Monetary Authority of Singapore

Consultation Paper

P012-2023 – October 2023

Consultation Paper on Guidelines on Transition Planning (Banks)

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1. Preface

1.1. The Monetary Authority of Singapore ("MAS") is proposing to introduce a set of Guidelines on Transition Planning to facilitate financial institutions' ("FIs") transition planning processes as they build climate resilience and enable robust climate mitigation and adaptation measures by their customers.

1.2. This consultation paper pertains to banks, merchant banks and finance companies (collectively referred to as "Banks"[1]). Two other consultation papers relating to the insurers and asset managers are concurrently being issued.

1.3. MAS invites comments from FIs and other interested parties on the Guidelines on Transition Planning (Banks) ("TPG").

1.4. Please note that all submissions received will be published and attributed to the respective respondent unless they expressly request MAS not to do so. As such, if respondents would like:

(a) their whole submission or part of it (but not their identity), or

(b) their identity along with their whole submission,

to be kept confidential, please expressly state so in the submission to MAS. MAS will only publish non-anonymous submissions. In addition, MAS reserves the right not to publish any submission received where MAS considers it not in the public interest to do so, such as where the submission appears to be libelous or offensive.

1.5. Please submit your written comments to the consultation paper by **18 December 2023** via this link: *https://go.gov.sg/tpgbanks*.

[1] Please refer to paragraph 3.1 of this consultation paper, on the scope of banks the TPG is intended to apply to.

2. MAS’ Supervisory Approach to Transition Planning for Banks

2.1. MAS has previously set out supervisory expectations in relation to environmental risk in the Guidelines on Environmental Risk Management for Banks (“ENRM Guidelines”). The TPG is intended to supplement these with additional granularity in relation to Banks’ transition planning processes. It follows similar broad themes across Governance and Strategy, Risk Management and Disclosures.

2.2. Transition planning[2] for Banks refers to the internal strategic planning and risk management processes undertaken to prepare for both risks[3] and potential changes in business models associated with the transition.

2.3. Banks play a key role in mobilising capital to enable their customers to transition in an orderly manner, and this should be reflected in their transition planning processes. In particular, Banks should play the role of an effective steward of their customers via a robust customer engagement process, to encourage changes (through the adoption of risk mitigation and adaptation strategies) in their customers’ business strategies and risk profile, instead of indiscriminately withdrawing credit.

2.4. Banks need to take a multi-year risk perspective for the continued sustainability of their business models. This implies the use and continual refinement of forward-looking risk management tools like scenario analysis and stress testing. Banks should also seek to improve data availability and understanding thereof, including the need to contextualise metrics for better risk assessment – for instance, point-in-time financed emissions should be supplemented with forward looking information, such as customers’ planned transition pathways. MAS encourages Banks to consider the setting of relevant decarbonisation targets, that are supportive of the global transition to a low carbon economy.

2.5. Banks are expected to have clear, actionable and decision-useful risk appetite statements that consider risks holistically when implementing their business strategies and transitioning to a low carbon economy. Both mitigation and adaptation measures should be considered in response to transition and physical risks faced by banks through exposure to their customers.

2.6. Environmental risk beyond climate-related risks should be proactively and holistically considered as part of banks’ transition planning process given the inter-dependencies between climate and nature. While Banks have been prioritising climate-related risks, for which methodologies are more advanced (albeit still developing), it is increasingly recognised that climate and nature are closely connected. It is also possible that there can be trade-offs in terms of environmental degradation arising from the

[2] “Transition plan” refers to the firm’s tangible output of the transition planning process.

[3] This includes ensuring resiliency to a range of future states of the world (including varying degrees of physical risk, and potential shifts in policy, technology, or consumer sentiments).

pursuit of climate solutions. How well a bank addresses environmental risk, including through its transition planning process, may have an impact on MAS' overall risk assessment of that bank.

2.7. Banks are expected to make disclosures of meaningful and relevant information to enable stakeholders to understand how they are responding over the short-, medium- and long-term to the material climate-related risks they face, and the governance around processes for addressing such risks. Appropriate and sufficient levels of transparency will support the understanding of Banks' risk management strategies and risk profiles, as well as accountability for any public commitments made by Banks, i.e. whether said commitments will fulfil their intended and stated purpose.

2.8. Banks are expected to take an iterative approach to enhance their transition planning and to embed better practices into their business-as-usual processes over time. This includes incorporation of refinements arising from their experiences in transition planning, as well as industry developments (such as in the areas of facilitated emissions and other environmental risks beyond climate change).

Question 1. MAS seeks comments on the proposed definition of transition planning.

Question 2. MAS seeks comments on the proposed context for the TPG as laid out in paragraph 1.3 of the TPG.

Question 3. MAS seeks comments on whether the drafting of paragraph 1.3(d) of the TPG on factoring in the climate-nature nexus accords Banks with sufficient flexibility to improve their understanding of other environmental-related risks and risk management processes over time. What are some tangible areas regarding other environmental-related risks (e.g. vulnerability on water availability) that you would see value in having elaboration in the guidance?

3. Applicability of the TPG

3.1. MAS proposes to apply the TPG to Banks as follows:

(a) banks licensed under section 4(1) of the Banking Act (Cap. 19);

(b) merchant banks approved under section 28(2) of the Monetary Authority of Singapore Act (Cap. 186); and

(c) finance companies licensed under section 3(1) of the Finance Companies Act (Cap. 108).

3.2. MAS recognises that the scale, scope and business models of Banks can be different. Banks should implement the TPG in a way that is commensurate with the size and nature of their activities as well as their risk profiles.

3.3. MAS proposes to apply the TPG to Banks' extension of credit to corporate customers and underwriting for capital market transactions. Banks should also apply the TPG to other activities that expose them to material environmental risk. In particular, Banks with material investment activities should refer to the relevant sections of the Guidelines on Transition Planning (Asset Managers), for sound transition planning practices with respect to investments.

