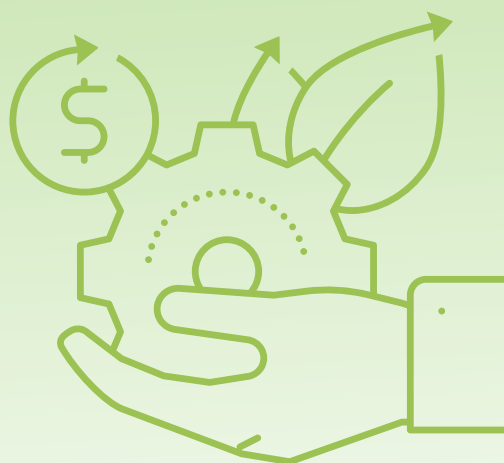


# Building a Climate-resilient Financial System

Climate change presents a significant source of risk to the financial system. The HKMA has been prioritising its efforts in strengthening Hong Kong's financial system to build a greener and more sustainable future, contributing to Hong Kong's climate goal and global agenda on sustainability.



## Building a Climate-resilient Financial System

### Banking supervisor

Banks, through their day-to-day activities, are exposed to the impact of different sustainability and climate-related issues. To continue to play their important role in the financial system and channel more capital to green and sustainable activities, it is crucial for banks to proactively manage climate risks.

As a banking supervisor, the HKMA focuses on building banks' resilience against climate risks and climate risk management capabilities, and accelerating their efforts in supporting the transition to a low-carbon economy.

### Building climate resilience and supporting transition

#### Formulating policy to enhance resilience of the banking sector

The HKMA has been working on different policy measures to enhance resilience of the sector against climate risks. In August, the HKMA issued a circular on planning for the net-zero transition, which set out high-level principles to assist banks in maintaining safety and soundness in the transition to a net-zero economy. Following the issuance of the circular, we conducted a survey of selected banks in the fourth quarter to understand their practices in transition planning. Based on the survey results, we will share with the industry observations and guidance on best practices on transition planning and organise seminars or workshops to facilitate experience sharing.

On disclosure requirements, having regard to the latest international developments including the publication of the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards in June, and the consultation on a Pillar 3 disclosure framework for climate-related financial risks, launched by the Basel Committee on Banking Supervision (Basel Committee) in November, the HKMA is stepping up its efforts to enhance its framework for sustainability-related disclosures for banks in Hong Kong. Specifically, it has been working with relevant local authorities and stakeholders on a comprehensive Hong Kong roadmap on adopting the IFRS Sustainability Disclosure Standards.

#### Enhancing the supervision of climate risk management

During the year, the HKMA strengthened its supervision of banks' climate risk management and provided advice to banks to further enhance their climate resilience and climate risk management capabilities.

## Building a Climate-resilient Financial System

### Implementation of the two-year plan to embed climate risk considerations in the supervisory process

The HKMA has made significant progress in executing its two-year plan to embed climate risk considerations into banking supervision. Climate risk management is now included as a standing agenda item of prudential meetings with bank management. Bank supervisors also used the enhanced CAMEL rating framework<sup>1</sup>, which now incorporates climate risk considerations, to assess banks' risk profiles and risk management systems.

As part of the implementation of the two-year plan on embedding climate risk considerations into the banking supervisory processes, the HKMA has revised the "greenness" assessment framework to focus on banks' practices in transition planning. The HKMA has also been reviewing the Supervisory Review Process conducted for evaluating and monitoring the capital adequacy of a bank and determining its Pillar 2 capital requirement, to incentivise banks to enhance their risk management framework to address climate risks.

### Key action points in 2023 under the two-year plan



Included climate risk management as a standing item of prudential meetings with banks' management



Revised the HKMA's "greenness" assessment framework to focus on banks' transition planning practices



Launched a round of thematic examinations on banks' climate-related risk governance



Used the enhanced CAMEL rating framework to assess banks' risk profiles and risk management systems



Enhanced the Climate Risk Stress Test and launched as part of the regular supervisory stress tests to more comprehensively assess banks' resilience and climate risk capabilities



Keeping the capital framework under review

<sup>1</sup> CAMEL is an internationally recognised framework for assessing the **C**apital adequacy, **A**sset quality, **M**anagement, **E**arnings and **L**iquidity of banks. It can help identify banks whose weaknesses in financial condition, compliance with laws and regulations, risk management systems and overall operating soundness require special supervisory attention.

