane for oil and gas companies. Please see Annex 2 on current discussions around GHG emissions reduction targets.
B. Portfolio-level targets	
2. Pathway alignment targets	These targets focus on the alignment of the FI's lending, underwriting, or investment portfolios with selected reference pathways, usually based on physical emissions intensity metrics. However, they can also be expressed in terms of production units. They can also be referred to as "benchmark alignment targets".
3. Temperature alignment targets	These targets focus on the alignment of the FI's lending, underwriting, or investment at an aggregate portfolio level with Paris-aligned pathways (e.g., 1.5 °C pathway, Below 2 °C Pathway) in order to provide a 'temperature rating' for that portfolio or loan book. Temperature alignment metrics are also common in other financial business segments, such as asset management.
4. Portfolio alignment or coverage targets	These targets measure the percentage of portfolio companies with net-zero commitments, decarbonisation plans, or clean energy transition strategies resulting from asset owner engagement, and proportion of total portfolio allocated to climate-aligned instruments.
C. Real economy activity-based targets	
5. Transition financing targets	Transition financing targets focus on the amount/share of financing or underwriting that will be deployed in support of real-economy decarbonisation, once the FI determines which transition financing strategies it intends to utilize to deliver on its net-zero targets, using sectoral pathways where available. It can also include commitments to financing, underwriting or investing a certain amount toward a target within a specified timeframe (e.g., finance up to $x per year starting from 2025, etc.).
6. Asset financing ratio	This refers to an FI's commitment to achieving a certain ratio of low-carbon or renewable energy financing to fossil fuels financing. It can include the volume or share of positive impact investments or loans, leveraging either green or transition finance labels, or own definition of a green or transitioning asset.
7. Climate solution targets	These targets focus on the growth or expansion for climate solutions investments aligned with national and regional policies.

1 Category 15 refers to emissions from investments and loans.

Target type	Description
8. **Phasing out or exclusion targets**	These targets aim at addressing relationships with climate-sensitive or high-emitting sectors or regarding clients that are deemed misaligned with a transition scenario. These targets could include setting a pace/timeline for withdrawing financing or underwriting from misaligned fossil fuel activities (including but not limited to the ending of financing/investing in new coal capacity, unabated thermal coal, new oil and gas fields, and setting an exclusion threshold for investees with oil and gas expansion plans) and land conversion activities (including ending financing of deforestation and other natural ecosystems).
9. **Climate scoring of clients from a mitigation perspective**	These targets entail scoring clients based on internal climate methodologies following monitoring and engagement related to clients' transition plans to mitigate the impacts of climate change.
D. Transition plan execution targets	
10. **Profitability-related targets**	These targets are aimed at tracking increases in the share of revenues stemming from sustainable activities and/or reducing the share of revenues stemming from detrimental activities.
11. **Client engagement targets**	These targets focus on the FI's engagement with clients and portfolio companies to enable transition. It could include encouraging them to move forward in their transition journey, requested by a given date. Depending on their maturity, it could also include measuring GHG, adopting science-based decarbonisation targets, setting and implementing a credible and robust transition or phase-out plan. These targets often include quantifiable indicators, including on actions taken by FIs themselves (e.g., the number of Paris/1.5 °C-aligned lobbying and advocacy activities) and bilateral engagements (e.g., the number of clients or portfolio companies with transition plans or GHG reduction targets aligned with Paris goals, net-zero, or a 1.5 °C pathway). These actions collectively aim to drive climate-aligned outcomes and ensure alignment with Paris Agreement goals, net-zero targets, and the 1.5 °C pathway.

1.2 Adaptation targets

Adaptation targets focus on adapting to climate change and building resilience[9]. They often rely on physical risk assessments and management. See Table 2 for examples of metrics used for adaptation target setting.

The literature review suggests that integrating adaptation and climate resilience, including targets, in transition plans is in relative infancy compared to mitigation. This observation reinforces one of the NGFS's findings in the April 2024 report "Tailoring Transition Plans: Considerations for EMDEs". Specifically, "EMDEs encounter higher hurdles [in transition planning], including the […] lack of standardised metrics to capture adaptation and resilience". Consequently, while this report considers physical risks and adaptation targets to the extent possible, micro-prudential authorities, especially those from EMDEs, could benefit from reading this report in tandem with the NGFS input paper on adaptation and transition plans.

Table 2 **Examples of climate adaptation targets**

Target type	Description
A. Portfolio level targets	
Physical risk assessment and management	These targets measure the physical risk assessments completed for the portfolio. Advanced measures could include looking at the proportion of the portfolio that is highly exposed to physical risks (geography/sector) and adaptation/resilience measures in place to manage the risks.
B. Real economy activity-based targets	
Climate-resilient financing targets	These targets measure financing of adaptation/resilience infrastructures (e.g., flood defence, renewable energy installations designed to withstand extreme weather conditions) or by financing resilient assets (e.g., green building standards that include climate adaptation features; sustainable farming practices that increase crop resilience to climate variability).
Climate scoring of clients from an adaptation perspective	These targets measure, based on internal climate methodologies, the extent to which clients are adapting and building resilience to climate change based on their transition plans.
C. Transition plan execution targets	
Engagement targets	These targets measure the level/type of engagement with clients and portfolio companies to encourage them to adopt resilience policies, by a given date.

9 The Intergovernmental Panel on Climate Change (IPCC) further differentiates between adaptation as "the process of adjustment to actual or expected climate and its effects" and resilience as "the capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure".

2. Actions FIs undertake to set and meet their targets

For micro-prudential authorities who engage FIs on climate-related targets in transition plans, another key component is understanding the actions they may undertake to set and meet their targets.

This section summarises the actions that FIs generally undertake to set and meet their climate-related targets, based on a review of current frameworks and guidance. As noted above, the NGFS does not endorse any specific frameworks. Rather, it distilled relevant information to inform the report.

Based on a review of external guidance, FIs undertake the following after they have defined their objectives for climate-related targets:

1. Define the scope for the overall and interim targets and measuring the baseline.
2. Identify reference pathways to calibrate targets.
3. Align the business model, strategy, and internal activities to deliver the targets, including engaging with stakeholders.
4. Monitor and disclose the progress against the targets.

2.1 Define the scope for the overall and interim targets and measuring the baseline

FIs typically define overall targets or goals that apply at group-level and in the long-term (e.g., by the year 2050), though some may focus on short/medium-term targets as well. Internationally operating FIs might consider differing policy targets across jurisdiction. These targets could be aligned with (i) the goals of the Paris Agreement aiming to limit the temperature rise to 1.5 °C or below 2 °C or in line with the national commitments, (ii) specific temperature rises (aiming to limit the temperature rise to e.g. 2 °C) or (iii) specific climate scenarios. FIs would then cascade these overall targets to different parts of their portfolios which they consider in scope for the target, and set level-down targets, such as sector-level (typically high-emission sectors first), country-level, or asset-level targets.

