Client Update: Singapore

2021 FEBRUARY



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GFIT Handbook for Implementing Environmental Risk Management for Banks, Insurers, Asset Managers

Introduction

On 28 January 2021, the Green Finance Industry Taskforce ("**GFIT**") issued a handbook titled "Handbook on Implementing Environmental Risk Management" ("**Handbook**") providing financial institutions ("**FIs**") with practical implementation guidance and good practices on environmental risk management.

The Handbook complements the three sets of Monetary Authority of Singapore ("MAS") Guidelines on Environmental Risk Management (collectively, "ENRM Guidelines") issued in December 2020. The ENRM Guidelines set out MAS' supervisory expectations on FIs to assess, monitor, mitigate and disclose environmental risk. We covered the ENRM Guidelines in our December 2020 Client Update titled "MAS Issues Environmental Risk Management Guidelines for Banks, Insurers and Asset Managers" ("Dec 2020 ENRM Client Update").

The Handbook applies to the FIs that are subject to the ENRM Guidelines: (i) all banks, merchant banks and finance companies (collectively, "Banks"); (ii) insurers (including reinsurers) (collectively, "Insurers"); and (iii) fund management companies and real estate investment trust managers (collectively, "Asset Managers"). Please refer to our Dec 2020 ENRM Client Update for the application of the ENRM Guidelines on Banks, Insurers and Asset Managers.

This Update gives an overview of selected key implementation recommendations described in the Handbook, focusing on the following main areas:

- Governance and Strategy to ensure, among other things, board accountability and oversight;
- Proper risk management to entrench environmental and climate-related financial risk in Fls' risk management and decision-making processes; and
- Effective environmental and climate-related financial disclosures.

We will also highlight certain sector-specific and business-specific matters for consideration by Banks, Insurers and Asset Managers.



Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

Governance and Strategy

All Fls

Under the ENRM Guidelines, the board of directors ("**Board**") and senior management of an FI are expected to incorporate environmental risk considerations into the FI's risk management framework, strategies, business plans and product offerings (where applicable).

The Handbook provides guiding practices/principles to aid in the implementation of the ENRM Guidelines. It emphasises the importance of the Board's accountability and oversight and addresses some key issues in this context, and sets out good practices in environmental risk governance, including:

- Board's consideration of short and long term planning horizons for environmental issues.
 Certain environmental issues may have effects that span longer than FIs' annual budgets and reporting cycles. To address the challenge of rapidly evolving data and the scale and long-term nature of environmental issues, FIs should determine how to define their own timeframes according to the nature and scope of their business, the profile of the environmental risks they face, and the sectors and geographies in which they operate.
- Board approval in assessing environmental risks and opportunities. The Board is
 ultimately accountable with respect to the oversight of environmental risks related matters, and
 Board-level governance is expected to form the pillar of oversight on senior governance
 committees and individuals. Additionally, the role and responsibility of the Board, and the range
 of environmental issues determined by it, should be disclosed to stakeholders in a transparent
 manner (for example, at annual general meetings) and to regulators.
- Senior management's assessment and management of environmental risks and opportunities. The Chief Executive and senior management that have delegated responsibility from the Board in environmental risk matters must respond appropriately to these risks. Senior management responsibilities should include assessing and updating environmental policies regularly, obtaining progress updates from internal teams on portfolios, and ensuring the robustness of internal processes by which stakeholders are informed about environment-related matters. The Handbook also sets out ways in which the Board can support senior management in reviewing these risks.
- Integrating environmental considerations into existing committee agendas. Existing risk, audit, and other senior management level committees may consider including environmental risks and opportunities as part of their parameters of responsibilities. For instance, Fls may consider having a dedicated sustainability or environmental risk management committee to consider environmental issues and advise senior management on strategic planning.

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

Risk Management

All Fls

Under the ENRM Guidelines, FIs are expected to develop a risk management framework and put in place robust policies and processes to manage environmental risks.

The Handbook outlines steps FIs can take to embed environmental and climate-related financial risks into their risk management processes and make informed decisions. Set out below is a summary of some salient points in three main areas from the Handbook that all FIs should note in designing and implementing their environmental risk management framework.

