

# Banking Stability

The banking sector in Hong Kong remained sound and stable in 2021, despite the emergence of more contagious COVID-19 variants, causing uncertainty to global economic recovery. During the year, the HKMA remained focused on the supervision of authorized institutions' risk management. Supervision of authorized institutions' operational and cyber resilience was also stepped up in light of escalating cyber threats and accelerating digitalisation in the banking sector.

On conduct supervision, the HKMA provided guidance to banks to facilitate the use of non-face-to-face channels for distributing investment and insurance products, and worked with fellow regulators to formulate supervisory requirements on new products in the market such as insurance-linked securities and virtual assets. The Code of Banking Practice was also revised to enhance consumer protection in digital financial services.

In the area of anti-money laundering and counter-financing of terrorism (AML/CFT), the HKMA's priority has been to further strengthen banks' gatekeeper role in the ecosystem and their ability to prevent and detect illicit fund flows associated with increases in online fraud, mule account networks and other financial crimes during the pandemic. To increase protection for customer accounts against fraud and financial crimes, the HKMA scaled up collaboration and information sharing with other stakeholders via public-private partnerships. While supporting remote customer on-boarding, the HKMA also encouraged adoption of other technologies including network analytics through the launch of the first AML Regtech Lab in November. Internationally, proactive engagement has kept the HKMA at the forefront of global AML/CFT efforts in the Financial Action Task Force.

On the development front, the Cross-boundary Wealth Management Connect Pilot Scheme in the Guangdong–Hong Kong–Macao Greater Bay Area was launched smoothly in September. During the year, the HKMA continued to execute its two-year roadmap for promoting Regtech adoption in Hong Kong. Several initiatives were rolled out to lay the foundation for banks' climate risk management and promote green and sustainable banking more broadly, as discussed in the *Sustainability* chapter. Further efforts were also made in the area of soft infrastructure, including promoting a customer-centric corporate culture, as well as working with the banking industry to roll out capacity-building initiatives to facilitate talent development.

Meanwhile, the HKMA has worked closely with the banking industry in optimising supervisory policies and processes. Good progress was made on implementing international supervisory standards locally, including those on capital adequacy and disclosure. The HKMA continued to advance its work to ensure a credible resolution regime for authorized institutions, including developing new resolution standards and implementing rules on loss-absorbing capacity requirements to enhance authorized institutions' resolvability.



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### OBJECTIVES

The HKMA has a general objective to promote the safety and stability of the banking system. Achieving this objective is contingent upon a highly resilient financial system that is capable of providing the critical financial services the Hong Kong economy needs.

Banks can affect the stability of the system through the way they carry out their businesses and, in extreme cases, by failing in a disorderly manner. The Monetary Authority, as a supervisory authority, plays a key role in safeguarding financial stability by ensuring that banks are resilient to shocks and able to recover their positions in crises, ultimately helping to prevent failures. The Monetary Authority is responsible for the prudential supervision of banks and is tasked with the authorization of licensed banks, restricted licence banks and deposit-taking companies in Hong Kong, which are collectively known as authorized institutions (AIs).

However, the Monetary Authority cannot ensure, nor is the Hong Kong prudential regulatory framework designed to ensure, a zero-risk financial system. Instead, the Monetary Authority, as a resolution authority, seeks to ensure that,

in the event of an AI becoming non-viable, its failure can be managed in an orderly manner. To this end, a resolution regime for financial institutions in Hong Kong has been established, under which the Monetary Authority is the resolution authority for AIs, among other types of institutions. To operationalise the resolution regime in Hong Kong, it is important to lay down resolution rules and policy standards, undertake resolution planning to remove impediments to AIs' resolvability and develop the HKMA's operational capability to resolve a failing AI. In order to carry out these tasks effectively, the HKMA adopts an internationally harmonised and co-ordinated approach.

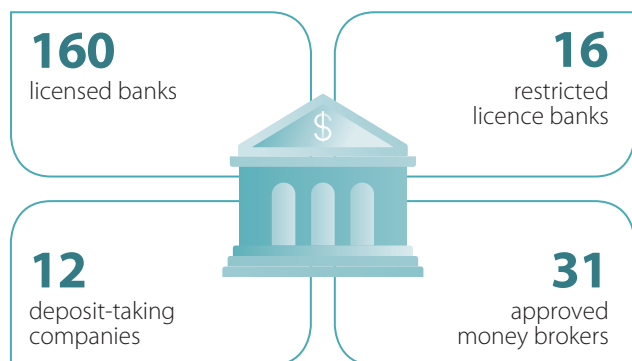
The Monetary Authority is also responsible for the designation and oversight of certain financial market infrastructures (FMIs). In overseeing FMIs, the HKMA aims to promote their general safety and efficiency, limit systemic risk and foster transparency. Making FMIs more resilient to financial crises protects the monetary and financial systems in Hong Kong from possible destabilising effects arising from disruption to the FMIs. Information regarding the HKMA's oversight approach is available on the HKMA website.

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### REVIEW OF 2021

#### Licensing

At the end of 2021, Hong Kong had:



During the year, the HKMA granted two banking licences and one restricted bank licence to three non-local banks. The HKMA also granted a money broker approval to a foreign trading platform operator. The authorizations of three licensed banks and two restricted licence banks were revoked during the year.

More information about the Als and local representative offices in Hong Kong can be found in the Annex and Tables D to F on pages 321 to 324, and 330 to 333 respectively.

#### Overview of supervisory activities

The HKMA conducted 189 off-site reviews covering a broad range of issues, including CAMEL rating assessment<sup>1</sup>, corporate governance, risk management and financial technology (fintech) strategies. As part of the HKMA's continued efforts to promote stronger risk governance, 40 meetings were held with the Als' boards of directors, independent non-executive directors or board-level committees. A further 38 tripartite meetings were held among the HKMA, Als and their external auditors.

Apart from off-site activities, the HKMA conducted regular on-site examinations supplemented with thematic reviews on areas assessed to be of higher risk. A total of 679 on-site examinations and thematic reviews were carried out during the year with credit risk management as a key focus. Amid growing adoption of technology by banks, management of operational risk and technology risk was another major area of attention. The HKMA also increased the number of on-site examinations and thematic reviews targeting liquidity and market risk management. In addition, specialist teams performed on-site examinations and thematic reviews of Als' activities in securities, investment products, insurance and mandatory provident fund (MPF)-related businesses, as well as their anti-money laundering and counter-financing of terrorism (AML/CFT) controls. Table 1 contains a summary of the HKMA's supervisory activities in 2021.

<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.

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Table 1 Summary of supervisory activities

	2021	2020
<b>1 Off-site reviews and prudential interviews</b>	<b>189</b>	186
<b>2 Meetings with Als' boards of directors, independent non-executive directors or board-level committees</b>	<b>40</b>	30
<b>3 Tripartite meetings</b>	<b>38</b>	30
<b>4 Culture dialogues</b>	<b>7</b>	7
<b>5 On-site examinations</b>	<b>135</b>	99
Operational risk and technology risk management	45	25
AML/CFT controls	20	14
Liquidity risk management	11	6
Implementation of Basel capital adequacy framework	9	8
Capital planning	4	3
Market risk, counterparty credit risk and treasury activities	19	13
Securities, investment products, insurance and MPF-related businesses	12	17
Consumer protection	3	2
Deposit Protection Scheme-related representation	12	10
Overseas examinations	0	1
<b>6 Thematic reviews</b>	<b>544</b>	511
Credit risk management and controls	42	50
Operational risk and technology risk management	85	108
AML/CFT controls	71	74
Model risk management	7	11
Sale of investment, insurance and MPF products	266	180
Consumer protection	47	51
Liquidity risk	16	25
Market risk	10	12
<b>Total</b>	<b>953</b>	863



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### Credit risk

#### Credit growth and asset quality

Total loans increased by 3.8% in 2021, compared with a growth of 1.2% in 2020. Table 2 shows the breakdown of growth in loans and advances.

**Table 2** Growth in loans and advances

% change	2021	2020
<b>Total loans and advances</b>	<b>3.8</b>	1.2
Of which:		
– for use in Hong Kong	<b>4.4</b>	2.1
– trade finance	<b>14.2</b>	-6.2
– for use outside Hong Kong	<b>1.1</b>	0.1

Mainland-related lending increased by 3.6% to HK\$4,725 billion in 2021 (Table 3).

**Table 3** Growth in Mainland-related lending

% change	2021	2020
<b>Total Mainland-related lending</b>	<b>3.6</b>	-0.2
Of which:		
– Mainland-related lending (excluding trade finance)	<b>2.6</b>	0.5
– trade finance	<b>20.7</b>	-10.8

The asset quality of the banking sector remained largely stable during the year and stayed at a healthy level by both historical and international standards. The classified loan ratio of the industry was 0.88% at the end of 2021, down from 0.90% at the end of 2020, well below the long-run historical average of 1.8% since 2000. The ratio for Mainland-related lending also decreased to 0.86% from 0.96% a year ago.

During the year, the COVID-19 pandemic continued to weigh on some sectors of the economy, while credit events in the Mainland property sector caught the attention of the market. The HKMA enhanced the breadth and depth of its surveillance, with deep-dive reviews focused on banks' exposures to highly leveraged borrowers.

Close communication with banks has been maintained to facilitate up-to-date assessment of the impact of economic and market developments as well as the adequacy of banks' risk management measures. The overall credit risk facing the banking sector is assessed to be manageable. The latest results of the HKMA's solvency stress tests confirm that the banking sector continues to maintain sufficient capital buffers to withstand extreme stress.

Targeted and thematic examinations were conducted during the year to evaluate Als' systems and controls over loan classification and loan loss provisioning, overseas lending operations, and collateralised lending to private banking and wealth management customers.

#### Alleviating cash-flow pressure faced by customers

In September, the HKMA and the Banking Sector Small and Medium-sized Enterprise (SME) Lending Coordination Mechanism announced a six-month extension of the Pre-approved Principal Payment Holiday Scheme until the end of April 2022. This scheme was first launched in May 2020 to defer loan principal payments of eligible corporate customers by six months. In light of a resurgence of local coronavirus infections, in February 2022, the scheme was further extended until the end of October 2022. In addition, the scheme was enhanced to offer a one-year partial principal repayment option to those customers who are financially capable and willing to resume principal repayment gradually.

By the end of December 2021, banks had approved loan tenor extensions and other forms of relief in over 83,000 cases, involving an aggregate amount of over HK\$920 billion. For personal customers, banks had approved more than 52,000 cases of principal payment holidays for residential mortgages and other personal relief loans, amounting to over HK\$53 billion.

