

Briefing to the Legislative Council Panel on Financial Affairs

30 November 2022

Discussion Topics



Updates on

- Financial and Economic Environment
- Currency Stability
- Banking Stability
- Financial Infrastructure
- Hong Kong as an International Financial Centre
- Investment Environment and Performance of the Exchange Fund
- The Hong Kong Mortgage Corporation Limited



Financial and Economic Environment

3

Global Economic Growth Forecasts

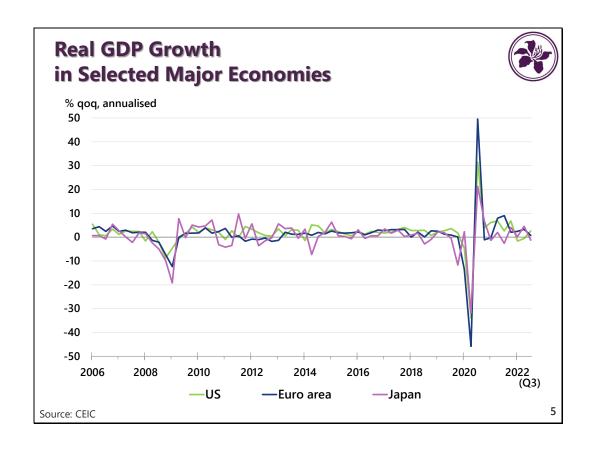


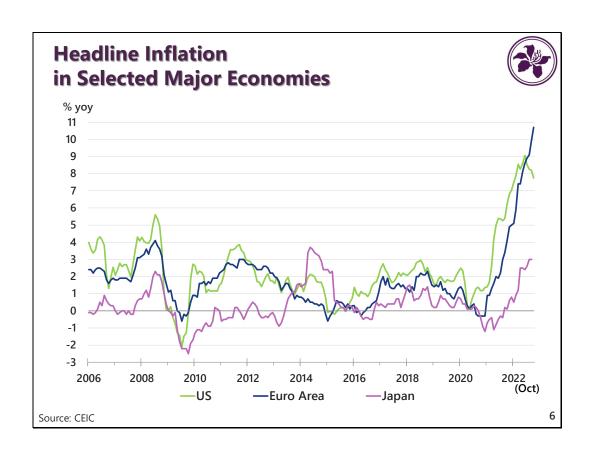
Real GDP Growth

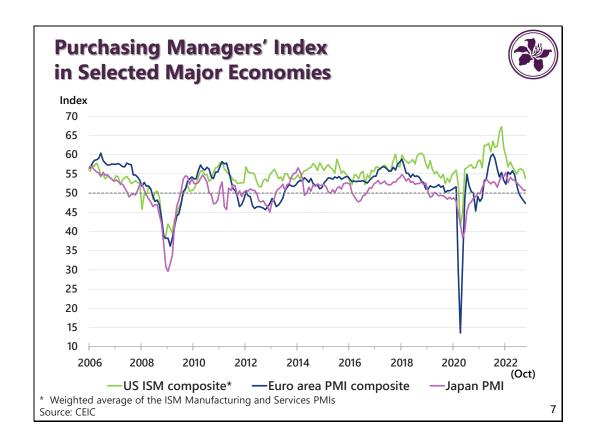
(% year-on-year)

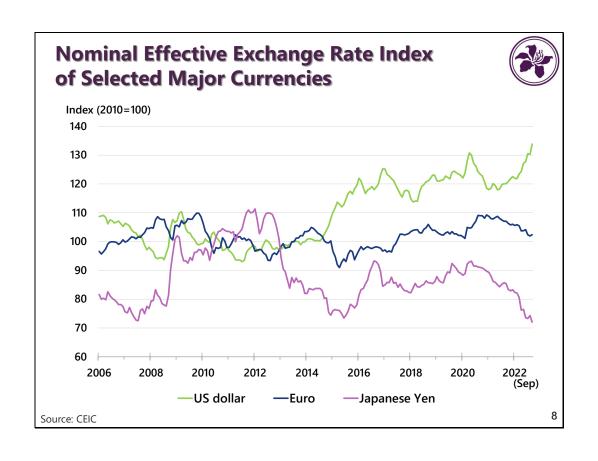
	2021	2022 Forecasts	2023 Forecasts	
US	5.9	1.8	0.2	
Euro area	5.3	3.2	-0.1	
Japan	1.7	1.5	1.4	
Asia (ex-Japan)	7.1	3.7	4.2	
Mainland China	8.1	3.2	4.5	
Hong Kong	6.3	-2.0	2.8	

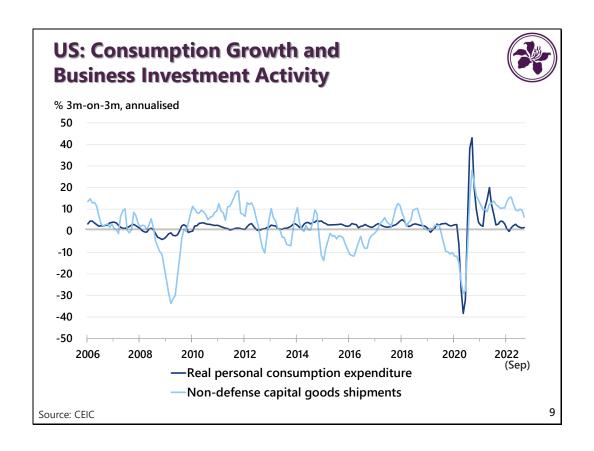
Source: November 2022 Consensus Forecasts