Question 4. MAS seeks comments on the entities and business activities that are in the proposed scope of the TPG.

4. Proposed TPG

Governance and Strategy

4.1. Robust governance is key to Banks' effective enterprise-wide decisions on their business strategies and risk appetite in response to climate-related risks. Support from the Board of Directors ("Board") and senior management is also essential for effective ongoing implementation of strategies and incorporation into risk management frameworks, including through effective resource allocation.

4.2. The ENRM Guidelines already set out the expectation for the Board and senior management to incorporate environmental considerations into Banks' risk appetite, strategies and business plans, and to maintain effective oversight of Banks' environmental risk management and disclosure. MAS now proposes that the decisions made by Banks' Board and senior management around business strategy and risk appetite should take into consideration how the current and future operating environment will impact Banks' risk profiles.

4.3. MAS proposes that Banks' senior management should actively ensure that their climate-related business strategy and risk appetite are effectively embedded within their operations. MAS has included non-exhaustive steps that Banks' senior management could take. MAS also proposes that Banks' senior management should establish a mechanism(s) through which Banks' existing approach (and implementation thereof) to respond to climate-related risks is regularly refined.

Question 5. MAS seeks comments on the proposed expectations on governance and strategy as laid out in paragraphs 2.1 to 2.3 of the TPG.

Risk Management

Customer engagement

4.4. Banks have a role to play in the transition to a net zero economy through the mobilisation of capital to facilitate their customers' transition. It is important that customers recognise the need to take risk mitigation and adaptation measures where relevant. Banks are well-positioned to engage their customers on the risks they face and work closely with vulnerable customers to implement the relevant risk-mitigating measures. This process also serves as an avenue for Banks to collect relevant risk data from customers and deepen their understanding of customers' risk profiles.

4.5. The TPG set out MAS' proposed expectations for Banks to have a structured process to steer customers' transition by actively engaging customers on the climate-related risks that they face and their response to such risks. MAS proposes for Banks to engage and steer customers, particularly those identified as vulnerable to transition and/or physical risks, to proactively manage the risks that customers face. MAS has included examples of what engagements with customers may include. These examples are not meant to be exhaustive and should be applied as appropriate for the given customer's business and risk profile.

4.6. To facilitate a better understanding of the impact of climate change on customers' businesses and risk profiles, MAS proposes that Banks collect climate-related risk data from their customers. Banks can consider developing or building on existing structured templates to facilitate collection of consistent and comparable customer data. MAS has included illustrative examples of possible data to collect.

4.7. For customers exposed to elevated climate-related risks and who are not implementing adequate risk mitigation and adaptation strategies (due to inability or unwillingness), MAS proposes for Banks to place these customers on enhanced monitoring and engage them further to allow prompt risk mitigation actions to be taken.

4.8. MAS further proposes for Banks to regularly engage customers on a risk-proportionate basis to accelerate timely action by customers that aligns with Banks' risk appetites, commitments and ambitions. It is important for Banks to guide customers in developing or enhancing their own plans to address climate-related risks, instead of indiscriminately divesting or withdrawing financing in the first instance.

Question 6. MAS seeks comments on the proposed expectations on customer engagement as laid out in paragraphs 3.1 to 3.5 of the TPG.

Portfolio management approach

4.9. For management of climate-related risks in a structured manner, frameworks and processes at an appropriate level of granularity and specificity should be in place. Banks can benefit from grouping customers by their risk characteristics – such as at the sector level, risk level and readiness level, and by prioritising the management and engagement of customers that are exposed to greater risk.

4.10. The ENRM Guidelines broadly set out the expectation for Banks to identify, assess, mitigate and monitor material climate-related risks at both customer and portfolio levels. MAS now proposes for Banks to take a differentiated approach for sectors (at an appropriate level of granularity) posing higher climate-related risks in its transition planning to take sectoral specificities into account.

4.11. MAS also proposes for Banks to have differentiated strategies that cater to customers exposed to different levels of climate-related risks, and who are at different stages of readiness. Banks should:

(a) Avoid indiscriminately withdrawing credit from customers or sectors deemed to be of higher climate-related risks when developing their portfolio management strategies;

(b) Consider the type of physical risk the customer segments are exposed to for higher physical risk segments; and

(c) Pay attention to potential correlations or novel risks that they are exposed to as a result of such exposures (individually or in aggregate).

Question 7. MAS seeks comments on the proposed expectations on the approach to portfolio management as laid out in paragraphs 3.6 and 3.7 of the TPG.

Portfolio management – forward looking risk assessment tools

4.12. Forward-looking risk assessment tools like climate scenario analysis and stress testing allow Banks to better understand the potential impact of climate-related risks and opportunities under varying scenarios. The value and limitations of such tools should be duly considered as part of Banks' transition planning processes and incorporated into their business strategies. This extends from existing expectations under the ENRM Guidelines on scenario analysis and stress testing, which broadly set out the expectation for Banks to develop capabilities in these areas to assess the impact of environmental risk on their risk profiles and business strategies, and explore their resilience to financial losses.

4.13. MAS proposes that Banks should employ a range of forward-looking tools, such as scenario analysis and stress testing, in their transition planning processes for risk discovery and risk quantification. MAS proposes that the results of such exercises, where material, should be incorporated into Banks' planning processes (including their internal capital adequacy assessment process) so as to trigger the appropriate management actions.

4.14. MAS recognises that methodologies are still in the process of maturing, and best practices on incorporating the use of climate scenario analysis and stress testing in transition planning continue to evolve. MAS proposes for Banks to continue to develop their capabilities in climate scenario analysis and stress testing, referencing leading industry practices wherever possible. MAS has included some illustrative examples on the use of forward-looking tools for portfolio management.

Question 8. MAS seeks comments on the proposed expectations on the use of forward-looking tools for portfolio management as laid out in paragraphs 3.8 and 3.9 of the TPG.