Furthermore, given the long-term nature of the overall targets, FIs may also set interim targets, such as around the year 2030, as an indicative measure of whether they are on track to achieving the long-term target. In some jurisdictions or frameworks, setting such interim targets may be mandatory. Interim targets are useful for formulating actions, as it would be challenging to leap from current state to the end goal. They can also help with defining necessary actions to take within the current strategic horizon (typically 3-5 years) to meet interim targets as part of action to meet long-term targets. It is important to ascertain whether credible actions are being taken to deliver the overall target, as communicating a long-term goal alone would not provide sufficient information on the pace of transition or whether the FI risks backloading decarbonisation efforts until just before the long-term target's end date.

As with other forms of target setting, FIs' climate-related targets would be tied to a starting point, or baseline. For example, to set GHG emissions targets, FIs would select a particular base year and calculate their baseline emissions as a benchmark to assess their relative emissions reduction progress. A specific scenario may also be selected as a reference baseline or to establish fixed reference target values. Target setting may be dynamic, based on annual tracking of progress compared to an evolving benchmark trajectory, or based on comparison of present day or forward-looking performance with a future target value (e.g., pathway alignment, distance to target).

To measure the baseline, FIs collect data through different sources, including directly from their value chain and clients or calculated through internal modelling, or indirectly, such as through external data providers. While data availability continues to be a challenge, FIs are encouraged to deepen as well as broaden their engagement to bridge data gaps.

Notably, for adaptation and resilience, FIs would first identify what the needs are in terms of adaptation as well as the resilience baselines. For example, they would gather information and develop assumptions on physical

impacts of changing climate, at different levels of spatial and sectoral granularity, as well as on the proportion of assets/investments vulnerable or exposed to physical climate risks. They can then identify the appetite for the degree of resilience the FI wants to build. This can then inform FIs on opportunities, such as financing adaptation projects, or through direct and dedicated adaptation financing.

2.2 Identify reference pathways to calibrate targets

When setting targets, FIs may use different reference pathways with key assumptions around the pace and timing of the envisaged transition to the defined goal. For example, organisations such as UNEP-FI, SBTi, RMI and TPI Center offer detailed sector-specific pathway guidance, while GFANZ offers higher-level guidance on the use of pathways.[10] These pathways are built on certain climate-related scenarios from recognized sources, such as the IEA, IPCC, and NGFS.[11] They would include different metrics and assumptions on sector developments, including policy and technology developments.

The 2025 NGFS paper 'Interactions between scenario analysis and transition plans' found that FIs' targets and its overall transition narrative and strategy could align to pathways stemming from a single, or set of, scenarios. The paper recommends that when benchmarking targets against pathways stemming from relevant reference scenarios, the underlying assumptions and methodological choices of these scenarios should be consistent with the FIs´ transition plans to the extent possible.[12]

While the different pathways may aim to achieve a similar overall target, such as an emissions reduction target aligned with Paris Agreement goals or adaptation goals aligned with global or national adaptation plans, different pathways could result in different interim targets (e.g., timing and level). Pathways used to set portfolio targets may be adjusted to reflect the baseline composition of portfolios – for example, using a convergence approach – or to incentivise specific technology transitions – for example, the use of a split trajectory approach in the steel sector.

It is important to recognise that scenarios underlying pathways are models, not predictions, and use simplifications, hence targets are set under assumptions. For example, the scenarios that are commonly used in PACTA assessments are based on a relatively low confidence interval of only 50-60% chance of achieving the stated climate goal.[13] Similarly, the TPI Centre applies IEA pathways with varying levels of confidence, depending on the temperature aim, including a 1.5 °C pathway with 50% chance of limiting warming to 1.5 °C and a Below 2 °C Pathway with 66% chance of limiting warming below 2 °C. As a result, in choosing a pathway, FIs may compare: (1) the scope and ambition of the pathway, including sectoral or geographic breakdown (global versus regional pathways) (2) the underlying assumptions to achieve the pathway, (3) the feasibility of the pathway based on its business model and (4) credibility of the organisation providing the pathway. They may also use a "corridor" or range that is informed by two or more pathways/scenarios.

FIs would consider, among others, the extent to which the pathways are:

- **Clear and understandable**, with transparency on scope, ambition, and assumptions.
- **Comparable**, with similar scopes and standardized outputs and metrics for comparison.
- **Granular**, with enough detail on market, regions, and timeframe.
- **Accessible**, with public access to methodology and underlying data.
- **Actionable**, with feasible commercial and technological hypotheses.
- **Credible**, with validation from scientific community around stated temperature alignment and regarding the assumptions on market and technology developments.
- **Dynamic**, with periodical update to reflect recent changes in science and other economic, social, political, and technical conditions.

10 "SBTi" is the Science Based Targets initiative, "RMI" is the Rocky Mountain Institute, "GFANZ" is the Glasgow Financial Alliance for Net Zero, and "TPI" is the Transition Pathway Initiative.

11 "IEA" is the International Energy Agency, and the "IPCC" is the Intergovernmental Panel on Climate Change.

12 More on the interaction between transition plans and scenario analysis can be found in the NGFS Note 'Interactions between scenario analysis and transition plans' [ADD LINK].

13 PACTA (2022), PACTA for Banks Scenarios.

Alternative approaches to target setting

While some FIs may set targets and then identify a pathway to meet them, other FIs may use alternative approaches. For example, some FIs may first choose a variety of transition pathways and assess different factors that could affect those pathways' trajectory. They then develop a weighted probable pathway and set their climate-related targets accordingly.

2.3 Align the business model, strategy and internal activities to deliver the targets

As noted above, there are different approaches FIs may take to set their targets. But regardless of how they determine their targets, FIs are increasingly developing and implementing transition plans that set out how they intend to deliver on them.

It is important for the FIs' targets to be coherent with their business models, including their strategies, business resilience, financial planning, operations, and internal management policies and processes. By setting robust targets, FIs can better understand their risks and opportunities, make informed business decisions, and increase their resilience to climate change. To deliver on their targets, FIs may restructure business units (e.g. by creating dedicated sustainability teams or integrating climate priorities into core decision-making) and enhance stakeholder engagement and communication. They would also need to integrate climate risks in their overall business resilience and internal risk assessments, adjust their risk appetite, and incorporate climate-related metrics in their management practices. This could, in turn, affect strategic decisions around portfolio composition and capital allocation. It could include diversifying or reallocating capital to new opportunities, including climate-aligned or climate-resilient assets.