- (i) Risk identification and assessment. Guidance is provided to FIs on how to design the process to identify the environmental risks within their existing enterprise risk framework, as well as suggesting various approaches to classifying environmental risks. For instance, FIs may treat the risk(s) as (a) a standalone, principal, risk type; (b) a risk within other existing risk types; or (c) a risk both within existing risk types, and as a principal. The classification impacts how the FI will manage the risk.
- (ii) **Risk management and monitoring**. Fls should be able to monitor the environmental risks that are material to them through quantitative and/or qualitative approaches, depending on the nature of the risk and its materiality. For instance, to monitor climate risk in vulnerable sectors, Fls may consider quantitative metrics such as credit exposures broken down by industry (based on the Industry Classification Standard aligned with its financial filing requirements), credit quality (based on internal rating systems), tenor or geography. Fls may also consider setting a risk appetite statement for environmental risks given that financial risks from environmental risk may not materialise within a short time frame.
- (iii) Scenario analysis and stress testing. The Handbook highlights a few key areas in the formulation and implementation of its environmental risk related framework, including: (a) having clear objectives for conducting scenario analysis or stress testing; (b) taking a phased approach and focusing on material risk as the starting point; (c) choosing a qualitative or quantitative approach for environmental risk related scenario analysis; (d) scenario building (i.e. Fls should identify key drivers of business performance and then build these into the scenarios); (e) principles in conducting scenario analysis, such as having a number of different scenarios, defining parameters for projection of the future scenario depending on their relevance to the business model, and defining trigger points at which action should be taken. The Handbook also refers to various publications that Fls may find helpful on this topic, such as the Climate Financial Risk Forum (CFRF) guide in June 2020 which includes a chapter on scenario analysis.

The Handbook also briefly covers the importance of capacity building, i.e. Fls should build internal expertise and resources to tackle environmental issues. Each Fl's strategy will differ depending on

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

among other things, the FI's ethos, risk appetite and Environmental, Social and Governance ("**ESG**") principles in general. Senior management can help link the FI's ENRM strategy to the overall purpose of the organisation.

We briefly address below some sector-specific considerations for Banks, Insurers and Asset Managers.

Banks

Risk identification and assessment

- Establishing risk appetite. After identifying and assessing the risks, Banks may then monitor
 those material to them, for instance, by setting thresholds on sectors that may be more
 vulnerable to transition risks, especially for long-dated facilities for clients in high emitting
 sectors.
- Identifying environmental risks at customer and portfolio levels. Under the ENRM Guidelines, Banks need to identify material environmental risks at both customer and portfolio levels. The Handbook highlights various considerations for identifying and assessing environmental risks. For instance, a Bank's environmental risk assessment of a counterparty may include evaluating its environmental data collection and monitoring mechanism, data trends, publicly disclosed policies, etc. Where the risks justify enhanced due diligence, Banks are encouraged to assess a counterparty's parent or group, where applicable.
- Differences between the environmental risk assessment of a client/project or transaction. Banks should be aware that the depth of environmental risk assessment of a project, especially one in ecologically sensitive areas with potentially significant adverse environmental impacts, can differ from that of a client/corporate. Further, Banks should have a system of prioritising environment risks to determine the level of due diligence required. High impact sectors require enhanced due diligence. For instance, agriculture, chemicals, infrastructure and others highlighted in the Association of Banks in Singapore (ABS) Guidelines on Responsible Financing.
- **Environmental risks on collateral valuation**. Banks should also consider this aspect for instance, the location and the energy efficiency of commercial and residential real estate affect the ability to mitigate and adapt to environmental risk.

Risk management and monitoring

Environmental risk management at the customer level. The Handbook illustrates how a
Bank can engage customers on their exposure to and management of environmental risks.
Banks are encouraged to come up with a standard set of questions to ensure a consistent
approach across both the banking industry and their individual portfolios.

