

# Building a Climate-resilient Financial System

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Climate change could pose risks to the financial system. The HKMA has been prioritising its efforts in strengthening the resilience of Hong Kong's financial system to climate risks, while contributing to Hong Kong's climate goals and the global sustainability agenda.

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## Banking supervisor

Banks, through their day-to-day activities, are exposed to the impact of different sustainability and climate-related issues. It is, therefore, crucial for banks to proactively manage climate risks. At the same time, banks play an important role in the financial system in channelling capital towards green and sustainable activities. As a banking supervisor, the HKMA focuses on building banks' resilience to climate risks, enhancing their climate risk management capabilities, and accelerating their efforts in supporting the transition to a low-carbon economy.

## Building climate resilience and supporting the transition

### Sustainable Finance Action Agenda – Banking for net zero

In October, the HKMA launched the Sustainable Finance Action Agenda (Action Agenda), setting out its vision to further consolidate Hong Kong's position as the sustainable finance hub in the region and support the sustainable development of Asia and beyond. The Action Agenda comprises eight goals across four areas. To assist the banking sector in achieving specific goals related to banking policy, we have been undertaking the following work.

### All banks to strive to achieve net zero in their own operations by 2030 and in their financed emissions by 2050

In December, the HKMA shared good practices on transition planning with the industry and launched an industry consultation on the draft Supervisory Policy Manual (SPM) module GS-2 on "*Transition Planning*". The new module aims to provide guidance to banks on enhancing their resilience and managing the risks associated with the transition to net zero.

In addition, we are reviewing the Supervisory Review Process used to evaluate and monitor a bank's capital adequacy and determine its Pillar 2 capital requirement. The purpose is to seek to take into account factors related to the effective management of climate-related financial risks, as outlined by the Basel Committee on Banking Supervision (Basel Committee), in the evaluation process, and to incentivise banks to enhance their risk management framework, including transition planning, to better address climate risks.

### All banks to enhance transparency on climate-related risks and opportunities

We have been working towards aligning the local sustainability disclosure requirements with international standards, including the International Financial Reporting Standards – Sustainability Disclosure Standards (ISSB Standards) and the Basel Committee's Pillar 3 disclosure framework for climate-related financial risks. Specifically, we have been analysing the landscape of sustainability disclosures and have supported the Hong Kong Institute of Certified Public Accountants in conducting a technical feasibility study on the application of the ISSB Standards.



### Sustainable Finance Action Agenda Banking for net zero

#### Goal 1

All banks to strive to achieve net zero in their own operations by 2030 and in their financed emissions by 2050



#### Goal 2

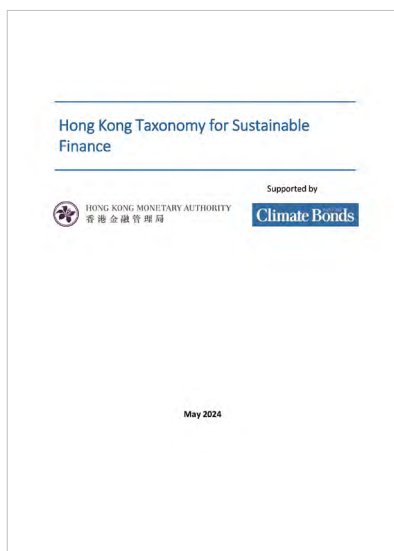
All banks to enhance transparency on climate-related risks and opportunities



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### Published the Hong Kong Taxonomy to scale up green and sustainable finance flows

Stimulating green and transition finance is key to fulfilling the Action Agenda. In May, the HKMA published the Hong Kong Taxonomy for Sustainable Finance (the Taxonomy) with the objective of addressing greenwashing concerns whilst facilitating the flow of capital towards green and sustainable activities. The Taxonomy encompasses 12 economic activities across four sectors and operationalises the Common Ground Taxonomy to align with the taxonomies of Mainland China and the European Union, while incorporating elements tailored to the local context. We have embarked on Phase 2 development and are engaging with a broad range of stakeholders, with a view to expanding the scope of the Taxonomy to further facilitate the flow of green and sustainable finance.