As an example, to align capital allocation with climate-related goals, FIs may set policies and make strategic decisions on:

- **Financing adaptation and resilience building for climate-vulnerable regions/assets:** This could include providing funds to areas and assets that are particularly susceptible to climate change impacts, or financing activities and technologies that enable adaptation and resilience building.
- **Managing their exposure to high-emitting assets:** This could include financing or enabling managed phase-out of high-emitting assets, ensuring a gradual transition to lower emissions. It can also include setting exclusionary policies, where the FIs define geographies, sectors, or assets where it would no longer underwrite business, including insurance.
- **Supporting activities/businesses already aligned with their targets:** This could include directing financing towards businesses and activities that are already aligned with the emissions pathways used to set their targets, e.g. by shifting portfolio allocation or developing products/services geared at real-economy companies or sectors that are more advanced in their transition.
- **Supporting companies which are credibly committed to aligning their activities to a net zero pathway:** This includes financing and underwriting entities that are in earlier stages of – but committed to – transitioning in line with net-zero pathways, e.g., as demonstrated by a transition plan.

Available guidance also encourages FIs to engage their stakeholders including, among others, their clients and portfolio companies, to influence change.[14]

Notably, available external guidance encourages them to:

- Enhance due diligence activities on their clients and investees which are, or could become, misaligned with the FI's transition strategy and plan.
- Collect additional information from clients and investees, including relevant climate data and transition plans, as well as to make finance needs assessments if necessary.[15]
- Engage clients and investees to adopt climate-aligned practices, such as through shareholder proposals.
- Monitor the alignment of client and investee strategies with sector-specific climate targets.

14 For example, see guidance from GFANZ (2022), Guidance on Use of Sectoral Pathways for Financial Institutions.

15 NGFS (2024), Connecting Transition Plans: financial and non-financial firms.

- Encourage clients and investees to disclose climate-related financial information using frameworks like the ISSB.
- Set conditions and/or ring-fence the financial services provided to clients (e.g., modification of loan conditions to activities or companies that are mis-aligned with the FIs' climate targets).
- Ensure that climate risks are internalised into client onboarding, credit rating assessments and collateral valuations.
- Propose new transition or adaptation financial products and advisory services to their clients.

Some frameworks, such as UNEP-FI, encourage FIs to use divestment only as a "last resort" strategy to achieving their targets. Greening the balance sheet through divestment (referred to as 'paper decarbonisation') may result in removing emissions from the FI's balance sheet. However it creates a short-term/long-term tension, as it does not necessarily remove emissions from the economy and thereby does not mitigate long-term climate change, which could drive larger increased risks to the firm. Further, such a strategy may only be a plausible strategy for a few firms in the short-term as the FIs would need to find a buyer to divest to; it may restrict funding to high-emissions companies who are investing in decarbonisation. With regard to the management of physical climate risks, simply reducing financial exposures to regions or sectors at high risk could also result in reducing vulnerable groups' ability to withstand climate change, exacerbating their vulnerabilities.

2.4 Monitor and disclose progress against the targets

Target setting can help FIs to set the focus in the transition plan, provide a structured approach to managing risks by setting clear objectives and benchmarks, and manage the risks associated with any large transformation project. Targets can facilitate these FIs to conduct continuous monitoring and evaluation, which could help them to identify and mitigate risks in a timely manner. Among other activities, FIs may undertake the following to monitor target delivery:

- **Establishing governance oversight over transition plans, including the target delivery:** Appropriate governance and engagement of the board and senior management to approve transition plans, as well as to oversee the ongoing execution to deliver the targets over the short, medium, and long term.
- **Assigning accountability and developing internal processes and controls:** Defining clear roles and responsibilities across the FI to execute the transition plan to achieve targets, as well as updating or developing policies and procedures to execute and monitor actions to meet the targets, as well as integrating climate risks within risk control processes and procedures.
- **Capacity building and upskilling:** Providing appropriate training and development support to upskill the organisation, especially for the teams and individuals designing, implementing, and overseeing the transition plan (including at the board and senior management level).
- **Incorporating climate-related targets into remuneration policies and practices:** Aligning remuneration policies and practices with execution of transition plans, including achievement of targets, could drive appropriate behaviour and actions.
- **Monitoring and reporting progress:** Measuring and reporting progress on the FI's climate efforts, including progress against interim and level-down targets, using appropriate metrics and indicators to enable decision-making by the board and senior management. Disclosure of climate data may be in line with globally recognized disclosure frameworks, such as ISSB.

As part of target setting and delivery, FIs may disclose their progress against their targets publicly, either voluntarily or as required by relevant jurisdiction-specific legislation. This could take the form of standalone climate or sustainability-related reports, including transition plans, or incorporated into existing annual financial reports (where risks are material). Similarly, FIs who are mandated to set climate-related targets may be required by legislation to disclose their progress. Regular disclosures to stakeholders can enable the FIs to provide updates on their performance against their targets and any adjustments made to strategies or policies, as well as explaining changes in the strategy or targets set.

Finally, FIs who publish public disclosures can benefit from independent reviews or third-party assurances to provide objective opinions on their climate-related reports to enhance their reports' reliability. A recent development in this area is the International Auditing and Assurance Standards Board (IAASB) approval of the International Standard on Sustainability Assurance (ISSA) 5000, *General Requirements for Sustainability Assurance Engagements*.

In terms of the content for disclosure, FIs may disclose, among other things, the boundaries of their climate targets to ensure transparency and accountability. For example, for GHG emissions reduction targets, this could include specifying the emissions covered (e.g., financed and facilitated emissions), relevant business segments (e.g., material on- and off-balance-sheet activities), and targeted economic sectors (beyond high-emitting sectors with an aim to cover all sectors, contingent on methodology availability) as well as the climate scenarios used to inform the target setting.

While this section distilled the actions that FIs generally undertake to set and meet their climate-related targets, the NGFS invited external organisations to share high-level observations based on their interactions with FIs. Of the external organisations whom the NGFS reached out, the UNEP-FI provided some of the practical approaches deployed by FIs when formulating targets in their transition plans. See Annex 3 for more information.

3. Potential risks from ineffective targets and the target setting processes

FIs who have set climate-related targets and successfully undertake actions to deliver on those targets could capitalise on new opportunities and mitigate their risks associated with climate change. In addition, FIs who set targets could improve their reputation by staying ahead of future policy and regulatory developments as well as fostering innovation. However, the opposite could also be true: FIs who have set ineffective targets or are unable to deliver on them could create risks. This is particularly important given recent global events, including changes in climate policy direction, which could not only impact FIs and non-financial firms' willingness to set targets, but also their ability to follow through with them.