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

- Environmental risk management at the portfolio level. Banks should be aware of risk
 concentration as environmental risk may aggregate across portfolios over time. Portfolio
 sensitivity to climate-related risks can be used as part of a risk identification process. Strategic
 portfolio management can incorporate consideration of the climate risks faced by different
 sectors and the associated exposure at the FI. The Handbook showcases a template to display
 the portfolio exposure of carbon intensive sectors.
- Environmental risk management and monitoring as part of loan documentation. Banks are routinely incorporating elements into their legal agreements to comply with ESG requirements or milestones in environmental action plans. For instance, the Equator Principles (a risk management framework for determining, assessing, and managing environmental and social risk in financing projects) state that for project finance deals, borrowers must comply with the relevant environmental management plan throughout the lifetime of the loan. Banks can refer to the Guidance for Equator Principles to provide direction on effective environmental clauses.

Scenario analysis and stress testing

An area highlighted in the Handbook concerns Banks with exposure to higher GHG emissions in areas such as fossil fuel-based industries and energy-intensive manufacturing activities. These Banks could consider a more in-depth application of scenario analysis and may refer to the Task Force on Climate-related Financial Disclosures ("TCFD") technical paper on scenario analysis titled "The Use of Scenario Analysis in Disclosure of Climate Related Risks and Opportunities" for further guidance.

For Banks with exposure to long-lived fixed assets or companies with extensive supply or distribution networks, and those that may require longer-term financing and investment, opportunities related to resilience may be especially relevant to these Banks.

Insurers

Risk identification and assessment

Insurers should identify material environmental risks to different lines of businesses by mapping environmental risk factors against re/insurance risk factors, to enable risk assessment.

- Establishing risk appetite in the Fl's risk management framework. Similar to Banks, Insurers should monitor environmental risks that are material to them. The risk appetite should reflect the materiality of risk.
- Decision-making on environmental risk as part of underwriting assessment. The Handbook sets out various considerations for Insurers during their underwriting, for instance the

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

severity of a risk and regularity of occurrence (for example, a one-off issue in contrast to systemic behaviour of a client), whether a client or project has acted to remedy or mitigate the risk, and the client's or project's performance history in managing environmental risks, among other considerations.

• Escalating environmental risks to decision makers. It is important to establish roles and responsibilities for assessing environmental issues which balance the need to empower insurance professionals to make decisions, and the desire to minimise the impact on the business of adding new processes. Insurers should define the escalation route to decision-makers, and the Handbook provides some points of consideration, for instance ensuring the escalation process is swift, setting of internal thresholds by focusing on material risks and issues, or by setting an alternative threshold (e.g. risks over a certain premium or sum insured).

Risk management and monitoring

Measuring and monitoring underwriting exposures. The Handbook highlights several aspects related to the measuring and monitoring of underwriting exposures, for instance quantitative and qualitative approaches, use of standard formulae or internal/external models, as well as metrics and reporting to support the monitoring. Apart from climate risk, biodiversity is also an important aspect of environmental risk management. In addition, the CRO Forum is working on a carbon foot-printing methodology to quantify carbon emissions in re/insurance portfolios. Insurers should note that whilst these methodologies can limit the burden on the underwriting process by detecting environmental risks, there will be cases which require discretionary decision-making. In such cases, Insurers should address them through a well-established escalation process. Additionally, Insurers should set thresholds for escalation to make ESG risk management impacts on resources acceptable and to avoid overburdening underwriters.

Scenario analysis and stress testing

For Insurers, the impact of climate change risk varies across the re/insurance industry and by line of business, making the assessment challenging. To address this challenge, Insurers can refer to industry publications on the impact of climate change on various lines of business and emerging risks, and participate in industry-wide and cross-industry collaboration to establish better understanding of the potential implications of climate risk and define consistent scenarios applicable for different time horizons.

Asset Managers

Risk identification and assessment

 Approach to risk identification. Asset Managers should focus on integrating sustainability considerations into existing investment research, portfolio construction, risk management, and

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

stewardship processes. They should also develop a set of rules to identify, avoid, and mitigate environmental risks and capture opportunities from ESG trends. These can include discussion of environmental risks and opportunities at the individual investments and portfolio level that form part of the regular performance review meetings of portfolios managed by the firm, as well as part of investment committee meetings.