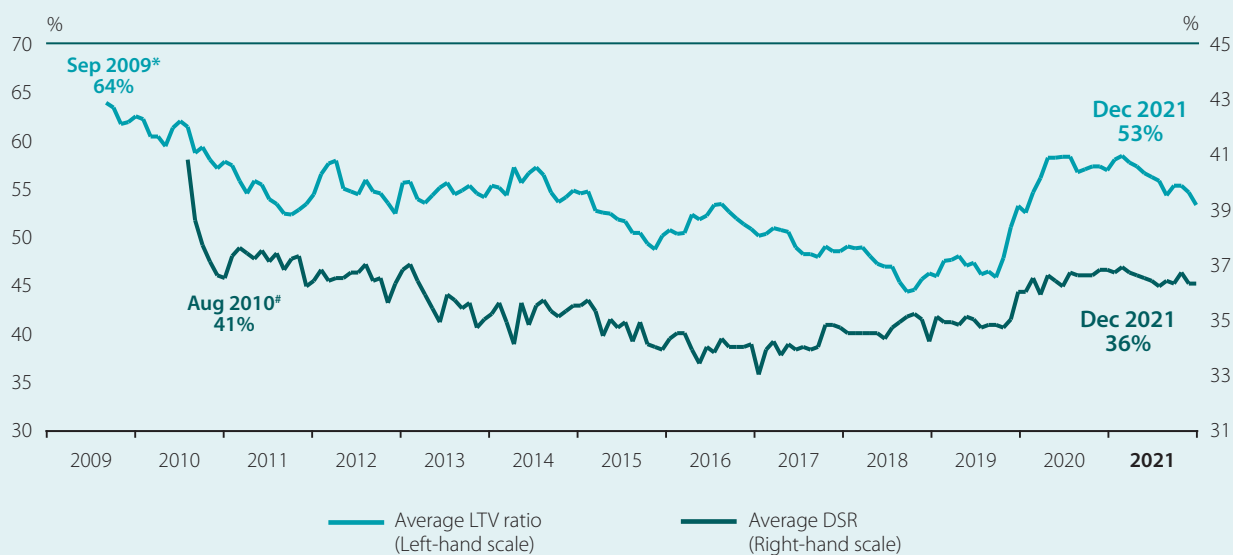
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### Property mortgage lending

The successive rounds of countercyclical macroprudential measures introduced by the HKMA since 2009 have strengthened banks' risk management and the banking sector's resilience to a possible abrupt downturn in the local property market. The average loan-to-value (LTV) ratio of new residential mortgage loans (RMLs) approved in

December 2021 was 53%, compared with 64% in September 2009 before the countercyclical measures were first introduced. The average debt servicing ratio (DSR) of new mortgages remained low at 36% in December 2021, compared with 41% in August 2010, when a cap on DSR was first applied (Chart 1).

**Chart 1** Average LTV ratio and DSR of new RMLs approved



\* Before the first round of the HKMA's countercyclical measures was introduced

# When the tighter requirement on DSR was introduced by the HKMA

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### Operational and technology risks

In light of banks' increasing reliance on technology to support their operations, the HKMA stepped up supervision of operational and technology risks. Key supervisory focuses during the year included controls over cloud outsourcing and remote working arrangements. The HKMA launched an industry consultation in December on a draft new Supervisory Policy Manual (SPM) module on "*Operational Resilience*". The new SPM module seeks to provide guidance to banks on developing a holistic and integrated operational resilience framework.

The HKMA introduced the Cyber Resilience Assessment Framework 2.0 in January to reflect the latest sound practices on cyber security risk management. During the year, the HKMA monitored Als' implementation of the Cyber Resilience Assessment Framework 2.0 and reviewed their cyber resilience capabilities. In view of the growing risk of destructive cyber-attacks, in May, the HKMA requested all Als to critically assess the need for a secure tertiary data backup, taking reference from the *Secure Tertiary Data Backup Guideline* issued by the Hong Kong Association of Banks (HKAB).

In response to heightened risks and rising numbers of phishing attacks, the HKMA worked closely with the industry to strengthen the security of internet and mobile banking services. A large-scale joint HKMA-HKAB public awareness campaign, themed "Protect your Personal Digital Keys; Beware of Fraudulent Links!" began in July (Figure 1).

### Liquidity and market risks

To enhance monitoring of Als' liquidity risk exposures, the HKMA introduced additional scenarios into its liquidity stress testing framework to evaluate Als' ability to cope with liquidity shocks over a prolonged period.

During the year, thematic reviews were conducted to assess the adequacy of Als' liquidity stress testing programmes and evaluate the sufficiency of their monitoring metrics and control limits for managing liquidity risk. The HKMA also carried out reviews to evaluate the effectiveness of Als' market risk management frameworks for debt securities investments and operational controls over treasury activities.

The HKMA closely monitored Als' progress in preparing for the transition away from the London Interbank Offered Rate (LIBOR). It collaborated with industry associations and developed tools to assist Als in supporting their customers' migration to alternative reference rates, including a leaflet to raise corporates' awareness of the transition and an information note on options available in the loan markets to replace US dollar LIBOR. Als have substantially remediated contracts referencing LIBOR settings which ceased to be published after the end of 2021. They were reminded not to enter into new LIBOR contracts from 1 January 2022 onwards.

**Figure 1** Raising public awareness of phishing attacks



Slogan icon for the public awareness campaign themed "Protect your Personal Digital Keys; Beware of Fraudulent Links!"

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### Anti-Money Laundering and Counter-Financing of Terrorism

The priority was to further strengthen banks' gatekeeper role in the ecosystem and their ability to prevent and detect illicit fund flows associated with increases in online fraud, mule account networks and other financial crimes during the pandemic. Collaboration in typology and information sharing through the Fraud and Money Laundering Intelligence Taskforce (FMLIT)<sup>2</sup> was scaled up by expanding membership to include all eight virtual banks. Six FMLIT alerts were developed during the year to share modus operandi information and good practices, including one from a virtual bank on stooge account networks used for telephone deception. Banks continued to contribute over 80% of suspicious transaction reports filed, which provided timely and actionable intelligence leading to criminal investigations. With more banks operating 24/7 stop-payment mechanisms, the industry helped intercept over HK\$2.2 billion in suspected fraudulent payments in 2021.

In addition, the HKMA worked with HKAB to provide guidance to banks on business operation issues related to the National Security Law, including updating the *Frequently Asked Questions in relation to Anti-Money Laundering and Counter-Financing of Terrorism* in October.

The HKMA supported the adoption of remote customer on-boarding and technological innovation in the banking industry, including through direct engagement in the Fintech Supervisory Chatroom and Sandbox, by experience sharing in the form of case studies published in January (Figure 2) and clarifying regulatory expectations on AML/CFT regulatory technology (Regtech) adoption in a circular issued in August. As remote customer on-boarding has become more popular during the pandemic, practical guidance was quickly developed with the banking industry on the application of iAM Smart, the Government-led digital identity system launched in 2021, which supports regulatory compliance for AML/CFT.

**Figure 2** Publishing AML/CFT Regtech: Case Studies and Insights

#### What do early AML/CFT Regtech adopters consider important?



**Secure stakeholder buy-in and executive support early**



**Build cross-functional and inter-disciplinary teams**



**Create forums to exchange views and experiences**



**Focus on data readiness and quality**



**Evaluate third-party vendors' compatibility, scale and sustainability**



**Define value and set performance indicators**

<sup>2</sup> Established in May 2017, the FMLIT is a public-private partnership for information sharing. Since its launch and up to the end of December 2021, intelligence sharing through the FMLIT resulted in 885 intelligence-led suspicious transaction reports, identification by banks of 14,732 suspicious accounts previously unknown to law enforcement agencies, and HK\$749 million being restrained or confiscated.



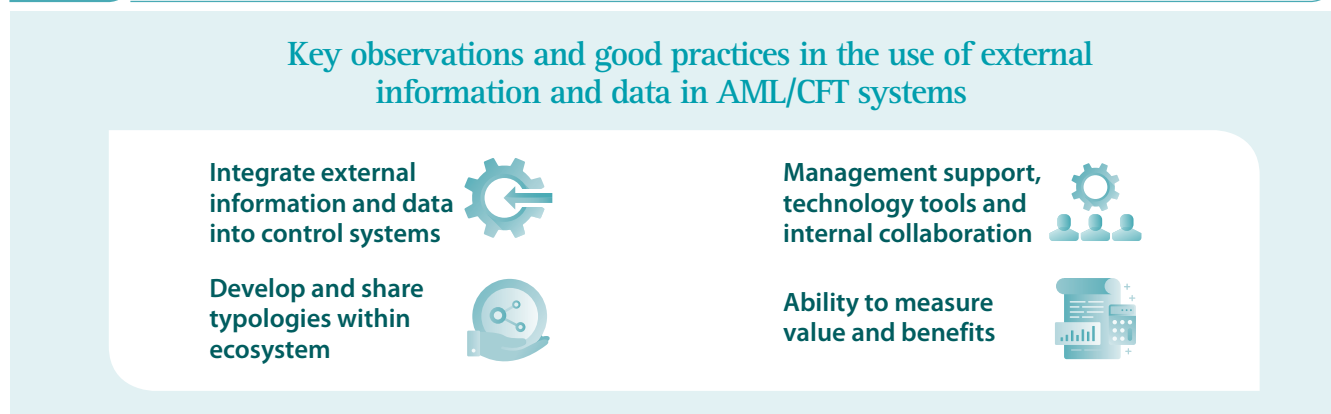
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Using improved data and technology capabilities, the HKMA has increased its forward-looking, risk-based supervision of AIs' AML/CFT systems, implemented through 20 on-site examinations and 71 off-site reviews or assessments during the year, including thematic reviews on private banking business, screening systems, and the effectiveness of transaction monitoring systems in detecting suspicious fund flows. To help manage the risks from COVID-19-related fraud, as well as mule networks related to identity theft and

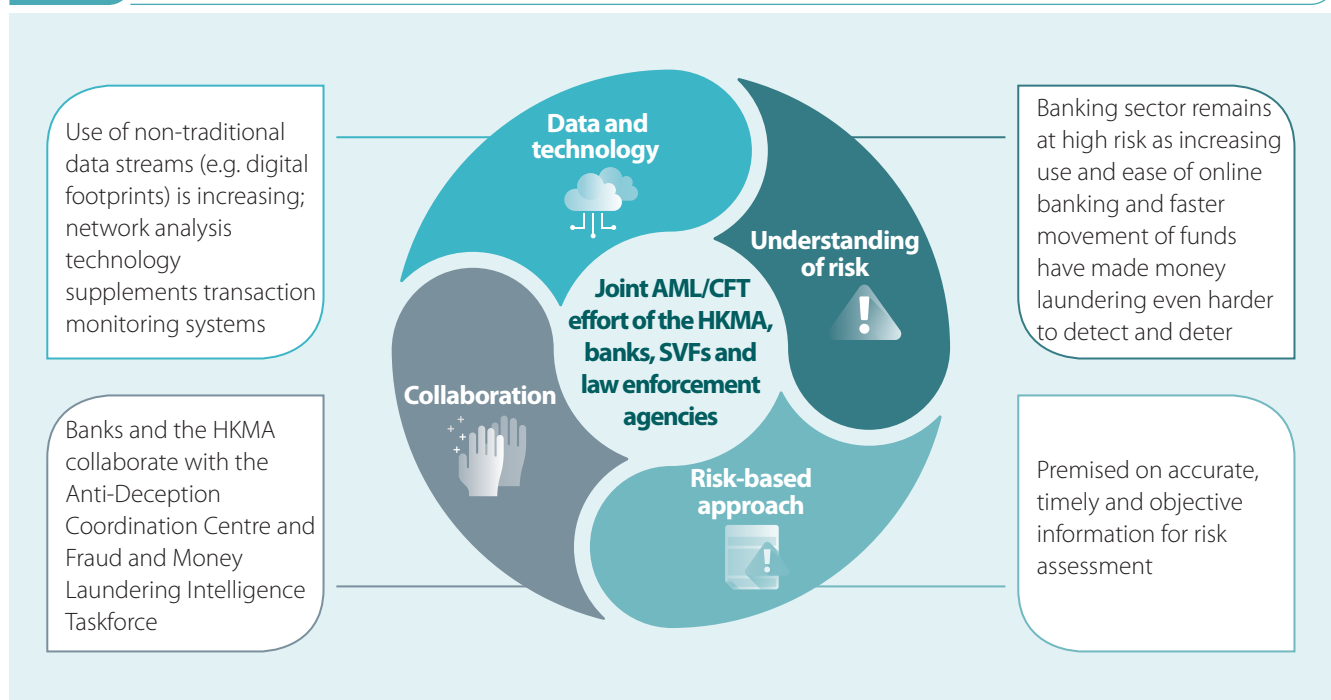
investment scams, in April, the HKMA shared key observations and good practices noted from a thematic review on using external information and data in AML/CFT systems (Figure 3).

The HKMA hosted an AML webinar on *Collaboration, Data and Technology* in September, with over 500 participants from across the AML ecosystem, including the banking and stored value facility (SVF) sectors, financial regulators, and law enforcement agencies (Figure 4).