While FIs' climate objectives and related target setting activities are generally outside the scope of micro-prudential supervision, this section highlights some of the risks that FIs may consider, and section 4 highlights some considerations micro-prudential authorities could undertake when engaging with FIs who have set climate-related targets in their transition plans.

3.1 Setting ineffective targets

Target setting is a familiar and important concept to FIs given its centrality to strategic and financial planning. From a climate-related target perspective, consequences of setting ineffective targets could include:

- If targets are considered overly ambitious, or the FIs' progress falls short of the targets, it could expose FIs to allegations of greenwashing or questions around their credibility, potentially leading to litigation risks. If its targets are overly misaligned with the real economy transition, this could also create financial risks for FIs.
- If targets are ambiguous, there may be room for misinterpretation, or they may lead to confusion as to how the targets achieve FIs' objectives.
- If targets are immeasurable, it could be challenging to monitor progress, such as through Key Performance Indicators. It could also raise doubts about the usefulness of the targets from both strategic and risk management perspectives.
- Like measurability, if targets are set without a clearly defined time horizon, it can be challenging to demonstrate progress and credibility.
- If targets are set at corporate level, but not broken down into consistent, measurable and sensible targets at operational levels, it could lead to difficulty in operationalising targets.

Furthermore, static targets that do not reflect evolving market conditions or regulatory expectations can ultimately undermine the FI's ability to achieve its climate goals and manage associated risks effectively. For example, FIs who set targets based on an assumption that certain actions by others, such as policymakers and clients, are executed, could be at risk of missing their targets if others do not follow through. Similarly, FIs who set static targets based on scientific pathways could be at risk of missing their targets if market conditions do not favour that pathway. On the other hand, frequently changing targets can create a disengagement risk for the FI, which could undermine the credibility of targets, especially when changes are not well explained.

From a prudential perspective, one consequence of setting ineffective targets could be exposure to higher financial risks (credit, market, etc.) due to ineffective risk management. For FIs with published targets, it could also lead to reputational risk as FIs fail to meet stakeholder expectations. For FIs operating in jurisdictions where climate-related targets are legally binding, it could also expose them to legal compliance risks. These risks highlight the importance of governance over target setting, including the need for regular evaluations and review of targets to confirm they continue to be fit for purpose.

3.2 Insufficient information to support the target setting process

FIs that set targets in their transition plans without due regard for internal factors, such as their business model and risk profile, and external factors, such as economic conditions, or pace of the real economy transition and increasing physical consequences from climate change, could lead to poor decision-making, financial risks, or greenwashing allegations. For example, FIs may be exposed to the following risks:

Funding and investment terms and conditions	
Underwriting or investment risks from inadequate terms	• The FI may offer particularly advantageous terms to customers or investees with certain sustainability characteristics that do not correspond to an effective reduction of their risk or that affect the profitability of these operations. • Alternatively, the FI may also offer overly advantageous terms to customers or investees with unsustainable characteristics that are not aligned with the real economy transition, and that affect the profitability of these operations. Lastly, FIs may offer overly advantageous terms to clients located in areas sensitive to physical risks which will ultimately impact their risk profile.
Underwriting or investment risks from insufficient loan conditions	• On the one hand, the FI may include conditions in loan agreements requiring clients to improve sustainability or adaptation practices that are technologically or economically not feasible, which then lead to a loss of profitable clients. • On the other hand, the FI may not include sufficient or up-to-date conditions in loan or investment agreements requiring clients to improve sustainability or adaptation practices, which may impact their risk profile.
Funding, investment, and insurance decisions	
Concentration risks	• The FI may concentrate investments or lending in markets that may be at early stages of maturity or in products or services that are not yet at scale. For example, if the sustainable finance market is not broad enough, FIs with a concentration in specific companies or economic sectors may be exposed to increased risks e.g., credit risk (due to possible insolvency) or market risk (due to possible negative news affecting the market value of those assets). • Alternatively, the FI may concentrate investments, lending, or insurance in markets that are incompatible with the real economy transition pathway, or in geographical areas which are highly subject to physical risks.
Reputational risks associated with decisions	• The FI may restrict business to certain customer segments that are economically vulnerable to physical risks, which can lead to public censure and reputational damage. • However, if the FI did not restrict or include adequate conditioning of the business in some high-risk areas or sectors, it could also lead to public censure and reputational damage.

To be effective, FI targets need to be supported by appropriate data collection and monitoring through dedicated metrics. Limitations and shortcomings, such as access to reliable data or setting targets without well-defined metrics, can affect the efficacy of the target setting process.

For example, without high-quality input data, any estimate (e.g., emission-related data) or interim targets set by a FI risk being inaccurate as these milestones are engineered based on flawed data, leading to flawed decision-making. Similarly, FIs may use proxy data to estimate emissions, which, while often permitted across various jurisdictions, can further exacerbate inaccuracies as it does not take into account institutional-level considerations, therefore undermining the credibility of FIs in the eyes of their stakeholders. Lastly, the absence of comparable and appropriate metrics and indicators can make it challenging for FIs to monitor their progress in meeting their targets[16]. That said, while data challenges exist, it is important to underscore that FIs who wait for the perfect data before defining targets could equally be at risk from inaction, especially in jurisdictions where climate-related target setting is legislated. For these FIs, they may need to consider using reasonable estimates to bridge their data gaps.

3.3 Governance and control lapses in target setting and monitoring

Robust governance is one of the key pillars to enable FIs to effectively incorporate climate-related targets and transition plans into their business and risk strategies. Poorly designed or executed governance structure and controls can lead to a misalignment of internal stakeholders, inadequate consideration of external dependencies in target setting and delivery, ineffective processes and risk management practices as well as inadequate resource allocation. This could lead to not only failed delivery of the targets and transition plans but also financial and non-financial risks.

16 For example, according to the European Bank for Reconstruction and Development (EBRD) report "Climate transition of the financial sector: the state of play in the EBRD regions – 2025", banks often set climate targets and track metrics separately. This means that banks may set targets but do not track metrics or them, or they may have metrics but not a related target.

For example:

- **Accountability:** A lack of senior management direction, clearly defined roles and responsibilities as well as key performance indicators and ineffective internal reporting framework could lead to cross-organisation fragmentation and control lapses and impede implementation efforts to meet the targets.
- **Coordination between internal stakeholders:** A lack of coordination between internal stakeholders could increase the risk of miscommunication and conflicting or duplicated efforts, ultimately undermining the FI's ability to achieve its targets and exposing it to risks like compliance failures, operational inefficiencies, and reputational damage.
- **Knowledge and skillset:** A lack of staff and management personnel who are equipped with the know-how to design and implement transition plans to meet the targets can result in poor decision-making.