Portfolio management – data and metrics

4.15. Given current gaps in data availability, quality and comparability, the use of proxy data is inevitable. The use of such proxies brings with it risks that Banks need to recognise. Potential implications of using proxies to make decisions should also be accounted for. Metrics are key to allow Banks to track their progress and their limitations should be assessed and mitigated where possible. Banks should endeavour to track metrics using a multi-year perspective (in line with the horizon over which risks materialise). For example, financed emissions based on point-in-time emissions data would not capture future reductions in emissions (e.g. an investment to install carbon abatement technology); they should thus be supplemented with forward looking information from corporate transition plans such as possible future emissions reductions. Metrics should also be monitored over time and analysed so as to identify drivers (e.g. whether changes are due to improvements in the profile of customers or portfolio composition) and address any implications thereof.

4.16. MAS proposes that Banks should recognise the inherent limitations or trade-offs that they face in using proxy data to mitigate data availability issues when performing their climate risk assessments at the customer and portfolio levels. MAS proposes that Banks should balance the considerations of having a set of reasonable data to support decision-making against the inherent limitations or trade-offs of using proxy data. Decisions on the choice of proxy data should be documented and material implications of the use of proxy data on its risk assessment results should be highlighted to decision-makers.

4.17. MAS proposes that the impact of public or internal decarbonisation targets (if any) on Banks' business strategies and risk profiles should be well understood and accepted by the Banks, with residual risks identified and addressed. Decarbonisation targets (if any) should be set based on appropriate science-based pathways and reference scenarios that are sufficiently ambitious, relevant to Banks' risk profiles and include actionable short-, medium- and long-term targets. Targets should be set in consideration of the materiality and distribution of their emissions profiles at the appropriate industry and geographical granularity. Decarbonisation targets (if any) should be supplemented with additional metrics as necessary.

4.18. MAS also proposes that Banks should set metrics and targets to track progress towards their strategic goals. Limitations of the metrics chosen should be recognised and explained with additional information provided as necessary.

Question 9. MAS seeks comments on the proposals set out in paragraphs 3.10 to 3.12 of the TPG, particularly in relation to the expectations around setting of decarbonisation targets by Banks.

4.19. Where there is a misalignment between Banks' espoused risk appetite and actual trajectories, MAS proposes that Banks have a structured process in place to explain the variance. The proposed process

should include attributing causation to specific risk factors and considering the need to implement additional measures to keep within their risk appetite, and/or achieve their stated targets and commitments. Where misalignment is assessed to be fundamental and not temporary, Banks should review the continued relevance of their risk appetite and/or targets.

Question 10. MAS seeks views on the proposed required attribution process set out in paragraph 3.13 of the TPG, including any practical constraints that Banks may face.

Question 11. MAS seeks views on whether it would be useful to specify broad categories for attribution referenced in paragraph 3.13 of the TPG, and if so, what such categories could include.

4.20. Given the evolving nature and understanding of climate change, MAS proposes that Banks should review all relevant risk indicators periodically for continued relevance and monitor them using a multi-year risk perspective. For example, short term fluctuations in financed emissions due to actions in support of climate-positive outcomes may not be an indication of a deterioration in Banks' climate risk management practices or failure to meet their publicly committed climate objectives. MAS recognises that Banks may see a short-term increase in their financed emissions when they finance customers' projects that facilitate transition. MAS proposes that Banks should be able to explain how their transition plans, as well as the financing they provide to customers, are consistent with their risk appetite statements, commitments and decarbonisation targets (if any).

Question 12. MAS seeks views on whether the drafting in paragraph 3.14 of the TPG will allow Banks to support climate positive outcomes, and if there are other considerations to include in the drafting to ensure that these are done in a credible manner and not used as a means of transition washing.

Implementation strategy (people, processes, systems)

4.21. People, processes and systems are critical for robust implementation and alignment of the transition planning process with Banks' strategic goals. With adequate capability, tools, technologies and infrastructure, Banks will be able to execute their strategic goals, prioritise actions and allocate resources effectively.

4.22. MAS proposes that Banks should implement a robust implementation strategy. In particular:

(a) Banks should equip their staff, including through capacity building and training, with adequate expertise to assess, manage and monitor climate-related risks in a rigorous, timely and efficient manner.

(b) Banks should update their internal governance and processes, including their risk management framework, to manage climate-related risks in a systematic manner and on a regular basis.

(c) Banks should develop and implement a data strategy to build, maintain and effectively utilise relevant environmental-related data to support effective decision-making.

Question 13. MAS seeks views whether paragraphs 3.15 to 3.17 of the TPG provide an adequate overview of the people, processes and systems necessary for a robust implementation of Banks' transition planning.

Disclosure

4.23. Disclosures are critical for enabling Banks' stakeholders to understand whether and how Banks are responding to material climate-related risks as they navigate the transition toward a low-carbon economy. Sharing of relevant information from the transition planning process could help Banks avoid adverse reactions and accusations of greenwashing arising from heightened scrutiny of Banks' financing activities, while allowing them to demonstrate accountability for any public commitments they have made.

4.24. The ENRM Guidelines currently set out broad expectations that Banks should disclose their approach to managing environmental risk in accordance with well-regarded international reporting frameworks[4]. The International Sustainability Standards Board ("ISSB") standards, which form the new global baseline for sustainability reporting, require companies to disclose information on their transition plans if they have any. MAS thus seeks to provide further guidance through the TPG to Banks to make additional disclosures encompassing Banks' transition planning processes and approaches towards addressing and mitigating the impact of material climate-related risks.

4.25. MAS proposes that Banks should disclose meaningful and relevant information to enable stakeholders to understand how Banks are responding over the short-, medium- and long-term to material climate-related risks they face, and governance around processes for addressing such risks in accordance with well-regarded international reporting frameworks and standards, such as the ISSB standards.