*Hong Kong Taxonomy for Sustainable Finance published in May*

### Enhancing the supervision of climate risk management

During the year, the HKMA further strengthened its supervision of banks' climate risk management and enhanced efforts to support banks in building their capabilities to manage climate-related risks and opportunities, and their resilience to climate change. The HKMA also completed all initiatives outlined in its two-year plan developed in 2022 to integrate climate risk into its banking supervisory processes<sup>1</sup>.

### Guidance and sharing of good practices on climate-related risk governance

To facilitate banks in strengthening their climate risk management capabilities, the HKMA shared its observations on good practices identified during thematic examinations and consultative sessions with the banking industry. Key identified good practices include:

- Developing a robust governance structure that clearly defines the responsibilities of the Board and senior management 
- Ensuring robust oversight of key aspects of climate-related risk issues 
  - (1) Fostering and overseeing the effective development and implementation of a climate strategy;
  - (2) Exercising appropriate oversight of climate-related risk management; and
  - (3) Cultivating a strong organisational culture around climate risk.

<sup>1</sup> To further strengthen its supervision of banks' climate risk management, the HKMA developed a two-year plan in 2022 to integrate climate risk considerations into its banking supervisory processes. This plan includes six key initiatives: (i) making climate risk management a standing item in prudential meetings with banks' management; (ii) updating the HKMA's risk assessment framework to incorporate climate risk considerations; (iii) conducting thematic examinations on selected aspects of banks' climate risk management; (iv) integrating climate risk stress testing into the supervisor-driven stress testing framework; (v) enhancing the HKMA's 'greenness' assessment framework to focus on banks' transition planning practices; and (vi) continuously reviewing the capital framework for banks.

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### Balanced and Responsive Supervision Roundtable on climate risk management

The HKMA hosted a dedicated Balanced and Responsive Supervision Roundtable on climate risk management in August. During the Roundtable, bank representatives exchanged views with the HKMA participants on various climate risk related topics, including the challenges banks face in climate risk management, climate risk stress testing, transition planning and finance, etc. The Roundtable provided an interactive platform for information sharing and informed the HKMA's approach to climate risk supervision and other related initiatives.

### Thematic examinations on banks' climate risk management practices

The HKMA launched a round of thematic examinations to evaluate banks' climate risk management frameworks and practices, assessing their robustness and adequacy in accordance with the supervisory expectations set out in the SPM module GS-1 on "*Climate Risk Management*". The comprehensive thematic examinations encompass the entire risk management process, including risk identification, measurement, monitoring, reporting, control and mitigation, and climate risk scenario analysis and stress testing.

### Consultative sessions on banks' progress in implementing the HKMA's supervisory expectations on climate risk management

The HKMA conducted the second series of consultative sessions with a new cohort of banks to assess their progress in implementing the SPM module GS-1 on "*Climate Risk Management*", and to understand the challenges they face. The sessions also covered the latest regulatory and market developments in climate-related areas, including transition planning, disclosure frameworks and standards, and the issue of greenwashing. We provided feedback and guidance to support individual banks' efforts in managing climate risk, in the light of their specific circumstances.

### Climate risk stress test

The HKMA completed the second round of the sector-wide climate risk stress test (CRST) in 2024, with the participation of 21 retail banks and 25 branches of international banking groups. The results showed that the Hong Kong banking sector continued to demonstrate strong resilience against severe climate-related shocks across various scenarios, including one that assumed simultaneous shocks from climate risks and macroeconomic downturns. Compared to the pilot CRST, the participating banks have made significant improvements in their capabilities for measuring and assessing climate risks. A report summarising the CRST results and highlighting good practices observed from the exercise was published in February 2025.



*Report on the 2023-2024 Banking Sector Climate Risk Stress Test published in February 2025*



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### Use of technology in climate risk management and adoption of green fintech solutions

Recognising that banks face numerous challenges related to data and methodology in climate risk management, the HKMA have been undertaking several initiatives to promote the application of technology to address these challenges.

To tackle the lack of physical risk-related data and analytical tools for conducting climate risk assessments, the HKMA launched the Physical Risk Assessment Platform in May. The platform allows users to assess the potential impact of physical risks on residential and commercial buildings in Hong Kong under various climate scenarios. Going forward, the HKMA plans to enhance the platform based on user feedback and by incorporating additional local data.