4. Supervisory considerations when engaging FIs on climate-related targets

As noted in the introduction, transition planning is the internal process to develop a transition strategy to deliver climate targets and/or prepare a long-term response to manage the risks associated with a transition.

Through the 2023 stocktake[17], the NGFS noted that views on the relevance of transition plans to micro-prudential roles and mandate vary. Supervisory approaches to transition planning differ depending on the authority's mandate and jurisdiction-specific legislation and requirements. These observations were reaffirmed at the 2024 NGFS supervisory roundtable with its members. Notably:

- Not all authorities have specific guidance around transition planning.
- Those authorities who have draft or final guidance generally do not explicitly require FIs to set any climate-related targets. Though some encourage setting targets, they do not supervise implementation of targets.
- Authorities are generally agnostic to the targets that FIs set. They are more focused on the risks that result from the target setting process as well as ensuring coherence of any targets set with management of the associated financial risks from implementing the target.

Furthermore, a key theme from the roundtable was that **transition plans are a tool for change management.** Regardless of the driver of the change, whether it be meeting voluntary or mandatory climate commitments or responding to changes in the operating environment, transition plans outline the FI's strategy and planned progress to move from the current state to an end-state, which implies the need for FIs to define and set a target.

While micro-prudential authorities may not require FIs to set climate-related targets, such requirement may be defined by other authorities (e.g. market authorities) and may impact supervision requirements such as disclosure requirements or prudential transition plans.

Additionally, micro-prudential authorities could consider engaging FIs to understand if they grasp the impacts of climate change on their business, how they are responding to those impacts to ensure all material financial risks are appropriately managed and how they are defining their end-state. This could include engaging FIs on how they measure their progress to reduce exposure to climate-related risk over the short-, medium- and long-term horizons. It could also include understanding how FIs assess and manage vulnerabilities in their business models relative to the pace of the real economy transition and ongoing climate change, including activities that are misaligned with the climate goals of the jurisdictions in which they operate.

Against this background, this section highlights some considerations that micro-prudential authorities could consider when developing their plans to engage FIs on climate-related targets based on the risks identified in section 3. These considerations are relevant for micro-prudential authorities whose focus is on FIs' safety and soundness. Depending on the micro-prudential authorities' mandate, they may also consider the role of other sector-specific authorities or regulators (such as of non-FIs) as part of the engagement plans.

With that in mind, some micro-prudential authorities might have additional climate-related mandates beyond only ensuring the safety and soundness of FIs. Possible additional considerations for those authorities are presented in Annex 4.

4.1 Understanding climate-related targets and the target setting process

While validating a FI's climate objectives and related target setting activities is generally outside the scope of micro-prudential mandates, micro-prudential authorities may engage FIs to understand their process to set climate-related targets, including their process to evaluate and review the targets to confirm they are fit for purpose. This could help micro-prudential authorities derive insights about the FIs' governance and risk management processes around climate-related risk, including the FIs' approach to managing risks arising from changes to their business models to meet their climate-related targets.

17 NGFS (2023), Stocktake on Financial Institutions' Transition Plans and their Relevance to Micro-prudential Authorities.

When engaging with FIs on target setting, micro-prudential authorities could consider the following:

1. **Key assumptions and dependencies underlying the targets**: While setting the target itself is a management decision and outside of prudential supervision, ineffective target setting could lead to poor decision making. This can elevate the FIs' risks, including financial risks, as described in section 3. FIs whose targets are misaligned with the realities of their external environment, such as changes in policies, consumer demand or technology developments, may set overly or under ambitious targets. Consequently, micro-prudential authorities could consider the reasonableness of the underlying assumptions and factors around an FI's target setting, such as its pathway selection, policy and technological dependencies, macroeconomic trends, and uncertainty around data. This could inform supervisory assessments of management's processes to make prudent decisions.

Sample questions to consider:

1. Is there coherence between the FI's targets and its climate mitigation and/or an adaptation strategy?
2. Are the targets defined in a clear and measurable manner? If the targets are of long horizon, has management put in place appropriate measures to allow it to monitor progress, such as interim targets?
3. How does the FI ensure that the set targets align with any climate-related commitments it has made?
4. Which material risk exposures are covered by the FI's targets, and which are not? Do the targets encompass exposures to relevant physical and transition risks?
5. Do the targets consider relevant factors, such as external dependencies, jurisdiction-specific policies and/or align with recognized frameworks and standards?
6. How knowledgeable is management on the data and reference pathways underlying their targets, including assumptions, potential dependencies and limitations?

2. **Reputational and litigation risk management programmes**: The factors that determine whether a target is credible could differ depending on the context and audience. For example, credible targets could be defined as those that are aligned with specific jurisdictional targets (such as Nationally Determined Contributions or National Adaptation Plans), legislation or, with recognized scientific pathways. While micro-prudential authorities may not play a role in validating FI's targets for credibility, they may consider the potential reputational impacts and legal compliance risks that FIs may face if their targets are not considered credible, or if they do not meet their targets. From a prudential perspective, this would include assessing the FIs' internal governance structure, such as the involvement of the three lines of defence in climate-related target setting. It could also include specific consideration for the FI's reputational and litigation risk management programmes. Finally, it could include understanding how FIs may disclose their progress to external stakeholders to communicate the risks and opportunities associated with their climate-related targets.

Sample questions to consider:

1. Is there any legislation on climate-related targets that are relevant for the FI? If so, how does the FI ensure it is adhering to them? Are there legislations across different jurisdictions that set competing targets?
2. Has the FI made public commitments to meet and report on specific climate-related targets? How does the FI ensure it is providing adequate disclosure related to its climate-related targets and progress to meet stakeholder expectations?
3. Does the FI have a robust reputational and litigation risk management programme to manage the potential risks associated with inadequate disclosures or with missing its targets? Has the FI developed its communication approach to communicate changes in its targets to relevant stakeholders (including investors, regulators, etc.)?
4. Are the targets static or can they be revised over time? In the second case, what are the conditions to adjust the targets?

4.2 Climate data management

While not unique to climate-related targets, FIs can mitigate the risk of setting ineffective targets by ensuring they have sufficient information with which to develop and monitor their targets. This could include developing and implementing a climate data strategy by which they can identify their data needs, as well as their governance framework to operationalise this, including how to collect, aggregate and disaggregate, analyse, and store the data. It could include developing plans to access available data, and where data is not available, to identify proxies.