**Figure 3** Insights from a thematic review on AML/CFT systems



**Figure 4** AML webinar on Collaboration, Data and Technology, September 2021



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In November, bringing its work on anti-fraud and AML/CFT Regtech together under the “Fintech 2025” strategy, the HKMA, in collaboration with Cyberport, launched the first AML Regtech Lab (AMLab), which focused on the use of network analytics to address the risks of fraud-related mule accounts, enhancing data and banks’ capabilities to contribute to information sharing.



*Ms Carmen Chu (front row, middle), Executive Director (Enforcement and AML) of HKMA, Mr Rico Tang (front row, third from right), Senior Manager, Fintech (Blockchain and Regtech) of Cyberport, Mr Stewart McGlynn (front row, third from left), Head (AML and Financial Crime Risk) of HKMA, and representatives from InvestHK, Hong Kong Police Force, participating banks and technology firms, and Deloitte participate in the first AMLab*

The HKMA set up a new educational page on its website and published posts on social media to urge bank consumers to say “no” to requests or offers of financial rewards for selling or lending their bank accounts to third parties, which may constitute a money laundering offence (Figure 5). Major retail banks and virtual banks also disseminated similar messages through various channels.

**Figure 5** Educational messages on social media



*Reminding the public: “Don’t be tempted by quick money. Don’t lend your account to anyone to launder money.”*

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### Wealth management and MPF-related businesses

The HKMA co-operates closely with other financial regulators in Hong Kong to give guidance on and supervise Als' practices in the sale of securities, investment products, insurance products and MPF schemes. The HKMA maintains regular dialogue with other regulators through bilateral and multilateral meetings, as well as under the auspices of the Council of Financial Regulators, to ensure co-ordinated and effective supervisory actions.

The HKMA conducted 12 on-site examinations, 266 thematic reviews and 15 analyses of surveys and returns of Als, covering the sale of investment, insurance and MPF products, and focusing in particular on investment products related to corporates with high indebtedness, and non-investment-linked long term insurance products. The HKMA and the Securities and Futures Commission (SFC) completed a concurrent thematic review on intermediaries' spread charges and other related practices, and issued a joint circular to the industry on the examination findings and good practices. In addition, the HKMA and the SFC conducted and announced the findings of the first annual joint survey on sale of non-exchange traded investment products to better understand the industry landscape and market trends.

After extensive consultation with the relevant regulatory authorities and the banking industry, the HKMA promulgated the implementation arrangements for the Cross-boundary Wealth Management Connect (Cross-boundary WMC) Pilot Scheme and signed a memorandum of understanding (MoU) with relevant regulatory authorities on supervisory co-operation. The HKMA announced in October that 19 banks in Hong Kong were eligible to offer Cross-boundary WMC services, and has been monitoring these participating banks to ensure smooth implementation of the scheme.

Use of non-face-to-face (non-F2F) channels by Als to provide investment and insurance services to customers has been rising. The online investment product transaction volume of Als increased by more than 50% in the second half of 2021 compared with the second half of 2019. During 2021, about half of all investment transactions in retail banks were conducted online. The number of long term insurance policies sold via digital distribution channels by retail banks tripled between the second half of 2019 and the second half of 2021. The share of digital distribution among all channels rose from 4% to 18% over the same period. In September, the HKMA provided guidance to Als on distributing investment and insurance products through non-F2F channels in a way that is customer-friendly while according protection. Following commencement of the regulatory framework for the issuance of insurance-linked securities in Hong Kong, the HKMA and the SFC issued a joint circular in October to remind intermediaries of key investor protection measures in distributing insurance-linked securities and related products.

The industry was supportive of the HKMA's 2020 consultation on enhancing the regulation and supervision of trust business in Hong Kong, including promulgating a Code of Practice for Trust Business. The proposal was then revised, taking into account constructive suggestions from the industry, for further discussion in the third quarter of 2021. The HKMA also engaged the industry associations in fine-tuning the proposed Code of Practice, and the new SPM module for implementing the Code.

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The HKMA issued the new SPM module IB-1 on “*Supervision of Insurance Intermediary Business of Authorized Institutions*” in June, outlining supervisory and enforcement approaches, as well as relevant statutory and regulatory requirements. In September, the HKMA shared with AIs key observations from desktop reviews on the sale of Qualifying Deferred Annuity Policies and Voluntary Health Insurance Scheme products, and referral arrangements for Tax-deductible Voluntary Contributions.

Separately, following a joint inspection on premium financing activities of long term insurers and licensed insurance intermediaries (including AIs), the HKMA and the Insurance Authority (IA) issued a joint circular in September to share key observations and good practices with the industry. The HKMA also continued to work closely with the IA in extending the temporary facilitative measures introduced in 2020 to allow non-F2F distribution of certain insurance products, subject to implementation of specified compensating measures, and in reviewing various proposals on non-F2F distribution of insurance products involving AIs under the IA’s Insurtech Sandbox.

The HKMA processed seven applications for registration as a registered institution and addition of regulated activities under the Securities and Futures Ordinance (SFO). It granted consent to 173 executive officers responsible for supervising the securities activities of registered institutions and conducted background checks on 7,361 individuals whose information was submitted by registered institutions for inclusion in the register maintained by the HKMA. Pursuant to the MoU between the Monetary Authority and the IA, the HKMA provided comments on 28 AIs that are deemed licensed insurance agencies to facilitate the IA’s assessment of their insurance agency licence applications.

### Other supervisory activities

The Banking Supervision Review Committee<sup>3</sup> considered six cases in 2021. Four of them concerned the authorization of AIs and the approval of money brokers. The remaining two cases were related to virtual banks (Table 4).

The HKMA commissioned 10 reports under section 59(2) of the Banking Ordinance (BO), requiring AIs to appoint external professional firms to report on the effectiveness of their controls in specified areas of operations. Three reports covered risk management, another three concerned the AIs’ overall risk governance frameworks, and the remaining four related to areas such as compliance with the BO, SPM and AML/CFT controls, and securities business.

In 2021 there were no incidents reported by AIs involving breaches of the BO requirements relating to capital adequacy or liquidity ratio. There were 47 breaches of other BO provisions, mostly related to AIs’ reporting obligations. These breaches did not affect the interests of depositors and were promptly rectified by the AIs.

The CAMEL Approval Committee<sup>4</sup> completed a review of the CAMEL ratings of all the 187 AIs. No AIs appealed against the Committee’s decisions.

**Table 4 Summary of other supervisory activities**

	2021	2020
1 Cases considered by the Banking Supervision Review Committee	6	3
2 Reports commissioned under section 59(2) of the BO	10	18
3 Approval of applications to become AIs’ controllers, directors, chief executives or alternate chief executives	195	226

<sup>3</sup> A senior management committee set up within the HKMA to consider, advise and make recommendations to the Monetary Authority on major authorization matters under the Banking Ordinance, with a view to ensuring that decisions on authorization matters are taken in a fair and reasonable manner.

<sup>4</sup> The CAMEL Approval Committee was established to review the CAMEL assessments conducted on individual AIs. The Committee is chaired by an Executive Director, and includes at least two senior staff members within the banking departments of the HKMA who have not been involved in conducting the CAMEL assessments in question.

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### Promoting Regtech adoption

The HKMA is spearheading Regtech adoption in Hong Kong. As part of its two-year roadmap, a number of initiatives and events were rolled out during the year, including the following:

#### ◆ Global Regtech Challenge

A competition launched in March to raise the banking industry's awareness of Regtech;

#### ◆ Regtech conference

A large-scale online conference held in June and attended by over 4,000 participants across five continents, with leaders from the global Regtech ecosystem sharing their experience and insights on the enormous potential of Regtech;

#### ◆ Regtech Adoption Practice Guide

A series of detailed practical guides commencing in June to assist banks to implement Regtech solutions; and

#### ◆ Regtech skills framework

Published in October and aimed to help nurture Regtech talent in Hong Kong.

### Adopting supervisory technology

The HKMA continued to incorporate technology in its supervisory processes to improve their efficiency and effectiveness. During 2021, the HKMA successfully concluded a series of pilots and proofs of concept to assess the suitability of various technologies in the market. Based on the results of these exercises, the HKMA issued requests for proposals to procure technology solutions for an end-to-end digital supervisory platform. In addition, the HKMA explored the possibility of leveraging advanced analytics to strengthen its forward-looking supervisory capabilities. Potential use cases include the application of network analysis techniques to visualise corporate shareholding relationships, and the use of sentiment analysis based on news and other public information to help identify market trends and supervisory issues that may warrant attention.

### International co-operation

#### Co-operation with overseas supervisors

During the year, the HKMA participated in 31 college-of-supervisors meetings organised by the home supervisors of 22 banking groups with significant operations in Hong Kong. Given the pandemic, all of these meetings were held virtually. A broad range of issues was discussed, covering areas such as financial soundness, corporate governance, risk management controls and operational resilience. The HKMA also co-organised a virtual supervisory college meeting with the home supervisor of a global systemically important bank (G-SIB).

The HKMA is a member of each of the Crisis Management Groups (CMGs) for 12 G-SIBs attended by the relevant home and host authorities. At the regional level, the HKMA organises the Asia CMG for a G-SIB with its Asia-Pacific headquarters in Hong Kong and is a member of the Asia-Pacific Recovery and Resolution Planning College for two other G-SIBs, where resolution-related topics are addressed.

Bilateral meetings were held during the year with banking supervisors from Australia, the European Union, India, Japan, Macao, Mainland China, Singapore, Switzerland and the United Kingdom. There were also regular exchanges with overseas authorities on institution-specific issues and developments in financial markets.



*Mr Arthur Yuen, Deputy Chief Executive of HKMA, delivers the closing remarks at the flagship Regtech conference*



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### International and regional forums

The HKMA participates in a range of international and regional forums for banking supervisors. It is a member of the Basel Committee on Banking Supervision (Basel Committee) and its governing body, the Group of Governors and Heads of Supervision. Following a revision of the Basel Committee's organisation structure, which took effect from January 2021, the HKMA serves as a co-chair of the Policy and Standards Group and the chair of the Pillar 2<sup>5</sup> Expert Group. The HKMA is a member of the Risks and Vulnerabilities Assessment Group, the Supervisory Cooperation Group and the Policy and Standards Group. It is also represented in the Task Force on Climate-related Financial Risks and the following Expert Groups:

- ◆ Accounting and Audit;
- ◆ Anti-money Laundering and Counter-financing of Terrorism;
- ◆ Capital and Leverage Ratio;
- ◆ Credit Risk and Large Exposures;
- ◆ Disclosure;
- ◆ Financial Technology;
- ◆ Liquidity;
- ◆ Margin Requirements;
- ◆ Market Risk;
- ◆ Operational Resilience;
- ◆ Pillar 2; and
- ◆ Stress Testing.

The HKMA is a member of the Central Banks and Supervisors Network for Greening the Financial System and, jointly with the SFC, represents Hong Kong in the International Platform on Sustainable Finance. It also participates in the Financial Stability Board (FSB) LIBOR Drafting Team, which focuses on supervisory issues associated with LIBOR transition.

The HKMA participates actively in the work of the G20/OECD<sup>6</sup> Task Force on Financial Consumer Protection, which supports the implementation of the G20/OECD *High-level Principles on Financial Consumer Protection* and develops the Effective Approaches for the application of these principles, taking into account operations in an increasingly digital environment. In particular, the HKMA provided input to the Task Force's comprehensive review on the *High-level Principles*. The HKMA is a member of the Supervisors Roundtable on Governance Effectiveness chaired by the Federal Reserve Bank of New York, which aims to advance innovation in the supervision of governance, behaviour and culture in order to collectively influence culture reform in the financial sector.

<sup>5</sup> Pillar 2 is a framework for determining any additional capital that an AI should hold principally to cover risks either not captured, or not adequately captured, under the minimum capital requirement (i.e. Pillar 1) of the Basel capital standard.