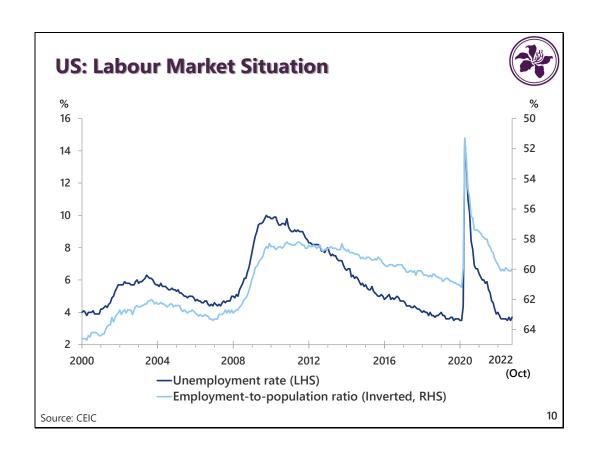


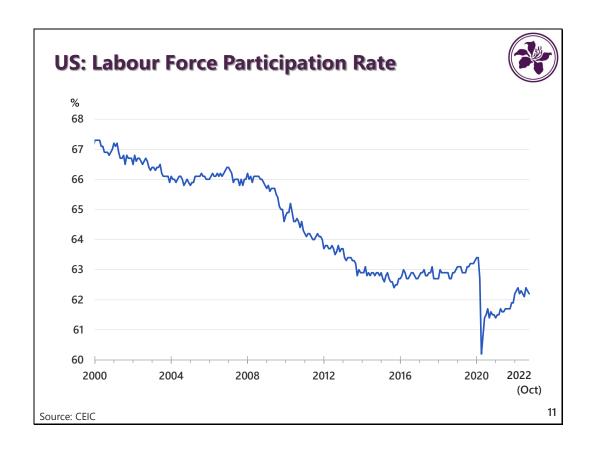


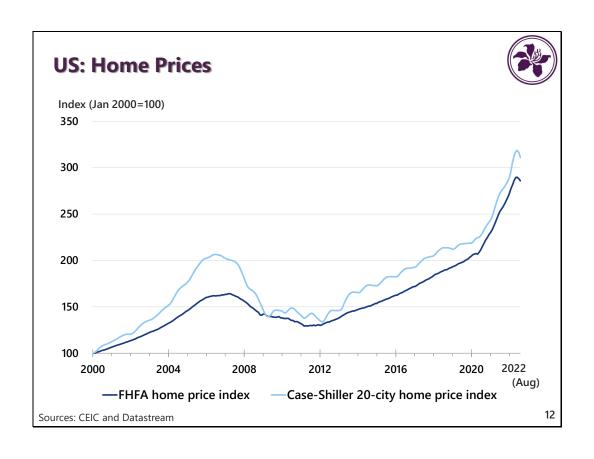


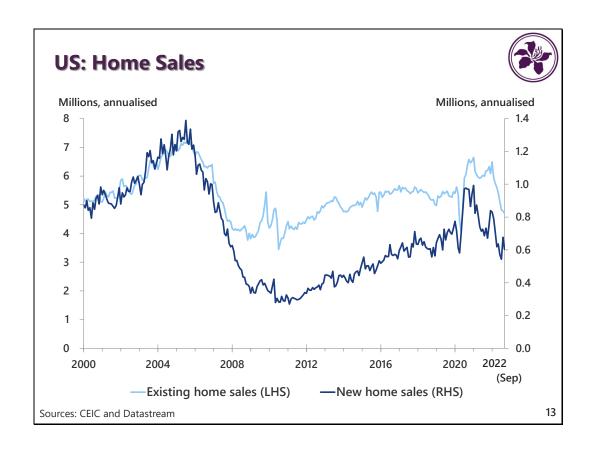


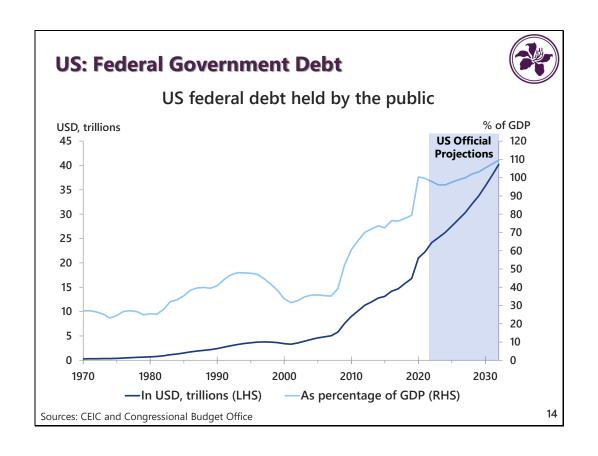


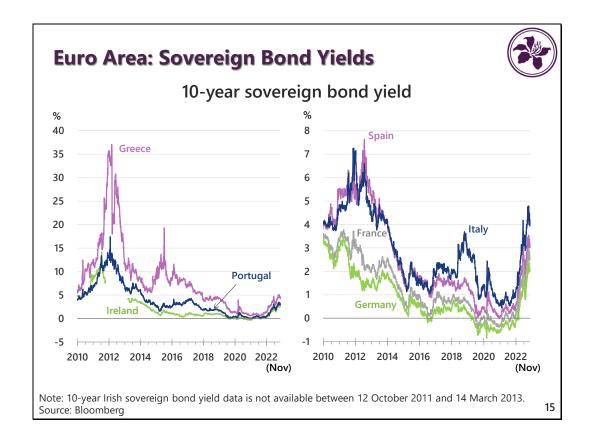


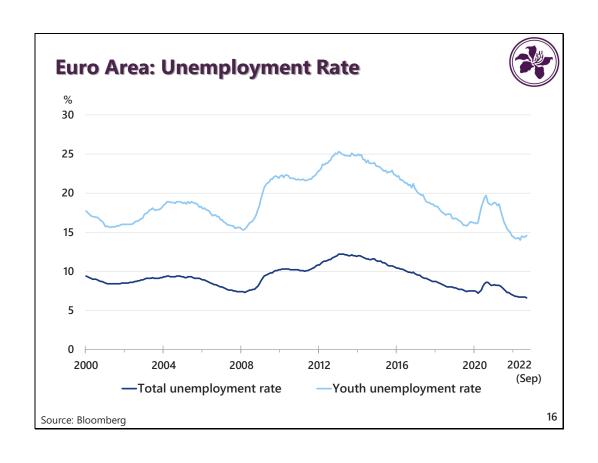


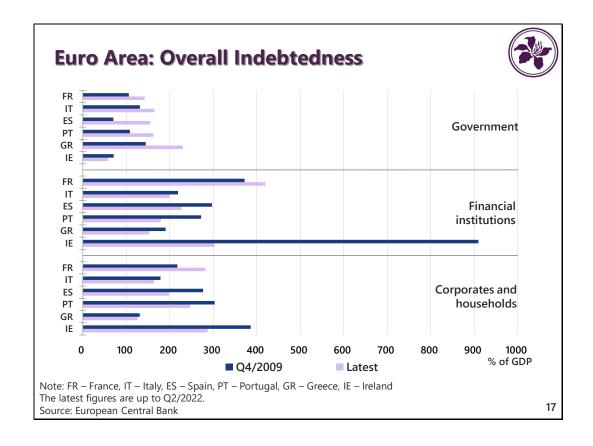


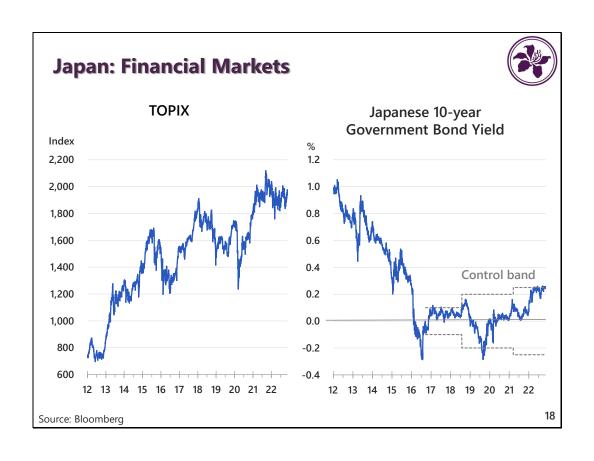


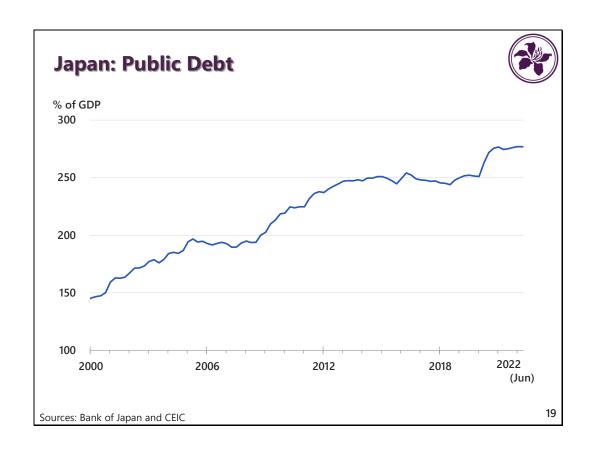


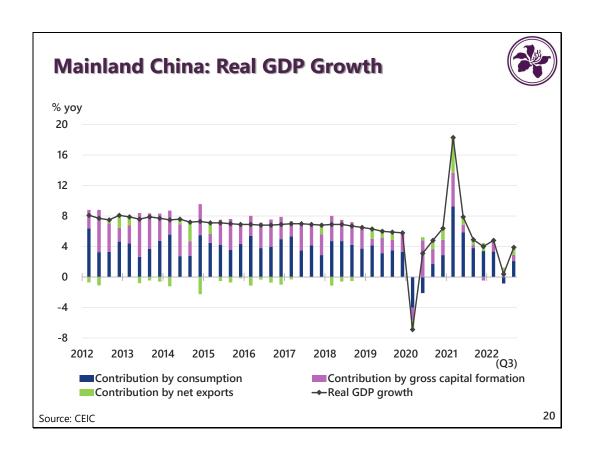


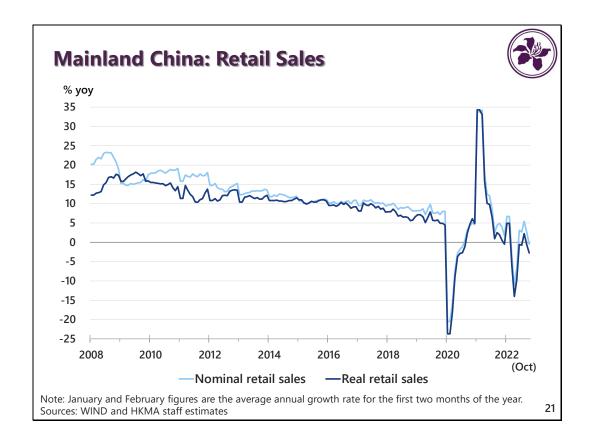


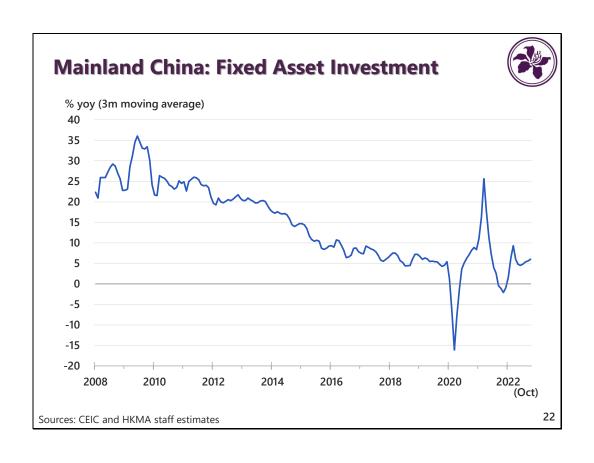


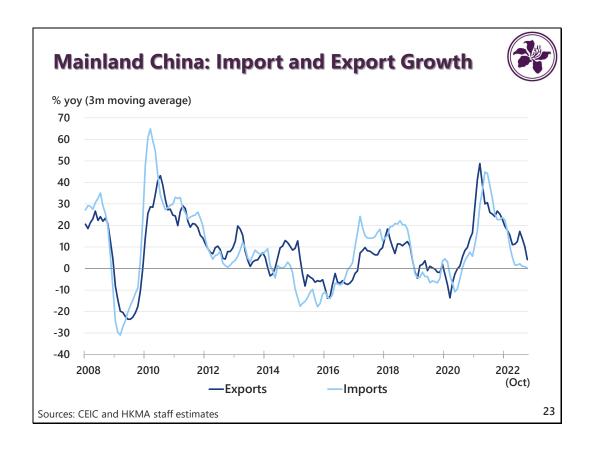


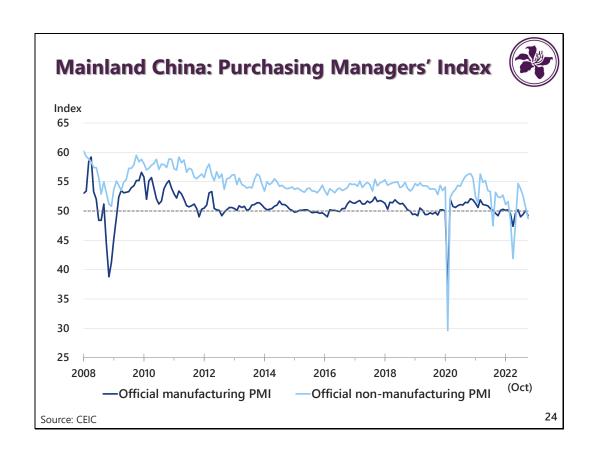


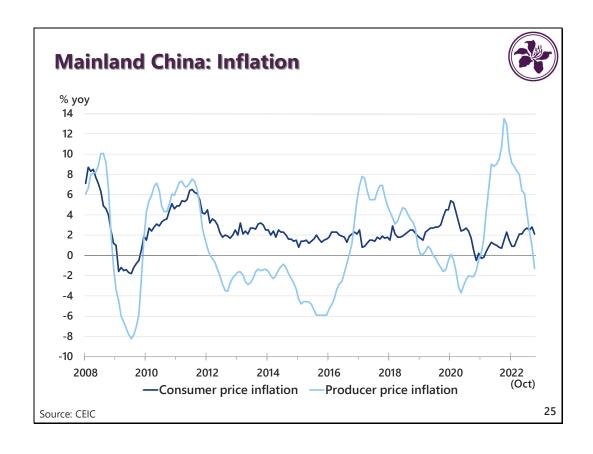


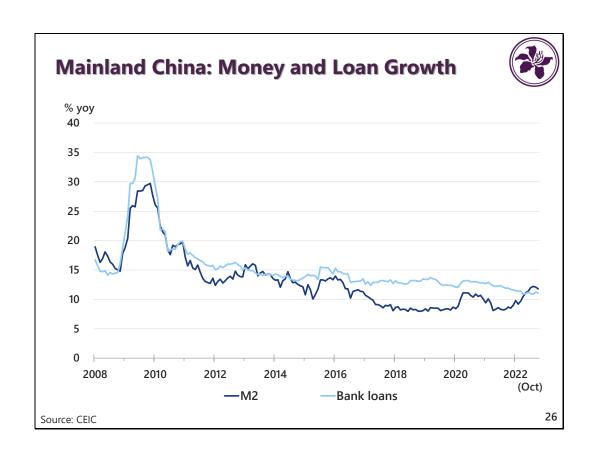


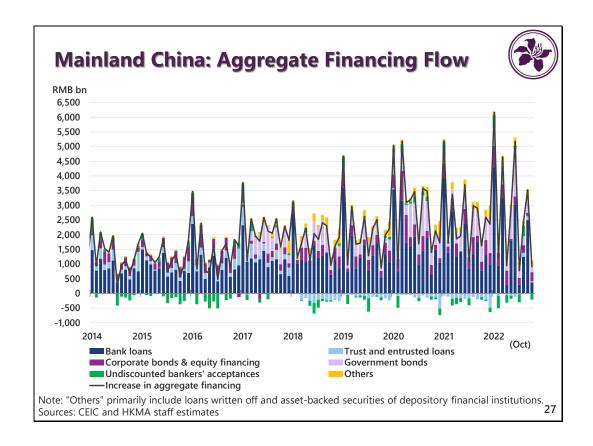


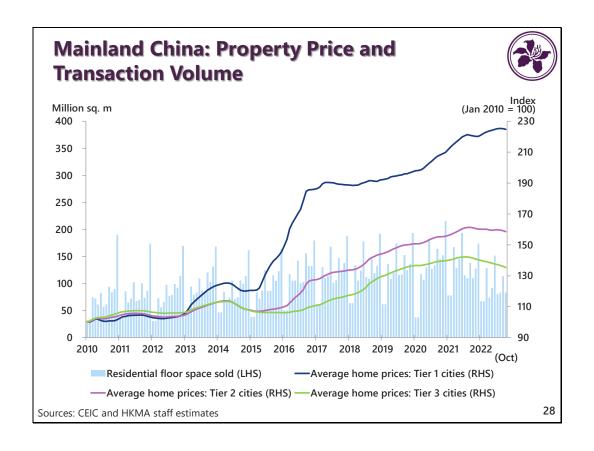




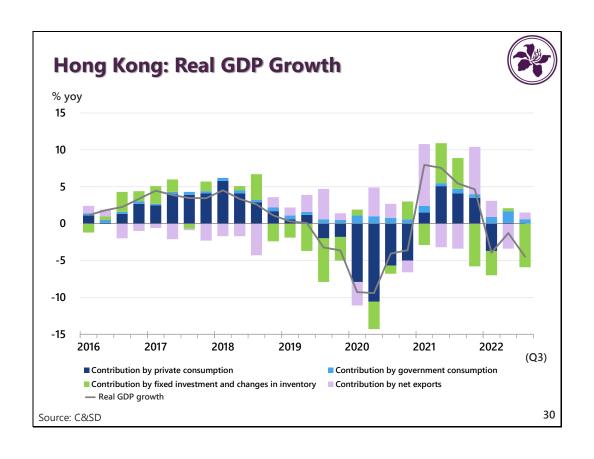


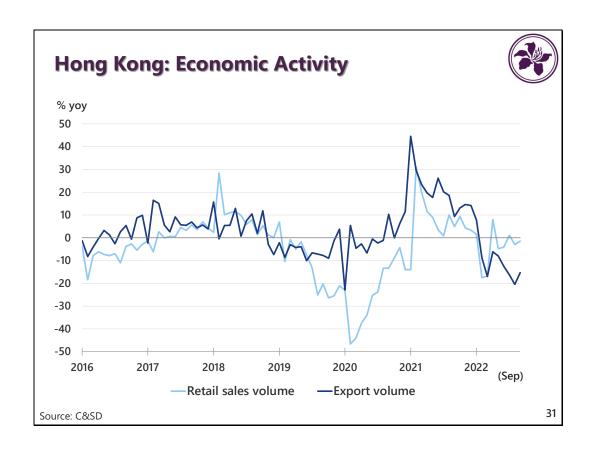


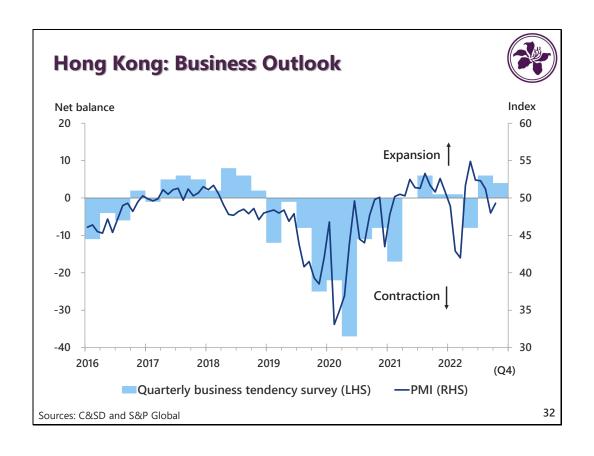


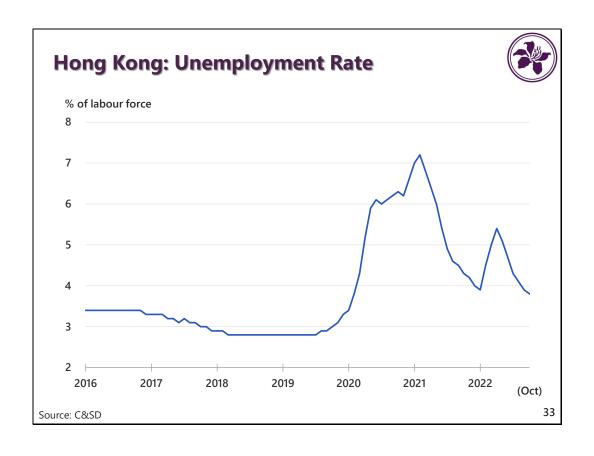


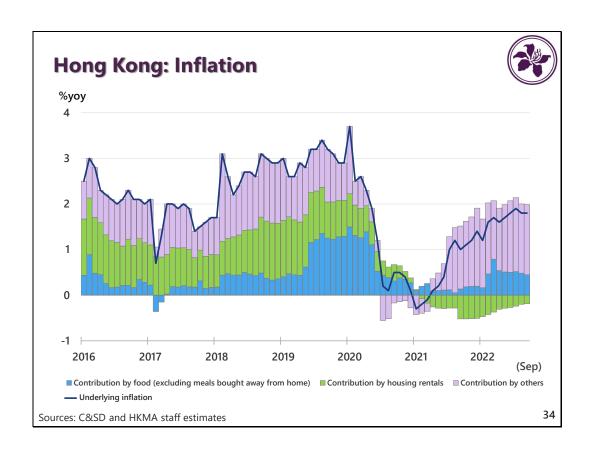