Given the importance of using appropriate data to support decision-making, micro-prudential authorities could engage FIs on their climate data strategy and how insights are used to support climate-related activities, including measuring their progress against their climate-related targets, climate strategies (such as business opportunities identification and portfolio management) and climate risk management. They could also engage FIs on climate data governance, aggregation, and reporting to understand how the FIs ensure that climate-related data is consistent, credible, and used appropriately.

Sample questions to consider:

Identification of metrics and data needs

1. Has the FI identified appropriate metrics to monitor its progress against climate-related targets?
2. Has the FI identified the data it needs to measure its progress against the climate-related target it has set, including the sources it can collect the data from, such as through client engagement or third parties?

Data sourcing and strategy

3. Does the FI have a client engagement strategy that allows it to improve data collection from clients over time?
4. If the FI is using alternative data sources, such as third-party databases, or proxies or estimates, has it developed criteria for selecting appropriate sources/vendors? Does it have a reasonable roadmap to bridge the data gaps? Does the FI have an appropriate understanding of the limitations of the estimates and proxy data it uses? Does the FI regularly assess the relevancy of proxy data?
5. How is the FI keeping abreast with evolving developments to improve its climate data quality?

Analytics and reporting

1. Does the FI have a strategy to aggregate/disaggregate and analyse the data? Is the governance over climate data adequate?
2. What types of reporting does the FI produce to support decision-making around climate-related targets and their progression?
3. Does the data support measurement against key performance indicators and other relevant metrics?
4. Does the FI account for limitations of the metrics it has used to set and monitor targets?

4.3 Governance and risk management practices

As noted in the introduction, while transition plans, and any target therein, as a product are primarily strategy focused, micro-prudential authorities can consider how the transition plans and targets are integrated into FIs' governance and risk management practices.

1. **Target setting and monitoring processes**: Significant deviations from publicly communicated targets could expose an FI to reputational and litigation risks. They could also be indicative of a lack of cohesion between the FI's targets, overall strategy, and disclosures. It could reveal deficiencies in internal processes, such as inadequate governance or oversight of target setting activities, or a lack of mechanism to monitor progress, take remedial actions and review targets. As a result, authorities could engage the FIs on their governance and risk management activities to achieve their targets.

For example, authorities may delve into how FIs' climate-related objectives (such as achieving net-zero GHG emissions) are operationalized in strategic terms (for example via sectoral policies or business line specific growth targets). They can also delve into whether these objectives are supported by metrics (such as profitability or key risk indicators).

Sample questions to consider:

1. What is the board of directors' role and responsibilities related to the FI's target setting and monitoring activities?
2. Are targets embedded in the governance structure? Are corporate-level targets connected to any KPIs at the consolidated level or below?
3. What is senior management's process to review targets for continued relevance? Does the FI have a process in place to attribute changes in the metrics it is monitoring for its targets, including reasons for deviations from its targets?
4. Are company-level targets connected to operational targets, for example, in individual business lines?
5. Does the FI have a process in place to monitor significant developments in the operating environment that could impact its ability to achieve its targets, such as policy changes and technology advancements, etc.? Does it have a mechanism in place to review and update its targets as the operating environment changes?
6. Does the FI engage clients to facilitate achieving its targets? What processes are in place to engage portfolios or clients whose targets or actions are not aligned with the FI's targets?

2. **Alignment of targets with climate risk frameworks**: While climate-related target setting may not be an essential element of a climate risk management framework, where a FI has set climate-related targets, supervisors may find it useful to engage with the FI on the alignment between the targets and the FI's risk management framework, including its risk appetite. For example, it would be unreasonable for the board of directors to approve different or competing risk appetites to meet the FIs' climate commitments and for managing risks of climate change.

Sample questions to ask:

1. What is the impact of the targets on the FI's risk profile? How does the FI's set target interact with its risk tolerances, risk appetites and risk thresholds?
2. Have targets been set over short-, medium-, and long-term horizons? Are the time horizons consistent with the FI's overall risk framework?
3. Have early warning indicators been identified for areas where targets interact with risk tolerances, and have potential remediation actions – when targets are not met – been defined?
4. Has the FI merely changed its booking practices in order to meet targets?
5. Has the FI considered how it would address the risk of divergence between targets set based on lower-confidence climate scenarios (e.g., net zero by 2050) and the real economy transition?

5. Conclusion and areas for future consideration

Micro-prudential authorities have different mandates and legislations that direct their work as it relates to climate change and climate-related risks. Nevertheless, most micro-prudential authorities have a similar focus on the safety and soundness of FIs. These authorities can therefore benefit from engaging FIs to understand how climate-related targets are set in their transition plans, as the targets, or any actions resulting from the targets, can potentially impact the FIs' safety and soundness.

As the NGFS reflected in this technical note, current target-setting guidance mostly focuses on transition risks and mitigation targets. A minority of guidance discusses adaptation targets. Furthermore, as the practice of developing transition plans mature, FIs may also consider targets related to other environmental risks, such as nature-related risks (biodiversity loss, ecosystem degradation).

Going forward, it would therefore be beneficial for micro-prudential authorities to further develop their understanding of adaptation and other environmental targets as external guidance develops. In addition, to aid their assessment of targets, authorities could keep track of the latest developments in available scenarios and the political developments in their jurisdiction. To continue supporting its members, the NGFS will consider relevant elements of this technical note as part of the future update of the NGFS Guide for Supervisors[18].

Finally, micro-prudential authorities could benefit from advancing their understanding of ways that FIs address risks in achieving their climate-related targets. This can enhance their ability to assess risks associated with the FIs' transition strategy. It can also be an indicator of how well-prepared FIs are in 30 their long-term responses to manage the risks associated with the transition.

18 NGFS (2020), Guide for Supervisors.

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Annex 1: List of documents reviewed

1. ACT (2021), Assessing low-Carbon Transition ACT step-by-step methodology
2. Glasgow Financial Alliance for Net Zero (2022), Guidance on Use of Sectoral Pathways for Financial Institutions
3. Institute for Climate Economics (2022), Implementing prudential transition plans for banks: what are the expected impacts?
4. Institute for Climate Economics (2024), I4CE's answer to EBA's consultation on draft Guidelines on the management of ESG risks
5. Principles for Responsible Banking (2023), Climate Adaptation Target Setting
6. RMI (2022), PACTA for Banks scenarios
7. Science Based Targets (2024), SBTi Corporate Net-Zero Standard V1.2
8. Task Force on Climate-related Financial Disclosures (2021), Guidance on Metrics, Targets, and Transition Plans
9. Transition Pathway Initiative (2022), TPI Sectoral Decarbonisation Pathways
10. United Nations Framework Convention on Climate Change (2023), Mainstreaming adaptation, target-setting, methodologies and indicators
11. WWF (2024), Corporate Climate Targets Ensuring the Credibility of EU-Regulated Commitments

Annex 2: Current discussions on GHG emissions reduction targets

Reduction in GHG emissions is a common target that many FIs set as part of their climate strategy. Industry standards, such as the GHG Protocol, classify GHG emissions into three "scopes":

- Scope 1 emissions are direct emissions that occur from sources that are owned or controlled by the company.
- Scope 2 emissions are indirect emissions from the generation of purchased electricity consumed by the company.
- Scope 3 emissions are all indirect emissions not included in scope 1 or 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions that occur from sources owned or controlled by other entities in the value chain.