4.26. MAS proposes that Banks clearly communicate their risk management strategies and approaches for different sectors, and how their financing activities relate to their publicly committed climate objectives (where relevant), particularly where financing of such sectors or sub-sectors could be negatively perceived due to high financed emissions intensity in the shorter term. Such disclosures are critical in enabling stakeholders to understand Banks' reasons for financing such assets, as well as the corresponding risk strategies and mitigation measures put in place by Banks, to avoid adverse reactions

[4] Such as the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations

and accusations of greenwashing which may negatively impact Banks. Where relevant, Banks should disclose their engagement strategies for stakeholders including, but not limited to, shareholders, rating agencies, regulators and governments, and non-governmental organisations. Banks could also consider the use of credible and well-regarded green and transition taxonomies[5] in their product-level disclosures, such as labelling of sustainability and transition products offered by Banks, to facilitate better stakeholder understanding of how these products contribute to Banks' publicly committed climate objectives.

4.27. Lastly, to balance the need for transparency in disclosures with existing challenges that Banks may face (i.e. data and methodological challenges), MAS proposes that Banks may disclose reasonable and supportable information that is available at the reporting date without undue cost and effort. However, Banks should disclose the factors, inputs, methodologies, material assumptions and dependencies underlying their disclosures for transparency.

Question 14. MAS seeks views on whether paragraph 4.1 of the TPG should reference other reporting frameworks.

Question 15. MAS seeks views on whether paragraphs 4.1 and 4.2 of the TPG set out the key aspects necessary for market transparency.

Question 16. MAS seeks views on whether paragraphs 4.1 and 4.2 of the TPG provide sufficient additional guidance (i.e. in addition to existing expectations in paragraphs 5.1 and 5.2 of the ENRM Guidelines) for Banks to disclose information related to their response to material climate-related risks and governance around processes for addressing such risks.

Question 17. MAS seeks views on the proposed drafting under paragraph 4.2 of the TPG for Banks to consider the use of taxonomies in product-level disclosures, including the suitability of including GFIT's Singapore-Asia and ASEAN taxonomy as examples. For instance, would such suggestions restrict or support Banks' transition financing activities?

Question 18. MAS seeks views on the cited areas of disclosure under paragraph 4.3 of the TPG (i.e. disclosures of factors, inputs, methodologies, material assumptions and dependencies), such as whether there are any practical constraints or competitiveness concerns in providing such disclosures.

[5] Examples include the Singapore-Asia Taxonomy developed by the Green Finance Industry Taskforce (GFIT), the ASEAN Taxonomy and the EU Taxonomy.

5. Implementation Approach

5.1. MAS has included illustrative examples of sound practices in relation to Banks' governance, risk management and disclosure of their transition planning practices in the TPG, to facilitate implementation. MAS welcomes suggestions of other examples of transition planning practices currently implemented by Banks which would meet the expectations in the TPG. The examples, if incorporated in the TPG, will not be attributed to any individual Bank.

5.2. MAS is cognisant that the maturity of transition planning practices (and environmental risk management more broadly) vary among Banks. Some Banks may face initial challenges in implementing the TPG, including in relation to the availability of data and expertise, and will also need time to operationalise the requirements. Hence, MAS proposes to provide a transition period of 12 months after the TPG are issued, for Banks to assess and implement the TPG as appropriate.

Question 19. MAS seeks suggestions of other examples of transition planning practices currently implemented by Banks that could be incorporated in the TPG.

Question 20. MAS seeks comments on the proposed implementation approach, including the proposed transition period of 12 months.

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7. Proposed Guidelines on Transition Planning (Banks)

1 INTRODUCTION

1.1 The Guidelines on Transition Planning ("TPG") set out MAS' supervisory expectations for banks to have a sound transition planning process as they build climate resilience and facilitate robust climate mitigation and adaptation measures by their customers. The global transition to a net zero economy and the expected physical effects of global warming will result in transformational shifts in banks' business models and risk profiles.

1.2 "Transition planning"[1] refers to the internal strategic planning and risk management processes undertaken by a firm to prepare for both risks[2] and potential changes in business models associated with the transition.

1.3 In their transition planning process, banks are to consider the following:

a. **Banks should take a multi-year view for the continued sustainability of their business models.** The strategic decisions made by banks will have a bearing on the sustainability of banks' business models and risk profiles over varying time horizons. Banks are expected to assess the implications of their strategic decisions and continually adapt their business models, as well as governance frameworks, risk management policies and processes, in a forward-looking manner.
   i. An increasing number of banks have set decarbonisation targets, either internal or publicly disclosed, as a strategic decision to guide the pivoting or transformation of their business models towards a low carbon economy. Many have also developed or are developing short-, medium- and long-term roadmaps to guide the transition of their portfolios towards stated targets. MAS encourages banks to consider the setting of relevant decarbonisation targets, that are supportive of the global transition to a low carbon economy.

b. **Banks should engage their customers on the need to adopt mitigation and adaptation strategies as they transition towards a net zero economy and deal with the physical effects of climate change.** A robust customer engagement approach should bear in mind that:
   i. indiscriminate credit withdrawal by banks from customers or sectors deemed to be of higher climate-related risks would hinder companies with credible transition and adaptation plans from securing the financing they need to transition. This would impede the real economy's transition, and increase the risk of stranded assets and a disorderly transition;
   ii. short term fluctuations in financed[3] emissions due to actions to support climate positive outcomes should be viewed against potential longer-term improvement in customers' climate

[1] "Transition plan" refers to the firm's tangible output of the transition planning process.
[2] This includes ensuring resiliency to a range of future states of the world (including varying degrees of physical risk, and potential shifts in policy, technology, or consumer sentiments).
[3] Banks should incorporate the management of facilitated emissions into their climate strategies as measurement methodologies mature where appropriate, and to the extent possible, steer their customers to proactively manage the risks arising from their carbon-intensive activities.

risk profiles, and managed through appropriate governance guardrails established by banks; and

iii. collective inaction or delays may increase the chances of a disorderly transition and precipitate climate tipping points which can heighten financial stability risks.

