The Hong Kong Monetary Authority (HKMA) is pushing ahead with its initiatives to address climate-related issues, support sustainable finance and promote green and sustainable banking. Over the past year, a common assessment framework has been developed to measure the “greenness baseline” of individual authorized institutions; the first round of self-assessment has been completed; and a white paper has been published on green and sustainable banking to outline our initial thinking on supervisory expectations. The next step is to develop supervisory requirements on climate risk management for authorized institutions. The goals of these initiatives are to build climate resilience within the banking system, as well as to raise authorized institutions’ awareness of climate risks and broader sustainability issues.

1. Introduction

Promoting green and sustainable banking was one of the initiatives announced by the HKMA in May 2019 to support green finance development in Hong Kong. A core component of this initiative is to build climate resilience within the banking system and to raise authorized institutions’ (AIs) awareness. To achieve this, we adopted a three-phased approach:

(i) Phase I – develop a common framework to assess the “greenness baseline” of individual AIs and collaborate with international bodies to provide technical support to AIs;

(ii) Phase II – engage the banking industry and other relevant stakeholders in consultation on the supervisory expectations; and

(iii) Phase III – after setting the targets, to implement, monitor and evaluate AIs’ progress.

This approach allows the HKMA to understand the readiness of AIs in adopting green and sustainable banking, monitor the progress of the development, and expedite the formulation of supervisory requirements taking into account local circumstances. In addition, the process of self-assessment helps AIs better understand their readiness and preparedness to build climate resilience.

2. Phase I – Common Assessment Framework

2.1 Development of the framework

In July 2019, the HKMA formed a Working Group on Green and Sustainable Banking consisting of representatives from 22 AIs to develop the common assessment framework for assessing the “greenness baseline” of AIs. To maintain a balanced and diversified composition of different AIs, the Working Group consisted of first movers and beginners in green banking, and a good mix of bank types and size. After a series of meetings within the Working Group and consultation with the industry, the HKMA finalised the framework, and launched the first round of assessment in May 2020.
2.2 Overview of the framework

The framework collects information surrounding 20 elements grouped under six broad categories (Chart 1) covering AIs’ stages of development in preparations for managing climate and environmental risks. The self-assessment exercise is conducted by AIs focusing on the financial risks (e.g. credit risk and market risk) associated with climate and environmental issues. AIs are required to report their level of development in relation to each element, on a scale from 0 to 3 for climate risks and broader environmental risks separately (Table 1). AIs are also required to answer all assessment questions and some additional quantitative questions to demonstrate their progress in certain elements.

CHART 1
Overview of the broad categories and elements of the common assessment framework

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Board &amp; senior management oversight</td>
<td>Strategic plan</td>
<td>Identification</td>
<td>Lending policy</td>
<td>Disclosures</td>
<td></td>
</tr>
<tr>
<td>Role &amp; responsibilities</td>
<td>Business plan</td>
<td>Measurement</td>
<td>Investment policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial plan</td>
<td>Monitoring</td>
<td>Reporting</td>
<td>Targets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenario analysis</td>
<td>Control &amp; mitigation</td>
<td>Staff capacity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress testing</td>
<td></td>
<td>Data collection &amp; processing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TABLE 1
General meaning of each stage

<table>
<thead>
<tr>
<th>General measurement of stages of development</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Not yet started</td>
</tr>
<tr>
<td>1 Concrete plan</td>
</tr>
<tr>
<td>2 Acting in progress as planned</td>
</tr>
<tr>
<td>3 Monitoring the progress with ongoing enhancement</td>
</tr>
</tbody>
</table>

2.3 Key considerations in developing the framework

The framework covers the major areas on which an institution will need to focus when addressing climate and environmental risks. These areas can also be found in other similar frameworks adopted by international bodies, including the Task Force on Climate-related Financial Disclosures and the Central Banks and Supervisors Network for Greening the Financial System (NGFS).

Our initial focus is on AIs’ banking activities, including their lending and proprietary investment activities. However, AIs’ own operation and business continuity plans are not excluded from the assessment if they are relevant to any particular part of the assessment (e.g. targets and indicators). When AIs achieve further progress in developing green and sustainable banking, the types of business activities to be covered in the assessment will be reviewed and expanded as appropriate over time.

The framework has also taken on board comments and suggestions made by the banking industry. For example, during industry consultations there were suggestions that consideration should be given to AIs’ work already completed on non-climate-related environmental risks, as environmental risks, in general, have been explicitly considered by the industry for a long time. As such, the framework collects information on climate risks and other environmental risks separately, rather than in a combined manner, in order to provide a fuller and more accurate picture of these two types of risks.
In the first round of assessments, 47 AIs were selected to take part in the exercise, largely based on the size of their assets and business activities. These AIs included foreign bank branches and locally incorporated banks with a meaningful presence in Hong Kong and are exposed to climate and environmental risks.