For FIs, their material emissions generally come from their investing and lending activities, which are considered scope 3 Category 15 (here in after "financed emissions"). The Partnership for Carbon Accounting Financials (PCAF) Standard also considers facilitated emissions from capital market activities and insurance-associated emissions from re/insurance underwriting activities as part of Category 15.

Although standards, such as PCAF, are available to guide FIs in calculating their reported scope 3 financed emissions, there are ongoing discussions on the decision usefulness of this metric on a standalone basis given some of the current challenges highlighted below.

Data availability and reliability

The calculation of financed emission relies on data shared within a company's value chain, or from third parties where data is not available at source. For example, recognizing the data availability challenges, the PCAF Standard includes a 5-point scale to score data quality in its methodology. It uses a score of "1" to denote the highest quality and "5" to denote the lowest. While using estimated or proxy data can be a good stop gap measure as companies improve data quality, this creates credibility concerns around the calculation, as key inputs may not be comparable or representative of actual emissions.

Proxy measure of risk

Companies with higher emissions face increased exposure to transition risks, including changes in government legislation and policies aimed at raising carbon prices and increased competitive pressure. However, since GHG emissions is a point-in-time measure, it is not necessarily indicative of the trajectory of the emissions. A FI's credit risk associated with exposure to high emitting clients and sectors that have no plan in place to decarbonize over time could be different than one with decarbonisation plans. Therefore, it is important to contextualise the targets.

For example, a broader time horizon – relative to what FIs may conventionally consider as part of their traditional investment horizons/financing terms – could allow companies to contextualise GHG emission reduction targets within their transition plans. For companies in high emitting sectors, it is possible that emissions are high and may continue to increase temporarily but reduce over the longer term. Therefore, if a FI finances the transition of a high-emission portfolio company embarking on decarbonisation – at first, the company's financed emissions may go up, before the portfolio company completes its transition into a lower-emissions model. Longer time horizons can also support better risk assessment, as shorter time frames may understate the transition and physical risks faced by a FI's clients or portfolio companies. This underscores the need for FIs to complement standalone point-in-time measures with forward-looking measures that can capture a medium/longer term perspective.

From a risk perspective, exposure to high GHG emissions may not automatically mean higher credit risk from the FI's perspective. As an example, a company with a coal plant would have high emissions. However, if the company is also the national power grid owner, the high transition risks due to emissions may not necessarily imply a high credit risk as might otherwise appear to be the case. That said, the company could still be exposed to high transition risks, as it could face forced closures in certain jurisdictions, and regulatory and stakeholder pressure, leading to stranded assets risk. All of these considerations should be taken into account in the FI's credit risk evaluation.

Absolute versus intensity GHG emissions targets

FIs could set emissions-related targets in two ways: (1) absolute and (2) intensity. Absolute targets aim to reduce GHG emissions by a set amount (e.g., tons of CO_2 equivalent emissions), whereas intensity targets aim to reduce GHG emissions relative to an economic or operational variable (e.g., tons of CO_2 equivalent emissions per capital invested or earned, or per physical output).

While FIs determine what targets they set, private sector-led alliances, such as the Net Zero Banking Alliance (NZBA) and Net Zero Asset Owners Alliance (NZAO), may require their members to set a combination of absolute and/or intensity targets. The main limitation of intensity target setting is that even if the intensity decreases, such as by using more efficient production technology, the overall emissions might increase if more units of that production technology are used. A decrease in intensity might therefore lead to an increase in absolute emissions, which would conflict with the intent of setting GHG reduction targets. That said, intensity-based measures can allow the factoring in of growth (which is necessary for certain industries like energy).

"Paper decarbonisation" versus real economy decarbonisation

Although the aim of emissions-related targets is to contribute to the transition to a low-emissions economy, this may not always be true given the way financed emissions are calculated. Specifically, through the aggregation of analytical split of emissions of each real-economy company in the portfolio, FIs can optimize and control the decarbonisation pace of a portfolio with slight reweights between companies with very low/ very high GHG intensity, without regards to the actual decarbonisation pace of these companies. This can skew the perception of where the FI is investing its capital or the impact of its climate action.

Carbon credit

According to PCAF,[19] GHG emissions reduction can be achieved through mitigation solutions (avoided emissions) and carbon removal solutions (emissions removals). Mitigation solutions can include renewable energy and carbon capture and storage (CCS). Emission removal solutions can include technological methods such as direct air capture or nature-based methods such as forestry and land management.

FIs can finance emissions removal through (1) carbon purchases (i.e., carbon removal credits based in the voluntary carbon market), (2) business loans and unlisted equity (i.e., lending or investing in companies that have emission removals within their organisational boundaries), or (3) project finance (i.e., lending or investing in nature-based or technological projects hat remove emissions from the atmosphere). Use cases for carbon credits in the financial sector are still evolving. Currently, their primary use case is as a tradeable asset, rather than to fulfil the emissions reduction targets of FIs.

Evolution of GHG reduction targets

Several external organisations noted that there is a shift for FIs to switch to financing targets or complement their GHG reduction targets with financing targets, such as on the share of their portfolio allocated to low carbon projects or net-zero aligned companies (or de-financing targets towards climate damaging activities or companies that are not net-zero aligned). The two key drivers for the industry's shift include:

1. Emission reduction targets: GHG emission reduction targets are considered lagging indicators (i.e., reductions are confirmed ex-post). Leading indicators, such as financing targets, enable FIs to identify assets in the FIs' portfolio that need financing to transition, which occurs before the GHG emissions reduction.
2. Advantage of financial targets: Financed and/or facilitated emissions are a good proxy for measuring a FI's current exposure to climate-related financial risks (despite the potential methodological shortcomings). However, to properly assess a FI's climate-related risks and opportunities, these targets should be viewed in combination with climate solutions/transition financing targets (including the planned use of proceeds).