## Building a Climate-resilient Financial System

### *Thematic examinations on banks' climate-related risk governance*

The HKMA began a round of thematic examinations focused on climate-related risk governance in the second quarter, after the end of the 12-month implementation period for achieving compliance with the Supervisory Policy Manual (SPM) module GS-1 on "*Climate Risk Management*". The scope of the thematic examinations covers four major areas, namely climate-related risk governance structure, oversight of climate strategy, oversight of climate-related risk management, and organisational culture, awareness and communications.

### *Climate risk stress test*

The HKMA has made a number of enhancements to the climate risk stress test (CRST) framework, including the introduction of a new five-year scenario to assess how simultaneous economic and climate-related shocks may affect banks. With these enhancements, the second round of the CRST was launched in June as part of the HKMA's regular supervisory stress tests to comprehensively assess banks' resilience and further strengthen their climate risk management capabilities. Forty-four banks participated in the exercise, representing an increase of more than 60% over the inaugural pilot exercise conducted in 2021. The HKMA also organised a CRST discussion forum in November with more than 300 banking practitioners taking part in the event. The industry's collective understanding of climate risk measurement was deepened through experience sharing amongst the participating banks.

### **Consultative sessions on the implementation of the HKMA's supervisory expectations on climate risk management**

The HKMA also conducted a series of consultative sessions to review banks' progress in implementing the HKMA's SPM module GS-1 on "*Climate Risk Management*". The HKMA held meetings with bank management to discuss their work on climate risk management and the common challenges faced by the industry, and reviewed information shared by them and other publicly available information to assess their progress. Targeted feedback was provided to banks on a bilateral basis to encourage and support the banks as they continue to strengthen their climate risk management capabilities in accordance with the HKMA's supervisory expectations.

### **Thematic review of banks' selling of green and sustainable investment products**

With the rising global awareness of climate change and commitment to tackle the issue, the HKMA noted increasing demand for green and sustainable investment products, and some banks have offered such products to meet customer demand. In light of this, the HKMA completed a thematic review on banks' selling of green and sustainable investment products and issued a circular in November, setting out its expected standards and sharing good practices observed. This circular covered areas such as product due diligence, disclosure, governance and controls, staff training and book-building activities, with a view to mitigating potential greenwashing risk and strengthening investor's confidence, thereby supporting healthy development of such investment activities. The HKMA will keep in view the latest trends and market developments going forward.



>345,000

customers



>6,300

green and sustainable investment products



>HK\$163

billion market value

(Position as of 31 March 2023 based on the HKMA's Survey on Sale of Green and Sustainable Investment Products)

## Building a Climate-resilient Financial System

### Applying technology in managing risks and enabling sustainable practices

The HKMA seeks to promote the use of technology in green and sustainable banking. For instance, technology can improve data availability and risk analysis to build up banks' capacity for managing climate risks. The HKMA will soon launch a beta version of a cloud-based platform that facilitates banks' assessment of the impact of physical risks on residential and commercial buildings in Hong Kong under different climate scenarios. In addition, the HKMA has continued its collaboration with other central banks and supervisors to explore how technological solutions can be deployed to assist with physical risk assessments.

On the other hand, the HKMA also promotes sustainable anti-money laundering (AML) practices to reduce compliance-related resource consumption through the use of advanced analytics and artificial intelligence.

In 2023, the HKMA enhanced the sustainable AML-related data submission practices for banks by adopting a web-based Common Submission Platform that fully automated the financial crime risk data collection process.

In September, the HKMA launched a Green Fintech Competition to seek market-ready solutions that can help the banking sector address challenges in the areas of (i) net-zero transition or transition planning; (ii) climate risk management; (iii) green and sustainable finance; and (iv) sustainability or climate-related disclosure and reporting. More than 85 submissions from around 70 companies were received.

In December, the HKMA held a Green and Sustainable Banking Conference to provide a platform for the banking sector and the technology sector to discuss the role of low-carbon technology and green fintech in the net-zero transition in Hong Kong and the Mainland. The results of the Green Fintech Competition were announced at the same event. The event brought together around 400 participants from banks, technology firms, regulatory authorities and the academia.