<sup>6</sup> Organisation for Economic Co-operation and Development.

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The HKMA continued its engagement with international standard setters, by providing expert assessors to, and co-chairing the Evaluations and Compliance Working Group of the Financial Action Task Force, as well as participating in the working group on Cross-border Payments Data and Identifiers established under the FSB.

At the regional level, the HKMA is a member of the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)<sup>7</sup>; the South East Asia, New Zealand and Australia Forum of Banking Supervisors; and The South East Asian Central Banks (SEACEN) Research and Training Centre.

As part of its work in the EMEAP Working Group on Banking Supervision, the HKMA is the champion of the Interest Group on Liquidity. During the year, the Interest Group on Liquidity exchanged views and shared experience regarding the implementation of Basel III liquidity standards in the EMEAP jurisdictions amid the COVID-19 pandemic. The HKMA is also the champion of the Interest Group on Sustainable Finance, which aims to promote information sharing on the management of climate-related risks faced by banks in the region.

During the year, the HKMA chaired and served as the secretariat of the Study Group on Resolution (SGR), a forum within the EMEAP, which supports knowledge sharing and discussion among regional authorities in relation to resolution in a cross-border context. See the *International policy and regional co-operation* section on page 107 for more details.

### Basel Committee Regulatory Consistency Assessment Programme

The Basel Committee conducts a Regulatory Consistency Assessment Programme (RCAP) to monitor, assess and evaluate its members' implementation of the Basel standards. In 2021, the HKMA contributed to the work of an RCAP Review Task Force that considered potential updates to the RCAP process. The HKMA also participated in the assessment of Japan's large exposures standards, which was put on hold in early 2020 due to COVID-19 but resumed in spring 2022.

### Regulatory regime for over-the-counter derivatives market

The HKMA oversees compliance of AIs and approved money brokers (AMBs) with the mandatory reporting, clearing, and related record-keeping requirements on over-the-counter (OTC) derivatives transactions under the SFO. Close dialogue is maintained with AIs, AMBs and other industry participants on various reporting issues to ensure their compliance with the relevant requirements as the OTC derivatives market develops and international standards evolve.

### Regulatory regime for approved money brokers

During the year, the HKMA conducted a comprehensive review of the regulatory regime for AMBs taking into account the latest international developments, with a view to strengthening supervision under a risk-based approach.

<sup>7</sup>

The EMEAP is a co-operative organisation of central banks and monetary authorities in the East Asia and Pacific region.

# Banking Stability

## Implementation of Basel standards in Hong Kong

### Capital standards

The Banking (Capital) (Amendment) Rules 2020, which were made to implement the revised Basel capital standards on counterparty credit risk, came into effect on 30 June. The HKMA issued a set of Q&As to supplement the Rules and help AIs interpret and apply them. Consequential changes to the leverage ratio framework and disclosure requirements arising from the implementation of the revised capital standards on counterparty credit risk, together with other updates issued by the Basel Committee, such as those in relation to the revised treatment of collateral in client cleared derivatives for leverage ratio calculation, also took effect on 30 June.

In December, the HKMA issued the draft Banking (Capital) (Amendment) Rules 2022 for implementing the Capital Requirements for Banks' Equity Investments in Funds for statutory consultation as required under the BO. In April 2022, the Banking (Capital) (Amendment) Rules were tabled in the Legislative Council for negative vetting with a view to them being brought into effect from 1 July 2022.

During the year, the HKMA consulted the industry on proposed implementation approaches for the revised capital standards set out in the Basel III final reform package (published by the Basel Committee in December 2017). To allow more time for the local industry to prepare for system changes, local implementation of the Basel III final reform package had been deferred to (i) 1 July 2023 (six months after the latest Basel Committee date) for the revised capital standards on credit risk and operational risk, the output floor and the leverage ratio; and (ii) to a date no earlier than 1 January 2024 for those on market risk and credit valuation adjustment risk, even though AIs will be required to implement them for reporting purposes by 1 July 2023. The HKMA is preparing necessary amendments to the Banking (Capital) Rules to implement the revised capital standards, supported by supplementary guidance as appropriate.

In line with the Basel Committee's framework for dealing with domestic systemically important banks (D-SIBs), the HKMA announced in December an updated list of D-SIBs for 2022 and their corresponding higher loss-absorbency capital requirements.

### Exposure limits

A survey of sample AIs was launched in December to inform the development of policy proposals for amending the Banking (Exposure Limits) Rules to clarify policy intent, implement recommendations from international peer reviews and incorporate changes consequential to the amendment of related capital rules.

### Disclosure standards

The HKMA issued a consultation paper in December setting out its proposals for implementing the new or revised disclosure requirements published by the Basel Committee, namely *Pillar 3<sup>8</sup> Disclosure Requirements – Updated Framework* (December 2018), *Revisions to Leverage Ratio Disclosure Requirements* (June 2019) and *Revisions to Market Risk Disclosure Requirements and Voluntary Disclosure of Sovereign Exposures* (November 2021). These new or revised disclosure requirements mainly reflect the revised capital standards under the Basel III final reform package, and set out some optional disclosure requirements for specific exposures to be implemented where considered necessary by the supervisor of a jurisdiction. Like the two preceding revised sets of disclosure requirements (published by the Basel Committee in January 2015 and March 2017), which have already taken effect in Hong Kong, both the new and revised disclosure requirements will be implemented by amendments to the Banking (Disclosure) Rules.

<sup>8</sup> Pillar 3 refers to a set of disclosure requirements prescribed by the Basel Committee to promote consistency and comparability of regulatory disclosures through more standardised formats among banks and across jurisdictions.

## Banking Stability

### Enhancing the supervisory policy framework

#### Regulation of over-the-counter derivatives transactions

Starting on 1 March 2017, the HKMA has implemented the global margin and risk mitigation standards for AIs involved in non-centrally cleared OTC derivatives transactions. In line with the announcement made by the Basel Committee and the International Organization of Securities Commissions (IOSCO) on 3 April 2020, to alleviate the impact of COVID-19 on the banking system, the HKMA deferred the commencement dates of the final two implementation phases of the initial margin requirements by an additional year to 1 September 2021 and 1 September 2022 respectively. The HKMA will keep track of AIs' implementation of the remaining phases and co-ordinate with other member jurisdictions of the Basel Committee and IOSCO Working Group on Margin Requirements on implementation and market developments.

#### Other supervisory policies and risk management guidelines

The HKMA pressed ahead with its work on various policies and guidelines in 2021, including the following:

- ◆ In March — consulted the industry on proposed revisions to SPM module TA-2 on *"Foreign Exchange Risk Management"*, in particular, incorporating the Basel Committee's *Supervisory Guidance for Managing Risks Associated with the Settlement of Foreign Exchange Transactions* more specifically into the SPM module. The revisions were finalised in January 2022.
- ◆ In April — finalised and gazetted the revised SPM module CA-B-2 on *"Systemically Important Banks"* to improve the assessment methodology of AIs' complexity in the D-SIBs identification process, and updated various sections of this module to reflect some recent developments.
- ◆ In July — issued the revised SPM module CS-1 on *"Group-wide Approach to Supervision of Locally Incorporated Authorized Institutions"*, primarily to reflect the HKMA's latest supervisory practices and incorporate relevant principles in international standards concerning the supervision of financial conglomerates.
- ◆ In December — released to the industry for consultation on proposed revisions to the SPM module OR-1 on *"Operational Risk Management"*, primarily to implement the *Revisions to the Principles for the Sound Management of Operational Risk* issued by the Basel Committee in March 2021, and released the new SPM module GS-1 on *"Climate Risk Management"* to give high-level guidance to AIs on building climate resilience by incorporating climate considerations into governance, strategy, risk management and disclosure.

## Banking Stability

### Balanced and responsive supervision

The HKMA held two rounds of roundtable meeting with major retail banks to discuss their key pain points in business operations. In particular, to assist banks in adapting to the new normal brought about by COVID-19, the HKMA provided clarifications and shared good practices regarding work-from-home arrangements and business continuity planning, clarified wet-ink signature requirements, and provided guidance on distribution of investment and insurance products through non-F2F channels.

As the eight virtual banks had been in operation for a year or so in Hong Kong, the HKMA hosted the first roundtable meeting with them to explore and discuss any potential areas for enhancing the HKMA's supervisory policies and processes, and how the HKMA can foster an environment conducive to virtual banks' business growth without compromising effective risk management and compliance. At the roundtable meeting, the HKMA helped them better comprehend its supervisory expectations regarding virtual banks' new product approval processes, use of the Fintech Supervisory Sandbox, and AML/CFT control measures for remote customer on-boarding.

### Accounting standards

Regular dialogues were held between the HKMA and the Banking Regulatory Advisory Panel of the Hong Kong Institute of Certified Public Accountants on topics of common interest. These included updates on accounting, auditing and financial reporting standards and their implications for banks, as well as major international and domestic banking regulatory developments. The HKMA also worked with other authorities on issues related to banks' provisioning practices.

### Green and sustainable banking

During the year, under the three-phased approach to promote green and sustainable banking, the HKMA finalised and issued the supervisory requirements on climate risk management. In particular, specific requirements and a timeline were set for mandating climate-related disclosures based on the recommendations of the FSB's Task Force on Climate-related Financial Disclosures by 2025, confirming the HKMA's commitment to meeting the goal set by the Green and Sustainable Finance Cross-Agency Steering Group. More details about the HKMA's policy framework for green and sustainable banking are given in the *Sustainability* chapter on pages 177 to 178.

### Resolution

In 2021, the HKMA advanced its work to operationalise the Hong Kong resolution regime for banks. Progress has been made in establishing resolution standards, undertaking resolution planning and developing resolution execution capability. The HKMA was actively involved in cross-border co-operation on resolution through institution-specific engagements such as the CMGs for G-SIBs, as well as through international and regional fora, including the FSB Resolution Steering Group (ReSG) and the EMEAP SGR.

#### Resolution standards

The HKMA continued to formulate policy standards, with which AIs need to comply in order to enhance their resolvability. To address the cross-border risks to orderly resolution arising from the early termination of financial contracts governed by non-Hong Kong law, and in line with the contractual approach to giving effect to cross-border resolution actions advocated by the FSB, the Monetary Authority made the Financial Institutions (Resolution) (Contractual Recognition of Suspension of Termination Rights — Banking Sector) Rules, commonly referred to as the Stay Rules, which commenced operation on 27 August 2021. On 22 December, the HKMA issued ST-1 *Resolution Planning — Contractual Recognition of Suspension of Termination Rights*, a new chapter of the Code of Practice issued under the Financial Institutions (Resolution) Ordinance (FIRO), to provide guidance on the operation of certain provisions in the Stay Rules.



## Banking Stability

### Stay Rules: Contractual recognition of suspension of termination rights

#### Risk of early termination of financial contracts in resolution

In a resolution where one or more stabilization options are applied by a resolution authority to a non-viable, within-scope financial institution, it is important that the contractual counterparties to the financial institution cannot terminate and close out their positions solely as a result of the financial institution's entry into resolution. Disorderly termination of contracts on a mass scale could frustrate resolution actions taken with respect to a non-viable, within-scope financial institution, causing significant contagion effects to the financial markets and posing wider risks to the stability and effective working of the financial system.

The FIRO empowers the Monetary Authority as a resolution authority to temporarily suspend ("stay"), for up to two business days, the termination right of a counterparty (other than a counterparty that is a financial market infrastructure) to certain financial contracts.

Where the relevant contracts are governed by non-Hong Kong law, there are uncertainties as to whether a court in a non-Hong Kong jurisdiction would give effect to a suspension of termination rights imposed by the Monetary Authority under the FIRO unless the law of such jurisdiction expressly recognises the Monetary Authority's action.

Further, even if a court in a non-Hong Kong jurisdiction were to give effect to the suspension imposed under the FIRO, it could be challenging to effect such recognition in a timely fashion in order to best achieve the resolution objectives in Hong Kong.