19 PCAF (2022), Finance Emissions. The Global GHG Accounting & Reporting Standard Part A.

Annex 3: Insights from the UNEP-FI on target setting

To complement theory with practical experience, the NGFS invited external organisations to share high-level observations based on their interactions with FIs[20]. Of the external organisations whom the NGFS reached out, the UNEP-FI provided the following examples.

FIs are increasingly aligning their strategies with the Principles for Responsible Banking (PRB)[21] and the UN-convened Net-Zero Banking Alliance (NZBA)[22] by setting robust, science-based targets.

Examples of effective target setting on climate mitigation developed by PRB[23]:

- *Employing sector-specific quantification of financed emissions and decarbonisation pathway modelling based on accepted metrics grounded in science.*
- *Adopting the International Energy Agency's Net Zero by 2050 scenario as a benchmark for setting and tracking targets.*
- *Utilising regional-specific scenarios, such as those provided by the NGFS, to address the specific contexts of developing countries. Member banks use proxy scenarios adapted to their regions when global scenarios do not represent local realities.*
- *Setting scope and boundary of the targets that cover a significant majority of the member bank's portfolio emissions where data and methodology allow.*

Target-setting practices and trends within the NZBA

i) Target-setting trends:

- ***Decarbonisation Pathways:*** *Banks in developing nations incorporate Nationally Determined Contributions (NDCs) and region-specific contexts to adapt their climate targets.*
- ***Sectoral Approaches:*** *Banks are increasingly adopting sector-specific quantifications of financed emissions and decarbonisation pathways. For example, many use metrics tied to physical emissions intensity or absolute reductions.*
- ***Integration of Science-Based Benchmarks:*** *A significant number of banks are adopting established frameworks such as the PCAF, IEA 2050 Net Zero Scenario and NGFS regional scenarios to ensure credible target setting.*

ii) Effective practices in target-setting:

- ***Comprehensive Emissions Coverage:*** *Some NZBA member banks cover Scope 1, 2, and 3 emissions of their portfolios, particularly in carbon-intensive sectors.*
- ***Regional Scenarios:*** *For regions lacking clear global decarbonisation benchmarks, banks utilize locally relevant data to ensure realistic targets.*
- ***International Benchmarks:*** *Adoption of IEA's Net Zero by 2050 scenario helps standardize tracking and benchmarking for many banks.*

iii) Challenges in target-setting:

- ***Target setting in emerging markets:*** *Of the 20% of NZBA member banks that have not met the milestone to set targets covering all or a substantial majority of carbon-intensive sectors, almost all were from emerging markets, where these challenges are particularly acute.*
- ***Data and methodology availability:*** *A significant portion of banks without targets are based in emerging markets. These FIs cite limited availability of reliable client emissions data and the absence of robust methodologies as key barriers to target setting*
- ***Comprehensiveness of targets:*** *Banks tend to prioritize the highest-emitting sectors, such as power generation and oil and gas, when setting targets.*

20 UNEP-FI, GFANZ, WWF, ADEME, RMI (PACTA), UNFCCC, and TPI.

21 https://www.unepfi.org/industries/banking/the-principles-for-responsible-banking-releases-climate-adaptation-target-setting-guidance-ahead-of-cop28/.

22 https://www.unepfi.org/net-zero-banking/.

23 UNEP-FI (2023), Responsible Banking: Towards Real-world Impact.

Annex 4: Considerations for micro-prudential authorities who have additional responsibilities

In recognition that micro-prudential authorities have varying mandates, and in line with the NGFS's building block approach, this annex summarises additional questions that micro-prudential authorities with additional responsibilities, such as those related to broader climate- or sustainability mandates or legislation could consider.

1 Understanding climate-related targets and the target setting process

In addition to the considerations in section 4, micro-prudential authorities with broader mandates or relevant climate-related legislation could consider the following:

1. **Credibility of the target:** Depending on mandates, micro-prudential authorities could validate the credibility of FI targets. For example, micro-prudential authorities could consider whether FIs' targets are consistent with jurisdictional requirements, scientific pathways, or other benchmarks such as alignment to national adaptation plans. The NGFS recognizes that generally, micro-prudential authorities may not have the requisite skillset or expertise to validate the credibility of targets. For those authorities who supervise the credibility of targets in transition plans, the NGFS proposed different options to operationalise their supervision in the 2024 NGFS paper Credible Transition Plans: The micro-prudential perspective.

Sample questions to consider:

1. Are the targets aligned with legislated requirements, such as relevant national policies or specific pathways?
2. How does the FI verify the credibility of its targets, such as through third parties?
3. Do the FI's climate-related interim targets align with its longer-term targets?
4. Are targets set at a group or individual firm level? Have targets been cascaded down to all relevant entities, geographies and/or sectors (coverage)?

2. **Facilitating the real economy transition:** For authorities who are also tasked to take specific action beyond safety and soundness to also facilitate the real economy transition to a low-carbon, climate resilient economy, they could assess whether FIs have set targets consistent with their role as enablers of the transition, and/or any legislated climate or transition goals or transition plan requirements. They could also consider whether the implementation of the actions, such as those described in transition plans, are adequate to meet the targets.

Sample questions to consider:

1. Are the metrics chosen suitable to measure achievement of the objective, such as facilitating the real economy transition?
2. Do the chosen metrics comprehensively cover the FI's activities? If not, are the uncovered business areas transition or physical risk sensitive?

2 Climate data management

In relation to climate data management, micro-prudential authorities with broader mandates may have additional considerations on, for example, how the FI is using the data to support business decisions to catalyse broader climate action and sustainability objectives.

Sample questions to consider:

1. How is the FI using the data to advance its understanding and management of the climate/environmental impacts of its lending and investing decisions?
2. Is the FI using its data and analyses to actively engage their clients to transition and adapt to the low-emissions, climate resilient economy?
3. Do the targets that the FI set help it to achieve its goals, such as to catalyse real economy transition? For example, GHG emissions might not be suitable to reflect how the FI supports its clients in building resilience to physical risk.

3 Governance and risk management practices

For micro-prudential authorities tasked to fulfil specific climate objectives like supporting their jurisdiction's climate goals, they could consider improvements that FIs could make to their targets and transition plans. Furthermore, to fulfil their mandates, some authorities may also consider sharing observations on FIs' aggregate targets and progress or coordinate with relevant bodies, such as ministries of finance, coordinating climate agencies, etc., as input on conditions that could enable the real economy transition.

Sample questions to consider:

1. Does the FI's incentive and compensation structure adequately steer the FI towards the achievement of their climate-related targets?
2. Are the FI's climate-related targets aligned with their jurisdiction's climate goals?


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