*Mr Arthur Yuen, Deputy Chief Executive, delivers opening remarks at the Green and Sustainable Banking Conference*



*Mr Donald Chen, Executive Director (Banking Policy) (front row, centre), presents the awards to the winners of the Green Fintech Competition at the Green and Sustainable Banking Conference*

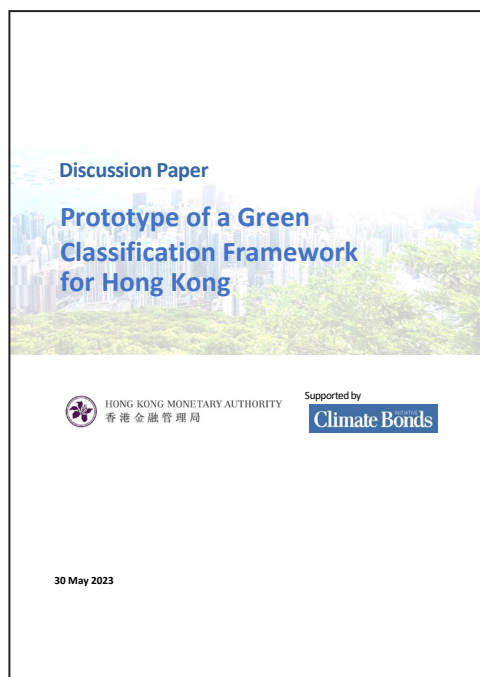
## Building a Climate-resilient Financial System

### Developing a green classification framework to facilitate green finance flows

To increase transparency across financial markets and enable consistent decision-making on green and sustainable finance, the HKMA has been working, with consultancy support, to develop a local green classification framework. In May, the HKMA published a discussion paper on “Prototype of a Green Classification Framework for Hong Kong” to seek feedback from stakeholders on the development and application of taxonomy. Based on the consultation feedback, the prototype framework is being fine-tuned and areas for additional work are being identified for the next phase of framework development.

### Supporting sustainability in AML and enforcement

The HKMA contributes to the work of the Financial Action Task Force, which recognises environmental crimes as predicate offences for money laundering. This is an area attracting increasing regulatory attention in light of the interconnection between AML and environmental, social and governance (ESG).



*Discussion Paper on “Prototype of a Green Classification Framework for Hong Kong” published in May*

# Building a Climate-resilient Financial System

## Financial and Monetary Stability

Cognisant of the potential risks that climate change may pose to the financial system, the HKMA incorporates a broader range of climate-related considerations and scenarios into its analysis of financial risks and research studies to enhance its ongoing surveillance efforts.

### Integrating climate-related risks into financial stability monitoring

The HKMA takes into account climate change in its ongoing monitoring of financial stability risks, and incorporates analyses of climate-related risks in various financial stability reports. Through its active participation in the workstream on Scenario Design and Analysis under the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the HKMA contributes to further enriching climate scenarios for central banks and supervisors in understanding the macroeconomic and financial impacts of climate change. As a member of the Financial Stability Board (FSB) Transition Plans Working Group, the HKMA has contributed to the analysis of how transition planning by financial and non-financial firms interacts with financial stability, which allows policymakers to gather a forward-looking, dynamic perspective on climate-related financial risks.

On the research front, the HKMA has conducted a number of applied research projects that look into the implications

of climate change and the broader ESG issues for the financial sector and the economy. Topics studied include the exposures of the banking sector and investment funds to climate-related risks<sup>2</sup>, ESG fund flows<sup>3</sup>, the impact of climate change on housing prices<sup>4</sup>, and the ripple effect of corporates' ESG performance along the global supply chain<sup>5</sup>.

The findings from these research projects enhance our understanding of the impacts of climate change and ESG issues on financial stability, and thereby inform the development of relevant policies. Locally, these studies support the HKMA's ongoing monitoring and assessment of financial stability impacts of climate risks. Outside the HKMA, these findings have also been shared with a wide range of stakeholders via various channels, including international initiatives on climate-related issues and HKMA's Research Memorandums.

### Embedding sustainability considerations in the Liquidity Facilities Framework

The HKMA's Liquidity Facilities Framework serves as a collateral-based backstop source providing timely liquidity support to banks in case of need. The HKMA has embedded sustainability considerations in evaluating eligible collaterals under this framework, in line with NGFS recommendations.