- Research and portfolio construction. Portfolio investments may be exposed to a wide range of environmental risks, which can be linked to both transition and physical risks. Asset Managers must understand the ways in which environmental issues, among other issues, affect long-term returns. To do this, Asset Managers may use the scale of their investment platform and technology, their proprietary research and investment views, and their direct, private and collaborative engagement with companies through investment stewardship to create sophisticated approaches to measuring and assessing sustainability-related risks and opportunities. In addition, Asset Managers can develop tools that improve investor access to environment-related information and increase the accessibility of environmental risk related investment insights. The Handbook also illustrates how to integrate ESG factors in investment decisions. For instance, Asset Managers can embed environmental considerations in a passive strategy. Embedding environmental considerations into portfolio construction is relevant for all asset classes. Asset Managers can refer to well-established resources such as PRI guidance and principles for developing comprehensive polices for long-only equities and fixed income.
- Establishing stewardship policy. Based on the environmental risks identified in the research
 and portfolio construction phase, investors are expected to exercise stewardship and work to
 manage the identified risks. Asset Managers should have a policy clearly setting out its priorities
 and principles for engagement with portfolio companies and on public policy. Such principles
 can, for instance, advocate that sustainable finance becomes standard practice, promoting
 greater integration of environmental risks by portfolio companies.
- Improve resilience of customers' assets. Asset Managers are encouraged to consider
 initiatives such as the UN Principles for Responsible Investment (PRI), Climate Action 100+ and
 CDP Non-Disclosure Campaign, among others. These help Asset Managers collaborate with
 investee companies and are important when investee companies have low willingness to
 engage with individual investors, particularly on ESG issues. Additionally, Asset Managers must
 comply with anti-competitive regulations, and for ultimate voting decisions to remain confidential
 from competitors.

Risk management and monitoring

Portfolio managers must have access to research, data, tools, and analytics to integrate
sustainability insights into their investment process. Environmental impacts arising from
investee companies vary by the type of industry these companies are in. Some considerations
for determining what indicators to use are: asset class (equity, fixed income, physical assets);

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

nature of business; location of business; and emphasis of environmental risk management in the organisation.

- Focus on carbon footprint. Portfolio carbon footprint is currently the most widely disclosed
 portfolio environmental indicator. Asset Managers can take reference from the GHG Protocol
 that sets the standards for measuring GHG emissions, and is widely used by corporates.
- Work with internal research managers. In addition to leveraging a broad and ever-expanding set of third-party sustainability metrics, Asset Managers should consider developing sustainability insights powered by internal research models to inform risk management and oversight. Portfolio managers should meet regularly with internal research managers to review the sustainability risks present in their portfolios.

Scenario analysis and stress testing

For Asset Managers, scenarios analysis is the process of estimating the expected value of a portfolio after a period of time. Its purpose is to assess the potential earnings impairment of companies (as a result of transition policies, demand changes, physical impact and other factors) and how this might translate into investment returns in a portfolio. It is important to test reference scenarios that involve a broad spectrum of temperature outcomes.

Environmental and Climate-Related Financial Disclosures

All Fls

Under the ENRM Guidelines, FIs should make regular and meaningful disclosure of salient environmental risks applicable to their businesses.

The Handbook showcases case studies of effective environmental and climate-related financial disclosures, spotlighting disclosures concerning various key areas: governance, strategy, risk management, metrics and targets and data gaps and limitations. Best practices on disclosing broader environmental risk are still evolving and most of the recommendations in the Handbook are based on TCFD recommendations.

We briefly highlight what FIs may include in their disclosures in each of these areas.

Disclosures on governance:

- governance and operational arrangements to manage climate change risks;
- details of the climate risk and opportunity governance structure, including roles and responsibilities, frequency of reporting/discussing climate-related issues, integration into

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

existing strategy and risk management processes, as well as periodic monitoring of progress against climate-related metrics and targets; and

responsibility for environmental-related risks and opportunities lie below Board level, such as
day-to-day management of these risks, reporting lines, broad timelines for end-to-end
integration of climate-related risks, training plans, linkages to remuneration, as well as support
from external data providers (if any).