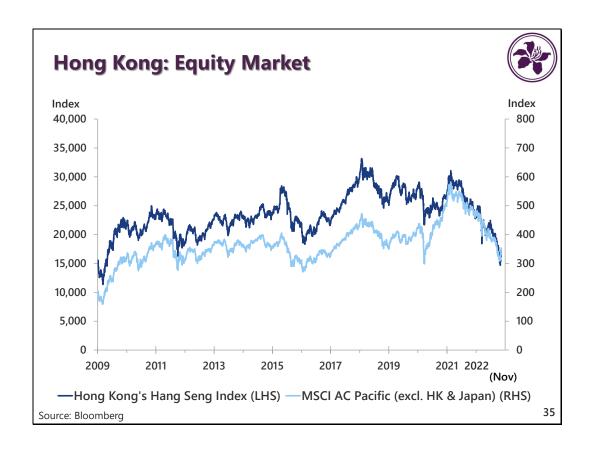


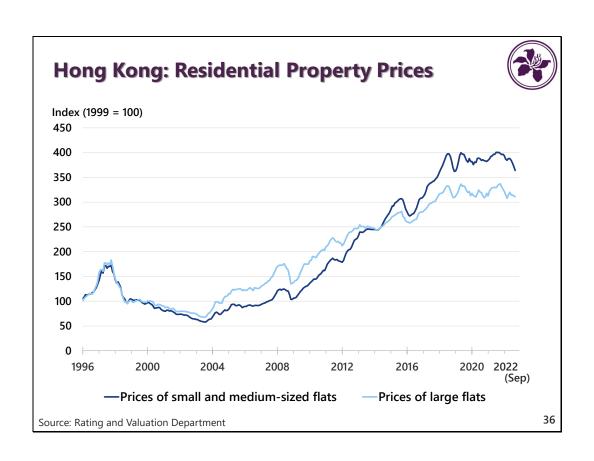


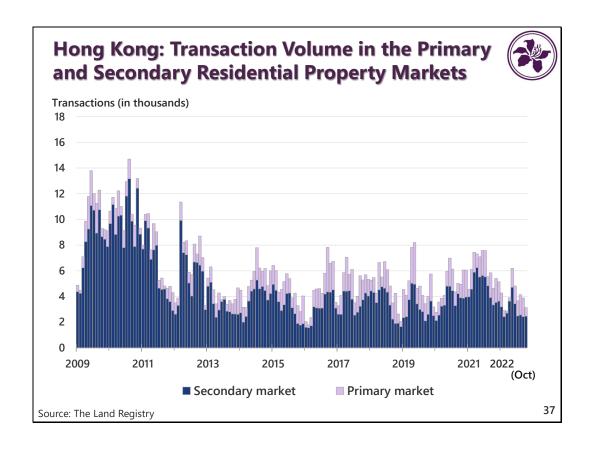


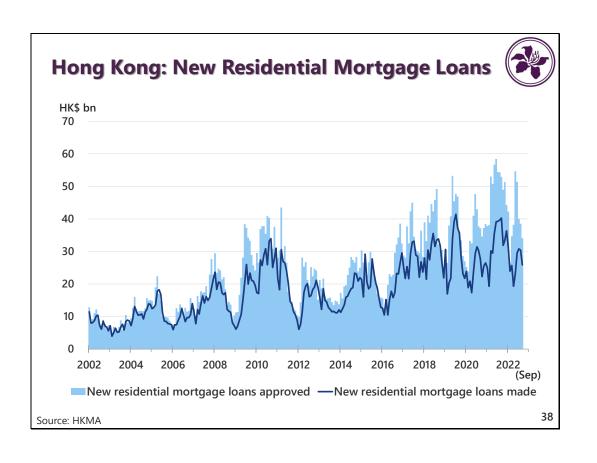


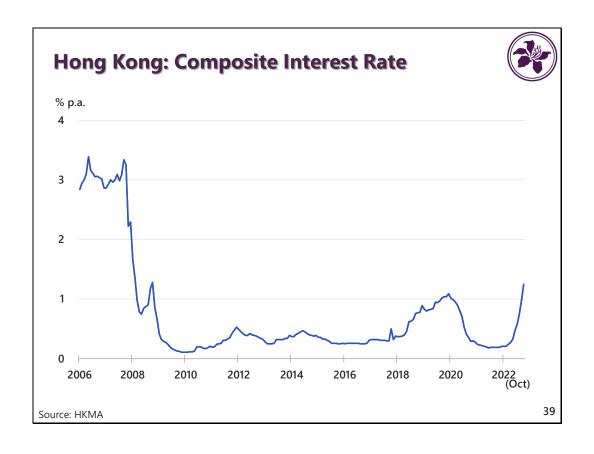


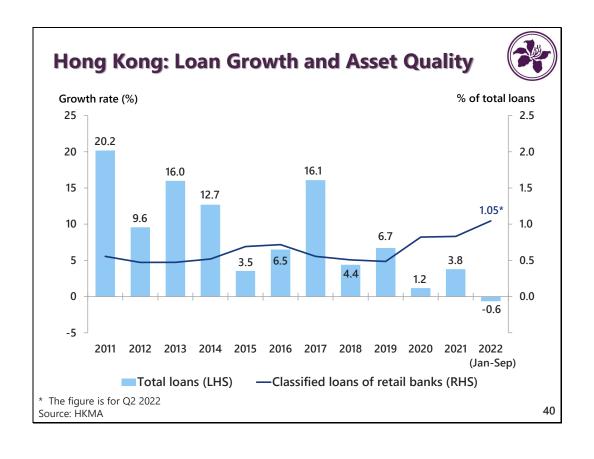








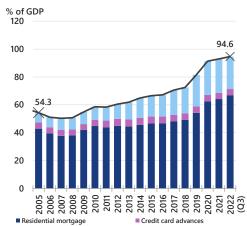




Hong Kong: Household Debt



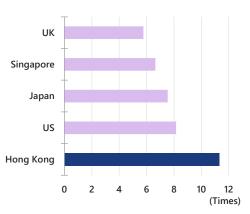
Gross household debt



Note: Around 90% of the household debts are residential mortgage loans, which are governed by the macroprudential policy framework, as well as collateralised loans to wealth management customers against financial assets.

Source: HKMA

Household net worth-to-liabilities ratio

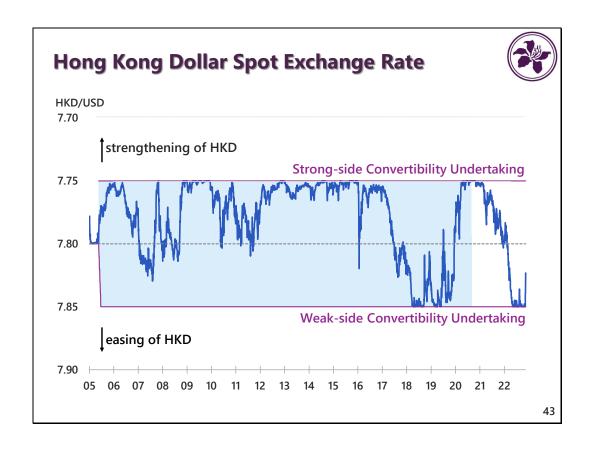


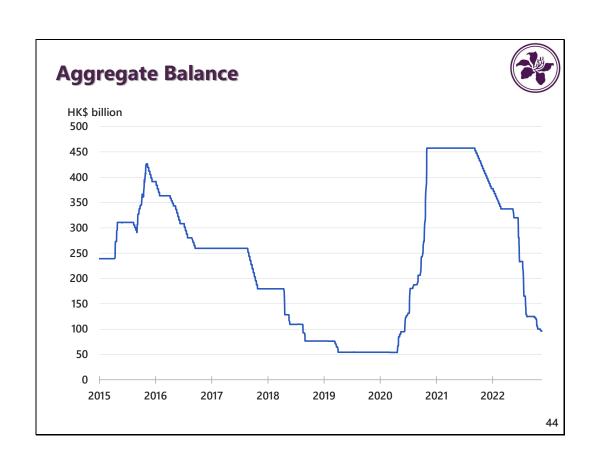
Notes: (1) Household net worth (or net household assets) is the difference between gross household assets and gross household liabilities. (2) The Japan and Hong Kong figures refer to those at end-2020, while the figures for the other economies refer to those at end-2021.