c. **Banks should have clear, actionable and decision-useful risk appetite statements[4] to guide the implementation of their transition plans.** Banks have the flexibility to select a range of metrics and targets[5] in support of their risk appetite statements. In selecting the appropriate metrics and setting targets for their business model and risk profile across the short-, medium- and long-term, banks are expected to consider the potential adverse impacts or shocks that could manifest from a delayed response in supporting transition or from misalignment with national, regional and/or global decarbonisation pathways[6].

d. **Banks should continue their efforts to address environmental risk beyond climate-related risks[7], particularly as the risks are inter-linked.** Banks should apply safeguards against other environmental risks that may manifest as a result of their actions to address climate-related risks[8], while building capacity to manage both climate-related and environmental risks in a holistic manner. The remainder of the TPG should be read in this context, and banks should, to the extent possible, incorporate other environmental risks into their transition planning processes over time.

e. **Banks should proactively communicate their transition planning process to stakeholders.** This can be done through published sustainability reports, general purpose financial reports and/or transition plans. Such reports or plans can be useful tools to inform stakeholders on a bank's near- and long-term risk appetite[9]. Conversely, a perceived lack of transparency or credibility in a bank's transition planning could elevate a bank's risk profile if it is not viewed as adequately managing climate-related risks or supporting transition.

[4] Banks can refer to Section 2.3, Focus Area 3: 'Risk Appetite' of the Information Paper on Environmental Risk Management (Banks) for examples of qualitative and quantitative risk appetite statements.

[5] For example, this may include portfolio decarbonisation targets like net zero portfolio emissions at a specified date, sector-level commitments in line with scientific recommendations or proportion of portfolio aligned with science-based sector pathways aiming to limit global warming to 1.5 degrees.

[6] Countries globally have committed under the Paris Agreement to continue to progress and enhance their Nationally Determined Contributions over time. A country that has not currently committed to limiting global warming to 1.5 degrees may do so in the future. Corporates are expected to face increasing pressure to align to transition pathways that limit warming to 1.5 degrees, with consequent impact on their business models and risk profiles.

[7] NGFS (2022) Statement on Nature-Related Financial Risks. Nature-related risks, including those associated with biodiversity loss, could have significant macroeconomic implications, and failure to account for, mitigate and adapt to these implications is a source of risks for individual FIs as well as for financial stability.

[8] Reasonable effort should be made to consider if risk mitigation and adaptation measures adopted by customers have unintended financial or non-financial risks through negative impact on nature. For example, deforestation caused by expansion of large-scale, monoculture plantations for biofuel feedstocks or mining of transition-critical materials like lithium can pose risks to nature-dependent companies operating in the region (e.g. through reduction to water security in view that intact forest ecosystems provide water cycling and climate regulation services).

[9] Beyond financial risk considerations, such public disclosure of risk appetite statements can take the form of portfolio decarbonisation targets in support of banks' public commitments and/or nation-wide/global climate goals.

Application

1.4 The TPG builds on and should be read together with MAS' existing supervisory guidance[10] to banks[11]. The TPG can be viewed as an elaboration of MAS' supervisory expectations around the strategy to address environmental risk.

a. The TPG is applicable to banks extending credit to corporate customers, underwriting capital market transactions, and other activities that expose banks to material environmental risk.
b. The TPG is applicable on a group basis for locally-incorporated banks. Banks that are branches or subsidiaries of global groups may take guidance from their Group's transition planning as long as the Group's transition planning approach meet the expectations set out in the TPG.
c. MAS recognises that the scale, scope and business models of banks can be different and will continue to take a risk-proportionate supervisory approach. A bank should implement these Guidelines in a way that is commensurate with the size, nature and risk profile of its activities.

1.5 MAS expects banks' implementation of transition planning processes to mature as best practices evolve. MAS will update its guidance to the industry as appropriate to reflect the evolving nature and maturity of transition planning practices.

[10] Examples include: i) MAS' Guidelines on Environmental Risk Management ("ENRM Guidelines") – effective since June 2022 – which set out MAS' expectations for banks to build resilience against the impact of environmental risk; ii) MAS' Information Paper in May 2022 sharing our observations on banks' progress in addressing environmental risk, including through the consideration and integration of such risks into their risk management processes and business strategies.

[11] As defined in the ENRM Guidelines, 'banks' refers to all banks, merchant banks and finance companies in Singapore.

2 GOVERNANCE AND STRATEGY

2.1. **Decisions made by the bank's Board of Directors ("Board") and senior management around business strategy and risk appetite (e.g. through portfolio allocation) should take into consideration how the current and future changes in operating environment will impact the bank's risk profile.** The Board is responsible for ensuring that the bank's risk appetite, framework and policies adequately address the bank's business strategy and risks as it navigates to a lower-carbon future.

2.2. **The bank's senior management should actively ensure that its climate-related business strategy and risk appetite are effectively embedded within the bank's operations.** Steps taken should include (but are not limited to):

a. Establishing a robust governance process to make climate-related decisions (such as on business strategies, risk appetite, targets, scope, risk framework, implementation timelines and approach), founded on sufficient understanding of key assumptions, dependencies, and residual risks;
b. Establishing a clear tone from the top around the need to address climate-related risk, such as when making decisions around business strategy and risk appetite;
c. Establishing clear lines of communication and escalation across different parts of the bank to address risks that cut across functions;
d. Ensuring that internal strategies and risk appetite statements are consistent with any publicly communicated climate-related strategies and commitments[12]; and
e. Establishing mechanisms to implement business strategies and align internal behaviour to address climate-related risk (such as through performance measurement, remuneration policy and incentive structures)[13].

2.3. **The bank's senior management should establish a mechanism(s) through which the bank's existing approach (and implementation thereof) to respond to climate-related risks is regularly refined.** In view of the evolving nature of climate risk management practices, the bank should view transition planning as an iterative process. The bank should regularly review its approach, including its risk appetite and risk framework, for continued appropriateness and effectiveness, as well as to incorporate industry developments and emerging best practices in a timely manner.