To address the issue of ensuring cross-border effectiveness of a suspension of termination rights imposed under local rules or laws with respect to contracts governed by laws of other jurisdictions, the FSB has set out certain principles in its *Principles for Cross-border Effectiveness of Resolution Actions*.

These FSB Principles support, among others, a contractual approach to giving effect to cross-border resolution actions, which complements and supports statutory frameworks.

#### How do the Stay Rules address the potential impediment?

The Stay Rules support the contractual approach as advocated by the FSB. They require AIs incorporated in Hong Kong and certain of their group companies to ensure that certain financial contracts governed by non-Hong Kong law contain a term or condition to the effect that the parties agree in a legally enforceable manner that the parties (other than an excluded counterparty) will be bound by any suspension of termination rights in relation to the contract that may be imposed by the Monetary Authority under the FIRO.

Another potential impediment to resolvability on which the HKMA made progress during 2021 is operational continuity in resolution (OCIR). Following industry consultation, on 5 November the HKMA issued the FIRO Code of Practice chapter OCIR-1 *Resolution Planning — Operational Continuity in Resolution*. The chapter explains the Monetary Authority's policy in relation to OCIR and sets out the Monetary Authority's expectations regarding the ex ante arrangements AIs should put in place, in line with the relevant FSB guidance, to secure the continuity in resolution of services that are

essential to the continued performance of critical financial functions as well as to support post-stabilization restructuring in a timely manner.

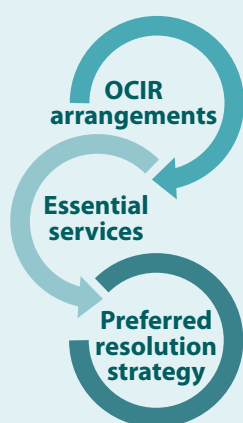
In addition, the HKMA advanced policy development as regards liquidity and funding in resolution, and in January 2022 issued for industry consultation a draft FIRO Code of Practice chapter on the Monetary Authority's expectations regarding an AI's liquidity reporting and estimation capabilities in resolution.

## Banking Stability

### Ensuring operational continuity in resolution

OCIR refers to continuity in resolution of services that are essential to the continued performance of critical financial functions as well as to support post-stabilization restructuring in a timely manner. The ability to ensure OCIR is consistent with the objectives and standards of the *Key Attributes of Effective Resolution Regimes for Financial Institutions*<sup>9</sup> published by the FSB. OCIR is therefore a key aspect of resolution planning for individual AIs and failure to sufficiently address and mitigate OCIR risk may constitute a significant impediment to the orderly resolution of an AI.

As part of its bilateral resolution planning programme, the HKMA expects an AI to be able to demonstrate that it has assessed the risks to OCIR and that appropriate arrangements to mitigate these risks (OCIR arrangements) are in place or being put in place. The following diagram illustrates the relationship among OCIR arrangements, essential services and the preferred resolution strategy determined for an AI:



The OCIR arrangements put in place by an AI should be able to support the essential services necessary for the effective execution, if needed, of the preferred resolution strategy.

The preferred resolution strategy determined for an AI sets out a presumptive path for the Monetary Authority to secure an orderly resolution of the AI, thereby achieving the resolution objectives under the FIRO, including maintaining the continued performance of critical financial functions.

OCIR-1 *Resolution Planning — Operational Continuity in Resolution* provides guidance to AIs on the Monetary Authority's approach to resolution planning and resolvability assessment (including the removal of impediments to orderly resolution) as regards OCIR. The following are the matters an AI is expected to consider and address when putting in place OCIR arrangements:



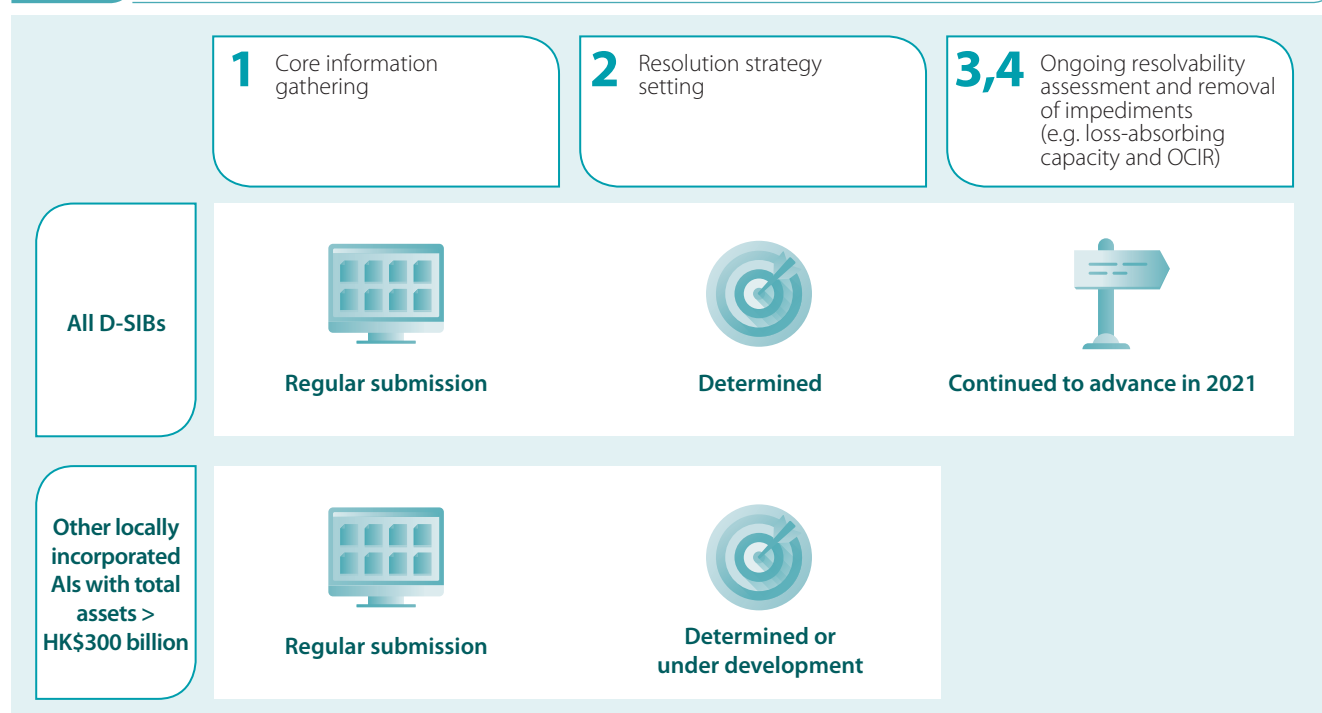
<sup>9</sup> See *Key Attributes of Effective Resolution Regimes for Financial Institutions*, FSB (2014) ([https://www.fsb.org/wp-content/uploads/r\\_141015.pdf](https://www.fsb.org/wp-content/uploads/r_141015.pdf)).

## Banking Stability

### Resolution planning

The HKMA continued to advance resolution planning for each of the D-SIBs and progressed resolution planning for other locally incorporated AIs with total consolidated assets above HK\$300 billion by reviewing core information required for resolution planning and advancing the development of, and in some cases determining, the preferred resolution strategies for these AIs (Chart 2).

**Chart 2** Status of the HKMA's key resolution planning programmes with AIs



Through resolution planning programmes, the HKMA works with AIs to implement the changes needed to address identified impediments to their orderly resolution. In particular, the D-SIBs continue to build up a layer of loss-absorbing capacity (LAC) resources by issuing capital and non-capital LAC debt instruments to facilitate loss absorption and recapitalisation in case of failure. Some D-SIBs are progressing their approaches to non-prepositioned LAC resources, and all D-SIBs are now making periodic public disclosures of their LAC positions and instruments.

Some of the D-SIBs are also developing and implementing new capabilities as part of group-wide programmes to enhance resolvability. This has involved a wide spectrum of actions, such as functional design and development of models and processes for valuations in resolution, assessment of the criticality of and relationship with financial market infrastructure, and review of capabilities for estimating and reporting liquidity needs in resolution. The operational readiness of some of the arrangements has been demonstrated by scenario testing of operational services, mapping and playbooks, as well as cross-border drills of contingency arrangements for access to payment clearing. Following finalisation of the FIRO Code of Practice chapter OCIR-1 *Resolution Planning — Operational Continuity in Resolution*, the HKMA has also commenced implementation work.

## Banking Stability

Cross-border co-operation is an important component of resolution planning for G-SIBs given the international nature of their businesses and operations. The HKMA leads the regional resolution planning for a G-SIB with its Asia-Pacific headquarters in Hong Kong, organising the Asia CMG and driving work to enhance resolvability for the G-SIB's Asia resolution group. During the year, the HKMA participated in the cross-border resolution planning of 14 G-SIBs through CMGs and Resolution Colleges. As part of this work, the HKMA shared updates on policy development, contributed to the FSB's seventh resolvability assessment process for these G-SIBs and worked with the relevant authorities to operationalise home-host co-ordination arrangements. For example, the HKMA took part in discussions on the management and deployment of unallocated total loss-absorbing capacity (TLAC) resources within groups and the development of playbooks on resolution execution.

### HKMA's resolution execution capability

The HKMA continued to enhance its capability to execute resolution. During the year, the HKMA advanced the Resolution Advisory Framework, completing the execution of framework agreements with external advisors to support efficient provision of external advice as needed by the Monetary Authority in relation to resolution. The HKMA also advanced the development of a crisis management framework to support co-ordination between local resolution authorities.

### International policy and regional co-operation

The HKMA is actively involved in the implementation of resolution reforms through its membership in the FSB. In the FSB's 2021 *Resolution Report: "Glass half-full or still half-empty?"*, which marks the 10th anniversary of the *Key Attributes*, the FSB states that the *Key Attributes* have set the standard for the reform of resolution regimes and resolution planning. The report recognises the significant progress made towards resolvability; the ongoing work on allocation of TLAC resources within groups; and G-SIBs' capabilities for access to funding in resolution, valuation and continuity of access to FMs. The FSB noted that some gaps need to be addressed if the benefits of resolution reforms are to be fully realised, such as cross-border issues in relation to funding in resolution and bail-in execution.

At the regional level, the HKMA chaired and served as the secretariat of the SGR (see page 100 for further information on the EMEAP's work). The SGR supports knowledge sharing and discussion among regional authorities in relation to resolution in a cross-border context, and its membership primarily comprises central banks as well as representatives from authorities and agencies that perform resolution, supervisory and deposit insurance functions. The SGR met virtually during 2021 and undertook knowledge sharing activities focusing on members' resolution regimes. The HKMA continued to engage with relevant stakeholders to promote better understanding of the resolution regime and related operational arrangements in Hong Kong. The HKMA took part in a number of virtual events, for example those organised by the Bank for International Settlements' Financial Stability Institute and the South-East Asian Central Banks Centre, and provided speakers on a range of topics such as resolution strategies in a cross-border context.

## Banking Stability

### International resolution policy work

Effective resolution requires internationally harmonised resolution policies and standards, given the cross-border nature of many large financial institutions. This is pertinent to Hong Kong as a material host of the operations of all G-SIBs<sup>10</sup>.

To reflect Hong Kong's unique role as a key host jurisdiction of G-SIBs and internationally active banking groups as well as a regional home for the resolution entities of some of these banking groups, the HKMA takes an active part in formulating and implementing international resolution policy standards, contributing primarily through its membership in the FSB ReSG and the FSB ReSG's Cross-Border Crisis Management Group for Banks.