Furthermore, the HKMA has collaborated with relevant stakeholders to promote the adoption of green fintech solutions within banks and the broader financial services sector. During the year, we published an adoption practice guide and two Regtech Use Case Bulletins, featuring technology solutions for environmental, social and governance (ESG) and sustainability assessments as well as greenwashing risk management. We also hosted the FiNETech3 event, which brought together over 150 financial institutions and technology companies to explore collaboration in green fintech.



*Ms Carmen Chu, Executive Director (Banking Supervision), opens the FiNETech3 event in November*

### 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 the climate scenarios that help central banks and supervisors understand the macroeconomic and financial impacts of climate change.

In November, the NGFS published the fifth vintage of its long-term climate macro-financial scenarios for forward-looking climate risk assessments. As a member of the Financial Stability Board Transition Plans Working Group, the HKMA has contributed to the analysis of how transition planning by both financial and non-financial firms interacts with financial stability, providing policymakers with a forward-looking, dynamic perspective on climate-related financial risks.

The HKMA publishes the Adoption Practice Guide on Greentech in the Banking Sector to provide authorized institutions with best practices on leveraging Greentech to facilitate their transition to net zero.



## Building a Climate-resilient Financial System

On the research front, the HKMA has undertaken several applied research projects that look into the implications of climate change for the financial sector and the economy. The topics studied include the cross-border transmission of climate transition risk<sup>2</sup>, the role of firms' environmental performance in cushioning the impact of monetary policy shocks<sup>3</sup>, the impact of climate-related factors on foreign direct investment flows<sup>4</sup>, and the role of the financial sector in the transition to a low-carbon economy<sup>5</sup>.

The findings from these research projects enhance our understanding of the impacts of climate change on financial stability and provide valuable insights into the green and sustainable finance ecosystem, informing the development of relevant policies. Locally, these studies support the HKMA's ongoing monitoring and assessment of the financial stability impacts of climate change. These findings have also been shared with a wide range of stakeholders via various channels, including international forums and the *HKMA Research Memorandums*.

The Hong Kong Institute for Monetary and Financial Research (HKIMR), the research arm of the Hong Kong Academy of Finance, published a research paper on the effect of carbon pricing on firm performance<sup>6</sup>. The study provides evidence indicating that low-emission firms could significantly benefit from carbon pricing, highlighting its efficiency-enhancing effects in redistributing resources from high-emission to low-emission firms. The study was featured in the *HKIMR's Insights from Monetary Research* and disseminated to local and international academic and policy researchers.

### Embedding sustainability considerations in the Liquidity Facilities Framework

The HKMA's Liquidity Facilities Framework serves as a collateral-based backstop, providing timely liquidity support to banks when needed. The HKMA has integrated sustainability considerations into the evaluation of eligible collaterals under this framework.

<sup>2</sup> Ho, Wong and Lo (2025), "A simple framework for assessing the cross-border transmission of climate transition risk based on global syndicated loan data", *HKMA Research Memorandum*, 2025/02 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2025/RM02-2025.pdf>); Wu, Chan and Dong (2024), "A spatial analysis of the spillover effects of geopolitical and climate transition risks on sovereign risk", *Hong Kong Institute for Monetary and Financial Research Working Paper*, No. 11/2024 ([https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text\\_wp-no-11\\_2024.pdf?sfvrsn=63cb9963\\_0](https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text_wp-no-11_2024.pdf?sfvrsn=63cb9963_0)).

<sup>3</sup> Guignard (2024), "Does the influence of US monetary policy shocks on Asian and European stocks depend on their 'greenness'?", *HKMA Research Memorandum*, 2024/08 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2024/RM08-2024.pdf>).

<sup>4</sup> Li, Ng and Wang (2025), "The impact of climate-related factors on global greenfield foreign direct investment", *HKMA Research Memorandum*, forthcoming.