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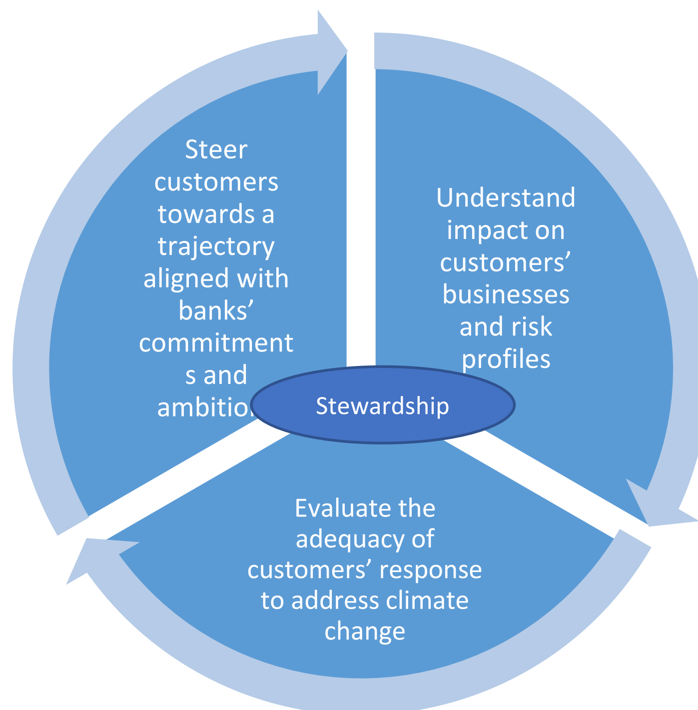
[12] See "Principles for the effective management and supervision of climate-related financial risks" (June 2022) by Basel Committee on Banking Supervision

[13] As noted in the "Principles for the effective management and supervision of climate-related financial risks" (June 2022) by Basel Committee on Banking Supervision, the Board and senior management should consider whether the incorporation of material climate-related financial risks into the bank's overall business strategy risk management frameworks may warrant changes to its compensation policies, taking into account that these should be in line with the business strategy, risk appetite, objectives, values and long-term interests of the bank.

3 RISK MANAGEMENT

Customer engagement

3.1 **The bank should have a structured process to steer customers' transition by actively engaging customers on the climate-related risks that they face and their response to such risks.** A credible response by customers should comprise actionable strategies to adequately tackle the climate-related risks faced by customers, with such strategies spanning short-, medium- and long-term time horizons depending on the nature of customers' risk profile.



3.2 **The bank should engage and steer customers, particularly those identified as vulnerable to transition[14] and/or physical risks, to proactively manage the risks that these customers face.** Such engagements may include, where assessed as appropriate for the customer's business models and risk profile, but are not limited to:

a. Referencing available information about potential future trajectories (e.g. science-based sectoral transition pathways, future sector technological mix and national decarbonisation policies) and potential physical hazards[15] arising from climate change to which customers are materially exposed to;
b. Addressing the risk of stranded assets (which could occur due to factors such as misalignment with decarbonisation pathways, obsolescence due to technological advancements, etc) and the continued viability of customers' business models; and

[14] Such as those directly engaging in carbon intensive activities or indirectly dependent on such activities through supply chain linkages.
[15] Such as hazards that could directly affect customers' business operations due to the financial impact on customers' key physical assets and working capital, or indirectly through the impact on collateral value, access to and cost of insurance, etc.

c. Considering physical risk mitigating measures (such as investments in adaptation measures or recovery efforts after hazard events) and their impact on cashflows and capital expenditure.

3.3 **The customer engagement process should include collecting climate-related risk data from customers to facilitate a better understanding of the impact of climate change on customers' businesses and risk profiles.** This data can be used to inform risk decisions (e.g. enhanced monitoring and escalation) and appropriate account strategies. The bank can consider developing or building on existing structured templates (e.g. the Association of Banks in Singapore (ABS) Environmental Risk Questionnaire (ERQ)) to facilitate collection of consistent and comparable customer data. Examples of such data could include (where relevant and appropriate for the customer's business model and risk profile), but is not limited to the following:

- Customers' self-assessed impact of transition and physical risk (where available);
- Customers' sustainability commitments, initiatives and strategies;
- Mechanisms put in place by customers to deliver such sustainability commitments, initiatives and strategies (e.g. incentives, compensation, internal pricing, etc)
- Customers' key asset locations;
- Customers' exposure to supply chain risks (including pass through of carbon costs) and impact on working capital cycles; and
- Customers' carbon emission data and vulnerability to changes in public policies, technological developments, and shifts in consumer and investor sentiments; and
- Customers' existing or planned measures to address transition and physical risks.

3.4 **Customers exposed to elevated climate-related risks and who are not implementing adequate risk mitigation and adaptation strategies (due to inability or unwillingness), should be placed on enhanced monitoring and engaged further to allow prompt risk mitigation actions to be taken.** While the effects of climate change may not be pronounced in the short term, the manifestation of physical and transition risks is likely to accelerate in the longer term. A firm that does not recognise and manage this risk could face a reduced capacity to service its loans. The bank should consider the adequacy of customers' response (or lack thereof) to address climate change as part of the customer onboarding, credit application and credit review processes and put in place risk mitigating measures as necessary. This should include consideration of the potential reputational and litigation risks that such customers expose the bank to.

3.5 **The bank should regularly engage customers on a risk-proportionate basis to accelerate timely action by customers that aligns with the bank's risk appetite, commitments and ambitions.** The bank should aim to guide customers in developing or enhancing their own plans to address climate-related risks, instead of indiscriminately divesting or withdrawing financing in the first instance. Where customers do not have credible roadmaps to address transition and physical risks, the bank should consider a range of mitigating options such as reflecting the cost of the additional risk in the loan pricing, applying limits on the loan exposure, and re-assessing the customer relationship, including declining future transactions and exiting the relationship.