### 2.4 Preliminary results of the first assessment

After receiving AIs' self-assessment results in August, we are now meeting with individual AIs to clarify their submissions and seek further information as appropriate. Some preliminary observations based on materials submitted so far include the following:

#### General observation

Overall, most AIs are still at an early stage of adopting green and sustainable banking. Across all elements under the six categories, most respondents (38%) are in the midst of planning to incorporate climate and environmental issues into various business processes (i.e. stage “1”). This is followed by around 31% of banks that have not yet started looking at these issues (i.e. stage “0”). The remaining 31% have implemented their plans or have improved them (i.e. stages “2” and “3”) (see Chart 2 below). As a general observation, large and international AIs tend to be taking the lead, probably as a result of benefiting from group policy or the requirements of their home supervisors.

#### Development in addressing climate risks and environmental risks

"Environmental risks", as defined in this assessment, cover the risks posed by the exposure of AIs to activities that may potentially cause, or be affected by, environmental degradation (such as air pollution, water pollution and scarcity of fresh water, land contamination, reduced biodiversity and deforestation). It is worth noting that the reported "stages" for addressing environmental risks are generally more advanced than that for climate risks, suggesting that AIs have been dealing with environmental risks before specifically taking into account the climate aspects (Table 2). In particular, over the years, many AIs have already incorporated environmental risks into their credit assessment processes and lending policy. For instance, some AIs pay particular attention to certain industries with potentially high energy consumption and high pollution, and take measures to control their exposures to these industries.

For those elements where development in climate risks is more advanced, the difference in the scenario analysis and stress testing is more noticeable. This probably reflects the difference in the nature of climate risks and environmental risks, and the resulting difference in the capability of AIs to quantify them.

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2 This is in line with the definition adopted by the NGFS.
Notwithstanding the observations above, the difference in the stages of development between climate risks and environmental risks is not tangible. Hence, for simplicity, the discussion below focuses on the climate aspect.

### TABLE 2

Differences in development between climate risks and environmental risks

<table>
<thead>
<tr>
<th>Elements where more AIs have started/planned to deal with climate risks</th>
<th>Elements where more AIs have started/planned to deal with environmental risks</th>
<th>Elements where the same number of AIs started/planned to deal with both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board and senior management oversight, strategic plan, scenario analysis, stress testing, indicators</td>
<td>Business plan, risk identification, risk measurement, risk monitoring, risk reporting, risk control and mitigation, lending policy, investment policy, targets, staff capacity, data collection and processing, communication</td>
<td>Role and responsibilities, financial plan</td>
</tr>
</tbody>
</table>

### Areas with more advanced developments

AIs generally are more advanced in: (1) board and senior management oversight, (2) strategic plan, and (3) lending policy (Chart 3). For these elements, more than 80% of AIs have taken various measures including formulating action plans to address climate risks.

Board and senior management oversight and strategic plan are the natural starting points when AIs begin to deal with climate and environmental risks, as guidance from the top is always crucial to the allocation of the resources needed to address these challenges. It is noteworthy that certain smaller AIs have also begun their journey and are in the process of building up the knowledge and capacity to identify their relevant risk factors.

As mentioned earlier, AIs are generally more advanced in dealing with environmental risk in their lending policies than with climate risks. However, some AIs are also making good progress in addressing climate risks in their lending policies. For example, some AIs have developed and implemented lending policies related to specific business activities or industry sectors (e.g. energy, utilities, agriculture), where climate factors are explicitly considered by taking into account the relevant industry certification schemes, environmental regulatory requirements and greenhouse gas emissions.

### Chart 3

Distribution of AIs in areas with more advanced development (climate risks only)

<table>
<thead>
<tr>
<th>Area</th>
<th>Stage 0</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board and Senior Management Oversight</td>
<td>13.0%</td>
<td>13.0%</td>
<td>19.6%</td>
<td></td>
</tr>
<tr>
<td>Strategic Plan</td>
<td>30.4%</td>
<td>28.3%</td>
<td>19.6%</td>
<td></td>
</tr>
<tr>
<td>Lending Policy</td>
<td>37.0%</td>
<td>37.0%</td>
<td>39.1%</td>
<td></td>
</tr>
</tbody>
</table>

### Areas with more room for development

AIs are generally less developed in the elements of (1) financial plan, (2) scenario analysis, (3) stress testing, (4) investment policy, and (5) data collection and processing (Chart 4). In these five areas, around 40% of AIs have not yet started dealing with climate risks, or no AI reported progress in advancing to the “monitoring” stage (i.e. stage 3).