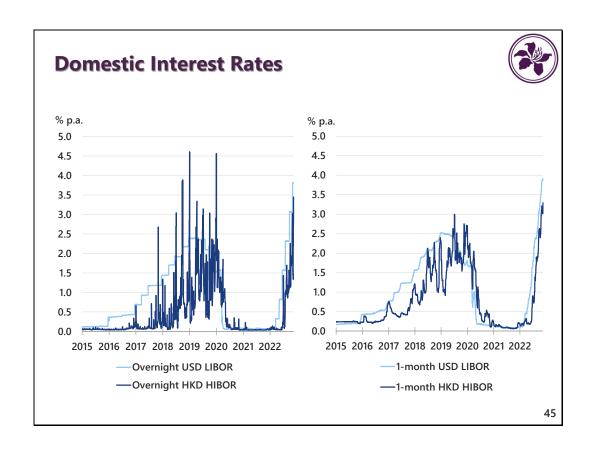
Sources: HKMA staff estimates and statistical agencies or central banks of selected economies 41

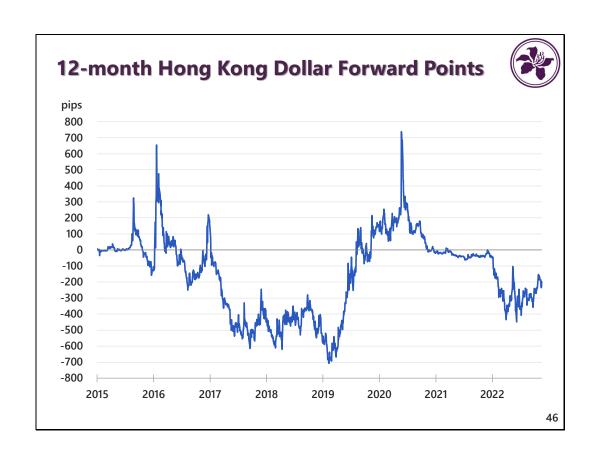


Currency Stability



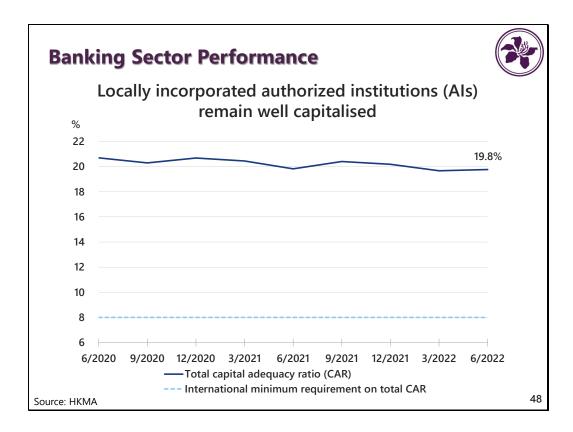




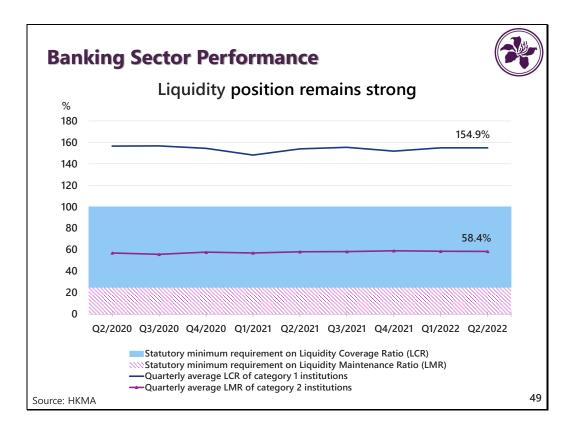




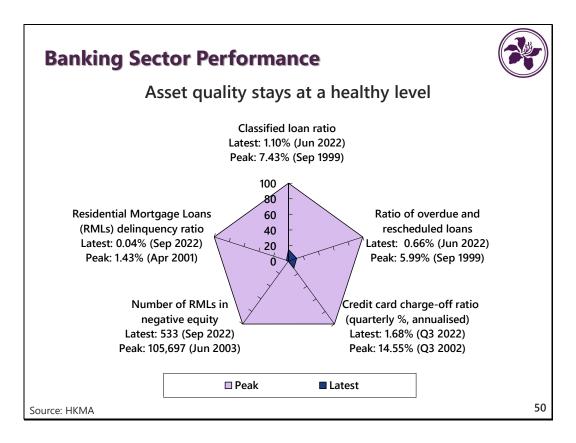
Banking Stability



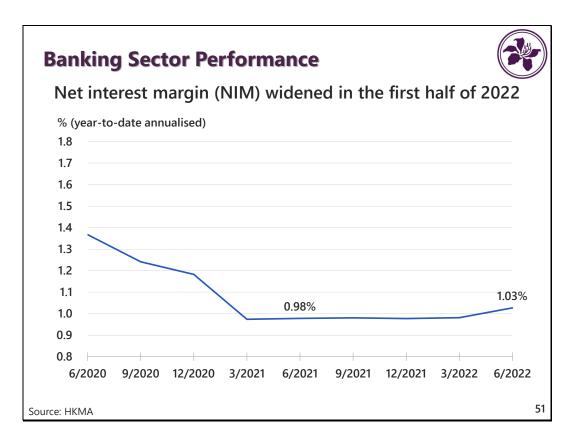
 The banking sector remains well capitalised. The average total CAR of locally incorporated Als stood at 19.8% at end-June 2022, well above the international minimum requirement of 8%.



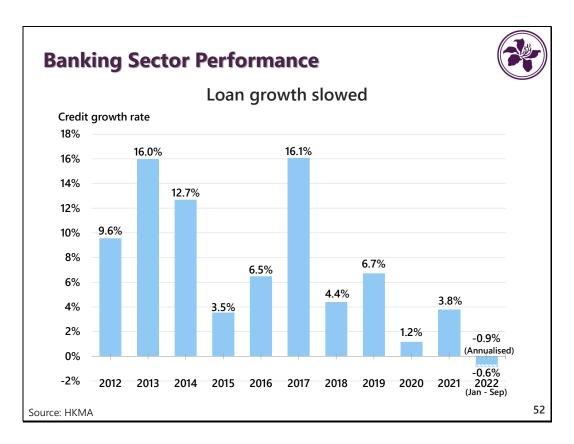
• In the second quarter of 2022, the quarterly average LCR of category 1 institutions was 154.9%, well above the statutory minimum requirement of 100%. For category 2 institutions, their quarterly average LMR was 58.4% during the same period, also well above the statutory minimum requirement of 25%.



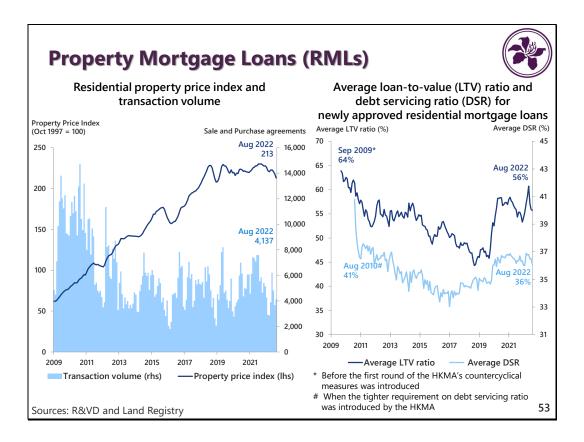
• The classified loan ratio of the banking sector rose to 1.10% at end-June 2022 from 0.98% at end-March 2022, still at a healthy level.



• The NIM of retail banks' Hong Kong businesses widened to 1.03% in first half of 2022 compared with 0.98% in the same period last year.



• Total loans decreased by 0.6% in the first three quarters of 2022, or 0.9% on an annualised basis.



• The average LTV ratio of newly approved RMLs decreased to 56% in August 2022, from the recent peak of 61% in May 2022. The average DSR for newly approved RMLs hovered at around 36% recently.

Latest statistics on RMLs

	Monthly average in 2020	Monthly average in 2021	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 2022	Aug 2022
Number of sale and purchase agreements	4,990	6,191	2,869	3,897	6,202	4,826	3,671	4,137
Number of new RML applications	11,709	14,060	9,818	11,830	12,892	10,938	9,497	10,907
Number of new RMLs approved	7,763	10,121	6,837	7,435	10,631	9,985	7,901	7,857

Latest statistics on residential property prices

Property price index		Period	Property price index
Rating and Valuation Department (10/1997=100)	Latest position	8/2022	213.0
	Recent peak	9/2021	230.2
	Peak in 1997	10/1997	100.0
Centaline (6/7/1997=100)	Latest position	2/10/2022	170.6
	Recent peak	8/8/2021	191.3
	Peak in 1997	19/10/1997	102.9

Supporting the SMEs



Pre-approved Principal Payment Holiday Scheme

- Announced in October the extension of the Scheme by six months to July 2023
- Enhanced the partial principal repayment arrangement by introducing a two-year 50% principal repayment option
- Participation rate of eligible corporates dropped to 2.1% from 16% at the initial stage

International Standards Implementation



Basel III final reforms

- · Adjustment of implementation timelines
- Q2 2023: Amendments to Banking (Capital) Rules and Banking (Disclosure) Rules

Consequential and other updates

Q2 2023: Amendments to Banking (Exposure Limits)
 Rules and Banking (Liquidity) Rules

55

Basel III final reforms

- The HKMA is consulting the banking industry on a further adjustment to the target effective dates of certain capital standards in the Basel III final reforms:
 - those on credit risk, operational risk, leverage ratio, as well as an output floor (for the use of internal models) will take effect "no earlier than 1 January 2024" (revised from 1 July 2023);
 - those on market risk and credit valuation adjustment risk will take effect on 1 January 2024 (revised from 1 July 2023) initially for reporting purposes only, and no earlier than 1 January 2024 for the actual capital requirements (as previously communicated); and
 - the corresponding disclosure requirements will follow the effective dates of their associated capital standards.
- The above proposed adjustment of implementation timelines takes into consideration the intentions of an increasing number of jurisdictions to defer implementation in view of competing priorities to deal with operational challenges related to COVID-19, geopolitical issues, etc.
- Nonetheless, the HKMA will still aim to complete the rule-drafting early for the amendment rules to be submitted to LegCo within the second quarter of 2023. This will provide banks with more time to ready their systems for implementation.

Consequential and other updates

- Following the amendments to the Banking (Capital) Rules, some consequential amendments to the Banking (Exposure Limit) Rules and the Banking (Liquidity) Rules will also be submitted in the second quarter of 2023, along with certain technical refinements to enhance clarity and better reflect the policy intent of some existing provisions.
- Miscellaneous amendments to the Banking (Capital) Rules to facilitate the implementation
 of a positive neutral Countercyclical Capital Buffer will also be submitted to LegCo in the
 second quarter of 2023 along with those meant for the Basel III final reforms
 implementation.