The HKMA is a member of a number of workstreams of the FSB ReSG's Cross-Border Crisis Management Group for Banks, including the following:

- ◆ The TLAC Technical Expert Group, which aims to ensure continued effective implementation of the FSB TLAC Standard<sup>11</sup>;

- ◆ The Bail-in Execution workstream, which contributed to the publication of a practices paper in December 2021 that describes some of the main operational processes and arrangements that resolution authorities of G-SIBs follow when operationalising bail-in under their jurisdictions' legal frameworks, securities law and requirements of trading venues<sup>12</sup>; and
- ◆ The CMG Good Practices workstream, which contributed to the publication of a report in November that sets out good practices that have helped CMGs to enhance their preparedness for the management and resolution of a cross-border financial crisis affecting a G-SIB as per the *Key Attributes*. The report draws on the FSB stocktake of CMG operations and CMG members' experience during the COVID-19 pandemic<sup>13</sup>.

In addition, the HKMA contributed to the FSB's regular monitoring of the impact of COVID-19-linked market disruption on TLAC issuance.

### Bank consumer protection

#### Code of Banking Practice

Overall compliance with the Code of Banking Practice remained satisfactory. According to self-assessment results, almost all AIs and their subsidiaries and affiliated companies reported full or nearly full compliance during 2020<sup>14</sup>, while a few have taken prompt remedial action to rectify areas of non-compliance.

Following a review by the Code of Banking Practice Committee with the active participation of the HKMA, the Code was revised to enhance protection to consumers amid the increasing use of digitalised channels for the delivery of banking services and evolving customer needs. The revised Code took effect on 10 December. AIs are expected to achieve full compliance with the new provisions as quickly as possible within six months of the effective date, with an extension of up to 12 months for provisions requiring more extensive system changes.

<sup>10</sup> See *2021 List of Global Systemically Important Banks (G-SIBs)*, FSB (2021) (<https://www.fsb.org/wp-content/uploads/P231121.pdf>).

<sup>11</sup> For more detail on the FSB's latest progress and technical work on TLAC, in particular on unallocated TLAC, see Section 2 of *2021 Resolution Report: "Glass half-full or still half-empty?"*, FSB (2021) (<https://www.fsb.org/wp-content/uploads/P071221.pdf>).

<sup>12</sup> For more details, see *Bail-in Execution Practices Paper*, FSB (2021) (<https://www.fsb.org/wp-content/uploads/P131221-2.pdf>).

<sup>13</sup> See *Good Practices for Crisis Management Groups*, FSB (2021) (<https://www.fsb.org/wp-content/uploads/P301121.pdf>).

<sup>14</sup> With five or fewer instances of non-compliance.



## Banking Stability

### Updating the Code of Banking Practice

#### Enhancing customer experience and protection in digital banking services



- ◆ Issue warnings to specific customer groups on cyber fraud, bogus advertisements, etc.
- ◆ Provide channels for the public to authenticate digital promotional activities of Als
- ◆ Disclose product information effectively and clearly in promotions on social media
- ◆ Provide more information on deposit interest rates and fees on Als' digital platforms
- ◆ Make available information to customers in a storable digital format to facilitate retention for future reference
- ◆ Extend retrieval period of electronic statements by customers to at least seven years
- ◆ Clarify applicability of the relevant requirements of the Code to internet and mobile banking services

#### Strengthening protection and transparency of general banking services



- ◆ Enhance transparency of credit card chargeback mechanism
- ◆ Strengthen the procedures for handling mis-transfer of funds by customers
- ◆ Ensure customers are given a reasonable opportunity to review product application and transaction information
- ◆ Enhance information disclosure on local and cross-boundary transfers
- ◆ Provide timely notifications to customers upon changes in promotional interest rates of deposit accounts

#### Embracing financial inclusion



- ◆ Als to take into account the needs of customers for physical banking services when modifying their branch networks
- ◆ Ensure customers with different needs, including the elderly and persons with physical or intellectual impairments, are provided with appropriate banking services
- ◆ Accommodate the needs of different customers when providing services or information through electronic means

## Banking Stability

### Innovative banking products launched by virtual banks

Leveraging the development of fintech, virtual banks launched various new and innovative banking products. The HKMA published an *inSight*<sup>15</sup> article in July to introduce the new customer experience these products offer, and highlight the supervisory measures taken to ensure adequate consumer protection, including enhanced transparency and disclosure of product features on digital platforms. The article also reminded customers to pay attention to fees and charges, possible implications for their financial positions and potential consequences of over-borrowing.

### Sharing customer data for direct marketing by third parties

There are increasing occasions (for example, Als' co-branding credit cards or marketing programmes) where Als may provide customers' personal data collected through online channels (including mobile apps) to third parties. Given the special trust relationship between Als and their customers, and since some of the third parties are not subject to the same regulation as the Als, the HKMA believes that Als should aspire to a higher standard of protection for customer data. The HKMA issued a circular in November to provide guidance on the approaches Als should adopt when sharing customers' personal data with third parties for direct marketing.

### Mis-transfer of funds by bank customers

To enhance protection for bank customers who might inadvertently make mis-transfers of funds online, the HKMA issued a circular in December to require Als to conduct mandatory name matching on real-time fund transfers of HK\$10,000 or more through the Faster Payment System (FPS) and similar intra-bank fund transfers, where a payer inputs the payee's bank account number as the identifier. Als are also required to display a reminder to the payer to carefully verify the payee's account number and other payment details before confirming online fund transfers.

### Dormant accounts and unclaimed deposits

Upholding consumer protection principles in safeguarding the interests of the owners or beneficiaries of dormant accounts and unclaimed deposits, the HKMA issued a circular in November. The circular set out a range of practices to enhance the handling of dormant accounts, encouraged Als to educate their customers to avoid dormant accounts, and facilitate searches for and recovery of lost accounts.

### Payment arrangements for property transactions

To minimise the significant impact on residential mortgage customers if completion of a property transaction is disrupted by suspension of the operation of a law firm engaged to handle the transaction, the banking industry and the HKMA co-operated closely to study and develop alternatives to the current practice of routing sizeable payments in residential property conveyancing transactions through law firms. The banking industry issued a proposal for consultation in December.

### Culture dialogues

Since its commencement in 2019, the culture dialogue initiative has facilitated the HKMA's engagement with the leadership of Als to discuss the effectiveness of the Als' culture enhancement efforts and provide supervisory feedback, including observations from the HKMA's ongoing supervision. During the year, the HKMA conducted seven culture dialogue meetings with Als' senior management and board members.

### Hiring individuals with misconduct records

The HKMA published consultation conclusions in May on implementing the Mandatory Reference Checking Scheme to address the "rolling bad apples"<sup>16</sup> phenomenon in the local banking sector. The conclusions set out the framework for implementing the reference checking scheme and invited the industry to develop the relevant operational details.

<sup>15</sup> *inSight* is the HKMA's official column, featuring articles written by senior executives on the major new policies and initiatives of the HKMA, or other topical issues which are of interest to the public.

<sup>16</sup> "Rolling bad apples" are people with a record of misconduct who manage to obtain subsequent employment elsewhere without disclosing their earlier misconduct to the new employer, allowing them to potentially repeat their misbehaviour at another firm.

## Banking Stability

### Bank culture

The HKMA continued to advocate for bank culture reform by encouraging banks to foster a sound culture through three pillars: governance, incentive systems, and assessment and feedback mechanisms.

In March, building on insights from an earlier self-assessment exercise on bank culture, the HKMA embarked on a focused review on incentive systems of front offices in retail banks, to identify industry practices and aim for better alignment of bank staff's incentive systems with customers' interests. Through a range of activities in the review, the HKMA gathered comprehensive information to gauge perceptions of the staff of 20 retail banks on their banks' incentive systems, culture, as well as customer and conduct outcomes.

### Key activities in the focused review

#### Industry-wide employee survey

**25,112**

All frontline retail bank staff

**70%**

response rate



#### Document reviews

**20**

Incentive systems of retail banks

Representing **ALL**  
major retail banks in  
Hong Kong



#### Individual interviews

**300**

One-on-one interviews  
conducted with

bank staff  
supervisors  
senior management



#### Focus group discussions

**564**

Frontline staff participated in

**60**

sessions



Given the scale and breadth of the focused review, the HKMA published an interim report in November to share the preliminary observations and insights gathered from the activities completed earlier in the year. The interim report outlined common themes, key characteristics, as well as common frameworks and practices, in relation to front office incentive systems.

## Banking Stability

### Examples of common themes in staff perception

#### Financial incentives carry heavy weight



The survey found that financial incentives such as incentive payments on top of fixed pay are heavily weighted motivators, especially for frontline staff.

#### Intrinsic motivators are also important in shaping staff behaviour



The survey found that financial incentives are not the only factor that influences frontline staff. Intrinsic motivators, such as upholding the bank's reputation and achieving good customer outcomes, are also considered important by frontline staff at all levels.

#### Being customer-centric may seem undervalued



The survey found that frontline staff are generally conscientious. However, fewer staff feel that good customer and conduct outcomes are valued as much as other dimensions of performance.

For details, please refer to the full *Interim Report on Focused Review on Incentive Systems of Front Offices in Retail Banks*:



Building on the preliminary insights, the HKMA is finalising the focused review and aims to share the observations and insights from the whole review, as well as effective incentive practices with the industry, in 2022.

## Banking Stability

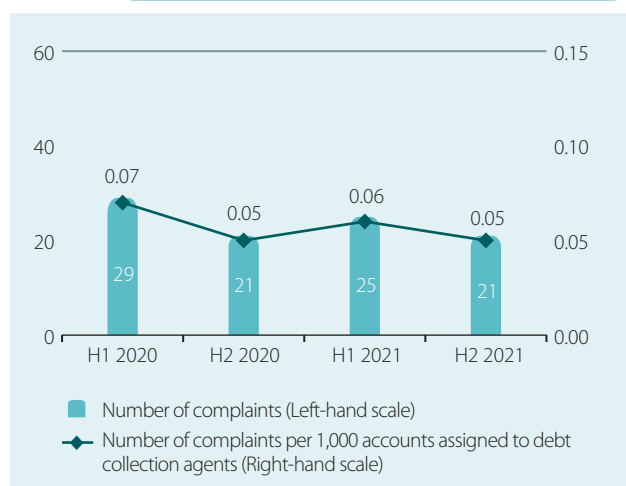
### Engagement of intermediaries by authorized institutions

Measures were introduced to further protect bank customers and reduce potential risks to the reputation of the banking industry from possible malpractices by fraudulent lending intermediaries. In particular, the HKMA reminded the public to stay alert to bogus phone calls. Retail banks' hotlines were widely and effectively used by the public to verify callers' identities, with more than 28,000 enquiries received during 2021.

### Customer complaints on debt collection agents employed by authorized institutions

The number of complaints received by AIs on their debt collection agents decreased to 46 from 50 in 2020 (Chart 3). The HKMA will continue to monitor AIs' use of debt collection agents.

**Chart 3** Complaints received by AIs on their debt collection agents



### Credit data sharing

The HKMA continued to work closely with industry associations<sup>17</sup> to introduce more than one consumer credit reference agency (CRA) in Hong Kong through the Credit Reference Platform (CRP). The main objectives are to enhance the service quality of consumer CRAs and reduce the operational risk of having only one commercially run service provider in the market, particularly the risk of single point of failure.

These industry associations issued tenders in January and shortlisted three CRA tenderers to proceed to the next phase of the tender in May where their capabilities would be further assessed. System development of the CRP for the interface with the credit providers and CRAs progressed during the year. The HKMA issued a circular in December to remind AIs to prepare for participation in the CRP, which is scheduled for launch by the end of 2022.

<sup>17</sup> Namely HKAB, the Hong Kong Association of Restricted Licence Banks and Deposit-taking Companies and the Hong Kong S.A.R. Licensed Money Lenders Association Ltd.