Many AIs consider data availability to be one of the major challenges in climate risk management. Specifically, they lack data and information about their clients’ climate risk profiles and emissions. As a result, some AIs are engaging with their clients and looking to external data providers, in an effort to bridge the data gap over time.
Scenario analysis and stress testing remain a major area for development. It is noted that certain international AIs have piloted scenario analysis at the group level to assess the impact of climate risks for certain client groups. However, as the methodology is still evolving, the results are not generally fed into the daily credit assessment process. Some AIs have also commenced data gap analysis and are in the process of exploring the modelling methodology to develop the pilot test. Other AIs attribute the difficulty to the lack of relevant internal data for quantifying and modelling the impact of climate risks.

For the financial plan, while a few AIs have set financial targets to pursue green and sustainable finance opportunities, or set energy consumption or emission targets to reduce the impact of climate change, many AIs are still in the process of embedding climate considerations into their budgeting exercise and financial forecast. Some AIs have also pointed out that the incorporation of climate considerations into the financial plan will require the results of scenario analysis and quantification of the relevant risks.

Developments in the investment policy are still at an early stage. Part of the reason is that certain AIs do not engage in significant investment activities in their Hong Kong operations.

Overall, the preliminary results suggest this exercise can be useful in identifying areas for development, so that we can stay focused and work with the industry to address the identified gaps and challenges. Indeed, we want to reiterate that the assessment is not a pass or fail test. Through this process, we are facilitating AIs to formulate their strategies and approaches to address climate and environmental risks, and inform our design of the supervisory expectation under Phase II of our three-phased approach.

3. Work under Phase II

3.1 White paper on Green and Sustainable Banking

In Phase II, our focus is on the development of supervisory expectation. To help AIs’ formulate their plan to develop green and sustainable banking, a white paper\(^3\) was published in June outlining the HKMA’s initial thinking on supervisory expectations. Our thoughts are summarised in nine guiding principles, covering governance, strategy, risk management and disclosure. They are designed to help AIs develop a governance framework and strategy for managing the risks and opportunities brought by climate change, and to provide guidance in taking account of climate considerations in AIs’ risk management framework and the formulation of an approach to climate-related information disclosure.

3.2 Range of practices for management of climate risks

In addition to the white paper providing references to AIs in developing their own approaches to climate risk management, the HKMA also issued a circular in July outlining a range of practices\(^4\) that the more advanced AIs have adopted or planned to adopt in managing climate risks. The circular is designed to inspire how AIs could develop their approach to the management of climate risks, taking into consideration the nature, scale and complexity of their businesses.

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4. Next Step

4.1 Greenness Assessment

Based on the assessment results received, we are approaching individual AIs to seek further information or clarification to develop a greater insight into their work and upcoming plans. This will assist us in understanding the common practices being adopted by AIs and will help inform our work in setting supervisory requirements.

Since the three-phased approach is meant to be an iterative and evolving process, the assessment framework will be fine-tuned over time taking into account the feedback of AIs and latest developments.

4.2 Supervisory requirements

The guiding principles in the white paper outlined the HKMA’s initial thinking on the supervisory approach and formed the basis for further engagement with the industry. Given the diversity among AIs, the HKMA aims to adopt a proportionate approach, such that the requirements are appropriate to AIs of different size and scale. The development of the supervisory requirements will take into account the “greenness assessment” results, the feedback on our engagement with the industry and international developments. The HKMA plans to consult the industry on the supervisory requirements in the first half of 2021.

Apart from developing supervisory requirements, the HKMA is also exploring ways to facilitate AIs’ management of climate-related risks and growing green businesses. For instance, we will invite AIs to participate in a pilot climate stress testing exercise to assess the climate resilience of the sector. Consultancy studies will also be conducted to review and address potential obstacles to the development of green and sustainable banking in Hong Kong.

4.3 Collaboration

The HKMA and the Securities and Futures Commission initiated the establishment of the Green and Sustainable Finance Cross-Agency Steering Group in May 2020. We are currently working with other local financial regulators and government departments through this platform to study and address cross-sectoral regulatory issues, including management of climate-related risks. We are also co-ordinating cross-agency market development efforts, including capacity building.

On the international front, the HKMA participates in a number of fora in developing green and sustainable banking. We continue to participate in the NGFS and the Basel high-level Task Force on Climate-related Financial Risks to share experiences and co-ordinate efforts to tackle climate change-related risks. The HKMA is also championing Interest Group on Sustainable Finance of the Working Group on Banking Supervision of the Executive’s Meeting of East Asia-Pacific Central Banks. Our participation in international initiatives provides an opportunity for the HKMA to contribute to the central banking and regulatory community in addressing climate change and, in return, we also benefit from the experience and insights of other jurisdictions when developing our local framework.

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