Anti-Money Laundering and Counter-Financing of Terrorism (AML/CFT)



- Joint efforts with banking and stored value facility (SVF) sectors to support the launch of "Scameter", which will enhance prevention, detection and disruption of fraud and financial crime as well as reduce financial losses of victims
- Co-organised the second AML Regtech Lab (AMLab) with Cyberport on low barrier, easy-to-implement technologies
- New "Regtech Connect" session for banks and technology companies to discuss and collaborate

- The HKMA has worked closely with the banking and SVF sectors to support the launch of an anti-fraud search engine, "Scameter", by the Hong Kong Police Force in late September 2022 to alert the public before payments are made. The HKMA's actions include issuance of practical guidance and update of Frequently Asked Questions in relation to AML/CFT, joint efforts with the banking and SVF sectors in raising public awareness of fraud, consumer educational messages on webpage and social media, as well as publication of an inSight article. The HKMA will continue to work with banks and SVF licensees to further protect the public from fraud and financial crime.
- The HKMA continued to co-organise with Cyberport the second AMLab in July 2022. The second AMLab focuses on low-barrier, easy-to-implement technologies, such as robotic process automation, low-code/no-code platforms and visualisation tools. A group of five small and medium-sized banks collaborated with technical experts to target common pain points in essential but repetitive AML operations, identify applicable technology solutions, gain hands-on experience with relevant technologies and explore potential use cases.
- A new "Regtech Connect" session took place immediately following the second AMLab, in which technology companies in Cyberport demonstrated a range of tools and services, connecting with participating banks in open and collaborative discussions regarding the use of AML Regtech.

Resolution Regime



- Issued a new code of practice chapter on liquidity and funding in resolution
- Intending to commence a review of the code of practice chapter on loss-absorbing capacity requirements

- The HKMA continues to formulate policy standards with which Als need to comply in order to enhance their resolvability. Following industry consultation, the HKMA issued on 22 July 2022 a new code of practice chapter under the Financial Institutions (Resolution) Ordinance (Cap.628) on liquidity and funding in resolution.
- The chapter provides guidance on the Monetary Authority's expectations in relation to capabilities and arrangements of an AI to support liquidity and funding in resolution.
- The HKMA is intending to commence a review of the code of practice chapter (LAC-1) on loss-absorbing capacity requirements, which mainly provides guidance on the operation of certain provisions of the Financial Institutions (Resolution) (Loss-absorbing Capacity Requirements Banking Sector) Rules (Cap.628B) (LAC Rules). Due to other priorities and the impact of COVID-19 on operational arrangements, the review is expected to commence in the fourth quarter of 2022.
- The focus of the review will be on the indicative asset threshold for identifying Als to be subject to the LAC Rules.

Green and Sustainable Banking



- Exploring the development of a local green classification framework to align with the Common Ground Taxonomy (CGT), and will propose the structure and core elements of the framework for consultation around end-2022/early 2023
- To build a common platform, comprising a database and a tool, for banks to carry out physical risk assessment

- We are working with other local financial regulators to explore the development of a green classification framework, and will propose the structure and core elements of the framework for a consultation, targeted around end-2022/early 2023. Our work will be guided by the principles of interoperability, comparability and inclusiveness, with the aim to facilitate easy navigation among the CGT, China and the European Union's taxonomies. We will also take into account local considerations and other industry standards commonly adopted by the industry.
- To accelerate the banking sector's progress in managing climate risks, there is a need to build up banks' capacity in understanding and assessing climate risks and to improve data availability so that banks can have consistent and granular data to conduct climate risk assessments. We are planning to build a common platform, comprising a database and a tool, to facilitate banks' assessment of the impact of physical risk on real estate. We will engage the industry to ensure that the platform is of use to banks.

Talent Development in Banking Sector



Attract and nurture the younger generation to create talent pipeline

- Organised various programmes to better equip university students with practical knowledge and hands-on experience:
 - Conducted the second round of the Future Banking Bridging Programme in October-November 2022
 - Launched the inaugural Banking Graduate Trainee Programme in September 2022 focusing on fintech, green and sustainable finance, and the GBA business
 - Held a Recruitment Day in early November 2022 for the seventh intake of the Apprenticeship Programme for Private Wealth Management
 - Enhanced the Fintech Career Accelerator Scheme to broaden the scope of fintech internship offerings to cover the insurance sector, in partnership with the Insurance Authority
 - Launched the Sustainable Finance Internship Initiative jointly with other agencies of the Green and Sustainable Finance Cross-Agency Steering Group in Q4 2022 to create more sustainable finance internship opportunities in Hong Kong for students

Talent Development in Banking Sector



Attract and nurture the younger generation to create talent pipeline (Cont'd)

 Launched an online one-stop resources platform, Banking GPS, in September 2022 and arranged a series of career talks in collaboration with the Hong Kong Institute of Bankers during October-December to deepen the younger generation's understanding of the latest developments and career opportunities in the banking industry

Talent Development in Banking Sector



Reskill and upskill the existing workforce to keep pace with digital transformation and business development

- Enhanced Competency Framework (ECF) Launched the new Compliance module in September 2022 and working with relevant stakeholders on the development of a new module on Green and Sustainable Finance
- Implement the training subsidy schemes announced in the 2022-23 Budget Speech to encourage training and attaining professional qualifications:
 - Announced the implementation details of the Pilot Scheme on Training Subsidy for Fintech Practitioners in September 2022 to subsidise up to 80% of the training costs for attaining professional qualifications under the ECF-Fintech
 - To launch the Pilot Green and Sustainable Finance (GSF) Capacity Building Support Scheme in Q4 2022 to provide subsidies to practitioners and prospective practitioners in taking up training and capacity building opportunities with regard to GSF

Financial Inclusion



- Organised a roundtable session to promote exchanges between banks and business community
- Promoted flexibility in reactivation of bank accounts in Hong Kong amid COVID-19
- Enhanced access to banking services in new development area in Hong Kong

- The HKMA and Customs and Excise Department jointly organised a roundtable session on bank account opening and maintenance on 22 July 2022. The session was joined by about 50 representatives from banks, Hong Kong Association of Banks, Hong Kong Money Service Operators Association and money service operators.
- In light of the travel restrictions amid COVID-19 pandemic, the HKMA encourages Als to implement facilitative measures for remote reactivation of dormant or suspended bank accounts to seek to cater for the needs and circumstances of corporate and individual customers, with a view to continuing to provide convenience and access to banking services by customers who are currently residing outside Hong Kong.
- The HKMA has continued to encourage the banking industry to further enhance the coverage of banking network through conventional and innovative channels for better customer experience, and to pay attention to new development area in Hong Kong expecting a growing population and demand for banking services. It is encouraging to note that some banks have recently set up new branch and self-service facilities in a new large scale public housing estate to further enhance access to banking services.

Banking Consumer Protection



- Enhanced consumer protection on "Buy Now, Pay Later" (BNPL) products
- Working closely with Industry Associations to introduce more than one consumer Credit Reference Agency (CRA)
- Provided additional alternative payment arrangement for residential mortgage refinancing transactions under Payment Arrangements for Property Transactions (PAPT)
- Completed Focused Review on Incentive Systems of Front Offices in Retail Banks
- Reached consensus with the industry on the new enhancements to the Code of Banking Practice

- In view of the rapid development of BNPL products around the world, the HKMA issued on 2 September 2022 a set of regulatory guidance in respect of BNPL products launched by banks covering various areas including responsible borrowing as well as disclosure of fees and charges and chargeback mechanism, after consulting the banking industry.
- The HKMA has been working closely with Hong Kong Association of Banks, DTC Association and the Hong Kong S.A.R. Licensed Money Lenders Association Ltd. (collectively referred to as "Industry Associations") to introduce more than one consumer CRA in Hong Kong, with a view to enhancing the service quality of consumer CRAs and reducing the operational risk of having only one commercially-run consumer credit information service provider in the market, particularly the risk of single point of failure. System development of the platform connecting CRAs and credit providers has been completed. The new platform is expected to be in operation by the end of 2022.
- On 20 July 2022, Hong Kong Association of Banks announced the provision of an additional payment arrangement (i.e. PAPT) in respect of residential mortgage refinancing transactions as an alternative. Mortgage banks started providing refinancing customers with the PAPT option with effect from 7 November 2022.
- Following the completion of the Focused Review on Incentive Systems of Front Offices as part of its
 ongoing initiative to promote sound culture in the banking sector, the HKMA published the Review Report
 on 25 May 2022 to share the identified observations, incentive design principles and sound incentive
 practices with the industry and issued reports of the review to all 20 participating banks. The HKMA has
 also conducted an industry briefing on 15 July 2022 with over 100 participants from the banking industry.
- The HKMA and industry working group have reached consensus on the new enhancements to the Code
 of Banking Practice to further strengthen bank consumer protection in areas including disclosure of
 product information, measures to facilitate customers' financial management, and protection of
 customers when raising disputes. Industry consultation on the draft provisions is expected to be
 conducted by the end of the year.

Banking Investor Protection



- Enhanced regulation and supervision of trust business
- Enhanced investor education, put in place guardrails and comprehensive regulatory framework on virtual assets (VAs) and related products
- Issued guidance on selling of Protection Linked Plan (PLP)
- Collaborating with the Insurance Authority (IA) and the Mandatory Provident Fund Schemes Authority (MPFA) on joint mystery shopping programme

- The HKMA issued consultation conclusions on enhancing the regulation and supervision of trust business in Hong Kong, a new Supervisory Policy Manual (SPM) module TB-1 "Regulation and Supervision of Trust Business" and the Code of Practice for Trust Business in May 2022. The SPM module aims at enhancing protection of client assets held on trust; promoting treating customers fairly and customer-centric culture in trust business; and better aligning with the international standards and practices. This would in turn enhance clients' confidence in entrusting assets to trustees in Hong Kong, thereby reinforcing Hong Kong's position as a leading asset and wealth management centre.
- The HKMA published social media posts in June 2022, reminding investors to carefully consider the relevant risks of VAs and related products before making an investment. The HKMA also worked closely with the Securities and Futures Commission (SFC) to enhance investor education on VA-related products on the Investor and Financial Education Council's website "The Chin Family". The Government issued a policy statement on the development of VA in Hong Kong on 31 October 2022. The HKMA will work with other financial regulators to put in place guardrails to mitigate and manage the risks, and a comprehensive regulatory framework taking into account international regulatory developments, so that the VA sector in Hong Kong can develop in a sustainable and responsible manner.
- In light of the latest enhanced guidance on investment-linked assurance scheme (ILAS)
 products promulgated by the SFC and the IA and the introduction of a new subset of ILAS
 products categorized as PLP, the HKMA issued a circular on 8 July 2022 to provide
 guidance to Als on the selling of such products.
- The fieldwork of the joint mystery shopping programme on selling practices in respect of two tax-deductible products (i.e. Qualifying Deferred Annuity Policies and Tax-deductible MPF Voluntary Contributions) instituted by the IA, the MPFA and the HKMA has been completed. Observations will be shared with the industry as appropriate.

Facilitative Measures for Reactivation of Mainland Bank Accounts



- Provided guidance to banks to encourage facilitative measures for reactivating Mainland bank accounts
- Hong Kong banks and relevant Mainland banks successively introduced various facilitative measures

- The HKMA is very concerned that amid the pandemic situation, bank accounts of some members of the Hong Kong public maintained with Mainland banks have become dormant or have been suspended for various reasons, while the account holders are facing difficulties in reactivating these accounts by visiting the bank branches on the Mainland in person due to the travel restrictions under the pandemic. We understand that the major reasons for Mainland bank accounts of Hong Kong public being or not accessible are:
 - (i) expired Mainland travel permit or other identity document;
 - (ii) outdated personal information (e.g. Mainland mobile number);
 - (iii) forgotten password or exceeded maximum password attempts for e-banking/mobile banking or ATM card; and
 - (iv) no account activities over a prolonged period of time; and
 - (v) expiry of token.
- As the suspended Mainland bank accounts involved the laws and regulations on the Mainland and the internal control systems of Mainland banks, the HKMA has closely communicated and coordinated with the relevant Mainland authority and Hong Kong banks and has obtained support from the Mainland authority. The HKMA issued guidance to Hong Kong banks in April 2022 to provide regulatory clarity in offering assistance to the affected customers. We strongly encouraged and took follow-up action with Hong Kong banks to ensure they provide facilitative measures, together with relevant Mainland banks, to assist the affected customers to reactivate their Mainland bank accounts. The Mainland authority also provided guidance in August 2022 that Mainland banks and Hong Kong banks could jointly provide facilitative measures for remote reactivation of accounts.