Disclosures on strategy:

- how the FI's strategy framework is designed to identify, assess, and manage climate-related risks and opportunities, including information about environmental-related risks and opportunities identified over the short, medium and long term (clearly highlighting what is meant by these different time horizons);
- results of scenario analysis which explores the potential impact on the FI's portfolio through a range of climate-related scenarios; and
- details on the impact which the risk assessment process based on the strategy has had on business decision-making. The approach should be periodically refreshed with changing climate scenarios over the short and medium term.

Disclosures on risk management:

- process by which FIs have identified, assessed, and managed climate-related financial risks and opportunities;
- the extent to which these processes are integrated in mainstream risk management practices and processes;
- how environmental risks have embedded climate risk into material risk inventory, enterprise risk frameworks, and risk governance frameworks; and
- description of actions taken to mitigate material risks which, for example, could be new exclusion policies, an updated statement of risk appetite, new lending targets, and client engagement efforts.

Disclosures on metrics and targets:

 (for FIs evaluating risks on sector-by-sector basis) metrics that reflect relevant climate-related financial risks for a given portfolio and sector, and explanation of the same;

Client Update: Singapore

2021 FEBRUARY



Financial Institutions, Insurance and Reinsurance, Funds and Investment Management

- (for FIs with large and complex assets, as well as those operating in less diverse markets using risk-based approach) the most relevant risk types, asset classes, industry sectors and geographies; and
- details of the scope of scenario analysis conducted, and what percentage of portfolios has been
 assessed using quantitative, scenario-based impairment metrics (e.g. using forward-looking,
 location-specific models describing environmental hazards) including the potential impact on
 revenues, costs, and asset values.

Disclosures on data gaps and limitations:

- methodologies and assumptions concerning data;
- any limitations and potential inaccuracies in input data; and
- potentially indicative nature of any forward-looking analysis.

Where data may be missing, FIs may use other methods such as portfolio extrapolation. Reasonable efforts could include estimating emissions (and disclosing where such estimations have been used and the methodology used for calculation) and/or using client questionnaires to obtain the data needed to input into risk assessments.

Concluding Remarks

This Handbook demonstrates the industry's efforts to deepen knowledge and capabilities in managing environmental risks and complements MAS' Green Finance Action Plan in 2019 to support a sustainable Singapore. Implementation of environmental risk management practices will be an iterative process as methodologies evolve and mature over time. Fls are encouraged to consider the practices in the Handbook alongside market and regulatory developments. We will be monitoring this development closely and will share updates as and when available to help Fls keep abreast of the latest regulatory requirements and best practices.

If you wish to find out more about the recommendations in the Handbook to your business and/or require advice/assistance in implementing requirements under the ENRM Guidelines, please feel free to contact our team members below who will be happy to assist.

Client Update: Singapore

2021 FEBRUARY



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Client Update: Singapore

2021 FEBRUARY



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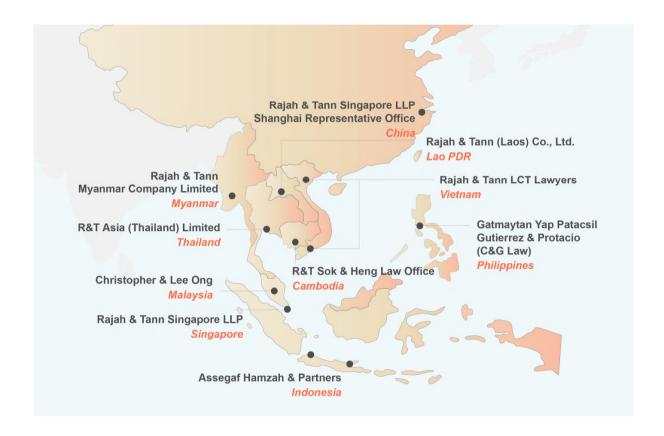
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Client Update: Singapore

2021 FEBRUARY



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