## Banking Stability

### Financial inclusion

Sustained efforts were made during 2021 to foster financial inclusion. Anticipating that the number of people affected by dementia may increase as the population ages, the HKMA worked closely with HKAB to enhance access to banking services by persons with dementia and improve customer experience. In December, HKAB published the *Guideline on Banking Services for Persons with Dementia*, following engagement with a wide range of stakeholders<sup>18</sup>. The HKMA also issued a circular in December setting out the supervisory expectations for AIs providing retail banking services to implement the recommendations in the Guideline and provide proper training to frontline staff to ensure that they are able to understand, communicate with and offer appropriate services to customers in need. The HKMA hosted a roundtable discussion in July with a psychiatrist, legal practitioners and banks to share the practical experience of managing banking services for persons with mental incapacity.



Mr Alan Au (right), Executive Director (Banking Conduct) of HKMA, hosts a roundtable to promote understanding of banking services for persons with mental incapacity

The HKMA monitored implementation of the *Practical Guideline on Barrier-free Banking Services* and the *Guideline on Banking Services for Persons with Intellectual Disabilities* issued by HKAB in 2018 and 2020 respectively. The industry made good progress during 2021, as evidenced by the following:

- ◆ **Over 99%** of bank branches are now wheelchair accessible.
- ◆ **Over 97%** of bank branches are equipped with assisted listening systems.
- ◆ **Over 1,560** voice navigation automated teller machines are in operation.
- ◆ **2,260** automated teller machines in operation are at a height suitable for wheelchair users.
- ◆ **ALL** bank branches have displayed notices at the main entrance stating that guide dogs are welcome.
- ◆ Retail banks provide online channels to help persons with hearing impairment report lost credit cards and use live chat services to report unauthorised transactions.

More details of the progress made in enhancing accessibility to basic banking services can be found in the *Sustainability* chapter on pages 206 to 207.

<sup>18</sup> Including the Labour and Welfare Bureau, Social Welfare Department, Equal Opportunities Commission, Guardianship Board, Hong Kong Alzheimer's Disease Association, Hong Kong Council of Social Service, and other social service organisations.

## Banking Stability

### Opening and maintaining bank accounts

The HKMA worked with the banking industry to enhance communication with the business community on bank account opening and maintenance. The HKMA's dedicated email account and hotline are available for the public as well as the local and overseas business communities to lodge enquiries and provide feedback. All enquiries and feedback are handled and followed up by the HKMA's dedicated Account Opening and Maintenance Team, which endeavours to address feedback and comments and improve the customer experience. To this end, sessions were arranged to facilitate direct dialogue between the banking industry and the business sector.

Since the launch of the Simple Bank Account service in early 2019, which provides basic banking services with less extensive customer due diligence measures, over 9,100 Simple Bank Accounts have been opened. The average unsuccessful rate of account opening applications is now less than 4%, representing a significant improvement from around 10% in early 2016. This is an illustration that a robust AML/CFT regime in Hong Kong has not undermined access to banking services by legitimate businesses and ordinary residents.

### Deposit protection

The deposit protection limit is HK\$500,000 per depositor per bank under the Deposit Protection Scheme (DPS).

The Hong Kong Deposit Protection Board rolled out the electronic compensation payment functionality in mid-2021 to supplement traditional paper cheque payments for DPS compensation. A payout rehearsal was conducted in November focusing on the use of the new electronic payment channels and drills of contingency arrangements related to the COVID-19 pandemic. The results once again showed that making compensation payments to the majority of eligible depositors within seven days is an achievable target. The rehearsal also demonstrated that the use of electronic payment channels could further speed up the payout process.

To mark its 15th anniversary, the DPS ran a series of publicity campaigns to promote the Deposit Protection Board's role as the "Guardian of Deposits". These included a media briefing and a promotional video recounting the evolution of the DPS. Along the same theme, an online campaign was launched to feature the savings stories of selected key opinion leaders and invite the public to share smart savings tips for a chance to win a DPS commemorative gold coin.

## Banking Stability

### Enforcement

#### Banking complaints

The HKMA received 2,961 banking complaints against AIs or their staff in 2021, representing an increase of 17% or 437 cases from the previous year. Despite the rising trend, the HKMA completed 2,892 cases, up 22% year on year, with 620 cases outstanding at the end of the year (Table 5). The HKMA's performance pledges on the response time to enquiries and complaints were generally met (Table 6).

**Table 5 Banking complaints received by the HKMA**

	2021			2020
	Conduct-related issues	General banking services	Total	Total
In progress on 1 January	182	369	551	390
Received during the year	309	2,652	2,961	2,524
Completed during the year	357	2,535	2,892	2,363
In progress on 31 December	134	486	620	551

**Table 6 Performance pledges for handling banking complaints**

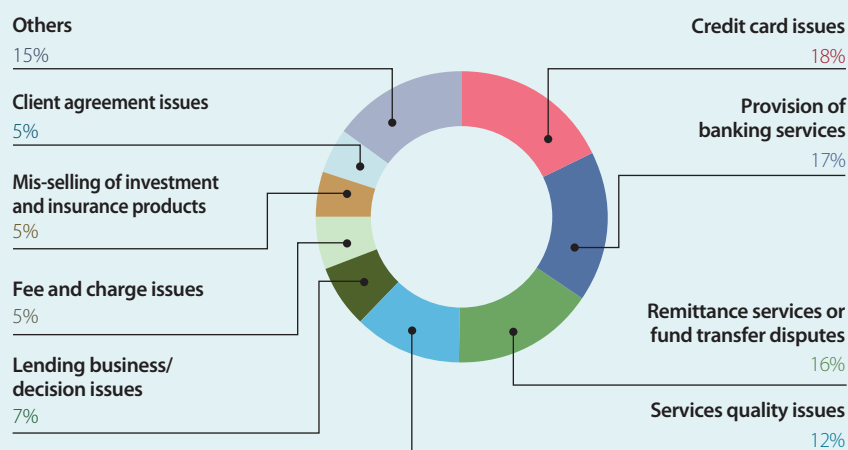
Items	Performance Pledge	Achievement Rate
Acknowledge receipt of complaint-related enquiries or duly completed complaint forms	7 working days	100%
Preliminary response to complaints	10 working days	99.7%
Reply to complaint-related enquiries	15 working days	100%

Complaints related to credit cards increased by 99% from 269 cases in 2020 to 535 cases in 2021 and were the most common type of complaints. Over 74% of these complaints concerned disputes over card transactions or unauthorised card transactions, and the majority of those were fraud related, including, for example, phishing SMS messages or emails, online romance or investment, and e-shopping scams. All complaints were handled in accordance with the established procedures. In addition, the HKMA followed up with AIs on the effectiveness of their internal control measures, and made joint efforts to promote consumer education and awareness, reminding the public to stay alert to SMS messages or emails purportedly sent by banks, and to avoid disclosing personal and other information, such as bank account numbers, usernames and passwords, to third parties or unfamiliar websites.

Another common category of complaints concerned the provision of banking services, including the opening and maintenance of bank accounts. This category of complaints decreased by 14% from 576 cases in 2020 to 494 cases in 2021 (Chart 4).

## Banking Stability

**Chart 4** Types of services or products concerned in banking complaints received by the HKMA



### Enforcement

The Monetary Authority is empowered to enforce customer due diligence and record-keeping requirements under the Anti-Money Laundering and Counter-Terrorist Financing Ordinance and to take disciplinary actions in respect of material contraventions. In November, the Monetary Authority imposed pecuniary penalties totalling HK\$44.2 million on four banks and issued orders where warranted for remedying contraventions in respect of deficiencies in their AML systems and controls. Common control lapses identified by the HKMA's investigations related to ongoing monitoring of customer relationships and deficiencies in conducting enhanced customer due diligence in high-risk situations.

For the first time, in December, the Monetary Authority exercised the disciplinary power under the Payment Systems and Stored Value Facilities Ordinance (PSSVFO) to reprimand and impose a pecuniary penalty of HK\$1 million on an SVF licensee that failed to fulfil the requirement relating to AML/CFT measures under the PSSVFO.

In January, the Monetary Authority suspended the registration of a relevant individual for four months under the BO, following an investigation that found that the relevant individual had falsified a client's instruction form by copying the client's signature.

The HKMA also collaborated closely with other financial regulators during the year to investigate or assess cases concerning the compliance and fitness and properness of persons regulated by the HKMA and the other regulators. During 2021, the HKMA referred 28 cases to the SFC and, under the MoU between the two regulators, shared the results of the HKMA's investigations and assessments of these cases. Following the referrals, the SFC imposed disciplinary sanctions, including public reprimand and pecuniary penalties of HK\$9.8 million, against a registered institution for control deficiencies and regulatory breaches in relation to disclosure of interests in research reports, standing authority and contract notes for securities lending services, telephone recording of client orders, and know-your-customer and product disclosure requirements. In other cases, three former relevant individuals were banned from re-entering the industry for periods ranging from 10 years to life. Their misconduct included making false representation of academic qualifications in support of employment applications, having a record of criminal convictions under the Prevention of Bribery Ordinance and the SFO, and misappropriation of HK\$3.6 million from a customer's bank account.

## Banking Stability

The HKMA and the IA maintained regulatory dialogues on matters of mutual interest. Based on the established collaborative arrangements under the MoU, the HKMA completed the handling of 94 cases concerning the sales of insurance products by AIs and shared the results with the IA. Meanwhile, the IA referred 38 insurance-related cases concerning AIs to the HKMA for appropriate actions.

The HKMA investigated or otherwise followed up on issues arising from banking complaints or the HKMA's on-site examinations that raised possible concerns regarding compliance with laws and relevant regulatory requirements and fitness and properness. This resulted in the issuance of 31 compliance advice letters to AIs and staff who were found not to have acted in full compliance with regulatory requirements, and other supervisory actions during the year.

### Complaints Watch

As a continuing initiative to promote proper standards of conduct and prudent business practices among AIs, three issues of the periodic *Complaints Watch* newsletter were published in 2021. The newsletters drew AIs' attention to complaint trends, good practices and control measures to protect customer assets against investment scams, fraud or theft, and reminded AIs to enhance consumer protection against the surge in phishing scams. To complement the industry's educational efforts in reminding customers to be cautious when asked to disclose credit card information and one-time passwords, the HKMA also published posts on social media to highlight the importance for bank customers to protect their credit card information and one-time passwords, as well as to carefully read the transaction notifications issued by AIs (Figure 6).

### The Ombudsman's Awards for Officers of Public Organisations

Two HKMA staff members received Ombudsman's Awards for Officers of Public Organisations in 2021 in recognition of their efforts in fostering a positive culture of service and promoting professionalism in the handling of complaints. The HKMA attaches great importance to handling customer complaints against banks, with a view to enhancing consumer protection and ensuring that customers are treated fairly by banks.