- With the concerted efforts, Hong Kong banks and the relevant Mainland banks have successively introduced various facilitative measures, such as extending the grace period for customers with expired Mainland travel permit, as well as allowing the updating of personal particulars, verifying information, attestation, transfer of documents etc., via Internet banking, mobile banking, video conferencing, customer service hotline or bank branches in Hong Kong.
- The HKMA proactively engaged and communicated with the banking industry, though industry associations and individual banks to continue enhancing the facilitative measures with the relevant Mainland banks, to help customers resolve various situations of account suspension as far as possible; and to strengthen publicity and training to frontline staff to ensure effective assistance to the public, so that more members of the Hong Kong public can continue using Mainland banks' services like before as soon as practicable.

Public Education

- Enhanced secondary school students' knowledge on green and sustainable finance through a series of programmes, including an online quiz with record-high submissions
- Launched new promotion videos and sound clip on different media platforms to further enhance public awareness of phishing scams
- Launched a series of interview videos to promote HKMA's Manager Trainee (MT) Programme to the young generation and enhance their understanding of HKMA's work
- Launched an education series on digital media channels to enhance public understanding of the Linked Exchange Rate System through interview and animation videos as well as social media posts



- Co-organised the Hong Kong Financial Literacy Championship 2022 with various stakeholders to enhance secondary school students' knowledge on green and sustainable finance through a series of programmes, including an online quiz with record-high submissions, a design thinking workshop, etc.
- Launched new promotion videos and sound clip on TV, radio, online platforms and out-of-home media to further enhance public awareness of phishing scams, and to remind them to think twice before clicking any hyperlinks purportedly sent by banks or law enforcement personnel.
- Launched a video series featuring Ms Do Do Cheng's interviews with graduates of HKMA's MT Programme. Through sharing by the MTs, the series promoted the Programme to the young generation and enhanced their understanding of HKMA's work.
- Launched an education series on HKMA's digital media channels to enhance public understanding of the Linked Exchange Rate System through interview and animation videos as well as social media posts, with HKMA subject experts explaining technical concepts and addressing frequently asked questions from the public.

Deposit Protection Scheme (DPS)



- Launched a multi-media advertising campaign with a new TV commercial themed "Keep Calm and Deposit Safely On" and implemented a social media campaign with motion graphic videos and interactive games
- Continued educational outreach activities for different target groups and participated in the Hong Kong Book Fair 2022 to connect with the public



- A variety of publicity initiatives were executed to promote the public awareness and to deepen the understanding on the DPS:
 - Launched a new TV commercial themed "Keep Calm and Deposit Safely On" featuring the two iconic characters of "Ah Chuen" and "Ah Po" to reinforce the public awareness of DPS on TV, digital and out-of-home media platforms.
 - Rolled out the first round of "Smart Picks Protecting Ah Chuen" social media campaign with a series of motion graphic videos and engagement games to impart DPS knowledge in a light-hearted manner.
- Continued educational outreach activities, which included online and in-person talks for the elderly, ethnic minority groups, tertiary and secondary school students; as well as board game workshops for secondary school students to deepen the understanding of DPS. Participated in the Hong Kong Book Fair 2022 to engage the public through interactive educational games and DPS board games.



Financial Infrastructure

Financial Infrastructure: Overview



Payment systems

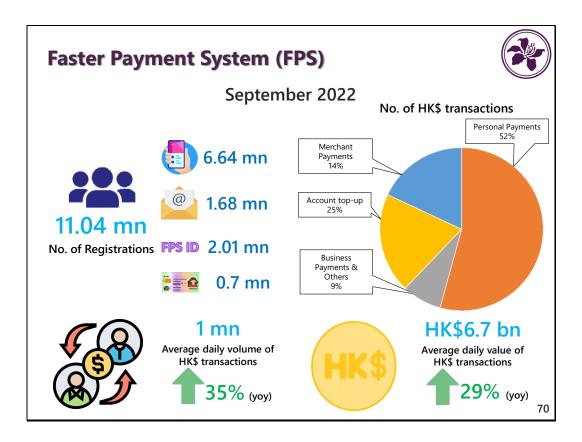
- Four Real Time Gross Settlement (RTGS) Systems for HKD, RMB, USD and Euro:
 - Average daily turnover in Q3 2022 reaching HK\$967 billion, RMB1,524 billion, US\$49 billion and €0.5 billion respectively
- Faster Payment System:
 - The number of registrations exceeded 11 million as at end-September 2022;
 the average daily number of Hong Kong dollar real-time transactions in
 September this year rose by 35% year on year to 1 million

Central Moneymarkets Unit (CMU)

- Providing settlement and custodian service for debt securities
 - HK\$2,689 billion equivalent outstanding debt securities lodged with CMU at end-September 2022
- Supporting Bond Connect
 - For Northbound Trading: 771 registered institutional investors at end-September 2022; RMB35.1 billion average daily turnover in September 2022

Hong Kong Trade Repository: maintains an electronic database of over-the-counter derivative transactions

• 3,913,651 outstanding transactions at end-September 2022



- The number of registrations and turnover of the FPS have been growing steadily. At end-September 2022, the FPS recorded 11.04 million registrations (including 6.64 million in mobile number, 1.68 million in email address, 2.01 million in FPS ID and 0.7 million in HKID number), up by 22% or 1.97 million registrations year on year (yoy).
- The usage of FPS has expanded gradually to merchant payments and top-up transactions from primarily P2P transactions previously.
- The turnover of the FPS continues to grow. The average daily Hong Kong dollar real-time transactions reached 1 million (rose by 35% yoy), worth HK\$6.7 billion (rose by 29% yoy) in September 2022.

Development of Central Moneymarkets Unit (CMU)



- To help Hong Kong grasp the opportunities from the further opening up of the Mainland financial markets, the CMU has commenced enhancements on both system and business fronts, with a long-term objective to become a major international central securities depository (CSD) in Asia
- Some of the enhancements and services have been launched, and the rest would be rolled out in phases over next few years:
 - Collateralised Lending Service for primary issuance (launched in April 2022)
 - new CMU website (launched in July 2022)
 - new open API and new user interface (in 2023)
 - new CMU platform (in 2025)

71

- Being a critical financial infrastructure operated by the HKMA, CMU is a CSD providing safe, efficient and convenient clearing, settlement and custodian services for debt securities, which in turn supports the bond market development in Hong Kong.
- To seize the opportunities from Bond Connect, CMU has reviewed its strategic position to progress from a local financial infrastructure to a major CSD in Asia. To realise such goal, CMU will commercialise its business and operation to develop value-added services through:

- System Enhancement

- ➤ to improve interface with Mainland financial infrastructures (e.g. linkage with Cross-border Interbank Payment System launched in 2021);
- ➤ to launch a new CMU website to provide the industry and public with a quick and convenient means of searching for bond market information (launched in July 2022);
- ➤ to launch new functionalities (e.g. new open API and new user interface) in 2023 to provide CMU members with a more hassle-free experience;
- ➤ to introduce a new CMU system with a more flexible account structure and settlement mechanism, and enhanced collateral management function (expected to be launched in 2025).

- Introduction of new services

- Collateralised lending service to provide free intra-day liquidity for primary issuance (launched on 1 April 2022). Since the introduction, the service has so far been used to support RMB bond issuance with a total of RMB15 billion.
- > Support 24-hour operation to better serve investors in different time zones (expected to be launched in 2025).

Latest Fintech Initiatives



Central Bank Digital Currency (CBDC)

- For wholesale CBDC (mBridge): successfully completed six-week pilot under Project mBridge in Q3 2022 on international trade settlement use cases, involving four jurisdictions and real-value transactions
- For retail CBDC: released study findings and position paper in September 2022, started making preparations for possible future issuance of e-HKD through a three-rail approach

Commercial Data Interchange (CDI)

• Officially launched in October 2022, with the participation of 23 banks with material SME business and 10 data providers

Open Application Programming Interface (Open API) for banking sector

- Phase IV (Transactions) launched from end-December 2021
- Phase III (Account information) launched for corporate and SME customers from end-March 2022 and launched for retail customers from end-June 2022

72

Wholesale CBDC (mBridge)

- The CBDC pilot was conducted by the HKMA, the Digital Currency Institute of the People's Bank of China, the Bank of Thailand, the Central Bank of the United Arab Emirates and the BIS Innovation Hub Hong Kong Centre between 15 August and 23 September, involving 20 commercial banks (5 from HK, 15 from other jurisdictions).
- Over 160 real-value cross-border payments and foreign exchange transactions were conducted, totalling more than HK\$171 million in value.

Retail CBDC/e-HKD

- Two rounds of market consultation, one on high-level technical design and one on key
 policy and design issues, were conducted. Overall, positive sentiment and support for the
 e-HKD initiative was observed across various sectors, reflecting the view that e-HKD has
 the potential to support the digital economy. At the same time, issues such as privacy
 protection, legal considerations, and use cases would require further deliberation. The
 HKMA will proceed prudently to maximise our readiness for possible launch of e-HKD in
 the future.
- The HKMA will adopt a three-rail approach to prepare for the possible implementation of e-HKD:
 - Rail 1 aims to lay the technology and legal foundations for supporting the implementation of e-HKD.
 - Rail 2 will run in parallel to Rail 1, and will take deep dives into use cases as well as application, implementation and design issues relating to e-HKD.
 - Rail 3 is concerned with launching e-HKD, and will consolidate the outcomes of Rail 1 and Rail 2 for more thorough implementation planning and set the timeline for launching e-HKD.

CDI

- CDI formally launched on 24 October 2022.
- CDI entered pilot launch stage in November 2021. By its official launch in October 2022, CDI had facilitated the approval of more than 900 SME loans, amounting to over HK\$1.8 billion, by the participating banks in pilots.
- To enrich the CDI ecosystem, the HKMA will continue to broaden the spectrum of data available via CDI with a view to exploring new business use cases.

Phase III (Account information) and IV (Transactions) Open API

- The HKMA facilitated Hong Kong Association of Banks' publication of Phase III Technical Standards and refinement of Common Baseline document to include the scope of Phase III and IV implementation in December 2021.
- For Phase IV, the majority of the 28 participating banks launched FPS App-to-app payments function starting from 31 December 2021.
- For Phase III, banks launched Open API functions covering deposit account information for their corporate and SME customers starting from 31 March 2022. API functions for retail customer information were launched starting from 30 June 2022.