<sup>2</sup> Leung, Ying, Wong and Wan (2023) "Climate risk exposure of Hong Kong-domiciled investment funds: An assessment using portfolio holdings data", *HKMA Research Memorandum* 2023/08 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2023/RM08-2023.pdf>); Leung, Ying, Wong and Wan (2024) "An assessment of the exposure of Asia-Pacific investment funds to climate-related risks", *HKMA Research Memorandum* 2024/01 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2024/RM01-2024.pdf>).

<sup>3</sup> Wang, Chan and Xiao (2023) "ESG fund flows under shocks: Are they more resilient against macro-financial shocks?", *HKMA Research Memorandum* 2023/06 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2023/RM06-2023.pdf>).

<sup>4</sup> Wong, Ka and Ng (2023) "The impact of climate change on Hong Kong housing prices: an initial analysis", *HKMA Research Memorandum* 2023/05 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2023/RM05-2023.pdf>).

<sup>5</sup> Wong and Yip (2024) "Examining the ripple effect of corporates' ESG performance along the global supply chain", *HKMA Research Memorandum*, forthcoming.



## Building a Climate-resilient Financial System

### International collaboration

The HKMA plays an active role in international and regional discussions about tackling climate risk and mainstreaming sustainable finance. Through such participation, the HKMA contributes to international and regional policy dialogues in addressing climate change and its impact on financial stability, while gaining insights on strengthening the climate resilience of Hong Kong's financial system.

<b>Central Banks and Supervisors Network for Greening the Financial System (NGFS)</b>		<p>The HKMA is a member of the NGFS, which aims to share best practices and contribute to the development of climate and nature-related risk management in the financial sector, and to mobilise mainstream finance to support the transition towards a sustainable economy. The HKMA participates in NGFS workstreams and task forces relating to supervision, scenario design and analysis, net zero for central banks, and nature-related risks.</p>
<b>Basel Committee on Banking Supervision (Basel Committee)</b>		<p>The HKMA participates in the Basel Committee's Task Force on Climate-related Financial Risks, which pursues a holistic approach to address climate-related financial risks to the global banking system, with its work across all three pillars of regulation, supervision and disclosure.</p>
<b>Bank for International Settlements (BIS)</b>		<p>The HKMA participates in the BIS Innovation Network, which explores technological solutions that help banks identify, measure and monitor their exposures to climate risks.</p> <p>The HKMA is also a member of the BIS Asian Climate Network, through which Asian central banks' experts exchange views, share progress and disseminate knowledge about climate policy and environmental sustainability.</p>
<b>International Platform on Sustainable Finance (IPSF)</b>		<p>Jointly with the SFC, the HKMA represents Hong Kong in the IPSF, which has introduced the Common Ground Taxonomy, and has been working to promote transition finance.</p>
<b>Financial Stability Board (FSB)</b>		<p>The HKMA actively participates in the work of the FSB on climate risk management, including promoting climate-related disclosures and reviewing regulatory and supervisory approaches to addressing climate risk.</p> <p>The HKMA is a member of the FSB's Climate Vulnerabilities and Data Working Group, which is tasked to analyse and develop tools for monitoring climate-related vulnerabilities at cross-sector and cross-jurisdictional levels. The HKMA also participates in the FSB's Transition Plans Working Group, which aims to develop conceptual understanding on the relevance of transition plans and planning by financial and non-financial firms for financial stability.</p>



## Building a Climate-resilient Financial System

### Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)



The HKMA is a member of EMEAP, which focuses on sustainable finance as one of its strategic priorities. The HKMA is the Champion of the Interest Group on Sustainable Finance of EMEAP's Working Group on Banking Supervision, and leads studies that aim to promote information sharing on various aspects of climate risk management, such as green classifications, climate risk stress testing, climate-related data gaps and transition to a low-carbon economy.

The HKMA also chairs EMEAP's Working Group on Financial Markets, which promotes investment in green bonds through the Asian Bond Fund initiative.

### International forums on climate-related issues



The HKMA participates in a climate research initiative under the International Banking Research Network, which has been analysing the impact of climate-related risks on bank lending at cross-sector and cross-jurisdiction level. The HKMA also contributes to international discussion about climate-related issues at other international forums, including the NGFS Expert Network Research day-ahead workshop in the Green Finance Research Advances conference, and the 15th Annual Workshop of the Asian Research Network co-hosted by the BIS and the Monetary Authority of Singapore.