Portfolio management approach

3.6 **The bank should take a differentiated approach for sectors (at an appropriate level of granularity) posing higher climate-related risks in its transition planning to take sectoral specificities into account.** The bank should factor in global and/or regional sectoral pathways and jurisdictional level specificities to inform risk decisions and facilitate engagement with customers, including having sufficient understanding of the assumptions, scope and

ambition behind the sectoral pathways it references. This will allow targeted measurable progress in responding to climate-related risks.

3.7 **For more effective customer engagement, the bank should have differentiated strategies that cater to customers exposed to different levels of climate-related risks, and who are at different stages of readiness.**

a. In developing its portfolio management strategy, the bank should avoid indiscriminately withdrawing credit from customers or sectors deemed to be of higher climate-related risks *to* reduce the formation of stranded assets and support an orderly transition. The bank can consider the circumstances of each customer, such as its jurisdictional operating environment, in engaging its customers. The bank can utilise a range of financing solutions (e.g. blended finance, early retirement of carbon-intensive assets) to support customers in carrying out risk mitigation and adaptation measures based on specific and meaningful climate-performance targets and/or risk metrics.
b. For customers or sectors exposed to high physical risk, the bank should consider the type of physical risk the customers or sectors are exposed to at an appropriate level of granularity and determine the current value and realisability of collateral. The bank can also consider the existence and progress of risk mitigation measures such as jurisdiction-level adaptation projects to address systemic risks that could manifest at the portfolio level.
c. Even for customers focused on climate solutions[16], the bank should pay attention to potential correlations or novel risks that it is exposed to as a result of such exposures (individually or in aggregate), such as potential technological risks arising from uncertainty around future developments and potential supply chain risks (e.g. interruptions to supply of critical minerals required for associated technology) or potential unintended environmental risk that might subject the bank to legal or reputational risks.

Portfolio management – forward-looking risk assessment tools

3.8 **The bank should employ a range of forward-looking tools, such as scenario analysis and stress testing, in its transition planning process for risk discovery and quantification.** In the deployment of these tools, the bank should consider the impact of climate-related risks on its portfolios under a range of plausible scenarios. The results of such exercises, where material, should be incorporated into the bank's planning processes (including its internal capital adequacy assessment process[17]) so as to trigger the appropriate management actions. For example, this could include, but is not limited to, decisions around business strategy and risk appetite, enhancing risk management policies and practices, adjusting collateral valuations, adjusting sector strategies, or bolstering capital and liquidity levels.

3.9 **The bank should continue to develop its capabilities in climate scenario analysis and stress testing, referencing leading industry practices wherever possible.** The bank should develop climate risk modelling frameworks[18] for different asset classes with the appropriate levels of granularity (e.g. sectoral or counterparty level) to account for the heterogeneity of climate-related risks across different firms and economic activities. The bank should incorporate a wide range of climate (e.g. climate policies, frequency and intensity of acute perils) and

[16] Climate solutions here collectively refers to (i) assets that directly eliminate, remove or reduce GHG emissions; (ii) indirectly contribute to, but are critical for, emission reductions by facilitating the deployment of assets that directly contribute to GHG emissions reductions; and/or (iii) nature-based solutions.
[17] As noted under Principle 5 of the "Principles for the effective management and supervision of climate-related financial risks" (June 2022) by Basel Committee on Banking Supervision.
[18] In developing the climate risk modelling frameworks, the bank can leverage external reference scenarios (such as the scenarios published by the NGFS).

economic risk factors (e.g. demand and supply-side shocks, stranded assets), and consider both direct (e.g. damage to owned physical assets, carbon tax expenses) and indirect (e.g. supply chain risks, carbon cost pass-through) transmission channels of climate-related risks on the economy and financial system. When modelling the impact of transition, the bank should factor in forward-looking information, such as customers' transition plans, to better capture the level of transition risk that customers are exposed to. The bank should seek to address material data gaps to allow them to adequately capture and differentiate the level of climate-related risks that their customers face.

Portfolio management – data and metrics

3.10 **The bank should recognise the inherent limitations or trade-offs that it faces in using proxy data[19] to mitigate data availability issues when performing its climate risk assessment at the customer and portfolio levels.** The bank may have to conduct such risk assessment in the absence of perfect information. In doing so, it will need to exercise considerable judgement in the choice of using proxy data and accepting data trade-offs. The bank should therefore balance the considerations of having a set of reasonable data to support decision-making against the inherent limitations or trade-offs of using proxy data. The bank should document the decisions on the choice of proxy data, such as the sources, underlying assumptions, methodology and limitations, so as to inform future iterations and enhancements. The bank should recognise and highlight the potential material implications of the use of proxy data on its risk assessment results to decision-makers. The bank should continue in its efforts to obtain actual data to enhance the robustness of its decision-making process.

3.11 **The bank should set metrics and targets to track progress towards its strategic goals, recognise the limitations thereof and supplement with additional information[20] as necessary.** For example, a bank may identify portfolio decarbonisation as a strategic goal and track progress using point-in-time emissions data in the absence of forward-looking emissions data. However, point-in-time emissions data would not capture future reductions in emissions (e.g. an investment to install carbon abatement technology). Point-in-time emissions data should hence be supplemented by additional information on the possible future emissions[21] where relevant. In monitoring such metrics, the bank should keep its intended outcome in mind. As data availability increases, the bank should also review existing metrics for continued relevance.