**Figure 6** Alerts on social media



*Highlighting the importance of protecting credit card information and one-time passwords on social media*



*Dual awards for public service: Ms Carmen Chu (first from right), Executive Director (Enforcement and AML), Mr Alan Au (first from left), Executive Director (Banking Conduct), Ms Mimi Chow (second from right), Manager (Enforcement), and Ms Mavis Cheung (second from left), Manager (Banking Conduct), all from the HKMA, receiving the awards from Ms Winnie Chiu, The Ombudsman (middle)*

## Banking Stability

### Capacity building in the banking sector

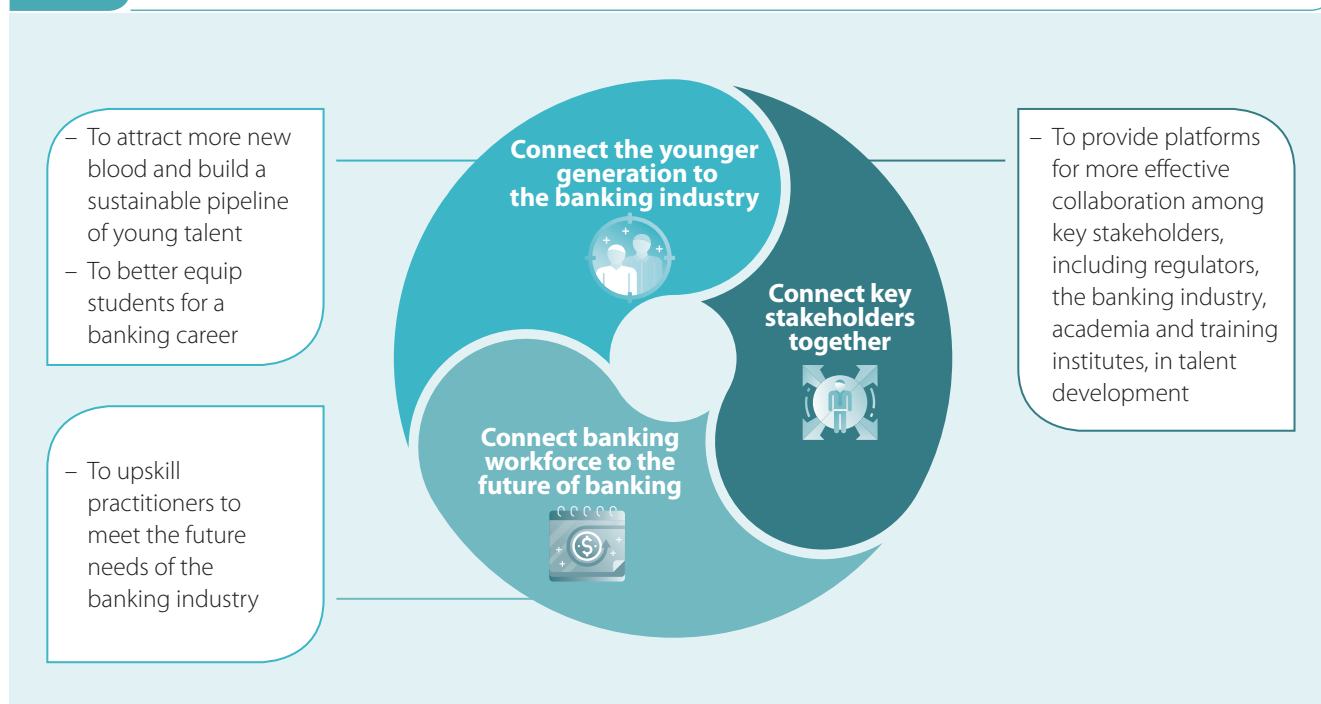
Three new growth engines are driving the future of Hong Kong's banking sector: fintech, green finance, and the Guangdong–Hong Kong–Macao Greater Bay Area. These not only bring new business opportunities, but also require new skills from the workforce. To maintain Hong Kong's competitiveness as an international financial centre, the HKMA has formulated a holistic talent development strategy — “Connecting Talent to the Future” — to promote talent development in the banking sector in a systematic and targeted manner.

The new talent development strategy entails three key directions (Figure 7):

- ◆ connect the younger generation to the banking industry;
- ◆ connect banking workforce to the future of banking; and
- ◆ connect key stakeholders together.

A number of initiatives were launched under the new talent development strategy to complement ongoing talent development efforts. See Box on *Connecting talent to the future* on pages 120 to 121 for more details.

**Figure 7** New talent development strategy





## Banking Stability

### Connecting talent to the future

#### Connect the younger generation to the banking industry

##### Future Banking Bridging Programme

The HKMA and the Hong Kong Institute of Bankers jointly launched the Future Banking Bridging Programme in November. The programme comprises short courses taught by industry practitioners, covering practical banking knowledge and useful soft skills that are highly sought after by the banking industry. The programme is free and aims to better prepare university students to be “future ready”. The inaugural class attracted 220 students from different universities and various disciplines.



*Mr Eddie Yue (front row, fifth from right), Chief Executive of HKMA, meets the participating students of the Future Banking Bridging Programme during their visit to the HKMA*



*The Future Banking Bridging Programme's inaugural class comprises 220 students from different universities*

#### University career talks

The HKMA, in collaboration with the banking industry and the Hong Kong Institute of Bankers, held career talks at 11 universities from September to November to showcase career opportunities and prospects in the new era of the banking industry. The talks attracted nearly 800 undergraduates from different disciplines.

#### Pilot apprenticeship programme for private wealth management

The programme, a joint initiative of the HKMA and the Private Wealth Management Association, offered about 300 apprenticeship opportunities to university students since its inception in 2017 until the end of 2021. The programme comprises apprenticeships with a private wealth management institution and tailored training for two summers, enabling students to build an early foundation for a career in the private wealth management industry. 2021 saw the graduation of the fourth cohort of apprentices under the programme. Another round of recruitment was conducted in November for a new batch of apprentices for 2022–2023.

#### Fintech Career Accelerator Scheme

The HKMA launched the Fintech Career Accelerator Scheme in 2016 in collaboration with its strategic partners to expand the fintech talent pool in Hong Kong. The scheme provides internship and placement opportunities for university students and has received positive responses from universities and participating institutions. It benefitted more than 180 students in 2021.

## Banking Stability

### Industry Project Masters Network

As part of the “Fintech 2025” strategy, the Industry Project Masters Network (IPMN) scheme was piloted by the HKMA in September for fintech postgraduate students to take part in real-life fintech projects at banks. In collaboration with the fintech industry and academia, the HKMA designed the scheme to provide students with more hands-on experience, with the aim of developing and equipping emerging fintech talent with applicable knowledge, skills and experience. The IPMN scheme is expected to be officially launched in September 2022.

### Banking Talent Programme

To ensure that the supply of banking talent would not be disrupted by the pandemic, the Banking Talent Programme was extended to cover fresh graduates, who were offered six-month work opportunities and professional training starting in September. The programme for graduates recruited in 2020 was also extended for six months to 31 August. These two rounds of the programme have benefitted more than 650 fresh graduates.

### Connect banking workforce to the future of banking

#### Enhanced Competency Framework

The Enhanced Competency Framework was rolled out in 2016 with the aim of enhancing the overall level of professional competence in the banking industry and coping with the growing demand for qualified banking practitioners. Given the strong industry demand for fintech talent, a new Fintech module was introduced in December, bringing the number of modules to eight. Up to the end of 2021, more than 16,000 banking practitioners had obtained certifications in various professional areas under the Enhanced Competency Framework.

### Connect key stakeholders together

#### Fintech Cross-Agency Co-ordination Group

The Fintech Cross-Agency Co-ordination Group was established by the HKMA and various industry key players under the “Fintech 2025” strategy. By connecting key stakeholders, the group provides a platform for facilitating the formulation of supportive policies for Hong Kong’s fintech ecosystem, including fintech talent development.

#### Centre for Green and Sustainable Finance

The Green and Sustainable Finance Cross-Agency Steering Group<sup>19</sup> set up the Centre for Green and Sustainable Finance in July as a cross-sector platform to better co-ordinate the efforts of financial regulators, Government agencies, industry stakeholders and academia in capacity building and policy development.

<sup>19</sup>

See the *Sustainability* chapter on page 181 for more details.

## Banking Stability

### Financial market infrastructures oversight

The PSSVFO empowers the Monetary Authority to designate and oversee clearing and settlement systems (CSSs) that are material to the monetary and financial stability of Hong Kong, and to the functioning of Hong Kong as an international financial centre.

The purposes of the PSSVFO include promoting the general safety and efficiency of the following designated CSSs:

- ◆ the Central Moneymarkets Unit;
- ◆ the Hong Kong dollar Clearing House Automated Transfer System (CHATS); including the Hong Kong dollar FPS;
- ◆ the US dollar CHATS;
- ◆ the euro CHATS;
- ◆ the renminbi CHATS, including the renminbi FPS; and
- ◆ the Continuous Linked Settlement (CLS) System.

The PSSVFO also provides statutory backing to the finality of settlement for transactions made through the designated CSSs by protecting the settlement finality from insolvency laws and any other laws.

The HKMA is also responsible for overseeing the Hong Kong Trade Repository (HKTR), the OTC derivatives trade repository in Hong Kong. While the HKTR is not a clearing or settlement system and is thus not designated as such under the PSSVFO, the Monetary Authority will ensure that the HKTR is operated in a safe and efficient manner, which is in line with one of the functions of the Monetary Authority to maintain the stability and integrity of the monetary and financial systems of Hong Kong.

All the designated CSSs and the HKTR are treated as FMIs in Hong Kong.

### Monitoring and assessments

The HKMA oversees local FMIs under its purview through off-site reviews, continuous monitoring, on-site examinations, and meetings with FMIs' management. In doing so, the HKMA adopts international standards in its oversight framework. The Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements and the IOSCO Technical Committee published the Principles for Financial Market Infrastructures (PFMI)<sup>20</sup>. The requirements under the PFMI are incorporated in the HKMA's guidelines for designated CSSs and trade repositories.

The HKMA has completed the PFMI assessments on the FMIs under its oversight. All the FMIs have published disclosure frameworks, which is a key requirement under the PFMI to improve transparency by disclosing system arrangements principle by principle. The PFMI assessment results and disclosure frameworks are available on the HKMA website.

As the COVID-19 situation continued to evolve, the HKMA closely monitored the operations of the FMIs and the sufficiency and appropriateness of their contingency arrangements during the year. The HKMA also continued to work with FMIs to strengthen their endpoint security and cyber resilience in accordance with CPMI guidance and HKMA requirements<sup>21</sup>.

<sup>20</sup> The PFMI constitute the latest international standards for the oversight of FMIs, including systemically important payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories.

<sup>21</sup> See the *International Financial Centre* chapter on page 148.

## Banking Stability

### International participation

The HKMA is a member of the CPMI and participates in meetings, working groups and forums on FMI oversight matters. Throughout 2021, the HKMA participated in virtual CPMI meetings, which, among other things, discussed issues related to enhancing cross-border payments as well as digital currencies. The HKMA also participates in the CPMI-IOSCO Implementation Monitoring Standing Group, which is responsible for monitoring and assessing the implementation of the PFMI by different jurisdictions.

The HKMA is also a member of the Oversight Forum of the financial messaging services provider SWIFT; the forum discusses relevant oversight matters and shares SWIFT-related information. Hong Kong's AIs and FMIs, which commonly use SWIFT's services, may be exposed to risks in the event of any disruption to SWIFT's operations. During 2021, the HKMA attended virtual meetings and teleconferences to discuss matters of interest, in particular SWIFT's customer security framework and cybersecurity issues.

The HKMA participates in the international co-operative oversight of the CLS System<sup>22</sup> through the CLS Oversight Committee. During the year, the HKMA attended various virtual meetings of the CLS Oversight Committee to discuss operational, developmental, and oversight matters.

In addition, the HKMA has established co-operative oversight arrangements with other relevant authorities, both at the domestic and international levels, to foster efficient and effective communication and consultation. This enables the HKMA and these other authorities to support one another in fulfilling their respective mandates with respect to FMIs.

### Independent tribunal and committee

An independent Payment Systems and Stored Value Facilities Appeals Tribunal hears appeals against decisions of the Monetary Authority on licensing and designation matters under the PSSVFO. There have been no appeals since the establishment of the tribunal.

Separately, an independent Process Review Committee, whose members are appointed by the Chief Executive of the Hong Kong Special Administrative Region, reviews processes and procedures adopted by the HKMA in applying standards under the PSSVFO to systems in which the HKMA has a legal or beneficial interest. The Committee assesses whether the HKMA has applied the same procedures to all designated CSSs. During 2021, the Committee held two meetings and reviewed four regular reports and 36 accompanying oversight activities management reports, concluding that it was not aware of any case where the HKMA had not duly followed internal operational procedures, or where the HKMA had not been procedurally fair in carrying out its oversight activities. Under its terms of reference, the Committee submitted its annual report to the Financial Secretary, and the report is available on the HKMA website.

<sup>22</sup> The CLS System is a global clearing and settlement system operated by the CLS Bank to handle cross-border foreign exchange transactions. It enables foreign exchange transactions involving CLS-eligible currencies, including the Hong Kong dollar, to be settled on a payment-versus-payment basis.