Stored Value Facilities (SVFs) and Retail Payment Systems (RPSs)



- SVF usage continued to grow in Q2 2022:
 - Average daily transaction number: 19.37 million (+6.2% year-on-year (yoy))
 - Average daily transaction value: HK\$1,740 million (+50.9% yoy)
- SVF Security 2.0:
 - Gradual implementation since 2 July 2021
- Continue to supervise licensees in a risk-based manner, taking targeted supervisory actions where necessary
- Continue to oversee six designated RPSs

Regulatory Development of the Over-the-Counter (OTC) Derivatives Market

- The HKMA and the SFC jointly published the consultation conclusion paper on the annual update to the Financial Services Providers (FSP) list for clearing obligations in June 2022. The revised FSP list will be gazetted for implementation on 1 January 2023
- As of end-September 2022, the Hong Kong Trade Repository logged a total of 3.91 million outstanding OTC derivatives trades, covering five asset classes under mandatory reporting requirements, i.e. foreign exchange, interest rate, equity, credit, and commodity derivatives

74

• Under the Hong Kong OTC Derivatives Clearing Rules, authorized institutions (Als) and licensed corporations (LCs) are subject to the clearing obligation of specified OTC derivative transactions. In order to capture transactions between Als/LCs and major dealers outside Hong Kong that are not Als or LCs, the concept of FSP was introduced. Under the Clearing Rules, an entity will be designated as a FSP if the entity belongs to a firm on the Financial Stability Board's list of global systemically important banks or on the OTC Derivatives Supervisors Group's list of major dealers, and the entity is a clearing member of major central counterparties. Specific transactions between a FSP and Als/LCs are subject to the clearing obligations. The HKMA and the SFC perform annual review and public consultation of the FSP list to ensure the list remains relevant and appropriate.

Interest Rate Benchmark Reforms



The HKMA is:

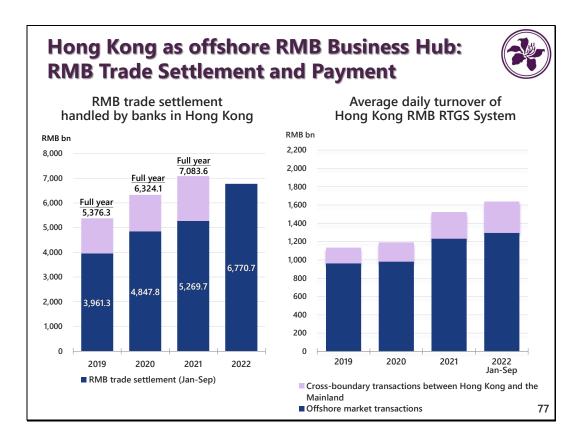
- Actively participating in discussion in international fora and closely monitoring relevant developments;
- Working with the Treasury Markets Association to encourage the use of Hong Kong Dollar Overnight Index Average (HONIA), gauging industry views and promoting market awareness; and
- Continuing to facilitate Als' preparation for the discontinuation of the remaining US dollar LIBOR

75

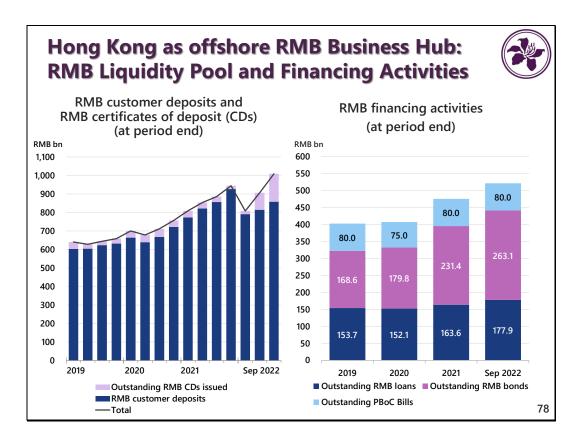
• The UK Financial Conduct Authority (FCA) has discontinued all sterling, euro, Swiss franc and Japanese yen LIBOR settings, and the 1-week and 2-month US dollar LIBOR settings after 31 December 2021 as planned, and new contracts should use the respective alternative reference rates. To facilitate a smooth transition, the FCA allows publication of new 1-, 3- and 6-month sterling and Japanese yen "synthetic" LIBOR settings based on the respective alternative reference rates for legacy use until the end of 2022. Overnight, 1-month, 3-month, 6-month and 12-month US dollar LIBOR settings will continue to be published until end-June 2023.



Hong Kong as an International Financial Centre



- In the first three quarters of 2022, renminbi (RMB) trade settlement handled by banks in Hong Kong totalled RMB6,770.7 billion.
- In the first three quarters of 2022, the average daily turnover of Hong Kong RMB Real Time Gross Settlement (RTGS) system stood at RMB1,638.9 billion.



- As at end-September 2022, RMB customer deposits and outstanding RMB CDs amounted to RMB857.7 billion and RMB151.2 billion respectively, totalling RMB1,008.9 billion.
- As at end-September 2022, outstanding RMB loans amounted to RMB177.9 billion. Outstanding dim sum bonds amounted to RMB263.1 billion. Outstanding PBoC bills amounted to RMB80.0 billion.

Mutual Market Connect Schemes



- Northbound Trading under Bond Connect continued to see active trading. In the first ten months of 2022, average daily turnover amounted to RMB32.3 billion, up 27% year on year.
 Southbound Trading has been well received by the market and operations have been smooth since launch
- Cross-boundary Wealth Management Connect has been operating smoothly. To date, 24 eligible Hong Kong banks have successfully commenced services with their Mainland partner banks
- The HKMA liaises closely with Mainland regulatory authorities, with a view to exploring feasible measures to further enhance the various mutual market access schemes and Hong Kong's status as an offshore renminbi business hub. These include expansion in investible products and eligible investor space and strengthening market liquidity and risk management

Enhancements of Hong Kong's offshore renminbi (RMB) market



Liquidity

 Currency swap agreement between the PBoC and the HKMA expanded, enabling enhancements to HKMA's RMB Liquidity Facility

Products

- "Swap Connect" under preparation to provide for investors' risk management needs for Mainland bond investment
- Joint efforts with the SFC and the HKEx on RMB equity trading in Hong Kong
- Attracting more Mainland and international issuers to promote depth and diversity of the dim sum bond market

Enhancing financial infrastructure

 Three-year plan to develop the Central Moneymarkets Unit into an international central securities depository in Asia to better support connectivity between Mainland and international markets

R۸

Developing the Asset and Wealth Management Industry



- Hong Kong's private equity industry has remained robust, with over US\$195 billion of total capital under management as at end-September 2022*. The limited partnership fund regime continued to see momentum – 530 funds had been registered as at end-October 2022
- The HKMA is supporting the Financial Services and the Treasury Bureau in the drafting of the family office tax concession bill, with a view to introducing the draft bill into the LegCo in Q4 2022

* Source: Asian Venture Capital Journal

Promoting Green Finance (1)



- Total green and sustainable bonds and loans issued in Hong Kong quadrupled from a year ago to reach US\$57 billion in 2021*
- The Green and Sustainable Finance Cross-Agency Steering Group (CASG) co-chaired by the HKMA and the SFC has set up the Centre for Green and Sustainable Finance (GSF Centre) to strengthen the talent and data related work with a view to enhancing the capacity building on green finance of banks and financial institutions
 - In the first half of 2022, the GSF Centre launched three repositories on data source, training information and internship opportunities to facilitate easy access to useful data and learning resources
 - In October 2022, the CASG launched the Sustainable Finance Internship Initiative to create more sustainable finance internship opportunities in Hong Kong for students
 - The GSF Centre is also working with the Government to launch within this year the Pilot Green and Sustainable Finance Capacity Building Support Scheme, which has begun accepting applications for registration of eligible programmes since late October 2022
- * Source: HKMA staff estimates based on statistics from International Capital Market Association and LoanConnector

82

 The CASG aims to coordinate the management of climate and environmental risks to the financial sector, accelerate the growth of green and sustainable finance in Hong Kong and support the Government's climate strategies. Other members include the Financial Services and the Treasury Bureau, the Environment and Ecology Bureau, the Hong Kong Exchanges and Clearing Limited, the Insurance Authority and the Mandatory Provident Fund Schemes Authority.

Promoting Green Finance (2)



- The HKMA assisted the Government in the inaugural retail green bond issuance in May 2022, and the publication of Green Bond Report 2022 in August 2022 on the use of proceeds and the environmental impact of the issuances. The HKMA will continue to assist the Government on further green bond issuances under the Government Green Bond Programme, having regard to market conditions. The 2022-23 Budget announced that the Government will continue to issue green bonds totalling about US\$4.5 billion or equivalent this year
- The HKMA continues to administer and promote the Green and Sustainable Finance Grant Scheme to attract more green and sustainable financing activities to Hong Kong. The scheme has been well received by the market; by October 2022 it has provided financial support for over 160 green and sustainable debt instruments issued in Hong Kong

83

 To attract more green and sustainable financing activities to Hong Kong, the Government launched a three-year Green and Sustainable Finance Grant Scheme in May 2021 to cover part of the expenses on bond issuance and external review services. The scheme also encourages more financial and professional service providers and external reviewers to set up their regional hubs in Hong Kong.

Crypto-Assets and Stablecoins



- On 12 January 2022, the HKMA issued a discussion paper on crypto-assets and stablecoins, setting out HKMA's thinking on the proposed regulatory framework for payment-related stablecoins
- The HKMA is reviewing the feedback received from the consultation. Comments gathered from engagement so far demonstrated broad support for the HKMA to adopt a risk-based, pragmatic and agile regulatory approach
- The HKMA will issue the consultation conclusion and announce our next steps in due course

Government Bond Programme



Retail bonds – outstanding as at end-September 2022

- Two iBonds, totalling HK\$35 billion
- Three Silver Bonds, totalling HK\$89.1 billion
- The latest batch of Silver Bond was issued on 14 September 2022. A total of 289,640 valid applications were received for subscribing a total of around HK\$62.5 billion in principal amount of bonds. The final issuance amount was HK\$45 billion

Institutional bonds – outstanding as at end-September 2022

- 17 institutional bonds, totalling HK\$92.3 billion
- One Islamic bond, totalling US\$1 billion

Hong Kong Academy of Finance (AoF)



- **Financial Leaders Programme** The inaugural year of the Programme has been a great success, with a lot of positive feedback received from the speakers and participants. The graduation ceremony of the inaugural cohort will be held in December 2022. Recruitment for 2023 intake is in progress.
- **Financial Leadership Development events** Four hybrid events were successfully organised since May 2022
- Research and Knowledge Exchange Activities The Hong Kong Institute for Monetary and Financial Research (HKIMR) released a new applied research report and a thought-leadership paper in June 2022. The HKIMR also organised six seminars/webinars to disseminate findings of monetary research since May. In addition, the HKIMR coorganised a joint virtual workshop with the Asian Development Bank (ADB) and Bank for International Settlements (BIS) on "Monetary Policy Spillovers" in August.

86

Financial Leaders Programme

- The AoF launched the Financial Leaders Programme in November 2021. The Programme is offered on a part-time basis and lasts for about 9 months, from April to December 2022. The AoF admitted 20 financial talents with a balanced mix of backgrounds and expertise for the 2022 Programme.
- The inaugural year of the Programme has been a great success, with a lot of positive feedback received from the speakers and participants. The participants appreciated that the Programme offered them high-level and strategic perspectives, enriched their understandings of various financial topics and trends which enabled them to better prepare for upcoming opportunities and challenges, and expanded their professional networks.
- The graduation ceremony of the inaugural cohort will be held in December 2022. Recruitment for the 2023 intake is in progress.

Financial Leadership Development

- Distinguished Speakers Series webinar featuring Professor Michael Spence, Nobel Laureate in Economics, was held on 3 May 2022.
- HKIMR-AoF Expert Speakers Series webinar was held on 24 June 2022 featuring Ms QIN Hong, former Director of the Policy Research Institute of the Ministry of Housing and Urban Development on the topic "China's Property Sector – Transformation and Policy Choices". It attracted about 1.13 million real time views.
- Distinguished Speakers Series seminar featuring Lord Mervyn King, former Governor of the Bank of England, was held on 26 July 2022.
- Distinguished Speakers Series seminar featuring Mr Neil Shen, Founding and Managing Partner of Sequoia China, was held on 14 October 2022.