3.12 **The impact of any public or internal decarbonisation targets (if any) on the bank's business strategy and risk profile should be well understood and accepted by the bank, with residual risks identified and addressed.** Decarbonisation targets[22] (if any[23]) should be set based on appropriate science-based pathways and reference scenarios that are sufficiently ambitious[24], relevant to the bank's risk profile and include actionable short-, medium-

[19] This includes cases where the bank chooses to source its data from data vendors, where the reasonableness of any assumptions or proxies used by the vendor in deriving missing datapoints should be recognised, assessed and considered in decision-making where material.
[20] The bank should also consider interlinkages with broader environmental risk in choosing metrics and setting targets.
[21] Usage of such projected future emissions should recognise their inherent uncertainty of materialisation, and be premised on the willingness and capability of customers' ability to follow through with their plans.
[22] Gross, rather than net, metrics should be used to distinguish the effects of carbon credits.
[23] A bank who has not set any decarbonisation targets should likewise have adequate measures in place to address risks associated with the transition to a low-carbon future, including that of stranded assets and any residual risks arising from its choice of metrics.
[24] In the bank's choice of pathway, it should consider the likelihood of progressively stronger policy responses by jurisdictions to fulfil Paris Agreement commitments.

and long-term targets. Targets should be set in consideration of the materiality and distribution of their emissions profiles at the appropriate industry and geographical granularity. Decarbonisation targets (if any) should be supplemented with additional metrics as necessary.

3.13 **Where there is a misalignment between the bank's espoused risk appetite (which can be reflected in its targets) and actual trajectories, the bank should have a structured process in place to explain the variance.** The bank should be able to attribute causation to specific factors and consider the need to implement additional measures to keep within its risk appetite, and/or achieve its stated targets and commitments. If the misalignment is assessed to be fundamental and not temporary, the bank should review the continued relevance of its risk appetite and/or targets.

3.14 **Given the evolving nature and understanding of climate change, the bank should review all relevant risk indicators periodically for continued relevance and monitor these metrics using a multi-year risk perspective.** For example, short term fluctuations in financed emissions due to actions in support of climate-positive outcomes (e.g. projects for which reductions in emissions will materialise only after the project is completed) may not be an indication of a deterioration in the bank's climate risk management practices or failure to meet their publicly committed climate objectives. The bank may see a short-term increase in its financed emissions when it finances customers' projects that facilitate transition. The bank should be able to explain how its transition plan, as well as the financing it provides to customers, is consistent with the bank's risk appetite statements, commitments and decarbonisation targets (if any).

Implementation strategy (people, processes, systems)

3.15 **The bank should equip its staff, including through capacity building and training, with adequate expertise to assess, manage and monitor climate-related risks in a rigorous, timely and efficient manner**. The bank should develop staff capability to effectively engage customers on developing a credible strategy as a response to the climate-related risks. Where relevant, the bank should consider the use of customer engagement toolkits (such as analytical tools or customer assessment templates) to facilitate consistent engagement processes by its staff.

3.16 **The bank should update its internal governance and processes, including its risk management framework, to manage climate-related risks in a systematic manner and on a regular basis.** Scalable and consistent processes will allow the bank to cascade and implement its climate risk strategy and plans effectively. This could include alignment of existing products, services and business activities with the bank's strategy, as well as embedding of strategic climate consideration in decision-making processes.

3.17 **The bank should develop and implement a data strategy to build, maintain and effectively utilise relevant environmental-related data to support effective decision-making**. Relevant environmental-related data could include information to enable tracking of the bank's commitments, transition and physical risks, as well as other environmental risks it is exposed to through its portfolio, mitigating factors (e.g. status and adequacy of customers' plans to address risks) and sector analysis to identify changes in business operating environment. System(s) should be in place to reliably collect, aggregate, and enable accessibility of relevant climate-related data across the banking group as part of the overall data governance and IT infrastructure. The bank should have appropriate mechanisms in place to facilitate improvement of data-related processes over time, including the identification of new-to-bank relevant datapoints and data sources, data collection processes as well as participation in and support of emerging

developments of technological solutions[25]. As data availability and quality are expected to improve over time, banks should be agile in how they embed relevant climate-related data in their risk management frameworks and processes, and be flexible enough to allow enhancements (e.g. inclusion of new datapoints or additional granularity) over time.

[25] This may include, but are not limited to, utilising data obtained from customers′ disclosures when made available over time and supporting industry initiatives to harmonise data.

4 DISCLOSURE

4.1 **The bank should disclose meaningful and relevant information to enable stakeholders to understand how the bank is responding over the short-, medium- and long-term to material climate-related risks it faces, and governance around processes for addressing such risks.** Such disclosures should be in accordance with well-regarded international reporting frameworks and standards, such as the International Sustainability Standards Board (ISSB) standards.

4.2 **To manage and mitigate potential reputational and greenwashing risk arising from its financing activities, the bank should clearly communicate its risk management strategies and approaches for different sectors, and how its financing activities relate to the bank's publicly committed climate objectives (where relevant), particularly where financing of such sectors or sub-sectors could be negatively perceived due to high financed emissions intensity in the shorter term.** Such disclosures are critical in enabling stakeholders to understand the bank's reasons for financing such assets, as well as the corresponding risk strategies and mitigation measures put in place by the bank, to avoid adverse reactions and accusations of greenwashing which may negatively impact the bank. Where relevant, a bank should disclose its engagement strategies for stakeholders including, but not limited to, shareholders, rating agencies, regulators and governments, and non-governmental organisations (NGOs). The bank could also consider the use of credible and well-regarded green and transition taxonomies[26] in its product-level disclosures, such as labelling of sustainability and transition products offered by the bank, to facilitate better stakeholder understanding of how these products contribute to the bank's publicly committed climate objectives.

4.3 **In light of data and methodological challenges, the bank may disclose reasonable and supportable information that is available at the reporting date without undue cost and effort. However, the bank should disclose factors, inputs, methodologies, material assumptions and dependencies underlying its disclosures for transparency.** For instance, the bank should disclose the scenarios and time horizons used in its risk assessments, data proxies (for emissions and/or physical risk data) used if it was unable to obtain data directly from its customers, the extent of proxy data usage, and the scenarios used in the banks' scenario analyses and stress testing. Where relevant, banks should also disclose plans to overcome such data and methodological challenges.

[26] Examples include the Green Finance Industry Taskforce (GFIT) Taxonomy, ASEAN Taxonomy and the EU Taxonomy.