<sup>5</sup> Kong, Ying and Lam (2025), "The role of banks' bond underwriting activities in the transition to a low-carbon economy: Evidence from the Asia-Pacific Region", *HKMA Research Memorandum*, 2025/01 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2025/RM01-2025.pdf>); Leung, Wong and Lu (2025) "Assessing the role of venture capital and private equity investment in financing innovations in green technology", *HKMA Research Memorandum*, 2025/03 (<https://www.hkma.gov.hk/media/eng/publication-and-research/research/research-memorandums/2025/RM03-2025.pdf>); Wu and Dong (2024), "What explains the issuance and arrangement location of corporate green bonds? An analysis using explainable artificial intelligence technique", *Hong Kong Institute for Monetary and Financial Research Working Paper*, No. 15/2024 ([https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text\\_wp-no-15\\_2024bb143556af62409d9b333cd74e3b3b36.pdf?sfvrsn=287675fd\\_0](https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text_wp-no-15_2024bb143556af62409d9b333cd74e3b3b36.pdf?sfvrsn=287675fd_0)).

<sup>6</sup> Duan, Li and Zhang (2024), "The Effect of Carbon Pricing on Firm Performance: Worldwide Evidence", *Hong Kong Institute for Monetary and Financial Research Working Paper*, No. 06/2024 ([https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text\\_wp-no-06\\_2024.pdf?sfvrsn=38a046aa\\_0](https://www.aof.org.hk/docs/default-source/hkimr/working-papers/2024/full-text_wp-no-06_2024.pdf?sfvrsn=38a046aa_0)).

## Building a Climate-resilient Financial System

### International collaboration

The HKMA actively participates in international and regional discussions on addressing climate risk and mainstreaming sustainable finance. Through such participation, we contribute to international and regional policy dialogues focused on climate change and our impact on financial stability, while also gaining insights into how to enhance the climate resilience of Hong Kong's financial system.



Central Banks and Supervisors  
Network for Greening the Financial  
System (NGFS)

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. Starting from 2025, the HKMA serves as a member of the NGFS Steering Committee. The HKMA actively participates in NGFS workstreams and task forces relating to supervision, scenario design and analysis, net zero initiatives for central banks, and nature-related risks. Notably, the HKMA serves as a co-chair of the Workstream on Supervision, which aims to advance the integration of climate-related and environmental risks into supervisory frameworks and practices.



Basel Committee on Banking  
Supervision (Basel Committee)

The HKMA participates in the Basel Committee's Task Force on Climate-related Financial Risks, which adopts a holistic approach to addressing climate-related financial risks within the global banking system. The task force's work encompasses all three pillars of regulation, supervision and disclosure.



Bank for International  
Settlements (BIS)

The HKMA participates in the BIS Innovation Network, which explores technological solutions to help banks identify, measure and monitor their exposures to climate risks.

We are also a member of the BIS Asian Climate Network, where experts from Asian central banks exchange views, share progress, and disseminate knowledge on climate policy and environmental sustainability.



International Platform on  
Sustainable Finance (IPSF)

Together with Hong Kong's Securities and Futures Commission, the HKMA represents Hong Kong in the IPSF, which has introduced the Common Ground Taxonomy and is actively promoting transition finance.

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Financial Stability Board (FSB)

The HKMA actively engages in the efforts of the FSB on climate risk management. This includes promoting climate-related disclosures, developing a framework for assessing and monitoring climate-related vulnerabilities in the global financial system, and exploring the role of transition plans in ensuring financial stability.

We are a member of the FSB's Climate Vulnerabilities and Data Working Group, which is tasked to analyse and develop tools to monitor climate-related vulnerabilities across sectors and jurisdictions. We also participated in the FSB's Transition Plans Working Group, which aimed to enhance the conceptual understanding of how transition plans of both financial and non-financial firms could interact with climate-related financial risks, providing policymakers with a forward-looking, dynamic and system-wide perspective on these risks.



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

The HKMA is a member of EMEAP, where sustainable finance is a key strategic priority. The HKMA serves as the Champion of the Interest Group on Sustainable Finance of EMEAP's Working Group on Banking Supervision, which promotes information sharing on various aspects of climate risk management.

We also actively participate in EMEAP's Working Group on Financial Markets, which promotes investment in green bonds through the Asian Bond Fund initiative.

Meanwhile, at the EMEAP Monetary and Financial Stability Committee, the HKMA shares its knowledge on climate-related issues with fellow authorities by conducting a research project that examines the impact of climate-related factors on global greenfield foreign direct investment.



Other research-related initiatives

The HKMA participates in a climate research initiative under the International Banking Research Network, which analyses the impact of climate-related risks on bank lending across sectors.