Research and Knowledge Exchange Activities

- A new applied research report titled "COVID-19 and the Operational Resilience of Hong Kong's Financial Services Industry: Preliminary Considerations from the 2020-2021 Experience" was released by the HKIMR in June 2022 with a press release.
- In collaboration with the Alliance for Green Commercial Banks, a thought-leadership paper titled "Climate Risk: Definitions, Measurement, Current Practices and Regulatory Oversight" was released in June 2022 with a joint press briefing by the Alliance and the HKMA. The paper is part of the Alliance's knowledge sharing efforts, and is uploaded to the Alliance's website as well as the HKIMR's website.
- The HKIMR hosted six seminars/webinars on monetary research topics with local and overseas speakers from academia since May 2022.
- The HKIMR joint virtual workshop with the ADB and BIS on "Monetary Policy Spillovers" held on 25 August 2022 had more than 200 participants from global central banks, International Financial Institutions and academia attending online. Senior officials from four Asian central banks and from the BIS discussed monetary policy spillovers in one of the sessions. The Workshop was widely reported by local media.



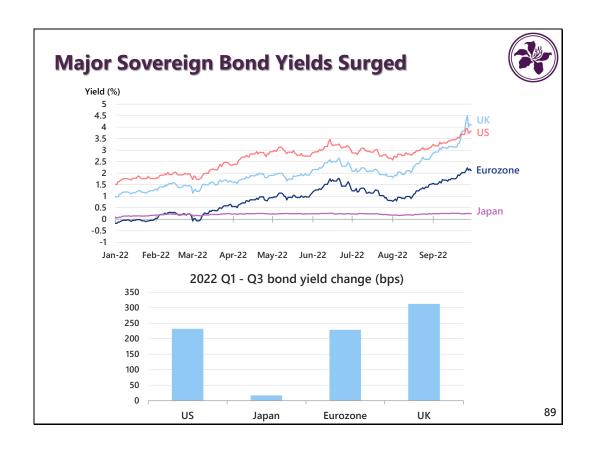
Investment Environment and Performance of the Exchange Fund

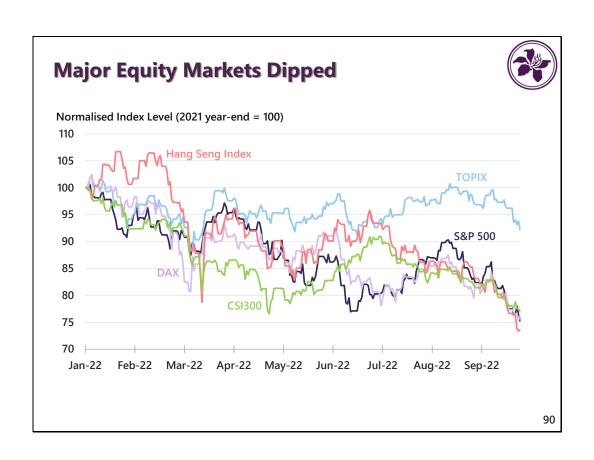
87

Investment Environment in Q3 2022



- Heightened market volatility continued as surging inflation, hawkish central bank monetary policy tightening, geopolitical conflicts, energy crisis and worries about economic recession have dominated global financial markets in the third quarter of 2022. Global bond and equity markets continued the rare occurrence of "equities down, bonds down" and fell by 7% in the quarter, accumulating losses of 20% and 27% respectively over the first three quarters of 2022*
- **Interest rates:** Treasury yields in major markets continued to soar. US 10-year Treasury yield rose to 3.8%, the highest level since 2010. The steeply inverted yield curve deepened recession fears
- **Equity markets:** Global equity markets experienced further sharp falls during the quarter. The S&P 500 fell 5.3% to its lowest level in nearly two years, while the Hang Seng Index tumbled 21.2% to its lowest level in 11 years
- **Exchange rates:** The strength of US dollar continued, with the pound sterling plummeted to an all-time low, while the euro also hit a 20-year low versus US dollar
- * Based on the Bloomberg Global Aggregate Total Return Index and the MSCI All Country World Index as measured in US dollar terms

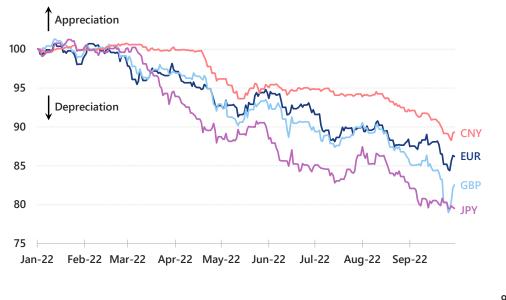




Major Currencies Weakened against USD



Normalised FX Level Against USD (2021 year-end = 100)



Investment Income



	l← 202	2 →1	2021	2020
	(unaud	ited)		
(HK\$ billion)	Jan - Sep	Q3	Full Year	Full Year
Hong Kong equities*	(35.8)	(27.3)	(21.0)	4.0
Other equities	(92.4)	(19.2)	68.8	69.9
Bonds	(78.7)	(22.8)	12.6	92.7
Foreign exchange#	(43.6)	(30.8)	16.8	9.6
Other investments@	(15.0)		114.7	59.6
Investment (loss)/income	(265.5)	(100.1)	191.9	235.8

- * Excluding valuation changes of the Strategic Portfolio
- # This is primarily the effect of translating foreign currency assets into Hong Kong dollar after deducting the portion for currency hedging
- [®] Including valuation changes of private equity and real estate investments held under the Long-Term Growth Portfolio. This figure reflects the valuations at the end of June 2022. Valuation changes of these investments from July to September are not yet available

Income and Expenditure



	►— 2022 —→I (unaudited)		2021	2020	
(HK\$ billion)	Jan - Sep	Q3	Full year	Full year	
Investment (loss)/income	(265.5)	(100.1)	191.9	235.8	
Other income	0.1	-	0.2	0.2	
Interest and other expenses	(8.6)	(4.5)	(6.1)	(14.6)	
Net (loss)/income	(274.0)	(104.6)	186.0	221.4	
Fee payment to Fiscal Reserves*#	(28.4)	(8.0)	(93.0)	(69.8)	
Fee payment to HKSAR Government funds and statutory bodies*	(16.1)	(5.5)	(16.8)	(11.5)	

 $^{^{\}star}$ The rate of fee payment is 5.6% for 2022, 4.7% for 2021 and 3.7% for 2020

Exchange Fund Abridged Balance Sheet



(HK\$ billion)	At 30 Sep 2022 (unaudited)	At 31 Dec 2021	At 31 Dec 2020
ASSETS			
Deposits	384.7	300.8	267.0
Debt securities	2,790.8	3,290.0	3,238.0
Hong Kong equities*	128.2	183.2	206.9
Other equities	434.3	561.8	536.3
Other assets#	229.6	234.4	251.0
Total assets	3,967.6 =====	4,570.2 =====	4,499.2 =====
LIABILITIES AND EQUITY			
Certificates of Indebtedness	609.0	592.4	556.2
Government-issued currency notes and coins in circulation	13.0	13.1	12.8
Balance of the banking system	123.3	377.5	457.5
Exchange Fund Bills and Notes issued	1,189.2	1,148.6	1,068.9
Placements by banks and other financial institutions	110.5	-	87.6
Placements by Fiscal Reserves@	703.5	973.3	881.8
Placements by HKSAR Government funds and statutory bodies	424.6	394.3	342.5
Placements by subsidiaries	29.5	26.2	15.5
Other liabilities	276.6	238.0	233.1
Total liabilities	3,479.2	3,763.4	3,655.9
Accumulated surplus	487.5	805.9	842.4
Revaluation reserve	0.9	0.9	0.9
Total equity	488.4	806.8	843.3
Total liabilities and equity	3,967.6	4,570.2	4,499.2

* Including shares of the Hong Kong Exchanges and Clearing Limited in the Strategic Portfolio

* Including fund injection to Exchange Fund's investment holding subsidiaries at a carrying amount of HK\$183.7 billion at 30 September 2022 (HK\$190.1 billion at 31 December 2021 and HK\$193.2 billion at 31 December 2020;

**Including placements by the Future Fund of HK\$242.1 billion at 30 September 2022 (HK\$217.7 billion at 31 December 2020)

[#] This does not include the 2022 fee payment to the Future Fund because such amount will only be disclosed when the composite rate for 2022 is available (The composite rate was 17.8% for 2021 and 12.3% for 2020. Fee payable to the Future Fund was HK\$58.6 billion for 2021 and HK\$37.2 billion for 2020)

Historical Investment Income



(HK\$ billion)					
Year	Full Year	Q4	Q3	Q2	Q1
2003	89.7	33.5	8.4	41.1	6.7
2004	56.7	33.0	14.1	(7.2)	16.8
2005	37.8	7.3	19.0	13.6	(2.1)
2006	103.8	36.0	37.1	12.5	18.2
2007*	142.2	33.4	61.8	26.3	20.7
2008*	(75.0)	8.3	(48.3)	(20.4)	(14.6)
2009*#	107.7	10.6	71.9	58.7	(33.5)
2010*#	79.4	5.9	74.5	(12.1)	11.1
2011*#	27.1	22.1	(41.4)	21.6	24.8
2012*#	111.6	30.3	42.4	(5.6)	44.5
2013*#	81.2	30.7	54.7	(23.3)	19.1
2014*#	44.7	6.1	(17.8)	43.3	13.1
2015*#	(15.8)	21.0	(63.8)	18.7	8.3
2016*#	68.1	(23.3)	47.1	18.9	25.4
2017*#	264.0	66.0	61.8	71.3	64.9
2018*#	10.9	(33.6)	9.5	0.0	35.0
2019*#	262.2	60.3	23.5	45.0	133.4
2020*#	235.8	145.0	81.2	121.6	(112.0)
2021*#	191.9	48.2	4.0	88.4	51.3
2022*# (unaudited)	N/A	N/A	(100.1)	(116.6)	(48.8)

* Excluding valuation changes of the Strategic Portfolio

Including valuation changes of private equity and real estate investments held under the LTGP

9!



The Hong Kong Mortgage Corporation Limited

Mortgage Insurance Programme (MIP)



- In 2022, as of 31 October, around 37,100 applications were approved, of which 6,677 were under the new coverage after the MIP revisions in February 2022. Around 90% of approved applications were from first-time homebuyers
- Principal moratorium or extension of repayment schedules is available to borrowers to help reduce their repayment burden

97

SME Financing Guarantee Scheme (SFGS)



Special 100% Loan Guarantee

 As of 31 October 2022, over 56,600 applications were approved, amounting to about HK\$109.2 billion. The average loan amount per application was HK\$1.93 million, and the average approved loan amount per borrower was HK\$3.21 million. Over 39,300 applications (around 70%) have chosen the principal moratorium option

80% and 90% Guarantee Products

 As of 31 October 2022, around 30,700 applications were approved, amounting to about HK\$115.7 billion. Over 2,300 applications have chosen the principal moratorium option

100% Personal Loan Guarantee Scheme (PLGS)



 As of 31 October 2022, around 57,700 applications were approved, amounting to about HK\$3.9 billion. Average loan size per borrower was about HK\$77,000. Over 48,300 applications (around 84%) have chosen the principal moratorium option

99

Reverse Mortgage Programme



As of 31 October 2022, 5,902 applications had been received:

- Average age of borrowers: 68 years old
- Average monthly payout: HK\$17,500
- Payment terms: 10-year (22.4%);
 15-year (14.5%); 20-year (12.5%); life (50.7%)
- Average property value: HK\$5.8 million
- Average property age: 31 years

HKMC Annuity Plan



Detailed business results:

	Since launch	2021	2021 (Jan – Oct)	2022 (Jan – Oct)
No. of policies issued	17,098	4,059	3,006	2,823
Total premium amount (HK\$ billion)	12.1	3.0	2.4	2.2
Average premium amount (HK\$)	710,000	740,000	800,000	777,000